



AAUN AUSTRALIA AFRICA UNIVERSITIES NETWORK

ANNUAL REPORT 2017–2018

OUR MEMBERS

AUSTRALIA

Murdoch University
The University of Melbourne
The University of Newcastle
The University of New South Wales
The University of Sydney
University of Technology Sydney
The University of Western Australia
Western Sydney University

AFRICA

Addis Ababa University, Ethiopia
Makerere University, Uganda
The University of Cape Town, South Africa
The University of Ghana, Ghana
The University of Ibadan, Nigeria
The University of Malawi, Malawi
The University of Mauritius, Mauritius
The University of Nairobi, Kenya
The University of Pretoria, South Africa
The University of Zambia, Zambia

WITH THANKS TO OUR KNOWLEDGE PARTNERS AND SPONSORS

Without this support, AAUN would not be able to carry out its mission to foster research and education collaboration and leadership across areas of priority for Australia and Africa, marshalling expertise from both continents to address the challenges we both face.

SPONSORS

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MESSAGE FROM THE CO-CHAIRS



Professor Cheryl de la Rey
AAUN Chair, Africa

As we complete our sixth year since the launch of AAUN in 2012, this Annual Report provides a summary of current activities and achievement, while allowing us to examine what further services we can deliver to our members.

We have maintained our original ambitions and objectives in building equal higher education and research partnerships and programs between our members in Australia and Africa. This has been enabled by the subscriptions of members and the support from our sponsors and knowledge partners.

We have established 43 research programs and teams, each of them including several AAUN members, along with associated institutions and individuals where that can extend critical capacity. These teams are continuing communities of scholars, working together across disciplinary and international borders.

The catalyst for these developments is our Partnership and Research Development Fund, with an annual competitive round of applications and awards. While small, these seed investments have delivered success in a majority of cases, and proceed with publications, external grants and impact.

Now we review and renew AAUN at our Annual Forum and AGM in Perth on 27 August, moving to implement our Strategic Plan 2018–20. This plan takes note of the global policy frameworks, including the Sustainable Development Goals, Paris Climate Accords, China Belt and Road, and Regional policies including the African Union Agenda 2063 Objectives and the Australian Foreign Policy White Paper (2017).



Professor John Hearn
AAUN Chair, Australia

In aligning with these frameworks, we also build alliances with our knowledge partners. We have signed a three year alliance with the Australian Centre for International Agricultural Research (ACIAR), the Australia Awards Program, and the National Research Foundation of South Africa. We work closely with the Australian Department of Foreign Affairs (DFAT) and the Advisory Group on Australia Africa Relations – reporting to the Foreign Minister. We acknowledge the support of our Australian and African Heads of Missions. We are exploring alliances with other networks.

There is a lot more we can deliver for our members and partners, including enhanced research and education mobility, international opportunities for emerging and established researchers and teachers, diversity in gender and geography, resilience in our governance, communications and media, attraction of resources. This depends on each of our colleagues and institutions in their energy and engagement.

Our ethos is strong teamwork to achieve beyond individual institutional capacity, ensuring major returns on our members' investment in international, academic, diplomatic and financial results.

Professor Cheryl de la Rey, University of Pretoria
AAUN Chair, Africa

Professor John Hearn, University of Sydney
AAUN Chair, Australia

AAUN GOVERNANCE

AUSTRALIA

Co-Chairperson

Professor John Hearn, Sydney

Research Development Manager

Associate Professor Grace Liu, Sydney

Program Manager

Ms Marije Nieuwenhuis, Sydney

Steering Group members

Ms Jessie Mitchell, Melbourne
Professor David Morrison, Murdoch
Mr David Doepel, Murdoch
Professor Kevin Hall, Newcastle
Professor Prem Ramburuth, UNSW
Mr Innes Ireland, UTS
Professor Kadambot Siddique, UWA
Professor Deborah Sweeney, WSU

AFRICA

Co-Chairperson

Professor Cheryl de la Rey, Pretoria

Deputy Co-Chair

Professor Frans Swanepoel, Pretoria

Secretariat

Ms Desirée Homann, Pretoria

Steering Group members

Professor Mamokgethi Phakeng, Cape Town
Professor Ebenezer Oduro Owusu, Ghana
Professor Idowu Olayinka, Ibadan
Professor John Ddumba-Ssentamu, Makerere
Professor JDK Saka, Malawi
Professor Dhanjay Jhurry, Mauritius
Professor Peter Mbithi, Nairobi
Professor Luke Evuta Mumba, Zambia

SECRETARIAT CHANGES

All of us in AAUN congratulate Professor Cheryl de la Rey as she moves to the Vice Chancellorship of Canterbury University, New Zealand, after nine years distinguished service as Vice Chancellor of Pretoria, and six years as Co-Chair of WUN. We thank her for her inspired leadership and wish her success and happiness. Her deputy as Co-Chair Africa, Prof Frans Swanepoel will serve as interim co-chair pending decisions at the AGM. In Pretoria, Desiree Homann continues as Secretariat (Africa) assisted by Willeke DeBruin.

We thank Marije Nieuwenhuis for her excellent contributions as general manager as she moves to Melbourne. A-Prof Grace Liu will take on added duties as general manager alongside research and development. We are fortunate to have assistance from Marjorie Lewis-Jones as editor of the Annual Report, and Ros Ong in accounting and acquittals. We thank all who work with WUN, especially the steering groups and research teams, who guide strategy and priorities, and deliver outcomes and impact.



*Marjorie Lewis-Jones, David Mickler, John Hearn, Cheryl de la Rey, Grace Liu.
Absent: Frans Swanepoel, Desiree Homann, Marije Nieuwenhuis*

OUR RESEARCH

The Partnership and Research Development Fund (PRDF)

is the vital lever with which AAUN brings together researchers across its network. The PRDF aims to catalyse new research collaborations that address significant challenges facing both Australia and Africa. Each grant is worth approximately AUD 10,000 and may be used to fund exploratory research, targeted workshops, planning events, faculty exchanges and forming collaborative networks, among other activities. This section includes a small selection of these collaborations.

RESEARCH HIGHLIGHT: FOOD SECURITY

New plant breeding methods for sustainable use of genetic resources and security of food production

The adaptation of agriculture to climate change is critical for future global food security—and breeding crop plants that tolerate extreme conditions is an urgent priority.

To determine which new methods can best assist this, PI Professor Wallace Cowling (The University of Western Australia) joined forces with scholars from Africa and Australia. His team gathered leading agricultural experts and other researchers at a workshop hosted by the University of Mauritius in January 2018.

Their aim was to assess the ability of new animal breeding methods—such as optimal contributions selection and genomic selection—to improve the adaptation of crops to a changing climate.

Insights from international guest lecturers, Professor Brian Kinghorn, University of New England, Australia, and Professor Raphael Mrode, International Livestock Research Institute, Nairobi, Kenya, helped Dr Cowling and AAUN colleagues from the University of Pretoria and the University of Sydney present the new crop breeding methods to participants.

AAUN assisted five promising early career researchers from its partner universities to attend the workshop, and to receive training from two international quantitative geneticists. Plant breeders from Ethiopia and Uganda also benefited from their involvement.

Dr Cowling said, “Findings from our workshop should help shift plant-breeding methods to those that will help guarantee global food security.”

Outcomes

- Workshop in Mauritius to evaluate new methods for sustainable genetic improvement in important food crops for AAUN partner countries (January 2018)
- Planned publication(s) in major journals about proposed changes to plant breeding to improve global food security



Workshop participants including Professor Wallace Cowling (UWA, at right) explore crops for a changing climate.
Photo credit: Professor Kadambot Siddique, UWA

Urbanization and its Impact on peri-urban water and food security in Africa: Developing research collaboration and capacity building

Rapid urbanization in Africa is occurring almost exclusively at the expense of agricultural land in peri-urban zones and threatening food production and water availability.

This two-day international workshop at Makerere University in Kampala, Uganda, in December 2017, brought together AAUN's Australian and African partners to examine shifting patterns of land use and associated water- and food-security risks.

A discussion paper co-authored by project team members probed emerging concerns and informed discussions. A session by Ugandan PhD students studying in Australia and working on their projects in Uganda was among workshop highlights.

More than 60 participants from Uganda, Kenya, Tanzania, Ethiopia and Australia contributed to a mapping exercise that yielded themes for a new, transdisciplinary research and capacity building project.

Themes included: the impact of urban encroachment on environmentally sensitive ecosystems; climate change and sustainable water management; and sustainable food production systems in urban and peri-urban areas.

PI Professor Basant Maheshwari (Western Sydney University) said, "Our commitment to this collaborative

project should lead to improvements in water and food security in African cities to ensure they're liveable and sustainable despite changing land use and extraordinary growth."

Outcomes

- 2018 visit by Vice Chancellor of Western Sydney University to explore joint teaching programs and other collaborations
- Follow-up visit by Vice Chancellor of Makerere University to AAUN-partner universities in Australia to build on relationships forged through this project
- Project proposal led by Makerere University to the Cultivate Africa's Future. Phase 2 funding call global food security
- International Workshop held 4-5 December 2017 at Makerere University, Kampala, Uganda



Adjunct Professor Roger Packham, Western Sydney University, presenting at the international workshop in Kampala

Mobile-based information system for nutrition-driven agriculture to combat hidden hunger in Africa

Hidden hunger is common in rural communities across Africa but it has been hard to reach sufferers with supplements. An app prototype that uses mobile connectivity to give local nutritional advice field-tested in early 2018 is on course to overcome this difficulty.

People affected by hidden hunger may suffer the irreversible consequences of poor brain development, reduced immune function, and obesity. Communities can also be burdened by the cost of medical treatment of preventable, nutrition-related health problems.

The app is the product of an AAUN partnership among the universities of Western Sydney, Pretoria, Ibadan, and Nairobi. It aims to empower communities affected by hidden hunger—helping them to improve the quality and diversity of their diets.

App users complete a simple, 24-hour food-intake log for 16 food groups, which leads to a rapid assessment of their dietary diversity. The app then draws on a database of crops that can be grown in regions of Kenya, Nigeria and South Africa, and suggests plants that can be cultivated locally to improve the user's diets.

The prototype was field-tested during a workshop at Pretoria University in February 2018. The testing investigated the usability of the interface and sought expert opinions on the content.

Research team members, an expert group made up of nutritionists, agronomists and consumer science specialists, workers at Pretoria University's farm, and potential users from remote communities shared feedback integral to shaping refinements.

The team plans to use the app as a demonstration of how practical solutions to everyday problems can be found through partnerships across disciplines. They are exploring funding opportunities to expand the coverage and reach millions of smallholders across Africa.

Outcomes

- Workshop and field-testing of app (Pretoria 2018)
- YouTube video <https://youtu.be/ff5MP-gp6Ck> highlighting project progress
- Research paper sharing preliminary results
- Conceptual model to effectively link multiple disciplines required to create a mobile-based Digital Knowledge Ecosystem to address hidden hunger.



Rapidly growing mobile connectivity enables us to develop innovative solutions to challenging humanitarian problems.

Food composition data for animal-source foods in sub-Saharan Africa

The world has taken significant steps towards improving nutrition over recent decades – but more must be done to achieve the Sustainable Development Goals (SDG) target to end malnutrition in all its forms by 2030.

This research team, led by PI Professor Hettie Schönfeldt (Pretoria), is rising to this challenge with a project that should bring real benefit to people in sub-Saharan Africa suffering the “dual burden” of under- and over-nutrition.

The team, drawn from AAUN-partner universities in Pretoria, Nairobi and Sydney, is creating an open source food composition table containing nutritional data for animal-source foods (ASF). So far it has conducted a comprehensive review of existing data, created a provisional table and made plans to pursue funding to ensure the database will be updated in coming years.

“Our database gives information about ASFs, which are known to provide protein of high-biological value and micronutrients such as iron, zinc and vitamin B6 and B12,” said Professor Schönfeldt.

“It also capitalizes on the increased focus on food-based approaches, which use locally available and culturally acceptable products, to achieve sustainable improvements in human nutrition.”

The database will be an invaluable, international-reference platform for researchers, governments, development practitioners and others – helping to shape better food and nutrition policies and programmes.

A critical inclusion is the compositional differences between ASFs derived from intensively raised animals of commercial breeds and those from indigenous livestock reared in resource-poor settings.

Outcomes

- Data gathering in progress and database creation being finalised
- Plan devised to attract continuing external funding to sustain the database
- Presenting the positive nutrient content of animal-source foods derived from sub-Saharan Africa in a meaningful and easily accessible manner to local and international actors, health professionals, academia, media and government



RESEARCH HIGHLIGHT: HIGHER EDUCATION

Mapping Australia-Africa partnerships in higher education

Findings from this AAUN-funded collaborative research project are laying the groundwork for enriching existing and forming new partnerships between Africa and Australia.

To guarantee progress, according to Dr Rose Amazon (UNE) and Professor Anthony Welch (University of Sydney), more research can be done.

"Synergies between our continents around AAUN's five priority themes mean the potential for collaboration is exciting," Dr Amazon said.

"But what is really needed is a complete and consistent database that provides a foundation on which to base our strategies for deeper and more mutual engagement."

The team comprises researchers from UCT Capetown, and University of Pretoria, in South Africa, and Makerere University, Uganda, as well as the Australian team.

So far it has accessed and analyzed secondary data from Universities Australia (UA) from 2000-2014, Scopus publication data (2010-2015), and findings from a related literature search, as well as a Desktop environmental scan/survey.

It has also undertaken six case studies mapping the research and teaching collaborations and exchanges of Australian and African AAUN members—three universities from each continent.

Results show there would be mutual benefit in boosting African-Australian research and exchange ties, and that a better modus operandi for the two continents' higher educational institutions working collaboratively can be achieved.

Stage 2 of the research is underway. The team will add more to some case studies, undertake further analysis of academic collaboration using the Scopus database, and hold a workshop where the two teams can interact, review progress and develop a work plan for the future.

Outcomes

- The first ever map of Australia-Africa academic collaboration, including details of staff and student exchange schemes, and collaborative research and publications.
- Summary of the secondary data analysis
- Second stage research underway
- Academic papers to be submitted to open source international journals



Academics without doctorates in South Africa and Australia

The PhD student who is already in an academic position is in a “betwixt and between” space, which is not necessarily conducive to success. This is one of the findings of research by Dr Mignonne Breier (Cape Town), Professor Chaya Herman (Pretoria) and Dr Lorraine Towers (Sydney).

An article providing a quantitative profile of under-qualified academics in South Africa, by Breier and Herman, was published in *Higher Education Quarterly* in October 2017 and another, with Towers, based on qualitative research, is in progress.

Breier and Towers presented this paper, entitled, “Doctoral rites and liminal spaces” at the 40th annual conference of the African Studies Association of Australasia and the Pacific in Adelaide in November.

“We want to help universities to upgrade the qualifications of their academics by showing the challenges which they experience,” says Dr Breier.

“In South Africa there are numerous initiatives to support academics to improve their qualifications, particularly for black academics, but they still face

obstacles relating to race, class, gender and identity and feelings of ‘unhomeliness’ and liminality in their institutions. In Australia, similar issues affect Indigenous academics in particular, due to their limited numbers, marginalized status, and the multiple demands placed on them by their institutions.”

Outcomes

- Paper presented at the 40th annual conference of the African Studies Association of Australasia and the Pacific in Adelaide (November 2017)
- An article providing a quantitative profile of under-qualified academics in South Africa, by Breier and Herman, was published in *Higher Education Quarterly* (October 2017)
- A second paper with Towers, based on qualitative research, is in progress



Education leadership for knowledge society development

A new series of AAUN-funded capacity building workshops is equipping educators in Mauritius with leadership skills relevant to the knowledge age.

"Our aim is to develop a pool of potential change agents and educational leaders that can strengthen the development of Mauritius into a knowledge society," said PI Associate Professor Mohammad Santally (University of Mauritius).

Mauritius has been reorienting its education systems towards sustainability, said Dr Santally, but much more needs to be done.

"Our approach is to train 25 educators who would then train other educators in their schools to create the much-needed educational revolution from within."

The workshops in face-to-face mode, and in virtual mode via webinars, explore a range of topics relating to knowledge societies, educational leadership, teaching with technology, and futures techniques (like anticipatory thinking).

The teachers participating in the project will keep a leadership journal, and a professional development plan, and find support in online communities of practice.

"The exponential growth of information and communications technology and the pace of digital transformation are rendering our current education systems obsolescent," said Dr Santally. "However, to address persistent global challenges, learners must urgently hone their digital skills and enhance their knowledge.

"We're empowering teachers to drive the change and meet the needs that really matter."

Outcomes

- Training needs analysis with selected educators (January 2018)
- Training programme mounted (February 2018)
- Online platform set up (March 2018)
- First workshop conducted (April 2018), Mid-program workshop (August 2018), Final workshop (December 2018)



AAUN-funded workshops are equipping educators in Mauritius with leadership skills

NEW RESEARCH: PARTNERSHIP AND RESEARCH DEVELOPMENT FUND (PRDF)

NEW RESEARCH: 2018 PRDF

In the 2018 round, there were 13 applications to the Partnership and Research Development Fund. Of these, the eight projects below were awarded funding. For a full summary of AAUN's funded activities, please refer to page 13-15.

Improved food security and biodiversity outcomes go hand-in-hand

Running planning events in South Africa and Uganda will help this team, led by PI Dr Matt Hayward (University of Newcastle), to develop a research program to determine whether native predators improve crop yields in agricultural landscapes. Researchers will conduct comparable studies using similar methods in partner countries while correcting for soil type, rainfall, and crop type – thereby improving food security without negatively affecting biodiversity.

Community-based social network for mitigating hidden hunger

The impact of hidden hunger on health and wellbeing in rural African communities has been widely studied and a preliminary solution, based on nutrition-driven agriculture at household level using a mobile-based information system, has been developed. This project led by Dr Bahman Javadi (Western Sydney University) aims to mitigate hidden hunger (micronutrient deficiencies) through the development of a new mobile-based social network to connect and motivate communities and provide practical solutions to diversify food intakes.

Aquaculture production and sustainable livelihoods in Africa: Lessons from Uganda and Kenya

This study of small-scale aquaculture production (artisanal fish ponds) in Uganda and Kenya is led by PI Associate Professor Richard Vokes (University of Western Australia). It focuses on how fish farming can improve the lives of women, especially those in the lowest socio-economic categories, by improving their nutritional security (and that of their children); growing their incomes; and contributing to their empowerment in domestic decision-making.

Mapping Australia-Africa partnerships in higher education

In 2011, Universities Australia reported 45 bilateral agreements between Australian and African Universities but the extent and quality of these agreements/relationships is still unknown. Led by PI Professor Anthony Welch (University of Sydney), this bilateral research team will undertake additional Scopus analysis of collaborative Australia-Africa research outputs; do more work on the Pretoria and Makerere case studies; and hold a meeting to review existing work and remaining challenges.



A new AAUN project focuses on how fish-farming projects can more effectively contribute to improve the lives of women through improvement in nutrition, income and empowerment

Food safety risk profiling and monitoring of *Listeria monocytogenes* in environmental, retail and domestic settings in Africa and Australia

The goal of this project is to exchange expertise, enhance capacities and initiate collaborative research on the foodborne pathogen *Listeria monocytogenes* (*Listeria*), which was associated with fatal outbreaks in South Africa and Australia in 2018. Led by Professor Elna Buys (University of Pretoria), a team of researchers from Africa and Australia will investigate the global risks posed by *Listeria* using molecular biology, risk analysis and epidemiology to provide reliable information that will guide decision makers in food safety and public health.

AAUN-FLoRET: Future Legumes Research, Education and Training programme – Linking climate change and nutritional needs to agriculture

Nine universities aim to form a collaborative, international, graduate research and training programme – the Future Legumes Research, Education and Training programme (FLoRET) – with a unique interdisciplinary focus on sustainable and climate resilient agriculture responsive to human nutritional needs. FLoRET will be coordinated by a dual hub run by Murdoch University (PI Professor Janet Bornman) and the University of Cape Town under the auspices of the AAUN.

Empowerment in the workplace: An exploratory study of women in Africa

This study will explore attitudes to gender equity, gender inclusion and mainstreaming, gender bias, and willingness to facilitate gender-inclusive strategies for the empowerment of African women in the workplace. Led by PI Professor Prem Ramburuth (University of New South Wales), the study's findings will inform the development of two workshop modules enabling gender-awareness training for women and for managers/leaders in the workplace.

Enabling a food-phosphorus-sanitation sustainability network

Untapped opportunities, such as phosphorus recovery from human waste, can have multiple benefits for farmer livelihoods, crop yields, local employment, and public and environmental health. The goal of this project, led by PI Dr Dana Cordell (University of Technology Sydney), is to create an expanded Australia-Africa knowledge network linking food, phosphorus, and sanitation. Activities planned include a public interactive media forum and expert panel; a stakeholder workshop, and a researcher planning workshop.



Empowerment in the workplace: An exploratory study of women in Africa

AAUN PROGRAMS – SUMMARY

Project Title	Principal Investigator(s)	AAUN Partner	Year
21st century skills for educators: Rapid e-learning tools to develop interactive learning materials	Associate Professor Mohammad Issack Santally, University of Mauritius	Makerere University, Curtin University	2014
AAUN-FLoRET: Future Legumes Research, Education and Training programme – Linking climate change and nutritional needs to agriculture	PI Professor Janet Bornman, Murdoch University	The University of Cape Town, University of Ghana, University of Pretoria, University of Mauritius, University of Addis Ababa, University of Western Australia	2018
Academics without doctorates: under-qualification of academics in South Africa, Mauritius and Australia and strategies and policies to address the issue	Dr Mignonne Breier, University of Cape Town, Dr Lorraine Towers University of Sydney	Monash University, University of Mauritius, University of Pretoria	2015
Agro-diverse farming systems in Africa: Potential for improving food and nutritional security in the context of climate variability and change	Dr Peter Johnston, Cape Town, Professor Janet Bornman, Curtin and Professor Richard Warrick, Curtin	University of Ibadan, University of Pretoria, University of Western Australia	2015
Assessing the benefits of agro-biodiversity in the context of climate variability and change	Dr Peter Johnston, Cape Town, Professor Janet Bornman, Curtin and Professor Richard Warrick, Curtin	University of Ibadan, University of Pretoria, University of Western Australia	2014
Aquaculture production and sustainable livelihoods in Africa: Lessons from Uganda and Kenya	PI Associate Professor Richard Vokes, University of Western Australia	Makerere University, University of Nairobi	2018
Analysis of the value chain for indigenous edible insects and their potential role in mother and child nutrition in eastern and southern Africa: Focus on Mopani	Professor Mavis Mulaudzi, University of Pretoria	Makerere University, University of Zambia, University of Sydney	2014
Building an AAUN coalition to support improved nutrition and health of children under 5, pregnant and lactating mothers	Associate Professor Robyn Alders, University of Sydney, Professor A Oelofse, University of Cape Town, Professor Mavis Mulaudzi, University of Pretoria	University of Nairobi, University of Queensland, University of Wollongong, Makerere University, Griffith University, University of Melbourne, University of Western Australia, University of Ibadan, Curtin University	2013
Community-based social network for mitigating hidden hunger	Dr Bahman Javadi, Western Sydney University	University of Pretoria, University of Ibadan, University of Nairobi	2018
Developing and retaining the next generation of academics and researchers	Associate Professor Mbulungeni Madiba, University of Cape Town	University of Mauritius, University of Pretoria, Monash University, University of Sydney	2014
Development of millet-based functional food products for the prevention and management of obesity and diabetes	Professor Vijay Jayasena, Western Sydney University	University of Ghana, University of Ibadan, University of Zambia	2016
Development of sweet potato postharvest handling technologies for improved safety and quality of fresh and processed forms	Dr George Abong', University of Nairobi	Makerere University, University of Queensland	2014

AAUN PROGRAMS – SUMMARY

Project Title	Principal Investigator(s)	AAUN Partner	Year
Effectiveness of photosensitisation in controlling aflatoxins in maize	Associate Professor Angus Morrison-Saunders, Murdoch University	University of Pretoria, Makerere University	2013
Education leadership for knowledge society development	Associate Professor Mohammad Santally, University of Mauritius	Makerere University, Curtin University	2016
Empowerment in the workplace: An exploratory study of women in Africa	PI Professor Prem Ramburuth, University of New South Wales	Western Sydney University University of Pretoria University of Ibadan Makerere University	2018
Enabling a food-phosphorus-sanitation sustainability network	Dr Dana Cordell, University of Technology Sydney	University of Malawi- The Polytechnic University of Zambia	2018
Enhancing community farming systems via efficient soil-water-nutrient management regimes	Associate Professor Inakwu Odeh, University of Sydney	University of Nairobi, University of Ibadan, University of Ghana	2014
Estimation of rock size distributions using image analysis	Dr Anthony Amankwah, University of Ghana	University of Pretoria, Curtin University	2014
Food composition data for animal-source foods in sub-Saharan Africa	Professor Hettie Schonfeldt, University of Pretoria	University of Nairobi, University of Sydney	2016
Food safety risk profiling and monitoring of <i>Listeria monocytogenes</i> in environmental, retail and domestic settings in Africa and Australia	Professor Elna Buys, University of Pretoria	Murdoch University University of Nairobi University of Ghana Makerere University University of Mauritius	2018
Food security and antibiotic resistance in chicken processing industry in Australia and Africa	Dr Ranil Coorey, Curtin University	University of Ghana, Makere University, University of Nairobi, University of Pretoria	2016
Future legumes: Linking climate change and nutritional needs to agriculture principles	Professor Richard Harper, Murdoch University	University of Cape Town, Curtin University	2016
Harnessing the benefits of agro-biodiversity for sustained food security in the context of climate change and variability	Dr Peter Johnston, University of Cape Town	University of Malawi, Curtin University, University of Pretoria, University of Ibadan, University of Melbourne, University of Western Australia.	2013
Improved food security and biodiversity outcomes go hand-in-hand	Associate Professor Matt Hayward, University of Newcastle	University of Pretoria Makerere University	2018
Improved productivity, postharvest handling, safety and biosecurity of cowpeas/bambara groundnuts: A value chain analysis in eastern, western and southern Africa	Dr Casper Madakadze, University of Pretoria and Dr Amin Mugera, University of Western Australia	University of Cape Town, Murdoch University, University of Ibadan, University of Pretoria, Makerere University	2013
Integrated design of highly palatable extruded foods for nutrition, health and wellbeing using sustainable grains and legume fractions	Professor Kolawole Falade, University of Ibadan	University of Pretoria, Curtin University	2014
Integrated whole-of-grain utilisation of cereal-legume composite for extruded and other foods targeted at specific consumers' nutrition, health and wellbeing needs.	Professor Kolawole Falade, University of Ibadan	Curtin University, University of Pretoria,	2015

AAUN PROGRAMS – SUMMARY

Project Title	Principal Investigator(s)	AAUN Partner	Year
Mapping Australia-Africa partnerships in higher education	Professor Crain Soudien, University of Cape Town and Professor Anthony Welch University of Sydney	Makerere University, University of Pretoria	2014
Master of biosafety joint development project	Associate Professor Andrew Drinnan, University of Melbourne	University of Ghana, University of Nairobi,	2014
Monitoring and modelling of food security practices from retail to home in Australia and Africa	Dr Ranil Coorey, Curtin University	University of Ghana, Makerere University, University of Nairobi, University of Pretoria	2015
Minimising waste through value addition and preservation of fresh produce in Nigeria and Kenya	Professor Robyn McConchie University of Sydney	University of Ibadan	2016
Mining for a healthier community	Dr Helen Macdonald, University of Cape Town	University of Mauritius, University of Melbourne, University of Queensland	2014
Mobile-based information system for nutrition-driven agriculture	Professor Athula Ginige, Western Sydney University	University of Ibadan, University of Nairobi, University of Pretoria	2016
New plant breeding methods for sustainable use of genetic resources and security of food production	Professor Wallace Cowling, University of Western Australia	University of Mauritius, University of Pretoria, University of Sydney	2016
Phase 2: Investigating the nutritional value of locally harvested and processed mopane worms. An analysis of the value chain for indigenous edible insects and their potential role in mother and child nutrition in sub-Saharan Africa: focus on Mopane	Professor Mavis Mulaudzi, University of Pretoria	University of Zambia, University of Sydney	2015
Reducing hypertension in sub-Saharan Africa through salt reduction strategies	Associate Professor Karen Charlton, University of Wollongong	University of Ghana, University of Newcastle	2013
A study of the experiences of Ghana, Kenya and Mauritius with special economic zones (SEZ): Imperatives of law and economics	Dr Emmanuel Laryea, Monash University	University of Ghana, University of Nairobi, Murdoch University	2014
Surveillance and monitoring of food security for Africa: Proposal development	Dr Ranil Coorey, Curtin University	University of Ghana, University of Pretoria, University of Nairobi, Makerere University	2014
Urbanisation and its impact on peri-urban water and food security in Africa:	Professor Basant Maheshwari, Western Sydney University	Makerere University, University of Nairobi, University of Sydney	2016
Value chain analysis: Improved nutrition and health of children under 5 years and pregnant and lactating mothers via quality extruded foods with leaf and legume proteins	Associate Professor Kolawale Falade, University of Ibadan	University of Pretoria, Curtin University	2013
Where does your food come from? Food supply in the context of trade, agriculture and nutrition	Dr Joel Negin, University of Sydney	University of Pretoria, Makerere University	2014

OUR EVENTS 2017–2018

AAUN offers opportunities for researchers, educators and university leaders to establish new alliances, opportunities, programs and projects through fora and workshops in Australia and Africa.

AAUN Australia Forum 2017

The AAUN Australia Forum 2017, held on 4 September 2017 in Perth WA, focused on the theme 'Australia Africa Education Partnerships for Development'.

Hosted by the University of Western Australia and allied to Australia Africa Week and Africa Down Under, the forum attracted over 100 delegates from across Australia and Africa including prominent international researchers, High Commissioners, embassy representatives, government officials and business leaders.

The forum created opportunities for building equal partnerships in AAUN's key research areas and brought together researchers, embassy representatives, government officials and Heads of Mission to pool their strategic thinking and experience in developing the best priority programs for Australia and Africa.



Frans Swanepoel

AAUN Africa Forum 2017

On 3 December 2017, AAUN brought together 55 Australian and African expert participants from academia, government, diplomats, business and agencies to assess education and research partnerships for development, engagement of stakeholders, and building sustainable research and exchange programmes.

The forum was held alongside the 3rd International Conference on Global Food Security taking place 4-6 December. The UN Sustainable Development Goals (SDGs), The Africa Agenda 2063 and STISA 2024 provided a policy framework with mutual benefit to Africa and the world including Australia: shaping research, education and economic development. They should also provide resources to implement partnerships and programs.

AAUN fora and workshops are a key instrument for establishing and building these partnerships and programs.



Leah Ndungu

Joint AAUN Australia Awards Agricultural Research Symposium 2018

On 20-21 March 2018, the third annual Joint AAUN Australia Awards Agricultural Research Symposium was held at the Southern Sun Mayfair Hotel in Nairobi, Kenya.

The symposium was co-hosted by AAUN, ACIAR, the Australia Awards, the University of Nairobi and the University of Sydney. The Symposium is part of the Australia Awards Africa Short Course "Increasing the Development Impact of Agricultural Research" (IDIAR).

Funding for the program has been supplied by the Australian Government Department of Foreign Affairs and Trade and AAUN.

The event attracted approximately 100 participants from both Australia and Africa, including the 21 Awardees participating in the Australia Awards Africa short course 'Increasing the Development Impact of Agricultural Research' (IDIAR) funded by the Australian Government plus 33 Australia Awards alumni from 12 countries in Africa. In addition, Symposium participants included agricultural academics presenting in the IDIAR program from Australia and Africa, along with representatives from Nairobi-based agricultural research institutions, NGOs and the private sector.

AAUN Australia Forum 2018

More than a hundred leaders from academia, government, business, the diplomatic corps, development agencies and NGOs from across Africa and Australia met in Perth on 27 August to review the strengths of the Australia Africa Universities Network (AAUN) and to explore ways to extend its impact, programs, and partnerships.

Guided by the 2018 AAUN Forum and AGM theme, "Teamwork for Education and Economic Stability", presentations and discussion focused on global and national policy frameworks, knowledge diplomacy, and local opportunities for putting policy into practice. The scope and scale of programs were reported and challenged to deliver greater impact. Several new initiatives were proposed. The current strategies and instruments for research development, team building, mobility and funding were reviewed (see Future Directions, page 20).

The forum included a farewell to Co-Chair of AAUN (Africa) Professor de la Rey and the launch of the new AAUN-ACIAR (Australian Centre for International Agricultural Research) Partnership 2018–21. Co-Chair of AAUN (Australia), Professor John Hearn said "this knowledge partnership is a commitment to continued collaboration and stability, while building expert teams in projects of benefit to Africa and Australia".



Peter Mbithi



John Hearn and Jackie Mbonzi

STRATEGIC PLAN 2016 – 2018



The Australia Africa Universities Network (AAUN), as the only consortium of universities spanning Australia and Africa, has established itself to inject new vigour into the academic relationships between the two continents.

With the purpose of working together to find innovative, long lasting solutions for critical issues concerning both continents, the consortium has identified 4 areas of focus:

- Food and Nutrition Security
- Public Health
- Education
- Mining and Development

AAUN is establishing select, high calibre partnerships in research and academia and has begun mutual research capacity building in order to bring positive improvements to our areas of focus.

AAUN has secured vital relationships and teamwork with international agencies and business to help propel us to achieve our mission. As a means of further engagement with these strategic associations, and in order to cultivate new ones, AAUN has set to work on a comprehensive knowledge sharing portal via its website that offers intelligence and advisory services for government institutions, the corporate sector and media on Africa-Australia relationships and research.

VISION

High impact, strategic educational and research partnerships providing sustainable solutions to challenges jointly facing Australia and Africa

MISSION

To enhance targeted Africa-Australia partnerships through a network of collaborative research and education initiatives. AAUN improves the capacity and connectivity of academic talent across the two continents. Through working with research institutions, business and government, AAUN seeks to deliver sustainable solutions to our joint challenges.

VALUES

Innovation

Committed to growing and supporting a culture of innovation within its network.

Collaboration

Committed to fostering open and supportive collaborations for the benefit of our global community.

Equity

Committed to promoting equal partnerships between African and Australian research institutions.

Sustainability

Committed to being a leading advisory and advocate on sustainable solutions for issues affecting Australia and Africa.

OBJECTIVES & STRATEGIES

SCALE UP AFRICA-AUSTRALIA INSTITUTIONAL RESEARCH PARTNERSHIPS

- Convene two major annual Africa Fora, one on each continent, to drive Australia-Africa research and education priorities.
- Host joint targeted strategic workshops and conferences on our key areas of engagement.
- Expand the Partnership and Research Development Fund and attract new resources from governments and agencies.
- Introduce an Africa-Australia mobility fund to fuel the development of new research partnerships.

STRENGTHEN THE ACADEMIC AND LEADERSHIP CAPACITY OF OUR NETWORK'S PARTNERS

- Introduce a two-way research capacity building and training program.
- Promote and engage in the Australia Awards Africa scholarship programs.
- Provide support for African graduates or Awardees returning from international training or research programs, including supporting Australia-Africa alumni networks.
- Host an annual Presidents' Forum to drive actions that enhance our educational leadership capacity.

BE AN INFLUENTIAL VOICE IN POLICY MAKING ACROSS THE CRITICAL ISSUES AFFECTING AUSTRALIA AND AFRICA

- Produce a series of policy position papers on our six key areas of engagement.
- Engage with industry, government and civil society through conferences and events on joint Australia-Africa challenges.

PROVIDE AN INTELLIGENCE AND ADVISORY PORTAL FOR EXPERTISE ON AUSTRALIA-AFRICA ISSUES

- Create a 'one-stop-shop' intelligence and advisory portal for government institutions, the corporate sector, and media on Africa.
- Introduce Australia-Africa information service.

AAUN FUTURE DIRECTIONS 2018–2020

Each year our annual report

presents the current status of AAUN and the future directions adopted by the AGM. We thank all those who work with AAUN, and ask your continued engagement and energy in developing our research communities, allied activities in knowledge diplomacy, and the distinct advantages and benefits that can be achieved by the AAUN Partnership.

The Annual Forum and AGM

was in Perth on 27 August – linked to Australia Africa Week with numerous other activities including the Murdoch Africa Australia Research Forum, Africa Down Under Mining Conference, and DFAT Advisory Group on Australia Africa Relations (AGAAR). We will review and renew our AAUN Strategic Plan 2018–20. Among the issues and priorities to be agreed and implemented are:

1. Governance.

We need to strengthen the engagement and commitment of members, and add to our presence on each campus with the appointment of a part time coordinator working with the representative Vice President. Without this championship, we can lose members through inertia.

2. Membership.

While our membership overall remains stable, we have gains and a few losses. We will hold a membership drive in 2018-19 to attract new and past members in strengthening our core capacity. We will enhance our services to members and their return on investment with AAUN.

3. Research.

We are reviewing our portfolio of research teams and communities, asking how we can build longer term platforms that achieve sustainability in impact and the attraction of funds. We will seed-invest a few “resource bids” where we have competitive programs ready to compete for major funding.

4. Mobility.

We already see significant exchange of emerging and established researchers through the PRDF program, but could do much better if our members take the opportunities to “top up” travel bursaries and extend stays in partner laboratories and offices to strengthen research, planning and the attraction of resources. These minor investments in visits can deliver long term teams and success.

5. AAUN Global.

We should explore the expansion of AAUN with a few Global members/associates who can strengthen our capacity and competitiveness, as well as our access to funding agencies in Europe, the UK, USA, China and elsewhere. The number of such associates could be capped (5?) and by invitation only after unanimous agreement in the AAUN Steering Group.

6. Alliances.

AAUN has established several Knowledge Partnerships (see Chairs introduction). We can extend these where the resulting teamwork improves our reach and impact. We have met with ARUA, RUFORUM and others, and will do so again at the AAUN Africa Forum in Nairobi (date TBC). We can also put greater meaning into our working relationships with the OECD, World Health Organisation, British Council, Association of Commonwealth Universities, and others relevant to the AAUN plan.

7. Communications and Media.

Many of our members and knowledge partners are encouraging us in building profile and presence, using conventional and new media. We will bring a plan for action.

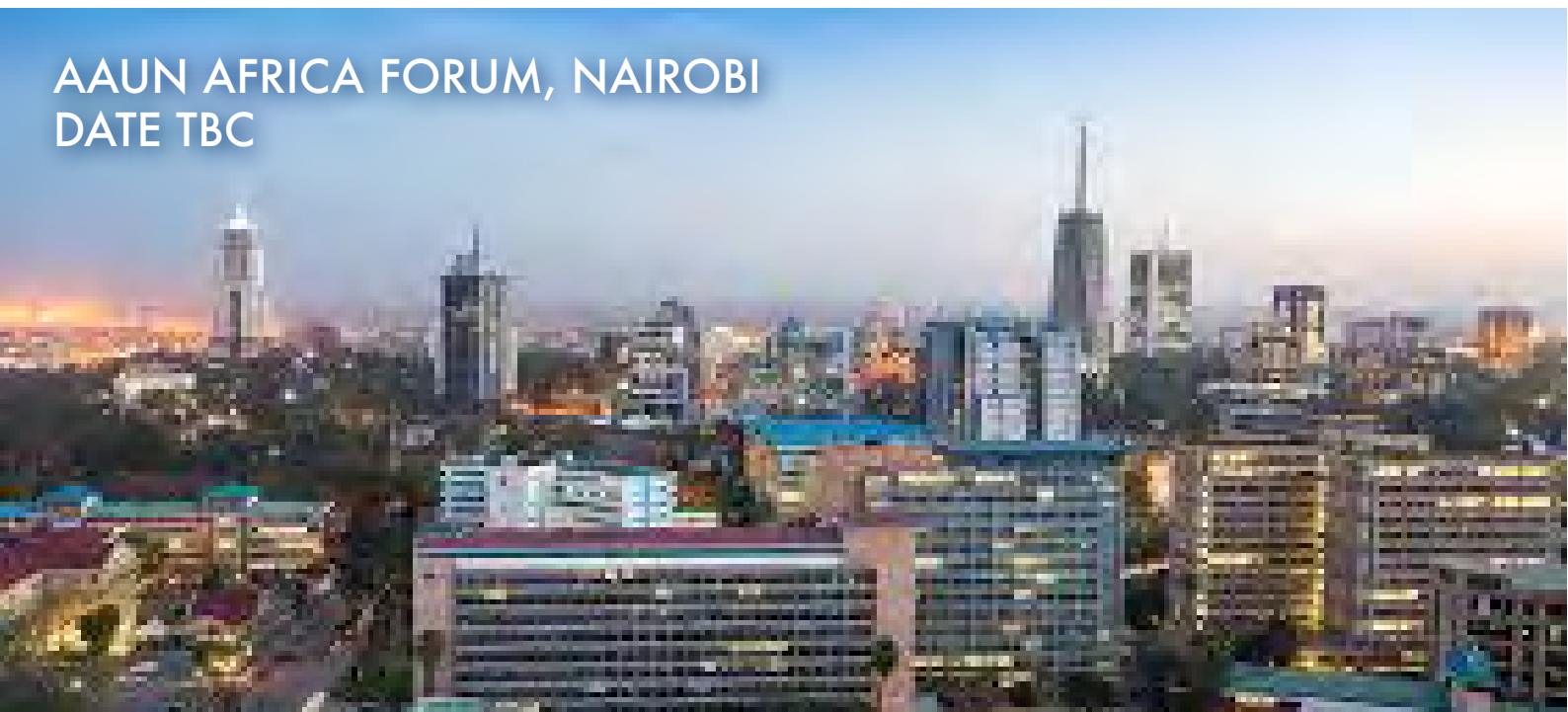
8. Assessment.

The AGM agreed that an assessment be carried out in early 2019 to review the quality and outcomes of AAUN in research and education, mobility and impact.

AAUN AUSTRALIA FORUM, PERTH
27-28 AUGUST 2018



AAUN AFRICA FORUM, NAIROBI
DATE TBC



JOINT AAUN AUSTRALIA AWARDS AGRICULTURAL RESEARCH
SYMPOSIUM, NAIROBI
2019, DATE TBC



AAUN AUSTRALIA AFRICA

UNIVERSITIES NETWORK



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD



UNIVERSITY OF GHANA



UNIVERSITY OF IBADAN

MAKERERE



UNIVERSITY



UNIVERSITY OF MAURITIUS



THE UNIVERSITY OF
MELBOURNE



Murdoch
UNIVERSITY



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



THE UNIVERSITY OF
SYDNEY



UNSW
AUSTRALIA



UTS

UNIVERSITY
OF TECHNOLOGY
SYDNEY



THE UNIVERSITY OF
WESTERN AUSTRALIA

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