

**ANNUAL REPORT 2016-17** 

## **OUR MEMBERS**

#### **AUSTRALIA**

**Curtin University** 

**Griffith University** 

Monash University

**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**

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.

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**KNOWLEDGE PARTNERS** 

## MESSAGE FROM THE CO-CHAIRS



Professor Cheryl de la Rey AAUN Chair, Africa



Professor John Hearn AAUN Chair, Australia

As AAUN reaches its fifth year since launch, it is time to assess the achievements, gains and losses, so that we can adapt and be more successful in future.

We take into consideration the new policy framework of the UN Sustainable Development Goals, Climate Accords, and disruptors including BREXIT and developments in the USA. There are also numerous developments within African Higher Education and Research that require adjustment in our equal partnerships between Australian and African Universities.

On the positive side, we have maintained almost all of our 20 partners over this period and are attracting new ones. We have initiated 35 research programs with our Partnership Research and Development Fund, an annual catalytic competition. We have held between 2-4 international conferences and strategic workshops each year, in Australia and Africa, enabling mobility and engagement. We have also created active communities of scholars who are ready to work together on mutual challenges in the areas of the environment, food and nutrition, public health, education and employment.

On the negative side, we have experienced predictable difficulties in communications and delivery, with disturbances in some countries. We must show stronger outcomes in publications, grants, evidence-based policy and team-building. In coming years, we have to build a higher level of capacity and reach, with distinct Australian-African delivery and impact.

As we hold our 2017 Forum and AGM in Perth on 4 September, we bring this draft annual report and our completing strategic plan to the attention of members, consulting and engaging all concerned in planning our future focus and impact. This will require further team-building between members, African networks such as ARUA and RUFORUM, and alliances with relevant NGOs, governments, business and alumni.

As we enter this next phase, we are also building closer alliances with our knowledge partners and sponsors in the Australian Government and elsewhere. These vital partnerships include DFAT and Australian Aid, ACIAR and the Department of Education and Training, the National Research Foundation of South Africa, plus explorations now with major international agencies and foundations. Close interaction with the Advisory Group on Australia Africa Relations assists in teamwork with government, bringing evidence-based policy options resulting from research into critical areas of need.

We thank all those who have given their time, effort, ideas and commitment to AAUN. In forging a distinct alliance and one that creates international opportunities for emerging and established researchers and educators, we look forward to further advancing knowledge and solutions to resolve our mutual challenges.

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**

Professor Garry T. Allison, Curtin
Professor Newell Johnson, Griffith
Professor Simon Evans, Melbourne
Ms Joanna Donagan, Monash
Professor Abid Khan, Monash
Dr Emmanuel Laryea, Monash
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

Project & Communications Coordinator/Australian Volunteer

Ms Joanna Penney, 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



## **OUR RESEARCH**

The Partnership & 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 HIGHLIGHTS

Food security and antibiotic resistance in the chicken processing industry in Australia and Africa

Food security begins with ensuring food safety, say the researchers behind this initiative to reduce food-borne illness.

Every year, over 90 million Africans become sick as a result of food-borne illness and over 100,000 die from it. Chicken meat poses a heightened risk since it is not always slaughtered in registered abattoirs. To address the problem, PI Dr Ranil Coorey (Curtin) joined forces with scholars from Curtin, Pretoria, Ghana, Makerere and Nairobi. An initial workshop brought all the team members together to develop a plan for gathering data and review the current practices within the Australian and African chicken processing industries. The team met again in South Africa in May 2015 and developed the strategic plan. Data gathering is now complete and the results of the research are to be published soon. The team has also prepared literature reviews exploring compliance with food safety regulations and the impact of cooling rate on food safety. The initiative has also enabled several emerging researchers to embark on closely related projects. One of these is a PhD candidate at Pretoria funded by the Third World Woman in Science program; another is a postdoctoral researcher funded for two years by that university's fellowship scheme; the third is an Australian Government-supported Endeavour Research Fellow based at Curtin, and the final two are Masters students.



#### **OUTCOMES**

Two invited keynote presentations at which findings were disseminated (Durban, 2015; Pretoria 2016)

Five related projects being undertaken in postgraduate/ post-doctoral research projects

**Dr Angela Parry-Hanson Kunadu (Ghana)** secured
USD 11,000 for her case
study on food safety in
Accra.



# Where does your food come from? Food supply in the context of trade, agriculture and nutrition

In Africa, as in South Asia, malnutrition appears in two very different forms: there is the ongoing problem of widespread under-nutrition but also the emerging phenomenon of obesity and the non-communicable diseases associated with it. This initiative led by Sydney's **Dr Joel Negin**, in collaboration with six scholars from Sydney, Pretoria and Makerere, is tackling this challenge with an approach based on bringing together analysis of the supply chain with insights into how consumers make their food-buying decisions. In December 2016, the collaboration's work appeared in the journal <u>Public Health Nutrition</u>.

#### OUTCOME

Commentary published in Public Health Nutrition, December 2016



#### Academics without doctorates: an investigation into the nature and extent of underqualification of academics in South Africa, Mauritius and Australia and strategies and policies to address the issue

Many African countries are increasing their intake of doctoral students, but this requires a larger pool of academics with PhDs to supervise them, who are often in short supply.

This results in the challenging issue of under-qualification among academic staff at African universities. Meanwhile, while a much higher proportion of academics hold PhDs in Australia, specific disciplines face similar issues of under-qualification. In this study, Cape Town's **Dr Mignonne Breier** joins **Dr Lorraine Towers** (Sydney) and **Professor Chaya Herman** (Pretoria) as joint Pls to examine academic qualification issues in South Africa, Mauritius and Australia.

The research is based on quantitative survey data and qualitative interviews with academics who do not have PhDs. The group has produced one journal article that was accepted for publication in Higher Education Quarterly.

Another paper based on interviews in Australia and South Africa is in progress, and the researchers will promote the findings at conferences on both continents. "Our vision is to bring about a step-change in higher education to ensure a consistent pipeline of talent for African academia," says Dr Breier.

#### OUTCOME

Peer-reviewed paper exploring the topic accepted by Higher Education Quarterly (in press)

# Higher education in Kenya: an assessment of current responses to the imperative of widening access

#### What policies are needed to improve access and equity in Kenya's university system?

Widening access to education in Kenya and alleviating poverty are two closely related issues central to achieving the UN's Sustainable Development Goals (SDGs). In a research project funded by the AAUN that culminated in **publication in the Journal of Higher Education, Dr George Odhiambo** (Sydney) explored the way forward for reforming higher education policies in Kenya to broaden access and advance equity.

Several urgent priorities are apparent in the report. Dr Odhiambo pointed to the need for programmes and policies focusing on improving access to quality secondary education experiences; increasing aspirations and application to higher education; and the improvement of policies on financial support to disadvantaged students through the already existing Higher Education Loans Board. The paper concludes with a number of recommendations including a new revenue allocation particularly to the rising numbers of higher education aspirants from low income, rural, ethnic minorities and women.

"The key challenges include facilitating the participation of students from diverse background who in some cases are disadvantaged," says Dr Odhiambo. "Improving access and student experiences at secondary school levels of education are also vital," he says. "There is no magic bullet".

#### OUTCOME

Peer-reviewed paper on higher education policy in Kenya published in the Journal of Higher Education Policy and Management, 2016



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# A Study of the Experiences of Ghana, Kenya and Mauritius with Special Economic Zone (SEZ): Imperatives of Law and Economics

This collaboration between scholars from Monash, Ghana, Nairobi, Mauritius and Murdoch seeks to understand the critical success factors for Special Economic Zones in Africa.

Special Economic Zones are designated areas within a country where the economic regulations and laws are different from those applied to the rest of the region. If implemented effectively, such zones can be powerful tools in achieving growth and development; but failures in planning and execution can result in a range of detrimental impacts.

In this project, PI **Dr Emmanuel Laryea** from Monash leads a broad-based team focused on learning the lessons from three successful Special Economic Zones established in Ghana, Kenya, and Mauritius. The study will allow the researchers to develop proposals for a more effective use of these zones both in those three countries and, potentially, in other African nations as well. A key focus will be on the law and policy frameworks best suited to success, says Dr Laryea, and the specific economic and legal contexts of the countries being studied.

Since funding was awarded by AAUN in 2015, the collaborators have explored various aspects of this topic relevant to their expertise, with a 2016 symposium at Nairobi providing an opportunity to present findings to academics and policy makers. Next, the team aims to seek further funding to conduct a detailed investigation into the effect of law and foreign investment policy on development and the success of zones in regional areas.

#### **OUTCOMES**

Symposium held at the University of Nairobi's law school, 2016

Paper submitted to the **Journal of African Law**, with two further submissions underway

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# 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

Mopane worms are a traditional food in southern Africa and represent an important source of protein for the communities who harvest them. But climate change is putting at risk this important edible insect food.

This study led by Pretoria's **Professor Mavis Mulaudzi**, together with collaborators from Sydney, Zambia and Makerere, puts the spotlight on the potential role of the mopane worm in boosting nutrition security in Eastern and Southern Africa. Researchers have undertaken a situational analysis of mopane worm production in South Africa, Zambia, Uganda and Malawi, holding a series of focus groups and workshops. The team is now in the data analysis phase, studying the value chain and the nutrients in mopane worms that can support maternal and infant health.

#### **OUTCOMES**

Symposium held at Nairobi's Law school, 2016

Poster presentation at One Health EcoHealth, Melbourne, 2016

Paper on mopane worms published in Indilinga: the African Journal of Indigenous Knowledge Systems; another submitted to the Journal of African Law

# SWEET POTATO HANDLING TECHNOLOGIES FOR IMPROVED SAFETY AND QUALITY OF FRESH AND PROCESSED FORMS

Could the humble sweet potato hold the key to boosting food security in the climate change era? That's the hope of Nairobi's George Ooko Abong and 10 collaborators, who published a review of sweet potato production and marketing in Kenya and Uganda in *Current Research in Nutrition and Food Science* in 2016.

## **NEW RESEARCH: 2017 PRDF**

In the 2017 round, there were 16 applications to the Fund. Of those, the nine projects below were allocated funding. For a full summary of the rest of AAUN's funded activities, please refer to page 17.

# Development of millet-based functional food products for the prevention and management of obesity and diabetes

The risk of diabetes and obesity, and other chronic diseases, can be reduced by eating more of certain grains, fruits and vegetables due to their dietary fibre and nutrient content. This project, led by Professor Vijay Jayasena of WSU, aim to develop develop a range of food products using millet, soursop, onion and other raw materials found in Australia and Africa whose nutrients and bioactive compounds reduce disease risk in a similar way.

#### Education Leadership for knowledge society development

Led by PI Associate Professor Mohammad Santally of Mauritius, this project will conduct a series of capacity-building workshops with educators in Mauritius, with themes including leadership and teaching with technology. The aim is to create a pool of potential change agents to help build the vision of a knowledge society.

#### Food composition data for animal-sourced foods in sub-Saharan Africa

The vision of this nutrition security project, which is led by Pretoria's Professor Hettie Schonfeldt, is to create a centralised, open-access repository of nutrition data for animal-derived foodstuffs in Africa, with the information gathered from a wide variety of disparate studies.

## Food security and antibiotic resistance in the chicken processing industry in Australia and Africa

This new exploration of the issues surrounding chicken meat in Africa grows out of the earlier PRDF-funded project described on page 4. In this initiative, the five universities — Curtin, Pretoria, Ghana, Makerere and Nairobi — will shift their focus to the rise of antibiotic resistance in the chicken processing industry both in Australia and across Africa.





#### Future legumes: linking climate change and nutritional needs to agriculture

Led by Murdoch's Professor Richard Harper, this capacity-building project aims to pilot a model for research training and collaboration between AAUN member universities. It is part of a larger international initiative focussed on how legume crops can strengthen food security in the era of climate change.

# Minimising waste through value addition and preservation of fresh produce in Nigeria and Kenya

Huge quantities of food crops every year are wasted during the journey from the field to the consumer's mouth. Losses occur during the harvest, when crops are handled and sorted, and in transport. Professor Robyn McConchie leads a team of AAUN and outside partners focussed on two ways of reducing fresh produce waste: value-adding and preservation.

#### Mobile-based information system for nutrition-driven agriculture

A clever utilisation of mobile connectivity drives this project led by Professor Athula Ginige from Western Sydney. The goal is to provide African farmers with localised advice on crop varieties that enhance nutrition. The aim is to minimise 'hidden hunger' in rural communities.

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

In this plant science collaboration, Professor Wallace Cowling and collaborators are critically evaluating new methods of crop breeding that arise from animal breeding with a view to selecting methods that bolster food security.

# Urbanisation and its impact on peri-urban water and food security in Africa: developing research collaboration and capacity building

Led by PI Professor Basant Maheshwari from WSU, this project examines complex changes in land use associated with urbanisation from the perspectives of the community, government policy and the environment. The aim is to identify knowledge gaps that can be filled can be filled, leading to significant improvements in water and food security in African cities.

## **OUR EVENTS 2016-17**

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 International Africa Forum Cape Town, 5-6 May 2016

The focus for the 2016 International Africa Forum was "challenges of higher education in an African context". Each year, AAUN furthers its agenda by bringing together key stakeholders at strategic planning forums in both Africa and Australia. Our 2016 International Africa Forum was held in Cape Town, South Africa from 5-6 May. The Forum was also an official session for the British Council's "Going Global" conference.

With AAUN having established a growing slate of active research, the Forum sought to facilitate deeper collaboration on existing projects and also develop ideas for new initiatives. It also provided an opportunity for scholars to broaden their networks in order to bring their research visions to reality.

The forum's major theme, explored in a session chaired by Professor Kadambot Siddique (UWA), was the practical implementation of the UN Sustainable Development Goals (SDGs) in the field of higher education and education. A session chaired by Professor Sheryl Hendriks (Pretoria) articulated the relevance of university partnerships to the SDGs in other pivotal issues such as food security and climate change.

In 2017, the Africa Forum will coincide with the 3rd International Global Food Security Conference, held in Cape Town from 4 to 6 December.

Developing
competitive
researchers,
teachers and
future leaders
must be a core
priority for
universities
and national
governments







# AGM and Australia Africa Forum Perth, 5 September 2016

Finding practical ways to implement the UN's SDGs was the theme of the 2016 Australia-based forum. This edition of the Australia Africa Forum saw delegates convene in Perth on 5 September. As is customary for AAUN events, the forum coincided with our Annual General Meeting, as well as the DFAT Australia-Africa Week and the Australia Down Under Conference.

The United Nation's Sustainable Development Goals are highly relevant to AAUN and its partners, resulting in a wide range of programs with mutual benefit to Africa and Australia across areas such as education, environment, food and nutrition, public health, securities and evidence-based policy. At the forum's morning session, representatives from academia as well as government and business came together to discuss the opportunities for collaboration between Australia and Africa in these areas as well as the policy framework that applies and the potential challenges.

The afternoon session was devoted to a practical discussion of current and future research. Delegates also explored AAUN's strategic priorities and potential synergies with other networks such as the Worldwide Universities Network and the Association of Commonwealth Universities.

#### **AAUN Members Day 2017**

On 11 July 2017, AAUN organised an AAUN Members Day at UNSW for its East Coast members: an initiative to introduce researchers from member universities, showcasing research and exploring interests and synergies.

More than 20 researchers from UNSW, UON, UTS and WSU presented their projects. Government was represented through the Assistant Secretary at the Department of Foreign Affairs and Trade (DFAT). We expect new programs to emerge from the foundations that were laid on this day. This meeting is a prototype for similar meetings in other states.

The next AAUN Members Day will be held in Canberra in July 2018 (TBC).



### Agricultural Research Symposium 2016

A key highlight of the past year was the joint workshop convened by AAUN and the Australia Awards (the global leadership program run by Australia's Department of Foreign Affairs) held on 16 November 2016 at the Southern Sun Mayfair Hotel in Nairobi, Kenya.

This was the second year of the high-profile event, which is co-hosted by the University of Nairobi and the University of Sydney. In attendance at the opening session on innovations for agriculture was the Hon Willy Bett, Kenya's Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries; and the Australian High Commissioner to Kenya, His Excellency John Feakes.

Over 65 symposium attendees from both Australia and Africa broadened their understanding of Australia-Africa agricultural research links, and developed new collaborations in the vital topic area of agricultural research and its impact on economic development. This number included some 26 participants in the Australia Awards Africa short course "Increasing the Development Impact of Agricultural Research" (IDIAR). Other attendees included agricultural academics presenting in the IDIAR program from Australia and Africa, along with representatives from Nairobi-based agricultural research institutions and the private sector.

A further workshop in this series is planned in Nairobi on 20-21 March 2018.



#### AAUN Australia Forum and AGM 2017, Perth, 4 September 2017

'Australia-Africa Education Partnerships for Development' was the theme of the 2017 Australia-based forum.

Sessions of this day included 'Practical implementation of the UN Sustainable Development Goals in Higher Education, Research, Entrepreneurism, Employment and the role of Networks in achieving these goals; 'Security: Environment, food, nutrition, health'; and 'The Synergies between Africa-Australia-China in Education, Extractives, and Business'.

Please visit this page for the communiqué and presentations.



## STRATEGIC PLAN 2017-20



This Strategic Plan runs until 31 December 2017.

A new Strategic Plan 2018-20 is currently being developed in consultion with all members.

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 four focus areas:

**Food & Nutrition Security** 

**Public Health** 

Education

Mining & 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 & 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.

## **MISSION**

#### Innovation

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

#### Collaboration

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

#### Equity

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

#### Sustainability

Committed to being a leading advisory & advocate on sustainable solutions for issues affecting Australia & 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 & 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<br>across the critical issues affecting Australia<br>and Africa | Produce a series of policy position papers on our six key areas or 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.                                                                                                                      |

## **FUTURE DIRECTIONS 2017-20**

During 2017 the AAUN steering group and stakeholders have considered carefully the changing factors that will influence Australia Africa engagement and our own strategic plan for 2018-20.

Policy Framework. The UN Strategic Development Goals; Climate and other policies at international and regional levels; the China Belt and Road initiatives; and the Australian Foreign Policy paper that is due soon; assist in grounding our programs. The development within Africa of new alliances, policies, instruments and investments in higher education and research will also shape the optimal returns on investment and impact from AAUN. We expect a dynamic environment, and must be resilient and fit to operate.

Planning and Priorities. The AAUN AGMs in 2016 and 2017 included reviews of our major themes in research, education and mobility, reflecting the support and funding of our sponsors and knowledge partners. There were calls for greater alignment with the SDGs and responses to them in our sectors of work in education and economic development; engagement with entrepreneurism and employment of graduates; further focus on the empowerment of women and their advancement in university leadership; and continuing exchange programs to support African and Australian researchers in their early and middle careers. A focus area is in Australia-Africa-China synergies.

Partnerships and Teams. AAUN will weld closer engagement through joint courses (with DFAT Africa Awards), dual degrees with appropriate accreditation, and short term training on vital skills. These initiatives require leadership and commitment between our partners, and are likely to be built best on bi- or tri-lateral agreements: they are not easy to achieve. Accreditation issues are best resolved when simplified to fewer partners. We want stronger knowledge partnerships, with additional members in Africa and Australia, as well as a team approach with other research alliances (ARUA, RUFORUM, WUN), government, business, alumni, international agencies and NGO's.

Partnership Research and Development Fund (PRDF). AAUN has carried out a survey of its members and stakeholders to help shape the next strategic plan. This plan will be produced by end of 2017. Our call for PRDF proposals in February 2018 will take account of the adopted future directions.

**People and Mobility.** AAUN is proud of the growing number of leaders and scholarly research teams and programs that are the most tangible and enduring evidence of our success. We encourage those involved to persist with their engagement and commitment, even when adverse events distract or delay implementation and progress. We thank all who engage with and build the success of AAUN.

Resources and Funding. AAUN programs and initiatives become sustainable only with the attraction of additional resources, including funding. Without this, the future of AAUN is not viable in the longer term. High ambitions and visions are easy, but must be matched by the resources and instruments to deliver within clear time lines. We will increase our efforts in attracting major international funds, based on the now established research platforms and interdisciplinary teams.

## AAUN PROJECTS — SUMMARY

| Project Title                                                                                                                                                    | Principal Investigator(s)                                                                                                                                             | AAUN Partner                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Academics without doctorates: underqualification of academics in South Africa, Mauritius and Australia and strategies & policies to address the issue            | Dr Mignonne Breier, University<br>of Cape Town, Dr Lorraine<br>Towers University of Sydney                                                                            | Monash University, University of Mauritius, University of Pretoria                                                                                                                                                     |
| Agro-diverse farming systems in Africa:<br>Potential for improving food and nutritional<br>security in the context of climate variability and<br>change          | Dr Peter Johnston, Cape Town,<br>Professor Janet Bornman,<br>Curtin & Professor Richard<br>Warrick, Curtin                                                            | University of Ibadan,<br>University of Pretoria,<br>University of Western Australia                                                                                                                                    |
| Assessing the benefits of agro-biodiversity in the context of climate variability and change                                                                     | Dr Peter Johnston, Cape Town,<br>Professor Janet Bornman,<br>Curtin & Professor Richard<br>Warrick, Curtin                                                            | University of Ibadan,<br>University of Pretoria,<br>University of Western Australia                                                                                                                                    |
| 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,<br>University of Pretoria                                                                                                                   | Makerere University,<br>University of Zambia,<br>University of Sydney                                                                                                                                                  |
| Building an AAUN coalition to support improved nutrition and health of children under 5, pregnant and lactating mothers                                          | Associate Professor Robyn<br>Alders, University of Sydney,<br>Professor A Oelofse, University<br>of Cape Town,<br>Professor Mavis Mulaudzi,<br>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 |
| Developing and retaining the next generation of academics and researchers                                                                                        | Associate Professor<br>Mbulungeni Madiba,<br>University of Cape Town                                                                                                  | University of Mauritius,<br>University of Pretoria, Monash<br>University, University of<br>Sydney                                                                                                                      |
| Development of millet-based functional food products for the prevention and management of obesity and diabetes                                                   | Professor Vijay Jayasena,<br>Western Sydney University                                                                                                                | University of Ghana,<br>University of Ibadan,<br>University of Zambia                                                                                                                                                  |
| Development of sweet potato postharvest<br>handling technologies for improved safety and<br>quality of fresh and processed forms                                 | Dr George Abong',<br>University of Nairobi                                                                                                                            | Makerere University,<br>University of Queensland                                                                                                                                                                       |
| Effectiveness of photosensitisation in controlling aflatoxins in maize                                                                                           | Associate Professor Angus<br>Morrison-Saunders, Murdoch<br>University                                                                                                 | University of Pretoria,<br>Makerere University                                                                                                                                                                         |
| Education leadership for knowledge society development                                                                                                           | Associate Professor<br>Mohammad Santally,<br>University of Mauritius                                                                                                  | Makerere University,<br>Curtin University                                                                                                                                                                              |
| Enhancing community farming systems via efficient soil-water-nutrient management regimes                                                                         | Associate Professor Inakwu<br>Odeh, University of Sydney                                                                                                              | University of Nairobi,<br>University of Ibadan,<br>University of Ghana                                                                                                                                                 |
| Estimation of rock size distributions using image analysis                                                                                                       | Dr Anthony Amankwah,<br>University of Ghana                                                                                                                           | University of Pretoria,<br>Curtin University                                                                                                                                                                           |

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# AAUN PROJECTS — SUMMARY

| Project Title                                                                                                                                                        | Principal Investigator(s)                                                                                  | AAUN Partner                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Evaluating effectiveness of photosensitization in controlling aflatoxins accumulation in maize                                                                       | Professor Shelia Okoth,<br>University of Nairobi                                                           | University of Queensland,<br>Murdoch University                                                                                          |
| Food composition data for animal-source foods in sub-Saharan Africa                                                                                                  | Professor Hettie Schonfelt,<br>University of Pretoria                                                      | University of Nairobi,<br>University of Sydney                                                                                           |
| Food security and antibiotic resistance in chicken processing industry in Australia and Africa                                                                       | Dr Ranil Coorey,<br>Curtin University                                                                      | University of Ghana, Makere<br>University, University of<br>Nairobi, University of Pretoria                                              |
| Future legumes: Linking climate change and nutritional needs to agriculture principles                                                                               | Professor Richard Harper,<br>Murdoch University                                                            | University of Cape Town,<br>Curtin University                                                                                            |
| 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<br>University, Univ. of Pretoria,<br>Univ. of Ibadan, Univ. of<br>Melbourne, Univ. of Western<br>Australia. |
| Improved productivity, postharvest handling, safety and biosecurity of cowpeas/bambara groundnuts: A value chain analysis in eastern, western and southern Africa    | Dr Casper Madakadze,<br>University of Pretoria & Dr<br>Amin Mugera, University<br>of Western Australia     | University of Cape Town,<br>Murdoch University, University<br>of Ibadan,<br>University of Pretoria,<br>Makerere University               |
| Integrated design of highly palatable extruded foods for nutrition, health & wellbeing using sustainable grains and legume fractions                                 | Professor Kolawole Falade,<br>University of Ibadan                                                         | University of Pretoria,<br>Curtin University                                                                                             |
| 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,<br>University of Ibadan                                                         | Curtin University,<br>University of Pretoria,                                                                                            |
| Integrating HIV & gender issues into environmental assessments for Australian mining companies operating in Africa                                                   | Associate Professor Angus<br>Morrison Saunders, Murdoch<br>University                                      | University of Pretoria,<br>Makerere University<br>University of Pretoria                                                                 |
| Mapping Australia-Africa partnerships in higher education                                                                                                            | Professor Crain Soudien,<br>University of Cape Town and<br>Professor Anthony Welch<br>University of Sydney | Makerere University,<br>University of Pretoria                                                                                           |
| Master of biosafety joint development project                                                                                                                        | Associate Professor<br>Andrew Drinnan,<br>University of Melbourne                                          | University of Ghana,<br>University of Nairobi,                                                                                           |
| Monitoring and modelling of food security practices from retail to home in Australia and Africa                                                                      | Dr Ranil Coorey, Curtin<br>University                                                                      | University of Ghana, Makerere<br>University, University of<br>Nairobi, University of Pretoria                                            |
| Minimising waste through value addition and preservation of fresh produce in Nigeria and Kenya                                                                       | Professor Robyn McConchie<br>University of Sydney                                                          | University of Ibadan                                                                                                                     |

# AAUN PROJECTS — SUMMARY

| Project Title                                                                                                                                                                                                                                            | Principal Investigator(s)                                                   | AAUN Partner                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Mining for a healthier community                                                                                                                                                                                                                         | Dr Helen Macdonald,<br>University of Cape Town                              | University of Mauritius,<br>University of Melbourne,<br>University of Queensland                 |
| Mobile-based information system for nutrition-driven agriculture                                                                                                                                                                                         | Professor Atula Ginige,<br>Western Sydney University                        | University of Ibadan,<br>University of Nairobi,<br>University of Pretoria                        |
| New plant breeding methods for sustainable use of genetic resources and security of food production                                                                                                                                                      | Professor Wallace Cowling,<br>University of Western<br>Australia            | University of Mauritius,<br>University of Pretoria,<br>University of Sydney                      |
| 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,<br>University of Pretoria                         | University of Zambia,<br>University of Sydney                                                    |
| Reducing hypertension in sub-Saharan Africa through salt reduction strategies                                                                                                                                                                            | Associate Professor Karen<br>Charlton, University of<br>Wollongong          | University of Ghana,<br>University of Newcastle                                                  |
| A study of the experiences of Ghana, Kenya and<br>Mauritius with special economic zones (SEZ):<br>Imperatives of law and economics                                                                                                                       | Dr Emmanuel Laryea,<br>Monash University                                    | University of Ghana,<br>University of Nairobi, Murdoch<br>University                             |
| Surveillance and monitoring of food security for Africa: Proposal development                                                                                                                                                                            | Dr Ranil Coorey, Curtin<br>University                                       | University of Ghana,<br>University of Pretoria,<br>University of Nairobi,<br>Makerere University |
| 21st century skills for educators: Rapid<br>e-learning tools to develop interactive learning<br>materials                                                                                                                                                | Associate Professor<br>Mohammad Issack Santally,<br>University of Mauritius | Makerere University,<br>Curtin University                                                        |
| Urbanisation and its impact on peri-urban water and food security in Africa:                                                                                                                                                                             | Professor Basant Maheshwari,<br>Western Sydney University                   | Makerere University,<br>University of Nairobi,<br>University of Sydney                           |
| Value chain analysis: Improved nutrition & health of children under 5 years and pregnant & lactating mothers via quality extruded foods with leaf and legume proteins                                                                                    | Associate Professor<br>Kolawale Falade,<br>University of Ibadan             | University of Pretoria,<br>Curtin University                                                     |
| 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,<br>Makerere University                                                   |

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# AAUNIVERSITIES NETWORK











































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## **CONTACT US TODAY OR VISIT AAUN.EDU.AU**

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