



GRASSLAND SOCIETY OF SOUTHERN AFRICA

Advancing Rangeland Ecology and Pasture Management in Africa



Jan Graf



Janke van der Colf



Wayne Twine



Tony Swemmer



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52nd Annual GSSA Congress

**WITS RURAL FACILITY, NEAR HOEDSPRUIT,
MPUMALANGA-LIMPOPO BORDER, SOUTH AFRICA**

23 TO 28 JULY 2017



GRASSLAND SOCIETY OF SOUTHERN AFRICA

52nd Annual Congress

Advancing Rangeland Ecology and Pasture Management

23 to 28 July 2017, Wits Rural Facility, near Hoedspruit, Mpumalanga-Limpopo Border, South Africa

PROGRAMME OF EVENTS

Sunday, 23 July 2017

09:00 - 10:30	Registration for Research Skills Workshop
10:30 - 17:00	Research Skills Workshop
18:30	DINNER

Monday, 24 July 2017

09:00 - 12:00	Research Skills Workshop	GSSA Council Meeting	Registration open throughout day until 17:00
12:00 - 13:00	LUNCH		
13:00 - 16:00	Research Skills Workshop		
	Opening of the 52nd Annual Congress of the Grassland Society of Southern Africa		
18:00 - 19:15	<p>Welcome: Dr Mike Peel, Agricultural Research Council - Animal Production Institute</p> <p>Presidential Address: Dr Julius Tjelele, Agricultural Research Council - Animal Production Institute</p> <p>Opening Address: Dr John Job, Kruger-to-Canyons Biosphere - Grasslands, Bushes and a Biosphere</p>		
19:15	MEET & GREET		

Tuesday, 25 July 2017

07:30 - 08:30	Registration (continues)		
	Opening Plenary Session		
08:30 - 10:30	Keynote address: Heterogeneity as the basis for rangeland	Sam Fuhlendorf, Oklahoma State University	
	Keynote address: Biodiversity for society – a reflection on the diversity of direct local impacts of the Kruger National Park	Louise Swemmer, SANParks - Kruger National Park	
10:30 - 11:30	TEA AND STANDARD POSTER VIEWING		
11:30 - 13:30	Rangeland Ecology	Planted Pastures: Cultivar Adaptations and Management	
13:30 - 14:30	LUNCH		
14:30 - 16:50	Rangeland Management		Planted Pastures: Fertilizer Applications for Maximum Production
	Keynote address: Social and legal barriers and opportunities for using prescribed fire on private land in the Southern Great Plains, USA	Urs Kreuter, Texas A&M University	
	Keynote address: Managing African rangelands using heterogeneity characteristics	Rina Grant, NMMU	
17:00	ANNUAL GENERAL MEETING OF THE GRASSLAND SOCIETY OF SOUTHERN AFRICA WITH REFRESHMENTS		
19:00	DINNER		

Wednesday, 26 July 2017

07:00-08:00	Registration (continues)		
08:00-10:00	Tree-Grass Interactions	Workshop: Social and legal barriers and opportunities for using prescribed fire on private land in the Southern Great Plains, USA	
10:00-11:00	TEA AND STANDARD POSTER VIEWING		
11:00-13:00	Rangeland Assessment and Monitoring	Livestock Diet and Nutrition	
13:00-14:00	LUNCH		
14:00-15:40	Rangeland Fire Ecology	Land Transformation and Restoration	
15:40-17:00	TEA AND RESEARCH PROPOSAL POSTER VIEWING AND EVALUATION		
18:00	QUIZ EVENING AND DINNER		

Thursday, 27 July 2017

07:00-08:00	Registration (continues)		
08:00-09:30	Biodiversity Initiatives and Conservation Planning	Communal Livestock Farming Systems	
09:30-10:00	TEA AND STANDARD POSTER VIEWING		
10:00-12:30	Workshop: Grasses as Invasive Aliens (with further discussion session after lunch)		
13:00-18:00	Mid-Congress Tours with PACKED LUNCH:		
	<ul style="list-style-type: none"> The challenges of managing protected areas in the Lowveld Savannas: perspectives from national parks, provincial parks and private reserves Herding 4 Health: rangeland management in an FMD area Invasive alien plant control and biomonitoring: ecosystem restoration from grasslands to rivers WITS Rural Facility: Savanna ecology field experiments 		
19:00	GALA DINNER		

Friday, 28 July 2017

08:00 - 09:00	Registration for Policy & Practice Workshop
09:00 - 16:00	Workshop: Policy & Practice - The influence of legislation, policy and strategies on effective resource management and planning



TUESDAY, 25 JULY 2017

08:30-10:30	Opening Plenary Session		
08:30	Welcome and introductions		<i>Mike Peel</i>
08:40	Keynote address: Heterogeneity as the basis for rangeland management		<i>Sam Fuhlendorf</i>
09:20	Keynote address: Biodiversity for society – a reflection on the diversity of direct local impacts of the Kruger National Park		<i>Louise Swemmer</i>
10:00	Discussion led by session chair		<i>Mike Peel</i>
10:30-11:30	TEA and STANDARD POSTER VIEWING SESSION		
	Rangeland Ecology		Planted Pastures: Cultivar Adaptations and Management
	Effect of rest and distance from water on the vegetation in the Gamka Karoo, South Africa	<i>Nelmarie Saayman</i>	Evaluation of forage yield of pigeon pea (<i>Cajanus cajan</i> (L.) Millspaugh) varieties in Eastern Cape, South Africa <i>Asiphe Mhlembana</i>
	Big trees and elephant in the Associated Private Nature Reserves	<i>Mike Peel</i>	The characterisation of an <i>Opuntia ficus-indica</i> (cactus pear) collection conserved by the ARC-National Forage Genebank <i>Letty Masemola</i>
	Do grazing response groups explain the relative defoliation tolerance of mesic grassland species?	<i>Naledi Zama</i>	Planted Pastures: Production Systems and Management
	The effect of land-use on herbaceous production and grazing capacity in the Molopo district of the North West Province	<i>Franci Jordaan</i>	Seasonal effect on quality, yield and botanical composition of cultivated beef pasture <i>Josef van Wyngaard</i>
	The influence of rainfall zone, catenal position, and distance from village on composition and structure of herbaceous vegetation in a communal rangeland	<i>Wayne Twine</i>	Intake of grass hay by Jersey cows as affected by supplementation with essential oils and its effect on milk yield and composition <i>Portia Moshidi</i>
	Rangeland Management		Planted Pastures: Fertilizer Applications for Maximum Production
	Current range condition in relation to land ownership types in Gauteng province, South Africa	<i>Lucas Letsoalo</i>	The effect of phosphorus application and Rhizobium inoculation on growth performance and biomass production of <i>Lablab purpureus</i> in Alice, South Africa <i>Sanele Mpongwana</i>
	The effects of holistic planned grazing, continuous grazing and 4-camp rotational grazing systems on tick loads and worm counts on grazing animals	<i>Monde Rapiya</i>	



TUESDAY, 25 JULY 2017

Parallel Sessions: 11:30 - 13:30

	Rangeland Ecology		Planted Pastures: Cultivar Adaptations and	
11:30	Patterns of grass productivity in communal rangelands and protected areas in semi-arid Mopaneveld, and implications for rehabilitation	<i>Tony Swemmer</i>	The production potential and botanical composition of kikuyu over-sown with temperate grass-legume mixtures using different establishment methods	<i>Janke van der Colf</i>
11:50	The impact of livestock grazing on inselberg vegetation along a grazing gradient in three biomes in South Africa	<i>Laetitia Piers</i>	Effect of cutting on dry matter and total non-structural carbohydrate percentages of ten selected Italian ryegrass cultivars	<i>Khutso Mohubedu</i>
12:10	What are the long-term effects of high density, short duration stocking on the soils and vegetation of mesic grassland in South Africa?	<i>Kevin Kirkman</i>	Morphological differences between chicory varieties and the potential of using plant height as a measure of dry matter yield	<i>Sigrun Ammann</i>
12:30	Effect of bush control on species composition, tiller and leaf production of grasses	<i>Mthunzi Mndela</i>	Effects of salinity on germination performance of selected <i>Lolium</i> and <i>Eragrostis</i> grass species	<i>Mziwanda Mangwane</i>
12:50	The importance of ecosystem state factors to the hydrologic responses of woodlands to land management activities	<i>Jason West</i>	Effect of cutting stages on re-growth dry matter production and nutritional value of the five winter cereal cultivars in Moloto district Gauteng and Nooigedacht, Mpumalanga province	<i>Patrick Rakau</i>
13:10	Browsing effects on species composition, structural diversity and biomass production under pastoral and commercial ranching in semi-arid savanna, northern Kenya	<i>Staline Kibet</i> Did not present	Biomass production of perennial ryegrass (<i>Lolium perenne</i> (L)), cocksfoot (<i>Dactylis glomerata</i> (L)) and tall fescue (<i>Festuca arundinacea</i> (Schreb)) varieties grown under irrigation at Alice, South Africa	<i>Sizwe Tikwayo</i>

13:30 LUNCH

Parallel Sessions: 14:30 - 16:50

	Rangeland Management	14:30 - 16:50	Planted Pastures: Fertilizer Applications for Maximum Production	14:30 - 15:10
14:30	Keynote address: Social and legal barriers and opportunities for using prescribed fire on private land in the Southern Great Plains, USA	<i>Urs Kreuter</i>	The effect of nitrogen fertilisation on dry matter production and botanical composition of grass-legume pastures in the southern Cape	<i>Bernhard Jordaan</i>
14:50			The effect of nitrogen fertilisation on the yield and botanical composition of kikuyu-based pastures	<i>Charne Viljoen</i>
15:10	Keynote address: Managing African rangelands using heterogeneity characteristics	<i>Rina Grant</i>	Planted Pastures: Production Systems and Management	15:10 - 16:50
15:30			Designing diverse forage crop mixes for weed suppression	<i>Chloe MacLaren</i>
15:50	Consolidation of the wildlife estate: management challenges at differing spatial scales with special reference to drought	<i>Mike Peel</i>	Influence of social dynamics on intensification of fodders innovations in communal areas of Limpopo province	<i>Ntuwiseni Mmbi</i>
16:10	Comparison of holistic, conventional rotational and communal grazing management practices in the Eastern Cape grassland biome of South Africa: impacts on grass and soil properties	<i>Solomon Tefera</i> Did not present	Yield and chemical composition of native pastures in six semi-arid communal grazing lands located in three soil types: effect of disturbance and season	<i>Ayanda Kwaza</i>
16:30	Holistic Planned Grazing™ fails to beef up farm production: an ox's-eye view	<i>Zander Venter</i>	Discussion led by session chair	

17:00 ANNUAL GENERAL MEETING OF THE GRASSLAND SOCIETY OF SOUTHERN AFRICA WITH REFRESHMENTS

19:00 DINNER



WEDNESDAY, 26 JULY 2017

Parallel Sessions: 08:00 - 10:00

Tree-Grass Interactions		Workshop: Social and legal barriers and opportunities for using prescribed fire on private land in the Southern Great Plains, USA
08:00	Coppice dynamics of two common savannas trees species under different post-harvest treatments <i>Wayne Twine</i>	
08:20	Comparing the effects of canopy cover increase on grass biomass between <i>Dichrostachys cinerea</i> and <i>Terminalia sericea</i> <i>Tilly Randle</i>	
08:40	The effects of environmental factors on <i>Seriphium plumosum</i> L. encroachment susceptibility <i>Gilbert Pule</i>	
09:00	Woody plant densities, cover, height class distribution and their uses in six semi-arid communal grazing lands located in three soil types <i>Ayanda Kwaza</i>	
09:20	Effects of <i>Pteronia incana</i> (blue bush) invasion on grass biomass production, species distribution and soil chemical characteristics under systematic control methods <i>Thando Ntutha</i>	
09:40	The effect of fire, frost and simulated grazing on the survival of <i>Vachellia sieberiana</i> (formerly <i>Acacia sieberiana</i>) seedlings along an altitudinal gradient <i>Jennifer Russell</i>	

10:00-11:00 TEA and STANDARD POSTER VIEWING SESSION

Tree-Grass Interactions		Livestock Diet and Nutrition	
The effect of temperature and growth medium on germination potential of unpalatable <i>Seriphium plumosum</i> L. seeds in growth chamber <i>Khwezi Myeki</i>	Assessing diet selection, preferences and grazing parameters of herded sheep in the Succulent Karoo biome in South Africa <i>Amy Schroeder</i>		
Efficacy of different control methods on <i>Seriphium plumosum</i> on degraded rangeland of Mpumalanga province <i>Thabile Mokgakane</i>	Bioactive compounds and rumen potency of leaf extracts of selected Savanna Mixed Bushveld trees <i>Claude Muya</i>		
Invasion of <i>Prosopis</i> species along riparian areas of the Molopo River, North West province, South Africa <i>Simanga Nkosi</i>	Seasonal variation in nutritive value of four indigenous browse species used for livestock supplementation in the Eastern Cape <i>Siza Mthi</i>		
Rangeland Assessment and Monitoring		The efficacy of acetone leaf extracts of <i>Chicorium intybus</i> L. and <i>Lespedeza cuneata</i> on egg hatching of <i>Heamonchus contortus</i> : <i>in vitro</i> studies <i>Peter Oosthuizen</i>	
Scientific grazing capacity norms for the North West province <i>Franci Jordaan</i>	Land Transformation and Restoration		
Ecological monitoring to inform management of semi-arid African savannas: an assessment of techniques across the wildlife-livestock interface and the evaluation of a long term data set <i>Graeme Wolfaard</i>	An investigation into the control of the invasive <i>Phymaspermum acerosum</i> (Curry's Post weed) in the KwaZulu-Natal Midlands Mistbelt Grassland <i>Michelle Keith</i>		
A comparison of the belt transect and adapted point-centred quarter sampling approaches to assessing woody savanna vegetation <i>Cobus Botha</i>	Influences of land-use types on soil organic carbon, total nitrogen and related soil properties in semi-arid area, Pretoria <i>Abubeker Hassen</i>		
Rangeland Fire Ecology		Effects of bush clearing on soil respiration in north-central Namibia: Cheetah Conservation Fund (CCF) and Erichsfelde <i>Wilhelmina Nuule</i>	
Effects of fire history on ground dwelling arthropods' abundance, species richness & diversity in an arid woodland savanna, Waterberg Plateau Park, central Namibia <i>Nekulilo Uunona</i>	Germination and seedling establishment of indigenous legume species: assessing the potential for rehabilitation of mine soils <i>Zanele Ndhrazi</i>		
Impacts of heavy grazing and fire on aboveground net primary productivity in a Highveld grassland <i>Alekzandra Szewczuk</i>			



WEDNESDAY, 26 JULY 2017

Parallel Sessions: 11:00 - 13:00

	Rangeland Assessment and Monitoring		Livestock Diet and Nutrition	
11:00	Savanna Long-Term Research Initiative in the Southern Great Plains	<i>John Walker</i>	Retrogression in rumen and body metabolism of starving cattle on communal area grazing lands: case study of smallholder dairy cattle in Vhembe district, South Africa	<i>Florence Nherera-Chokuda</i>
11:20	An assessment of woody biomass as a sustainable energy source in a bush thickened area of northern Namibia	<i>Nico Smit</i>	Comparing production of Zulu and Merino sheep on veld and grazing maize—preliminary report	<i>Peter Oosthuizen</i>
11:40	Assessment of grass species composition and nutritive value as influenced by soil characteristics in two different grazing areas under North West province, South Africa	<i>Sesupho Manyedi</i>	Anti-nutrients and <i>in vitro</i> digestibility of <i>Lablab purpureus</i> and <i>Vigna unguiculata</i> forage legumes	<i>Soul Washaya</i>
12:00	Competition and defoliation tolerance of <i>Themeda triandra</i> and <i>Eragrostis curvula</i>	<i>Naledi Zama</i>	A systematic study of <i>Themeda triandra</i> Forssk.: anatomy, genetics and cytology	<i>Sinethemba Ntshangase</i>
12:20	Development of a robust, easy-to-use biodiversity index for mesic grasslands	<i>Lize van der Merwe</i>	Discussion led by session chair	
12:40	TAKING OF CONGRESS 52 DELEGATE GROUP PHOTO			
13:00	LUNCH			

Parallel Sessions: 14:00-15:40

	Rangeland Fire Ecology		Land Transformation and Restoration	
14:00	Hercules and the Hydra revisited: combining traditional management efforts with fire to control resprouting woody plant encroachment and restore savanna ecosystems	<i>Bill Rogers</i>	Containing desertification in arid northern Kunene region, Namibia	<i>Axel Rothauge</i>
14:20	Fire ecology and management of wildfires in Indonesian rain forests growing on peat beds and its potential relevance to ground fires in southern African wetlands	<i>Trevor Wilson</i>	Targeted livestock grazing to improve and restore rangelands	<i>John Walker</i>
14:40	The native, C3 grass <i>Festuca costata</i> alters grassland fuels and fire spread in the Drakensberg	<i>Devan McGranahan</i>	Challenges to measuring carbon fluxes in the Albany Thicket	<i>Tony Palmer</i> <small>Did not present</small>
15:00	Does fire facilitate biodiversity or forage productivity in renosterveld rangelands in the Kamiesberg Uplands?	<i>Megan Simons</i>	Soil nutrient content and forage quality on old lands in the Umzimvubu Catchment	<i>Ntomboxolo Mamayo</i>
15:20	Application of fire in savanna conservation areas	<i>Bruce Brockett</i>	Discussion led by session chair	



WEDNESDAY, 26 JULY 2017

15:40– 17:00

TEA and RESEARCH PROPOSAL POSTER VIEWING and EVALUATION

The effect of arbuscular mycorrhizal fungi, <i>Rhizobium inoculum</i> and phosphorus fertiliser on soil properties, biomass yield and nutrient content of three herbaceous legumes in Alice, South Africa	<i>Sanele Mpongwana</i>
The effect of applying different phosphorous fertiliser levels on four leguminous pastures planted at Dohne and Bathurst nurseries in the Eastern Cape province, South Africa	<i>Nobulungisa Mgujulwa</i>
Determining rainwater use efficiency, dry matter production and soil nutrient replenishing potential of dryland pastures produced in the old arable lands of Krwakrwa communal rangelands, Eastern Cape, South Africa	<i>Unathi Gulwa</i>
Assessing rainwater use efficiency of different grass species, biomass production and basal cover in two veld types of Krwakrwa communal rangelands in Alice, Eastern Cape	<i>Tanki Thubela</i>
Impact of drought and elevated CO ₂ level on species diversity, productivity and water use efficiency of key forage species in semi-arid grassland in Gauteng province	<i>Thabo Magandana</i>
Transpiration rate of <i>Senegalia mellifera</i> in relation to diurnal pattern, seasonal pattern, rainfall, size of the tree, tree density and environmental factors in a semi-arid Namibian Thornbush Savanna	<i>Nelago Iiyambo</i>
Assessing parasitism of small ruminants in arid communal rangelands of South Africa	<i>Saloshni Govender</i>
Assessing the relationship between genetic diversity and diet selection in a semi-arid communal livestock farming system	<i>Amy Schroeder</i>
Assessing the relationship between landscape functionality and small mammal assemblages in the arid communal drylands of Steinkopf, Northern Cape	<i>Laetitia Piers</i>
Assessment of bush clearing on grass production, woody structure and plant diversity in a semi-arid savanna, central Namibia	<i>Visto Amputu</i>
Investigating active veld restoration by means of alternative fertilisation practices in the North West province	<i>Yvette Brits</i>
Control of bush encroachment on <i>Lopholaena corrifolia</i> shrub and soil properties around mixed bushveld region of Thembisile Hani, Mpumalanga province	<i>Oupa Keromecwe</i>
The impacts of alien infestations on veld grazing capacity	<i>Ayanda Mnikathi</i>
The role of biodiversity in providing ecosystem goods and services in agricultural landscapes	<i>Sizwe Tikwayo</i>
Analysing competition strategies for invasion success of <i>Solanum mauritianum</i> (bugweed) in Eastern Cape province, South Africa	<i>Thando Ntutha</i>
Effects of long-term fire exclusion on grass species composition, tuft density and soil physical properties in the Dohne Sourveld	<i>Nolonwabo Jokani</i>

18:00

QUIZ EVENING AND DINNER



THURSDAY, 27 JULY 2017

Parallel Sessions: 08:00 - 09:30

	Biodiversity Initiatives and Conservation Planning		Communal Livestock Farming Systems	
08:00	Planning for the maintenance of floristic diversity under global change <i>Distribution permission withheld</i>	<i>Debbie Jewitt</i>	Climate change adaptation strategies in the communal areas of Namibia and South	<i>Igshaan Samuels</i>
08:20	The Gauteng Biodiversity Stewardship Programme	<i>Emily Taylor</i>	The future of communal livestock farming in semi-arid Namaqualand	<i>Khululwe Ntombela</i>
08:40	Carbon tax and the need for carbon sequestration and offset	<i>Josef van Wyngaard</i>	Using the socio-ecological system in understanding the challenges in collective management of communal rangelands in the rural Eastern Cape	<i>Andiswa Finca</i>
09:00	Strengthening rangeland stewardship and restoration through Research, Development and Innovation (RDI) learning platforms	<i>Dan'sile Cindi</i>	Addressing constraints to increase livestock production in Taleni and Shweni communities, Chris Hani District municipality, South Africa	<i>Nobuntu Matyholo-Mapeyi</i>

09:30- TEA and STANDARD POSTER VIEWING SESSION

	Biodiversity Initiatives and Conservation Planning		Communal Livestock Farming Systems	
	Response of migratory <i>Falco amurensis</i> to common grassland roost sites after short-term drought	<i>Norman Magoro</i>	Performance of livestock production in north Eastern Cape communal areas: a stochastic frontier analysis	<i>Bukho Gusha</i>
	Rangeland biodiversity research in sub-Saharan Africa lacks attention to spatial,	<i>Devan McGranahan</i>		
	Railway side mapping of alien plants distribution in Mpumalanga, South Africa	<i>Collen Rabothata</i>		

Special Session: Grasses as Invasive Aliens: 10:00 - 12:30

10:00	Grasses as invasive plants in South Africa	<i>Vernon Visser</i>
10:20	Global impact assessment of alien grasses occurring in South Africa	<i>Khensani Nkuna</i>
10:40	Are invasive grasses (<i>Poaceae</i>) suitable targets for biological control? A case study of two African <i>Sporobolus</i> spp. invading Australia	<i>Guy Sutton</i>
11:00	Competitive ability of vetiver grass: Does vetiver allow germination and establishment of native grasses?	<i>Lindokuhle Dlamini</i>
11:20	Developing management guidelines for the cultivation of alien bamboos in South Africa	<i>Susan Canavan</i>
11:40	Discussion led by session chair	

13:00-18:00	Mid-Congress Tours with PACKED LUNCH	Special Session: Grasses as
1.	Wildlife breeding	Discussion session continues
2.	Herding 4 Health: rangeland management in an FMD area	
3.	The challenges of managing protected areas in the Lowveld Savannas: perspectives from national parks, provincial parks and private reserves	
4.	Invasive alien plant control and biomonitoring: ecosystem restoration from grasslands to rivers	
5.	WITS Rural Facility: Savanna ecology field experiments	
19:00	GALA DINNER	



GRASSLAND SOCIETY OF SOUTHERN AFRICA

Policy & Practice Workshop

The influence of legislation, policy and strategies on effective resource management and planning

DETAILED DRAFT PROGRAMME AS AT 4 JULY 2017

08:00-09:00	Registration for the Policy & Practice Workshop	
09:00-10:30	<p>Legislation: Overview of NEMA, NEMPAA, NEMBA and other legislation as it may pertain to ecologists and grassland specialists, particularly those involved in natural resource management.</p> <p>Identification of critical thresholds for EIAs</p> <p>Requirements of the Protected Areas Act including monitoring and management plans</p> <p>Role of Biodiversity Act (and alien and invasive species regulations)</p> <p>Others such as National Water Act, Conservation of Agricultural Resources</p> <p>Discussion on how to address issues, to monitor compliance and react to regulations.</p> <p>Discussion on the changing regulatory landscape and impact on natural resource management – how to keep up?</p>	<p><i>Andrew Rossaak, Emross Consulting</i></p>
10:30-11:00	TEA	
11:00-12:30	<p>List of all relevant legislation for a farmer.</p> <p>History of rangeland legislation according to publication in 1991 and relevancy for today.</p> <p>Way forward according to publication.</p> <p>Examples of Table of Contents of different Strategies.</p>	<p><i>Izak Venter, Free State Department of Agriculture</i></p>
12:30-13:30	LUNCH	
13:30-14:30	<p>A discussion on developing National/Provincial policies, strategies and legislation into management plans for rangelands and steps going forward for institutions and landowners.</p>	<p><i>Izak Venter, Free State Department of Agriculture</i></p>
14:30-15:00	TEA	
15:00-16:00	<p>A discussion on how to fit policies, strategies and legislation into management plans—steps going forward for institutions and private landowners.</p>	<p><i>Andrew Rossaak, Emross Consulting</i></p>



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