

# CONSERVATION SOUTH AFRICA ANNUAL REPORT 2018-2019



Conservation South Africa supports economic development that values nature because people need nature to thrive. Our approach is simple yet transformative.

## OUR VISION

Conservation South Africa envisages a healthy prosperous country, where critical landscapes in South Africa's biodiversity hotspots are restored and maintained to provide water, food and climate change resilience for sustainable economic development and the long-term benefit of people and nature.

## OUR ORGANISATION

Conservation South Africa is an independent affiliate of Conservation International, legally registered as a Section 18A public benefit organisation in South Africa. As an affiliate, Conservation South Africa subscribes to the aspirational vision and mission, strategic framework, and operational requirements of Conservation International, but is enabled to adapt language and specific policies and goals to the unique context of South Africa.



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75%  
OF SOUTH AFRICA’S SOIL CARBON  
IS STORED IN RANGELANDS

RESTORED RANGELANDS  
CAN STORE 0.8 TO 2.5 TONS  
SOIL CARBON PER HA PER YEAR



© Conservation International/photo by Bailey Evans



# A MESSAGE FROM THE CHAIRPERSON

Throughout the Covid-19 lockdown period, our teams have actively engaged in supporting our beneficiaries and their natural environments. With new leadership, modified goals and several critical new appointments in 2018-2019, Conservation South Africa is poised to expand the work of the organisation, despite the extraordinarily challenging times confronting us.

Sarah Frazee has resigned from her position as CEO but continues her association with us as CEO of Meat Naturally South Africa, an independent social enterprise established by Conservation South Africa. Sarah began working for Conservation South Africa almost 20 years ago, when it was a small branch of Conservation International and saw it through its journey to becoming an independent South African NGO. Her team is conscious of the debt of gratitude owed to her for the energy and passion she brought to her work.

We also said goodbye to a valued board member, Carmel Mbizvo, who has been appointed acting Chief Executive Officer of the South African National Biodiversity Institute. We wish her every success in her new role and look forward to continuing our affiliation with her.

The board has appointed Julia Levin as our new Executive Director. The recruitment process involved a broad search locally in South Africa, in Africa and internationally, to look for Sarah's replacement. We were presented with very high-level candidates, yet it was the unanimous decision of the board to appoint Julia, an internal candidate with vast experience, expertise and leadership skills.

Peter Shisani takes up the position of Deputy Director. Formerly with the National Research Foundation as National Director for Climate Change and Adaptive Land Management, he brings a wealth of experience to the Conservation South Africa team.

Julia has wasted no time in restructuring the organisation into three divisions: the Impact Cluster covers all our fieldwork and is headed by Peter; the Design and Sustainability Cluster is headed by our very experienced Senior Director of Operations and Business Development, Amanda Maree, and includes our financial team, headed by Ghalied Kriel. Lastly, the Science and Strategy Support Cluster will be led by Julia herself. This restructuring has given clarity to the work streams and presented real opportunities for leadership development across the organisation, with a renewed focus on impact and sustainability. This will set us up very well for continuing to expand our impact over the years to come.

One of the great assets Sarah left us is a high-powered team of executives, fieldworkers and researchers, who have welcomed this new structure.

Our affiliation to Conservation International is essential to our organisational identity. Recognised as one of the most significant global conservation organisations, Conservation International brings a wealth of knowledge, gained from scientific research and work with governments and corporates worldwide, to the work we do in South Africa. We form part of the Africa Field Division, led by Michael O'Brien-Onyeka, who sits on our board and brings great energy and direction to our thinking.

In the current context, the interplay between communities, conservation and policy is critical. Covid-19 has made us re-think how to make the most of these connections. I have confidence in the Conservation South Africa team and their capacity to take up the challenge of expanding our reach for the benefit of communities and the environments on which their survival depends.

As ever, we thank all the hard-working members of our team who have so passionately supported our goals during this difficult period. We thank all our partners, without whom our work would not be possible, and in particular we thank our generous donor base for having the vision to support us in the work we do.

## **SIMON SUSMAN**

Chairperson, Conservation South Africa

## BOARD MEMBERS: CONSERVATION SOUTH AFRICA

### **Simon Susman**

Chairperson

### **M Sanjayan**

CEO, Conservation International

### **Michael O'Brien-Onyeka**

Conservation International Vice-president,  
Africa Field Division

### **Lee Gillespie White**

Conservation International General Counsel

### **Julia Levin**

Executive Director, Conservation South Africa

### **Loyiso Pityana-Ndlovu**

### **Owen Henderson**

### **Professor Peliwe Lolwana**

### **Dr Reuel Khoza**



# A MESSAGE FROM THE EXECUTIVE DIRECTOR

Taking over the leadership of this dynamic organisation has been far more gratifying than I could have expected. I always imagined it would require hard work and a certain degree of fortitude, but I did not anticipate the warmth with which I would be welcomed into the position by local and global teams, partners and donors alike. It has been a humbling experience to pick up the reins after Sarah's expert leadership.

Conservation South Africa's seemingly simple-to-implement rangeland restoration methods and strong connection to the traditional culture of livestock herding that is found across Sub-Saharan Africa have created a blueprint for environmental restoration and economic recovery. The simplicity of our methods, however, often masks the complex science, and years of trial and error, that led to the development of this approach. Every day I am presented with new opportunities to be inspired by the richness of the work done by our staff and partners.

Our dedicated team of scientists, technical experts and field staff work tirelessly to draw simple linkages between complex social, economic and environmental processes. An equally committed team of administrators, accountants and operations staff bridge the gap between research, concept development and project delivery.

Together, members of the Conservation South Africa team are forging new pathways to sustainability in our partner communities and I cannot thank them enough for their hard work and dedication.

The success of Conservation South Africa's approach has resulted in increased momentum across several other African countries. In partnership with Conservation International, Meat Naturally Africa and the Peace Parks Foundation, Sarah Frazee and Dr Jacques van Rooyen are leading the expansion of the Herding for Health Programme into Southern and East Africa.

In the midst of the progress we were making, we could not have predicted the global crisis that we suddenly find ourselves in. We will not know what impact Covid-19 has had on our work until the pandemic has run its course. In the meantime, we are focusing on the elements of our work that can be safely implemented, including our Water, Health and Sanitation work; reaching youth through technology; and, securing the livelihoods of farmers, women and youth in the communities we serve.

As we move forward in these uncertain times, we are optimistic that our work will remain relevant and that we will continue to receive the support we need for our rangeland restoration work to continue to empower local communities.

We hope that you find this report interesting and we look forward to your continued support.

**JULIA LEVIN**

Executive Director, Conservation South Africa



© Conservation International/photo by Patrick Nease

11%

OF THE WORLD'S POPULATION IS VULNERABLE TO CLIMATE CHANGE IMPACTS SUCH AS DROUGHTS, FLOODS, HEAT WAVES, EXTREME WEATHER EVENTS AND SEA-LEVEL RISE.

CONSERVATION INTERNATIONAL

# HOW WE WORK

**WE WORK WITH GOVERNMENT** to influence policy and access funding for sustainable agriculture, climate change and green economic development in communal rangelands.

**WE EXPLORE FUNDING STREAMS AND CAPITAL INVESTMENTS** to fund ongoing work.

**WE WORK WITH COMMUNITIES TO RESTORE RANGELANDS.** Paid and voluntary restoration teams manage and restore at least 400,000 hectares of land.

**WE TRAIN COMMUNITIES, OFFICIALS AND SMALL BUSINESSES** on effective structures, operational plans and good management of rangelands and how to link them to sustainable economic activities and climate resilience.

**WE PRODUCE EDUCATIONAL MATERIALS AND OFFER LEARNING OPPORTUNITIES** to members of communities, business owners and government to spread the message about sustainable agriculture, climate change and green economic development in the context of communal rangelands.

**WE FOSTER INDEPENDENCE** by equipping communities, businesses and government with skills and strategies to take independent control of rangeland management.

**WE APPLY AND REPLICATE BEST PRACTICE** such as incentives and market access, to stimulate local economies.

**WE DOCUMENT AND DISSEMINATE FINDINGS** with tools for communities and partners to document, coordinate and share the impact of their work on the ground.

**WE CONDUCT RESEARCH** to deepen our understanding of how our work can reduce greenhouse gas emissions and increase water security and biodiversity while ensuring people's livelihoods.

**WE CONTRIBUTE TO THE GLOBAL KNOWLEDGE POOL.** Conservation International's documented findings contribute to global knowledge and strategies to achieve environmental and human resilience.

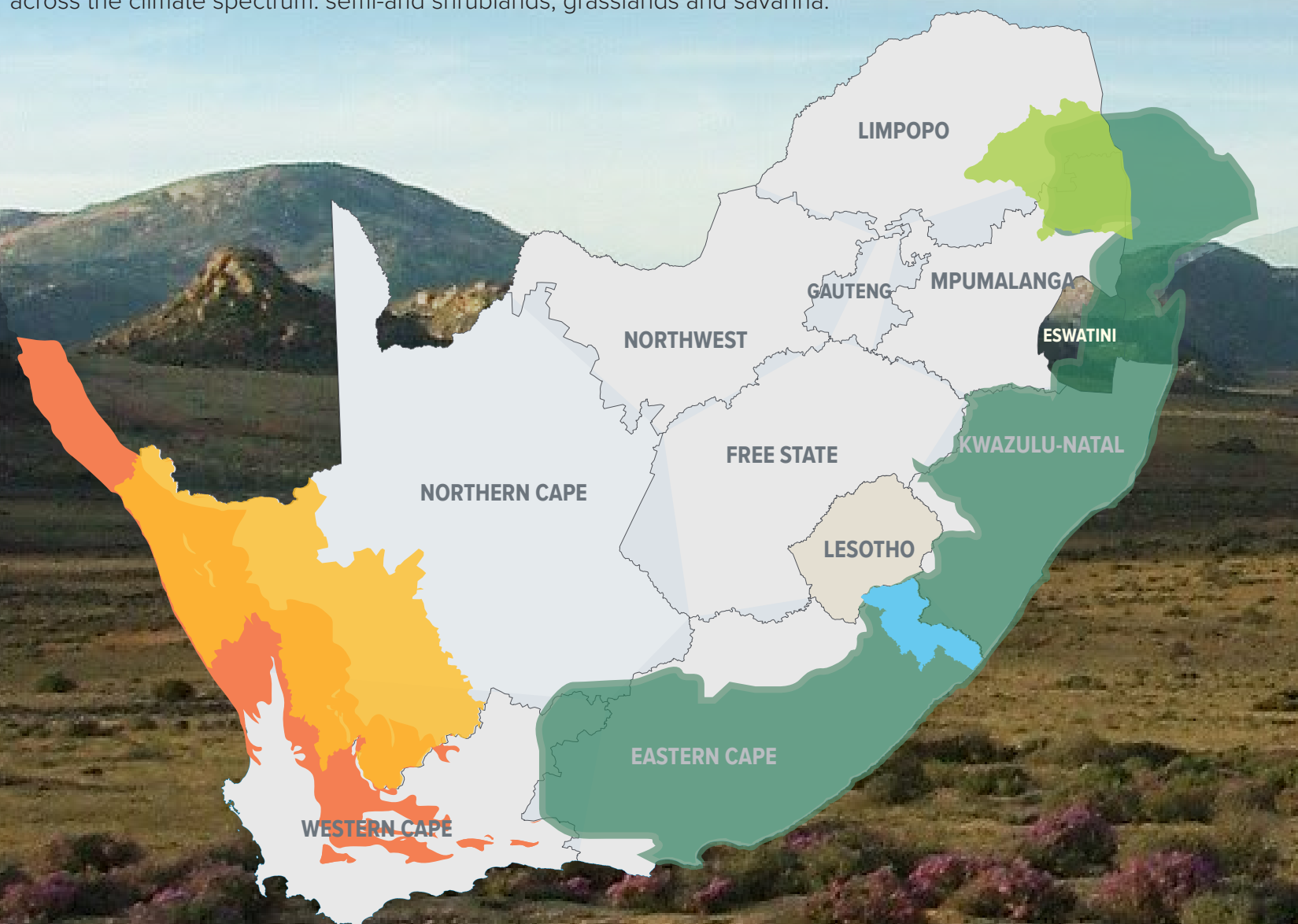


PEOPLE NEED NATURE  
TO THRIVE

# WHERE WE WORK

Within the broad spectrum of South Africa's rich natural heritage, Conservation South Africa has chosen to focus on the conservation assets that are least invested in: communal rangelands in biodiversity hotspots. We do this by restoring natural capital (ecosystems) and working together with communal farmers, youth and budding entrepreneurs to build resilient rural economies in which people are not only able to meet their basic needs for food and water, but also to create thriving green businesses and fulfilling career paths in the conservation sector.


Our work is concentrated in three demonstration landscapes in four provinces. These landscapes straddle two biodiversity hotspots and represent three rangeland habitat types across the climate spectrum: semi-arid shrublands, grasslands and savanna.



## NAMAKWA DEMONSTRATION SITE

70 HIGH PRIORITY BIODIVERSITY AREAS AND 6,356 PLANT SPECIES


**Area:** 12,683,600 hectares

**Location:** Namakwa District Municipality in the Northern Cape province within the [Succulent Karoo Biodiversity Hotspot](#) 

## KRUGER TO CANYONS (K2C) DEMONSTRATION SITE

ONE OF SOUTHERN AFRICA'S MOST BIODIVERSE AREAS FOR LARGE MAMMAL SPECIES


**Area:** 1,073,100 hectares

**Location:** Western border of Kruger National Park into Limpopo and Mpumalanga provinces. Part of the site falls within the [Maputaland-Pondoland-Albany Hotspot](#) 

## UMZIMVUBU CATCHMENT

FOUR DISTINCT KEY BIODIVERSITY AREAS AND A FRESHWATER ECOSYSTEM PRIORITY AREA

**Area:** 2,874,800 hectares

**Location:** The Alfred Nzo District Municipality and the area that runs along the northern boundary of the Eastern Cape Province. It extends from the Lesotho escarpment to the northern Wild Coast adjacent to the Indian Ocean within the [Maputaland-Pondoland-Albany Hotspot](#) 



37%

OF THE MITIGATION ACTION REQUIRED UNTIL 2030 TO KEEP  
TEMPERATURE INCREASE BELOW 1.5°C WILL COME FROM NATURE.

*from 'Natural climate solutions', a paper presented at the  
Proceedings of the National Academy of the Sciences, 2017*

NATURE IS A SOLUTION TO  
CLIMATE CHANGE

# WHY RANGELANDS?

## SCOPE

Almost half of the world's surface consists of rangelands, 25% of which are found in Africa. In South Africa, rangeland habitats cover approximately 80% of the country.<sup>1</sup>

## DIVERSITY

Healthy rangelands characteristically occur across a wide range of climates and comprise herbaceous plants including grasses and woody components such as shrubs and trees that together with animals, fire and people form a natural ecosystem that preserves biodiversity.

## BENEFITS FOR PEOPLE

Rangelands are a source of food for livestock and play a critical role in sustaining rural communities. Secondary resources are firewood, wild foods, medicinal plants, and water. Food security for rural farmers depends on healthy ecosystems. Widespread habitat loss on rangelands, together with uncertain weather conditions has a direct impact on the estimated 180 million people globally whose livelihoods are linked to rangelands, especially the rural poor.

## BENEFITS FOR NATURE

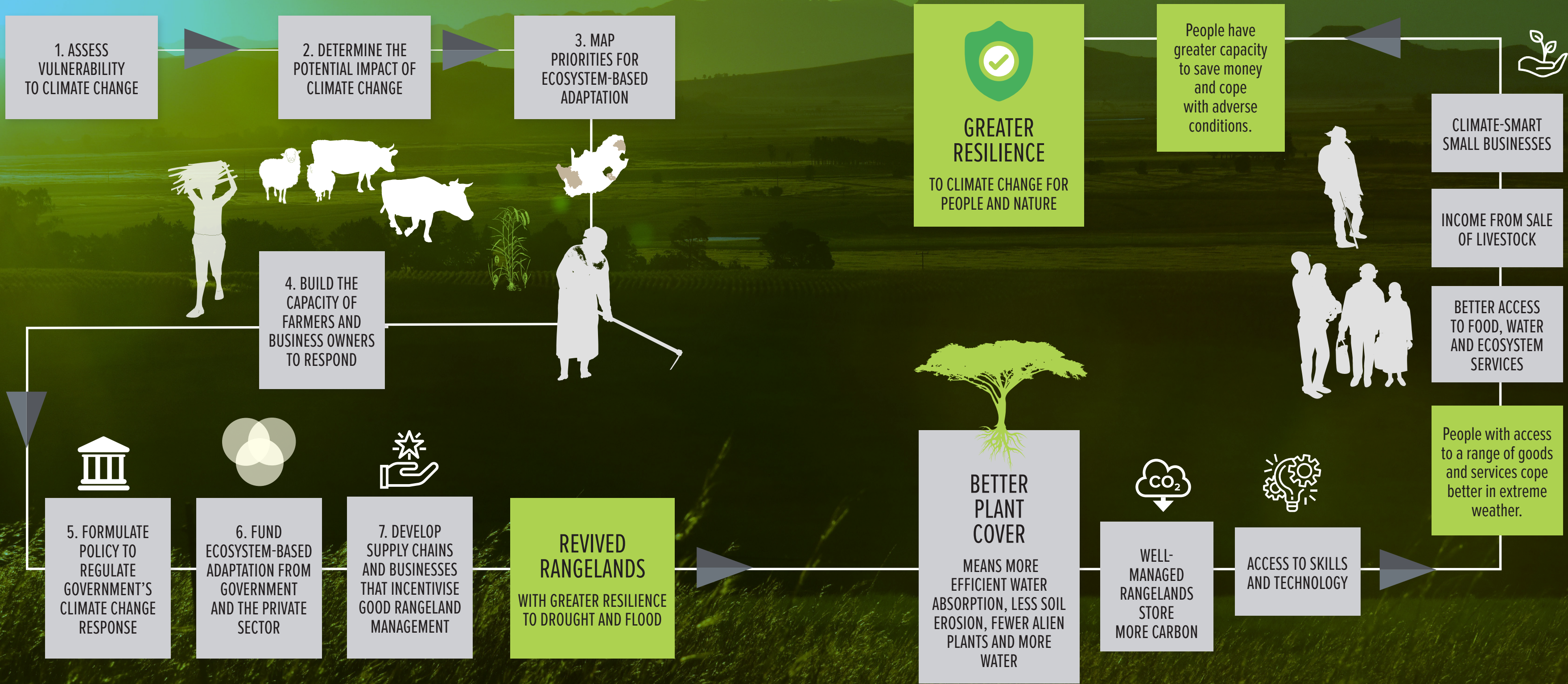
Effective models for rangeland management not only boost the capacity of rangelands to adapt to changing climate conditions by improving their ability to store water and manage extreme weather events, but they also mitigate the impact of climate change through the absorption of carbon dioxide from the atmosphere.

<sup>1</sup> We define rangelands as grasslands, savanna and arid shrublands of South Africa



# CLIMATE-SMART RANGELAND MANAGEMENT

# BENEFITS FOR PEOPLE AND NATURE





# RANGELANDS ARE TO AFRICA WHAT THE AMAZON RAINFORESTS ARE TO SOUTH AMERICA

Nature-based solutions to climate change support people in restoring rangelands with methods that protect nature and promote prosperity.



# NATURE-BASED SOLUTIONS TO CLIMATE CHANGE

## Rangelands and climate

The condition of rangelands determines the extent to which ecosystems absorb and store water and carbon. When rangelands are degraded by overgrazing and erosion, carbon is released into the atmosphere as carbon dioxide, and eroded soil disturbs water courses and wetlands. The bare ground that results contributes to heat and water stress for people and nature. When rangeland ecosystems are intact and functional (healthy), they isolate carbon from the atmosphere and support livelihoods.

## Rangeland science supports people

Science guides Conservation South Africa's rangeland restoration actions and informs future strategies. An example of this is planned grazing and burning, which validates low-cost rangeland restoration modelled on Ecosystem-based Adaptation and has informed draft Grazing Guidelines.

## Ecosystems help people adapt

Ecosystem-based Adaptation includes biophysical activities such as clearing alien invasive plant species, rotational grazing, wetland rehabilitation and erosion control, as well as socio-economic activities such as risk analysis, savings and investments, cooperative governance and small business development, all of which contribute to building resilience and keeping ecosystems healthy.

More about how we use Ecosystem-based Adaptation [here](#)

## Rangelands absorb and store carbon

Research in the past year into the mitigation potential of rangelands has shown that the correct combination of rotational grazing and fire management restores ecosystems and improves the condition of livestock, which brings higher returns for participating farmers. It also enables ecosystems to store between 0.8 and 2.5 tons of CO<sub>2</sub> equivalents in the soil every year for up to ten years.

More about our research into carbon sequestration [here](#)

# OUR IMPACT: 2018-2019

It is estimated that 91% of South African land is in danger of desertification. Degraded rangelands constitute a large portion of this land. There are multiple causes: unplanned grazing, soil erosion, woody plant encroachment, the invasion of alien plants, climate change and unsuitable land management practices.

## OUR RANGELAND RESTORATION MODEL

To support rangeland restoration we:

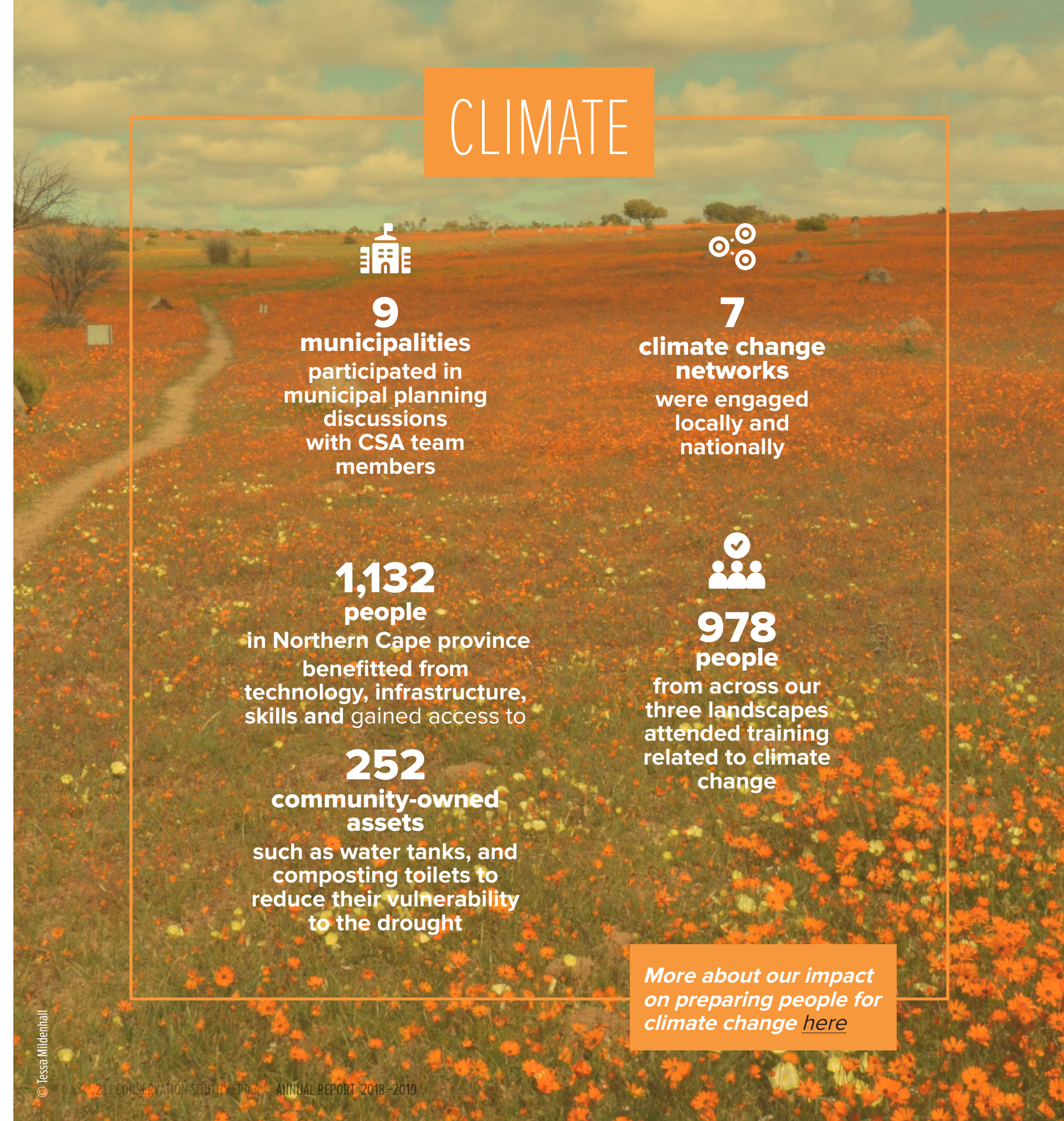
- Promote rotational grazing
- Train local farmers and eco-rangers
- Incentivise conservation outcomes
- Provide medicines for livestock and access to livestock markets
- Support green skills, green jobs and green enterprises linked to agriculture, tourism and restoration
- Build the capacity of communities to plan and prepare for climate change

Rangelands are the natural capital underpinning human well-being in the rural context. The restoration of rangelands has a direct impact on poverty and unemployment.

Rural communities are equipped to protect and manage land in ways that promote climate change resilience and green economic development. Sustainable agricultural practices result in healthy livestock and increased food production.

The importance of restoring rangeland economies for the long-term benefit of people and nature cannot be overstated. Conservation South Africa measures rangeland and climate-based adaptation activities in relation to their impact on climate, land, water, people and research.

For the period July 2018 to December 2019, we are proud to highlight the following results of our work.



# LAND



**4**  
municipalities  
adopted plans  
for improved  
land-use



**23**  
grazing  
associations  
and

**832**  
farmers  
committed to land  
stewardship

**40**  
NGOs, government  
departments and staff  
trained to use conservation  
agreements



Conservation  
agreements  
signed for  
**245,468**  
hectares  
of community  
land

**5,474**  
hectares  
of community land  
treated for bush  
encroachment

**167**  
fibre logs  
installed on  
community land to  
prevent erosion

*More about our impact  
on helping people  
manage their land [here](#)*

© Trond Larsen

# WATER

**2,879**  
people,

including 1,575 women,  
reached through Water,  
Sanitation and Hygiene (WaSH)  
awareness home visits



**2**  
catchments  
benefitted from  
improved land  
management



**4**  
springs  
restored and

**140**  
people  
gained better  
access to water



**57**  
scouts  
introduced  
to WaSH  
concepts

*More about our impact  
on securing water for  
people and nature [here](#)*

## PEOPLE



**1,808**  
farmers

supported with  
fodder, vaccinations  
and other essential  
services



**14**  
professional  
herders

– 8 women and 6  
men – graduated  
from the Herding  
Academy

Environmental  
awareness,  
career mapping  
and business  
development  
training for

**2,468**  
youth and  
**12**  
scouts



Meat Naturally  
facilitated livestock  
sales of

**R10,879,000**  
for



**1,398**  
community  
farmers



Access to  
technology or  
environmental  
outreach  
activities for

**2,437**  
children in  
schools

*Find out more about our impact  
on people's livelihoods and  
career paths [here](#)*

## SCIENCE



**6**  
post-graduate  
students  
worked on topics  
to support our  
activities



**6**  
new learning  
resources  
for community  
and staff  
empowerment

**3**  
new  
predictive  
models  
to guide  
rangeland  
restoration  
activities



**10**  
new  
publications  
including

**6**  
scientific articles  
on how grazing and  
fire affect vegetation,  
animal production and  
carbon sequestration.

*More about our  
research impacts [here](#)*

*The natural beauty of our sustainable model is that it creates balance between rural economic development and ecological management and restoration. One is not exclusive of the other. Instead, livelihoods of the farming community are dependent upon a robust environment.*

*Sarah Frazee, Meat Naturally*

# EXPANDING OUR REACH

Conservation South Africa, in partnership with Conservation International and Peace Parks Foundation, is constantly looking for ways to increase the impact of our rangeland restoration work through our amplification instruments Meat Naturally and Herding for Health. Our work has been successful at multiple levels over the past 18 months.

The Kruger to Canyons Biosphere Region programme was expanded throughout the Mnisi Tribal area, which runs alongside Kruger National Park. The Kruger to Canyons Biosphere Region is a 2.2 million hectare protected area that borders on three countries, including Mozambique, a key destination for Kruger's over-abundant elephant population to the east of the park.

Outside of South Africa Herding for Health is being implemented in the Limpopo National Park (Mozambique), Simalaha (Zambia) and Habu and Eretsha (Botswana). In addition, work is in progress to prepare for potential implementation in two more regions in Botswana, two sites in Zimbabwe, three in Mozambique, one in Lesotho, one in Zambia and two in Kenya.

Conservation South Africa was able to support the design of the Green Climate Fund proposal to ensure that the Herding for Health demonstration areas, Eretsha and Habu in Botswana, were identified as priority demonstration sites. In Habu, grazing plans and rangeland health assessments were carried out using the remote sensing technology employed by Meat Naturally for quarantine areas.

Together with Peace Parks and Conservation International, a pipeline of over \$134 million has been developed to roll out the Herding for Health and Rangeland Restoration model to other countries in Sub-Saharan Africa. Conservation South Africa continues to play a supportive role in hosting and sharing lessons with key technical staff involved in this expansion.



# INVESTMENT AND AUDITED FINANCIAL STATEMENTS

## REVENUE

Revenue totalled R42 million in fiscal year 2019 (FY19), a R1 million decrease from FY18 levels of R43 million. Revenue from local grants and contributions totalled R13 million in FY19, which was significantly lower than the FY18 of R21 million. This decline was predominantly due to the completion of our government contract with the Department of Environmental, Forestry and Fisheries in FY18, which totalled R9 million, and the delay in starting our next contract.

Total revenue from US-based grants and contributions totalled R28 million in FY19, approximately R7 million more than the FY18 total of R21 million.

Conservation South Africa receives generous support from a wide range of foundations, individuals, businesses, governments and multilateral agencies. This diversity of funding sources allows us to continue our work in our three landscape demonstration sites with the assistance of research and technical teams, as well as financial staff located in Cape Town and Johannesburg.

The most significant contributions in FY19 were from foundations: R24 million in total, comprising 58% of our total revenue for FY19, as well R10 million from individuals and corporations. These contributions—provided 24% of our support in FY19.

## EXPENSES

Expenditure totalled R39 million in the 2019 fiscal year (FY19), a R4.8 million decrease from R43.8 million in FY18. This decrease in expenditure was the result of a delay in implementing our next restoration contract, as well as a period of consolidation of our operations.

Our largest investment was in our landscape demonstration sites, amounting to R15 million, or 38% of total expenditure, followed by our research and technical support teams, with total expenditures of R10. 3 million, or 26% of total expenditure.

We strive to ensure that Conservation South Africa has robust systems in place to effectively manage and support our complex work across the demonstration landscapes and that it is fully accountable to a wide range of donors with rigorous compliance requirements while carefully managing our costs in order to maximise funding of our programmes and partners.

In FY19, 87% of every rand donated supported our programmes and management directly; operations made up 13%.

	2019	2018
REVENUE		
Grants, Contracts & Contributions	R 41,475,280	R 42,536,538
Foundations	R 23,905,330	R 17,686,857
Individuals	R 5,399,744	R 759,309
Corporations	R 4,550,947	R 1,720,717
NGO / University	R 4,222,362	R 4,680,687
Multilateral	R 1,976,561	R 4,256,202
US Govt	R 1,077,131	R 2,535,495
Non US Govt	R 343,205	R 10,897,271
Miscellaneous Income	R 406,597	R 701,267
Investment Income	R 120,623	R 129,705
TOTAL REVENUE	R 42,002,500	R 43,367,510
EXPENSES		
Landscape Demonstrations	R 15,041,122	R 25,809,633
NGED Landscape	R 5,529,761	R 8,482,629
EC Landscape	R 5,145,159	R 13,327,991
K2C Landscape	R 4,366,202	R 3,999,013
Regional Support Costs	R 5,356,749	R 1,641,006
Research and Technical Support	R 10,296,385	R 7,187,273
Executive & Leadership	R 3,317,426	R 3,384,046
Management & Operations	R 5,068,851	R 5,818,302
TOTAL EXPENSES	R 39,080,533	R 43,840,259
Change in Net Assets before Non-Operating Activity	R 2,921,967	R -472,749
Finance Costs	R 900	R 6,092
CHANGES IN NET ASSETS		
Net Assets at Beginning of Year	R 1,841,192	R 2,320,033
Changes in Net Assets	R 2,921,067	R -478,841

# OUR DONORS

Our sincere gratitude goes to all the individual donors, foundations, corporations and governments that sponsor our work so generously, and without whom none of what we do would be possible.

Arnhold Foundation

David E. & Mary C. Gallo Foundation

Discovery Fund

Elizabeth R. and William J. Patterson Foundation

Embassy of the Federal Republic of Germany – Pretoria

Ferguson, Mark

Fresh Ministries Inc.

Goldman Sachs Philanthropy Fund

Hainebach, Michael

Hans Hoheisen Charitable Trust

International Institute for Environment and Development (IIED)

Italtile and Ceramic Foundation

Italtile Ceramics

Johannesburg Stock Exchange (JSE)

John and Katie Hansen Family Foundation

Kukrika, Nicholas

Marin Community Foundation

McCormack, John

Meat Naturally Pty Ltd

Minneapolis Foundation

Mix Telematics

National Philanthropic Trust/JP

Morgan Chase Charitable Giving Fund

Peace Parks Foundation

Pisces Foundation

Sarah Johnson

Schwab Charitable Fund

South African Government/  
Department of Environmental  
Affairs (DEA) Natural Resource  
Management Programmes (NRM)

SouthSouthNorth Projects Africa

SouthSouthNorth Trust

Susman, Simon

Toyota South Africa Motors

Triangle Community Foundation

United Nations Environment  
Programme (UNEP)

United Nations Office for Project  
Services

United Way Worldwide

US Agency for International  
Development (USAID)

US Non-reporting Donors

Vanguard Charitable

Wageningen UR Centre for  
Development Innovation (CDI)

Wildlife Conservation Society

World Wildlife Fund (WWF) South  
Africa



# RECENT PUBLICATIONS

1. Venter, Z.S., Cramer, M.D. and Hawkins, H-J., 2018. Drivers of woody plant encroachment over Africa. *Nature communications*, 9(1), pp.1-7.
2. Du Plessis JJ, Avenant NL, Botha AJ, Mkhize NR, Müller L, Mzileni N, O’Riain MJ, Parker DM, Potgieter G, Richardson PRK, Rode S, Viljoen N, Hawkins H-J, Tafani M. 2018. Past and current management of predation on livestock. In: *Livestock predation and its management in South Africa: a scientific assessment* (Eds Kerley, G.I.H., Wilson, S.L. & Balfour, D.). pp.125-177. Centre for African Conservation Ecology, Nelson Mandela University, Port Elizabeth, ISBN 978-0-620-78763-5 (print), 978-0-620-78764-2 (e-book).
3. Somers MJ, Davies-Mostert H, Maruping-Mzileni N, Swanepoel L, Do Linh San E, Botha A, Tjelele J, Dumalisile L, Marnewick K, Tafani M, Hunnicutt A, Tambling CJ, Minnie L, Hawkins H-J. 2018. Biology, ecology and interaction of other predators with livestock. In: *Livestock predation and its management in South Africa: a scientific assessment* (Eds Kerley, G.I.H., Wilson, S.L. & Balfour, D.). Centre for African Conservation Ecology, Nelson Mandela University, Port Elizabeth, ISBN 228-254. 978-0-620-78763-5 (print), 978-0-620-78764-2 (e-book).
4. Venter AS, Hawkins H-J, Cramer MD. 2018. Cattle don’t care: Animal behaviour is similar regardless of grazing management in grasslands. *Agriculture, Ecosystems and Environment* 272, 175-187
5. Venter ZS (AS), Cramer MD, Hawkins H-J 2019 Rotational grazing management has little effect on remotely-sensed vegetation characteristics across farm fence-line contrasts. *Agriculture, Ecosystems and Environment* 282, 40-48.
6. Rapiya M, Hawkins H-J, Muchenje V, Mupangwa JF, Marufu MC, Dzama K, Mapiye C. 2019. Rotational grazing approaches reduce external and internal parasite loads in cattle. *African Journal of Range & Forage Science*.
7. Hawkins H-J, Venter AS, Cramer MD. 2019. Holistic grazing on rangelands: does it improve production, veld condition, and climate resilience? *RED MEAT / ROOIVLEIS* 10 (2) 2019, 76-79
8. Bezuidenhout R. 2019. Veld survey raises questions about rotational grazing. *Farmers Weekly* 19029, Aug 2019, pp. 36-38. Interview with H-J Hawkins and MD Cramer about doctoral work of former student, Zander Venter.
9. Muller H, Hawkins, H-J, Scorgie S. 2019. A case study: Building resilience in rangelands through a natural resource management model. *Report to IIED*, pp1-4. URL: <https://doi.org/10.13140/RG.2.2.19353.16486>
10. Muller H, Hawkins H-J, Scorgie S. 2019. (Summary) A case study: Building resilience in rangelands through a natural resource management model. Report to IIED, pp. 1-4. URL: <https://doi.org/10.13140/RG.2.2.15997.72169>

EMPOWER PEOPLE TO  
CHOOSE NATURE





## **CONSERVATION SOUTH AFRICA**

SHELDON PLACE | SUITE 7B, NORTH BLOCK | 5 LONE CLOSE |  
LONEHILL, JOHANNESBURG | SOUTH AFRICA

HERITAGE HOUSE | SUITE 301, 3RD FLOOR | 20 DREYER STREET |  
CLAREMONT, CAPE TOWN | SOUTH AFRICA

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