



science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



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# Policy Forum on Agricultural Innovation in South Africa



**29 November 2021**



**09h30-13h30**



**Zoom Webinar**

Please RSVP at [https://zoom.us/webinar/register/WN\\_1FJ8NkdoQYWg-36xMuJAVQ](https://zoom.us/webinar/register/WN_1FJ8NkdoQYWg-36xMuJAVQ)

*Exploring new sources of evidence to strengthen  
agricultural innovation in South Africa*



**Ben Durham**

Chief Director:  
Bio-Innovation, Department  
of Science and Innovation



**Judith-Ann Francis**

Independent International  
Strategic and Policy Advisor  
on Innovation in Agri-food  
and Nutrition Systems



**Dr Glenda Kruss**

Executive Head, Centre for  
Science, Technology and  
Innovation Indicators, Human  
Sciences Research Council



**Prof. John  
Ouma-Mugabe**

Professor of Science  
and Innovation Policy,  
University of Pretoria



**Dr Albert Strever**

Agri-Informatics Expert,  
Stellenbosch University



**Dr Marinda Visser**

Director: Strategic Projects &  
Planning: Agriculture,  
Innovation Africa @ UP Initiative



**Dr McLean Sibanda**

IP & Innovation Expert;  
Managing Director: Bigen  
Global Ltd



**Dr Mlungisi Cele**

Acting CEO: National  
Advisory Council on  
Innovation



**Dr John Purchase**

CEO: Agricultural Business  
Chamber



**Dr Simphiwe  
Ngqangweni**

CEO: National Agricultural  
Marketing Council



**Denene Erasmus**

Editor: Farmer's Weekly



**Mmabatho Portia  
Morudi**

Farmer & Entrepreneur, Iliju  
Bee Farms and co-founder of  
The Village Market Africa



**Dr Maneshree  
Jugmohan-Naidu**

Director: Biotechnology,  
Department of Science and  
Innovation



**Sibongiseni  
Ndimande**

Director: Research and Policy  
Analysis, DALRRD



**Sibonelo Mbanjwa**

Director: Climate Change  
Adaptation – Natural  
Resources, DFFE



**Sibusiso Manana**

Head: Agriculture Strategic Technology Area,  
Technology Innovation Agency



**Dr Petronella Chaminuka**

Principal Economist and Senior Manager:  
Economic Analysis Unit, ARC

## WHY THIS POLICY FORUM, NOW

The South African White Paper on Science, Technology and Innovation (2019) places the modernisation and strengthening of agriculture firmly on South African's innovation agenda. Vital to food and job security, skills enhancement, and increased competitiveness across local and global markets, the case for strengthening agricultural innovation is compelling and urgent. Agricultural actors—such as producers (smallholder to large-scale farmers, loggers, and fishers), formal agribusinesses (small, medium, and large), industry associations, financial institutions, and policy actors—face diverse challenges. These include: addressing climate change; improving production, processing and market efficiency; ensuring product and facility certification and compliance; and enhancing absorptive capacity for new and emerging technologies, including 4IR. How, then, can the innovation policy agenda be advanced to strategically enable actors to address these and future challenges, and to provide adequate and timely responses that build resilience in this sector?

The evidence provided by South Africa's first national Agricultural Business Innovation Survey,<sup>1</sup> alongside, for example, the Statistics South Africa Census of Commercial Agriculture,<sup>2</sup> represent key recent empirical contributions to ongoing policy discussions. Using the available data as one of the tools, this policy forum aims to address questions in agricultural innovation from the perspectives of three sub-sectors—farming, forestry, and fisheries, including the actors impacted—and explore routes to address a series of key questions.

## KEY QUESTIONS

- ▶ Do existing science, technology and innovation (STI) policy instruments support innovation activity in South African agribusinesses as effectively as they could? Are there types of innovation that do not occur on a wide enough scale, or are 'below the radar', that we should promote systematically? What are the different strategies required to promote the distinctive patterns of innovation in different agricultural sub-sectors?
- ▶ In different agricultural sub-sectors, do we need specific funding instruments for R&D-led innovation, technological upgrading, and organisation or non-technological innovation to transform the agricultural, food and nutrition system in a more targeted manner? How can DSI coordinate and align its policy, strategies and interventions with other stakeholders in the agricultural system of innovation, including related government departments, science councils and universities, financial institutions, and industry associations, to address the barriers and constraints?

## CONTACTS

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<sup>1</sup> <https://bit.ly/3F3iUOA>

<sup>2</sup> <https://bit.ly/3qu013j>

# PROGRAMME

**Programme Facilitator: Kgomotso Matjila**, Acting Chief Director: Science and Technology Investment, DSI

TIME	ITEM	SPEAKERS
09h30	<b>WELCOMING REMARKS:</b>	<b>Ben Durham</b> , Chief Director: Bio-Innovation, Department of Science and Innovation
09h40-10h00	<b>KEYNOTE ADDRESS:</b> <i>'Innovation and resilience in global agri-food and nutrition systems'</i>	<b>Judith-Ann Francis</b> , Independent International Strategic and Policy Advisor on Innovation in Agri-food and Nutrition Systems
10h00-10h30	<b>SCENE-SETTING PRESENTATION:</b> <i>'Innovation in South African agribusinesses: New empirical evidence'</i>	<b>Dr Glenda Kruss</b> , Executive Head, Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council
10h40-11h30	<b>RESEARCH PANEL:</b> <i>'Directions for policy from the evidence'</i>  ▶ Stellenbosch University ▶ University of Pretoria  ▶ Bigen Global Ltd.	<b>Moderator: Prof. John Ouma-Mugabe</b> , Professor of Science and Innovation Policy, University of Pretoria  <b>Dr Albert Strever</b> , Agri-Informatics Expert <b>Dr Marinda Visser</b> , Innovation Africa @ UP Initiative <b>Dr McLean Sibanda</b> , IP & Innovation Expert
11h30-12h20	<b>FINANCE AND BUSINESS PANEL:</b> <i>'Directions for policy and investment from ground level'</i>  ▶ Agricultural Business Chamber ▶ National Agricultural Marketing Council (NAMC) ▶ Farmer's Weekly ▶ Iliju Bee Farms and co-founder of The Village Market Africa	<b>Moderator: Dr Mlungisi Cele</b> , Acting CEO: National Advisory Council on Innovation  <b>Dr John Purchase</b> , CEO <b>Dr Simphiwe Ngqangweni</b> , CEO  <b>Denene Erasmus</b> , Editor <b>Mmabatho Portia Morudi</b> , Farmer & Entrepreneur
12h30-13h20	<b>POLICY PANEL:</b> <i>'Strengthening the agricultural innovation system – the policy response'</i>  ▶ Department of Agriculture, Land Reform and Rural Development ▶ Department of Forestry, Fisheries and the Environment ▶ Technology Innovation Agency	<b>Moderator: Dr Maneshree Jugmohan-Naidu</b> , Director: Biotechnology, Department of Science and Innovation  <b>Sibongiseni Ndimande</b> , Director: Research and Policy Analysis <b>Sibonelo Mbanjwa</b> , Director: Climate Change Adaptation-Natural Resources <b>Sibusiso Manana</b> , Head: Agriculture Strategic Technology Area
13h20-13h30	<b>CLOSING REMARKS:</b> ▶ Agricultural Research Council	<b>Dr Petronella Chaminuka</b> , Principal Economist and Senior Manager: Economic Analysis Unit

\*This forum will be recorded

## SPEAKER PROFILES



**Ben Durham**

Chief Director: Bio-Innovation, Department of Science and Innovation

Ben Durham is Chief Director: Bio-innovation at the National Department of Science and Innovation in South Africa. His responsibilities include the implementation of the South African Bio-economy Strategy, launched in January 2014, and he oversees innovation developments in agriculture, health, industry & environment, and IKS. Ultimately, the purpose is to develop and improve the efficiencies of the National System of Innovation through science and technology, ensuring socio-economic and environmental benefits to the broader society. Amongst others, Ben has served or is serving on:

- ▶ International Advisory Committee of the Global Bioeconomy Summit
- ▶ GMO Act Executive Council (Deputy Chair)
- ▶ The Board of the National Health Laboratory Service
- ▶ Steering committees of two centres of excellence



**Judith-Ann Francis**

Independent International Strategic and Policy Advisor on Innovation in Agri-food and Nutrition Systems

Judith-Ann Francis is an independent science, technology and innovation (STI) expert with over 30 years' experience championing innovation to drive agricultural transformation in developing countries. From 2003 – 2020, Judith was the Senior Programme Coordinator, STI Policy and Strategy at the ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA), the Netherlands. She has extensive knowledge of the STI policy and institutional context in the African, Caribbean and Pacific (ACP) Group of States, Europe, Latin and North America. She has pioneered, managed and participated in inter- and intra-regional multi-stakeholder and multi-disciplinary research and innovation partnerships and lectured at undergraduate and post-graduate level. Judith has served on national and global committees. She was chair of the Tropical Agriculture Platform (TAP) and oversaw the production of the TAP Common Framework. She is an honorary member of the International Advisory Panel of the Regional Universities Forum for Capacity Building in Agriculture in Africa, a network of 128 universities ([www.ruforum.org](http://www.ruforum.org)).



**Dr Glenda Kruss**

Executive Head, Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

Dr Glenda Kruss is the Executive Head of the Centre for Science, Technology and Innovation Indicators at the Human Sciences Research Council. Over the past ten years, she has worked in the field of innovation studies, to understand the role of universities and public research institutes in economic and social development, and the determinants of skills and knowledge flows within sectoral, national and global systems of innovation. Her current research focus is oriented towards more contextually appropriate measures of STI for inclusive and sustainable development in sub-Saharan Africa. She has collaborated widely on comparative research projects in Africa, Latin America, Asia and Europe, and has led large-scale projects for national government, building alliances and networks between researchers, policy-makers and practitioners in South Africa.



### **Prof. John Ouma-Mugabe**

Professor of Science and Innovation Policy, University of Pretoria

John Ouma-Mugabe is Professor of Science and Innovation Policy at the Graduate School of Technology Management (GSTM), University of Pretoria and a Director at the Foundation for Innovation and Technology Africa (FIT-Africa) Pretoria, South Africa. He is an Associate Faculty at the Science Policy Research Unit (SPRU), University of Sussex. Prof. Mugabe was the Executive Director of the African Centre for Technology Studies (ACTS) between 1995 and 2002, and Director of the Office of Science and Technology at the New Partnership for Africa's Development (NEPAD) 2002-2008. He is a Fellow of the World Academy of Art and Science (WAAS), Fellow of the African Academy of Sciences (AAS) and a Fellow of the Academy for Engineering and Technology for the Developing World (ATEWD). He earned a PhD in political science (political economy of technology and environmental policy) from the University of Amsterdam, The Netherlands. Prof. Mugabe has published widely on science, technology, innovation and environmental policy in Africa.



### **Dr Albert Strever**

Agri-Informatics Expert, Stellenbosch University

Albert Strever is a senior lecturer in the Department of Viticulture and Oenology and coordinates the Agri Innovation and Informatics platform for the AgriSciences Faculty at Stellenbosch University, South Africa. He did research in grapevine cultivation, climate studies and remote sensing for about 15 years, and veered from the "normal" university career in 2017 into a position combining teaching with industry interaction and innovation coordination. Starting an Agri Innovation Hub, initially focussed on grapes and wine in the Faculty of AgriSciences at Stellenbosch University in 2018, he also took over the coordination of the agri-informatics initiative at the Faculty in November 2020. In 2017/2018 he was the agricultural consultant for a project team of the University of Stellenbosch Business School (USBEd) commissioned by the Western Cape Department of Agriculture to scope the future of agriculture in the Western Cape within the context of the 4th Industrial revolution. This study has been widely cited and several aspects of it are being adopted, even by other provinces' agricultural departments. He works closely with Innovus ([www.innovus.co.za](http://www.innovus.co.za)), Stellenbosch University's university-industry interaction platform for the commercialisation of SU's assets, as well as the Launchlab ([launchlab.co.za](http://launchlab.co.za)) assisting with programmes related to entrepreneurship and start-up development in agriculture. Albert was a mentor in the Launchlab countdown programme in 2019 (Welgevallen Wine marketing team), MAPSS (<https://mapss.co.za/>) in 2020 and Agrigistics in 2021 (<https://agrigistics.co.za/>). He also consults in the wine and agri industries and makes both wine and music in his free time.



### **Dr Marinda Visser**

Director: Strategic Projects & Planning: Agriculture, Innovation Africa @ UP Initiative, University of Pretoria

Dr Visser completed a PhD in Plant Pathology in the Forestry and Agricultural Biotechnology Institute (FABI) at the University of Pretoria. Her more than 19 years' experience in the agricultural industry included 13 years at a senior leadership level. Her exposure to diverse agricultural industries has equipped her with extensive knowledge in the fields of agricultural research and policy. Dr Visser headed the Grain SA Research and Policy Unit, where her responsibilities included research and development, conservation agriculture and all regulatory and policy aspects for the South African grain industry. She led the development of significant national research networks and platforms that connect universities, industry and government. She also successfully launched a capacity building initiative for Black South Africans in furthering studies in agricultural research. She started her career as a senior plant pathologist at the Agricultural Research Council. Before her current role she had been the Chief Director: Plant Production and Health, and Director: Plant Health at the Department of Agriculture, Forestry and Fisheries. She is currently the Director: Strategic Projects and Partnerships in Agriculture – Innovation Africa@UP at the University of Pretoria (UP). Innovation Africa@UP is a new business unit at the University of Pretoria that aims to provide a more effective platform for the development of long term industry-university-government partnerships. The unit learns from successful models at leading universities around the world and at UP, such as Wageningen University and FABI, amongst others. While the project builds on the broad base of research expertise across the University, it is linked to Agriculture and Forestry in particular as an important initial focus. In these initial phases of development, Innovation Africa @UP will further develop the partnerships with a variety of industries in this sector to grow research programs and centres that address the urgent national needs. The unit wish to develop world class capacity development and research programmes that are needed to support the development of these sectors, their sustainability and their international competitiveness.



### **Dr McLean Sibanda**

IP & Innovation Expert; Managing Director: Bigen Global Ltd

Dr McLean Sibanda is an Experienced Professional and C-Suite Executive with a demonstrated history of working in the investment management, science and technology, intellectual property, innovation, incubation, start-up industries and infrastructure development in Africa. He is a dedicated professional and thought leader skilled in infrastructure development, strategic turnaround, analytical skills, innovation and science parks management, and patent law. A leading voice on the role of intellectual property, innovation, entrepreneurship and infrastructure as drivers for a prosperous Africa. He is the author of the book "Nuts and Bolts" now available at <https://sibandalegacy.africa/?product=nuts-bolts>, Amazon Kindle, and leading bookstores in South Africa.



### **Dr Mlungisi Cele**

Acting CEO: National Advisory Council on Innovation

Dr Mlungisi Cele is Acting CEO: National Advisory Council on Innovation. He holds a PhD in Higher Education Studies from the University of the Western Cape and an MPhil in Science and Technology Studies from Stellenbosch University. He joined the DST in 2005 and has been involved in various assignments related to science, technology and innovation policy, human capital development and strategy and planning and reviews. Prior to joining the DST, he worked as a researcher at the former University of Durban-Westville and the University of the Western Cape, where he conducted research and published in areas of higher education policy, science and technology policy, youth and student politics.



### **Dr John Purchase**

CEO: Agricultural Business Chamber

John Purchase has been the CEO of the Agricultural Business Chamber (Agbiz) of South Africa since 2007. Previously he was the CEO of Grain South Africa. Dr Purchase commenced his professional career as a scientist in South Africa's Agricultural Research Council (ARC), serving in various research and senior managerial positions for 22 years. Dr Purchase has also served on the Boards of the Land & Agricultural Bank of South Africa and the National Agricultural Marketing Council (NAMC) with distinction. Dr Purchase currently serves as a trustee and Chairman of the Maize Trust, and also serves as Chairman of the Board of the South African Grain Information Services (SAGIS). He is the Business Convenor in the Trade and Industry Chamber of NEDLAC and is Deputy Chairman of the Economic Policy Committee of Business Unity South Africa (BUSA), and serves as a Director of BUSA. In terms of the current COVID-19 crisis, he currently leads the Economic Workstream within the COVID-19 Response Task Team of the Minister of Agriculture, Land Reform and Rural Development, Minister Thoko Didiza, to ensure food security for all South Africans. Amongst other awards, he received the 2011 Alumnus of the Year Award from the University of the Free State, as well as the 2012 South African Agriculturalist of the Year Award. In June 2013 he was elected to the Board of the International Food and Agribusiness Management Association (IFAMA) and still serves in this capacity. In 2019 he was honoured by IFAMA and made a Fellow. In December 2018, Dr Purchase was honoured by the French Government and the title of Knight of the Order of Agricultural Merit (Le Grade de Chevalier dans l'ordre du Mérite Agricole) was bestowed on him by the French Ambassador to South Africa, for his services to agriculture and agribusiness.



### **Dr Simphiwe Ngqangweni**

CEO: National Agricultural Marketing Council

Dr Ngqangweni obtained his PhD in Agricultural Economics in 2000 from the University of Pretoria where he also lectured for seven years (2000 – 2006). He worked at the National Agricultural Marketing Council (NAMC) from 2006 to 2008 as a Senior Researcher before he left to join government senior management as Director for Economic Services and later Director for Agroprocessing Support at the Department of Agriculture, Forestry and Fisheries (DAFF) from 2009 to 2013. He returned to the NAMC in 2013 to become Senior Manager responsible for the Markets and Economic Research Centre (MERC), a position he occupied until September 2019. After a short tenure as Acting Chief Executive Officer (CEO) (October 2019 to March 2020), he was appointed in June 2020 as the CEO of the NAMC. As an academic he has published widely in the broad areas of agricultural and food policy, rural markets, land reform and agricultural economic development.



### **Denene Erasmus**

Editor: Farmer's Weekly

Denene Erasmus is the editor of Farmer's Weekly South Africa, the largest English-language agricultural publication in Southern Africa. She has been an agricultural journalist since 2009 and has won numerous international and national awards for her reporting on farming, conservation and the agribusiness sector in Africa; including International Federation of Agricultural Journalists and Alltech International Award for Leadership in Agricultural Journalism in 2019, and the Agricultural Writers South Africa/Agri Securitas Agricultural Journalist of the Year award in 2012 and 2014. Denene is a member of the alumni network of the Bloomberg Media Initiative Africa, she holds a master's degree in languages from Stellenbosch University, an honours degree in Media Theory and Practice from the University of Cape Town. She is currently studying towards a degree in economics. Her writing covers a broad range of topics related to agriculture, agribusiness, African development, rural development, climate change and conservation. She has a special interest in stories that examine how global and regional developments within the agriculture sector affects the sustainability of family-owned farms and farming businesses. She grew up on a family-run sugar cane farm situated along the east coast of South Africa and while she is now based in Johannesburg, she still visits the farm as often as possible.



### **Mmabatho Portia Morudi**

Farmer & Entrepreneur, Iliju Bee Farms and co-founder of The Village Market Africa

Mmabatho Portia Morudi is the co-founder of The Village Market Africa, a social entrepreneur, psychology graduate, a certified business professional, a farmer and conservationist. She is a former DreamGirls Int mentor and a One Young World ambassador. She was selected as one of the top 100 Brightest Young Minds in SA by BYM and again as one of the emerging changemakers in South Africa by Spark international. She sits as an advisor and board member in various organisations such as The Dr Sam Motsuenyane Rural Development Foundation and Igalelo, and has participated in the government of South Africa's DPME 25-Year Review Report of Democratic Governance and Service Delivery, with the focus on Vibrant, Equitable Sustainable and Rural Communities contributing towards food security. Mmabatho is passionate about development in Africa through education, entrepreneurship, innovation & research and agriculture as she believes these to be sustainable answers to eradicating poverty especially in rural communities. Some of her awards include the Award of Mulan for the 2021 BRICS Women Innovation Contest by Deloitte, Heroic Women 2021 award by Sunday World, Seeds of Change 2021 by Food Lovers Market, RoshGold Woman of Impact award and INCO Woman Social Entrepreneur of the year in South Africa 2018.





### **Dr Maneshree Jugmohan-Naidu**

Director: Biotechnology, Department of Science and Innovation

Dr Maneshree Jugmohan-Naidu is the Director: Agricultural Biotechnology at the Department of Science and Innovation. Maneshree Jugmohan-Naidu is responsible for the implementation of the Agricultural Pillar of the National Bio-economy Strategy. This involves the prioritisation, coordination and implementation of key strategic Agricultural Bio-economy Innovation Partnership Programmes, including international/bilateral cooperation, and the development of an enabling and conducive environment for responsible biotechnology in South Africa. Prior to joining the DST, Maneshree Jugmohan-Naidu worked for the Department of Agriculture, Forestry and Fisheries (national), the NHLS and the Nelson Mandela School of Medicine (UKZN). She has been involved in management of research including policy and governance at the national level for the past 14 years. Maneshree Jugmohan-Naidu graduated with a PhD in Microbiology from the University of KwaZulu-Natal in 2002 and also holds a Master's in Business Administration from the University of Witwatersrand. Her knowledge and experience extends to biotechnology in the agricultural and health sectors as well as a demonstrated history of working in government administration. She serves on various committees including the Executive Council of the GMO Act, the National Agricultural Research Forum, the International Bio-economy Forum Plant Health Working Group, the Southern Africa Network for Biosciences (SANBIO), the ABIPP Steering Committee, the Intra-departmental Forum on Science Engagement and Women in Management Committee.



### **Sibongiseni Ndimande**

Director: Research and Policy Analysis

Department of Agriculture, Land Reform and Rural Development

Mr. S. Ndimande has a B.Sc. degree in Agriculture (Agricultural Economics and Animal Production) and a Post Graduate Diploma in Public Administration obtained at the University of Zululand in 2004. He received his Master's in Business Administration degree at the University of South Africa in 2017. He has extensive working experience in the agrarian sector spanning from being a Development Officer to the current portfolio. Currently he manages the Research, Technology and Innovation development and policy development function for the Department. His previous exposure includes amongst others facilitation of international exchange experiences in agriculture, land reform, rural development, inclusive economic growth, land administration, land development, as well as management of bilateral agreements between the Department and the European Union, the United Nations Development Programme, the United Nations Food and Agriculture Organisation and Belgian Technical Co-operation, among others.



### **Sibonelo Mbanjwa**

Director: Climate Change Adaptation – Natural Resources

Department of Forestry, Fisheries and the Environment

Sibonelo G Mbanjwa is the Director: Climate Change Adaptation – Natural Resources at the National Department of Forestry, Fisheries and the Environment in South Africa with more than 20 years' experience in the public service. He holds MSc(Botany)(UJ), MBA, MED(Rhodes), Master of Environmental Management (UFS), LLB, BSc Hons Botany (UNISA). He is a founding and former Board member of the Environmental Assessment Practitioners of South Africa (EAPASA), and is a member of the South African Chapter of the International Association for Impact Assessment. He is the project manager responsible for development and coordination of the implementation of the National Climate Change Adaptation Strategy for South Africa, and is currently responsible for the development of the National Framework for Climate Services in South Africa. He is also responsible for supporting natural resources sectors to implement and mainstream climate change adaptation projects and programmes including plans.



### **Sibusiso Manana**

Head: Agriculture Strategic Technology Area, Technology Innovation Agency

Mr Sibusiso Manana currently holds the position of Head: Agriculture Strategic Technology Area (STA) at the Technology Innovation Agency (TIA). Mr Manana has 10 years of work experience within technology and innovation development, seven of which he served TIA as both as Business Support Services Manager and Commercialisation Manager in the Agriculture (STA). Mr Manana is a chemical engineer by profession. Prior to working at TIA he worked in the small and medium enterprise (SMME) development sector for 10 years as an Operations Manager and a Branch Manager at the Small Enterprise Development Agency (SEDA) and the KZN Manufacturing Advisory Centre (KZNMAC). His work experience in the corporate sector include having worked for General Motor Corporation (GM), Idwala Carbonates, Mondi Paper and Anglo American Corporation. Mr Manana has also served in a number of directorship positions which including also having served as being President and Chairperson of the South Coast Chamber of Commerce. Mr Manana is also known as one of the key advocates for Social and Youth Innovation, Rural development, SMME development, as well as Transformation having served on a number of forums driving interventions in the areas of Radical Economic Transformation and Inclusive Economic development.



### **Dr Petronella Chaminuka**

Principal Economist and Senior Manager: Economic Analysis Unit  
Agricultural Research Council

Petronella Chaminuka (PhD) is the Principal Economist and Senior Manager of the Agricultural Research Council (ARC)'s Economic Analysis Unit. The unit specialises in analysis of trends in R&D investments and agricultural productivity, cost-benefit impact studies for R&D programmes, and broad analysis of agricultural research and technology policy. Petronella has more than 25 years international working experience and has published extensively in scientific and popular media.