

LIRA 2030 – Phase 2 projects awarded

As part of the 5-year “Leading Integrated Research for Agenda (LIRA) 2030 in Africa” programme, ICSU-NASAC-ISSC launched a call for pre-proposals on the “Advancing the Sustainable Development Goal 11 in Africa”. Following the call, 35 pre-proposals were selected to attend a training event on transdisciplinary research (TDR), and this took place on 28 August – 1 September 2017 in Kampala, Uganda. The training which was held at Makerere University targeted 35 early career researchers who submitted proposals and were selected. The training aimed at strengthening scientific capacity to undertake TD research, to enable researchers to build meaningful inter- and trans-disciplinary projects, to support the development of full proposals and to strengthen science communication skills. The workshop enabled the trainees to work on their pre-proposals in order to refine them to full proposal status using integrated approach and TD methodology.

Following submission of the full proposals, below is the list of the proposals that have been awarded and the lead researcher for each project.

Peter Elias, University of Lagos, Nigeria	Standardizing City-Level Data-Gathering towards Achieving Sustainable Development Goal 11 in Africa (SCiLeD)
Sylvia Croese, University of Cape Town, South Africa	“Co-producing urban knowledge in Angola & Mozambique through community-led data collection: towards meeting SDG 11”
Dickson Wilson Lwetoijera, Ifakara Health Institute, Tanzania	Integrating sustainable water and sanitation solutions to create safer, more inclusive and climate resilient cities in Tanzania and South Africa
Simiyu Sheillah, Great Lakes Univesity, Kisumu	Management of shared sanitation facilities in informal settlements of Kisumu, Kenya and Kumasi, Ghana
Madelein Stoffberg, Namibia University of Science and Technology, Namibia	Community led upgrading of informal settlements
Tolu Oni, University of Cape Town, South Africa	Integration of housing and health policies for inclusive, sustainable African cities
Justin Visagie, Human Science Research Council, South Africa	Realising the potential of urban density to create more prosperous and liveable informal settlements in Africa
Alice McClure, Climate Systems Analysis Group (CSAG), University of Cape Town (UCT), South Africa	Transforming southern African cities in a changing climate

Safietou Sanfo, WASCAL, Burkina Faso	Green Spaces and Repurposing Waste: Building Capacities for Resilience in Urban and Peri-urban West Africa (GREEN BUILDERS)
Buyana Kareem, Makerere University, Uganda	Co-creating an Urban Framework for Localised Norms on Sustainable Energy
Phumlani Stanley Nkontwana, Stellenbosch University, South Africa	Bridging Decentralized Energy Planning with Neighborhood-Level Innovations in Cities of Africa: Case studies from Ghana and South Africa

From the President



With great pleasure, I present you Volume 5 Issue 1 of ***The Science Networker***.

As from the previous bulletins, I am pleased to provide you with an update of what

NASAC has been embarking on in the past half of the year 2018 and the activities that we have in store for the remainder of the year.

Under phase II of the five-year NASAC-ICSU-ISSC “Leading Integrated Research for Agenda (LIRA) 2030 in Africa” programme, on the *Advancing the Sustainable Development Goal 11 in Africa* eleven (11) proposals were successful and have been awarded grants after going through a rigorous evaluation process. The awardees will each receive a grant worth €90,000 for their collaborative research projects over a period of two years.

As part of this program, a third call for pre-proposals on Pathways towards Sustainable African Urban Development was launched this year and the pre-proposals submitted are currently undergoing scientific review. NASAC in collaboration with ICSU and ISSC purposes to encourage young researchers in their innovative pursuits through this program.

In March 2018, NASAC in collaboration with the French Academy of Sciences and the Bill and

Melinda Gates Foundation held an International Forum on “*Women and Sustainable Development in Africa*”. The Forum which was hosted by the Tanzania Academy of Sciences in Dar es Salaam, Tanzania was held from 8-10 March 2018.

The main outcome of the International Forum which was attended by over 170 participants was the **Dar es Salaam Declaration**. The Declaration highlights the role of African women. African women should take part in the development of the African continent.

It calls on policymakers and international institutions to take actions for the empowerment of women in Africa by investing in the education of girls. I encourage you to read on to learn more about the Declaration and the International Forum.

In closing, I would again like to thank sincerely NASAC members and stakeholders for their continued support to the Network as we continue to be the voice of Science in Africa.

May I wish all of you a fruitful and joyous remaining part of year 2018.

Sincerely,

PROF. MOSTAPHA BOUSSMINA

President of the NASAC Board

Recent Activities and Events

“Leading Integrated Research for Agenda (LIRA) 2030 in Africa” programme Scientific Advisory Committee Meeting (SAC)

The LIRA Scientific Advisory Committee, which includes scientists from Africa, stakeholder representatives and leadership representatives of all partners involved in the LIRA programme meets every year to define the programme’s scientific strategy, make research funding decisions based on the review of research proposals and agree on the further development of the programme.

In 2018, the SAC members met in Lilongwe, Malawi, on 8-9 February.

The key objectives of the meeting were to:

- Review the progress of the programme in 2017 and of research projects that were selected in early 2017;
- Select projects to be supported in February 2018;
- Define scientific priorities for the third call in 2018; and
- Advise on the programme development.

As part of the meeting, the members planned to organize a scientific outreach event at the Lilongwe University of Agriculture & Natural Resources. The event will focus on how science in Africa can advance sustainable urban development in the region.

Halle editorial meeting of IAP project “Food and Nutrition Security and Agriculture”

The editorial meeting of the IAP project "Food and Nutrition Security and Agriculture" was held from 12-14 February 2018 in Halle, Germany. Representatives of the four Regional Academies’ Networks met to update and provide progress in the publication and dissemination of the four Regional FNSA Reports. They also had an opportunity to review the draft of the Global FNSA Report and to agree on its main conclusions and recommendations.

Member academies at the meeting agreed that each of them have the responsibility for disseminating the reports in their own countries. This responsibility would include customising the press releases, translating the recommendations/ lay summaries, contacting national stakeholders and organising local events. Members agreed that there was a need for each member academy to develop a media package help in achieving maximum impact. Key messages should be clear and consistent across all dissemination activities.

Fourth Session of the African Regional Forum on Sustainable Development (ARFSD)

NASAC participated at the fourth session of the African Regional Forum on Sustainable Development (ARFSD) that was held at the King Fahd Palace Hotel in Dakar, Senegal from 2-4 May 2018.

The objective of the forum was:

- to conduct a regional follow-up and review of the implementation of the 2030 Agenda and Agenda 2063 and facilitate learning, including sharing experiences and lessons learned to advance their implementation with a particular focus on the selected Sustainable Development Goals for the 2018 High-level Political Forum and the corresponding goals of the First 10-year Implementation Plan of Agenda 2063.

The specific objectives of the Regional Forum were to:

- Carry out a regional follow-up to and review of the implementation of the two agendas and address challenges and opportunities associated with the implementation;
- Provide a platform for peer learning and sharing experiences, good practices and lessons learned to accelerate implementation of the two agendas;
- Deliberate and agree on the priorities and recommendations of Africa in the form of key messages as the region's collective input to the 2018 High-level Political Forum session.

LIRA Project Coaching Workshop

The International Council for Science Regional Office for Africa (ICSU ROA) organized a Project Coaching Workshop in Port Elizabeth, South Africa. The training which was held from 6-9 May 2018 covered a wide range of topics, such as theories, methods and examples of trans-disciplinary research; stakeholder engagement; theories of change, development of project plans, publishing trans-disciplinary research and financial management.

Following this 4 day training event, 10 NASAC LIRA grantees attended the Future Earth conference on *Seedbeds of Transformation the role of science with society and the SDGs in Africa*. This conference which was organized in collaboration with the Department of Science and Technology Republic of South Africa and the Research Foundation of South Africa focused on advancing the SDGs implementation in the continent. The conference was also held in Port Elizabeth, South Africa.

International Forum on Science Education

NASAC participated at the International Forum on Science Education that was held on 9th April 2018 in Islamabad-Pakistan. The forum was organized by the Economic Cooperation Organization Science Foundation (ECOSF) in collaboration with Higher Education Commission (HEC) of Pakistan, Pakistan Academy of Sciences (PAS) and the InterAcademy Partnership Science Education Programme (IAP SEP). The forum provided a platform to debate on what efforts should be invested to make science advance in response to the expectations of society and to address the challenges posed to human and social development. It provide an opportunity for the global scientific community interested in the multifaceted world of science education for developing adequate skilled workforce to respond to future challenges and sustainable economic development.

Announcements and Appointments

Scientific Conference & Ministerial Roundtable on FNSA and IAP-R SDG Africa Workshop

NASAC, IAP and the BMBF through the German National Academy of Sciences, Leopoldina will host a Scientific Conference and Ministerial Roundtable on the Opportunities and Challenges for Research in Food and Nutrition Security and Agriculture (FNSA) on 17-18 September 2018. The conference will be followed by the IAP-R/Carnegie's Africa Workshop on Sustainable Development Goals (SDGs) on 19-20 September 2018. Both events will be held in Nairobi, Kenya.

While the Scientific Conference and Ministerial Roundtable will focus on communicating NASAC's FNSA Report, the IAP-R/Carnegie Workshop is part of a global project on the academies and the SDGs. In both events, it is hoped that the profile and roles of academies in addressing developmental issues such as FNSA will be raised. Additionally, these events will provide a platform to foster the sharing of national experiences and the building of working links/relationships between academia and policy.

Phase 3 "Leading Integrated Research for Agenda (LIRA) 2030 in Africa" programme Transdisciplinary Research Training

As part of the 5-year "Leading Integrated Research for Agenda 2030 in Africa" programme, the International Council for Science (ICSU), in partnership with the Network of African Science Academies (NASAC) and the International Social Science Council (ISSC) will support 10 collaborative research projects across Africa, to the value of up to 90,000 Euros each over two years, that will advance the implementation of the Sustainable Development Goal on cities in Africa. A call for pre-proposals to identify research projects that apply a systems approach to analyzing urban processes in Africa and that bring together African early career scientists from different scientific disciplines and key stakeholders (e.g. local authorities, policy makers, built environment professionals, the private sector, civil society and citizens) in research co-design and co-production was launched.

Following the call, 35 pre-proposals will be selected and the applicants will then be invited to attend a training event on integrated research, which will take place on 2-7 September 2018 in Abidjan. This training will aim at to strengthening scientific capacity to undertake this form of research, to enable researchers to build meaningful inter- and trans-disciplinary projects, to support the development of full proposals and to strengthen science communication skills.

Participants of the training will then be given a six-weeks' timeline to submit full proposals. In January 2019, 10 collaborative research projects across Africa will subsequently be awarded the grant.

Fourteenth Annual Meeting of African Science Academies (AMASA 14)

The fourteenth Annual Meeting of African Science Academies (AMASA 14) will this year be hosted by the Benin National Academy of Sciences, Arts and Letters (ANSALB) in Cotonou, Republic of BENIN on 11-13 November 2018. Thereafter the NASAC annual General Assembly meeting will be held on 14th November.

On the Spotlight

Dar es Salaam Declaration



NASAC, the Tanzanian Academy of Sciences (TAAS), the French Academy of Sciences, the Bill and Melinda Gates Foundation hosted an International Forum on "Women and Sustainable Development in Africa" on March 8th to 10th in Dar es Salaam, Tanzania.

The objective of the Forum was to provide a platform for scientists to dialogue and provide evidence-informed advice to policy makers on the importance of women's participation and inclusion in national frameworks aimed at fast tracking realization of the Sustainable Development Goals (SDGs) in Africa. One hundred and seventy (170) participants attended the event from 24 countries

including: Benin, Botswana, Burkina Faso, Burundi, Cameroon, Egypt, Ethiopia, France, Ghana, Kenya, Mauritius, Mozambique, Niger, Nigeria, Rwanda, Senegal, South Africa, Sudan, Swaziland, Tanzania, Tunisia, Uganda, United Kingdom and Zambia.

The major output of the Forum was the **Dar es Salaam Declaration** which was adopted at the end of the event. Science Academies and the Network of African Science Academies (NASAC) have a critical role to play in providing evidence- based advice to achieve sustainable development and, in designing solutions to the challenges entailed in executing gender policies and strategies.

At the Forum, the need for women's empowerment was emphasized. Women's empowerment was described as a process requiring an enabling environment for women devoid of discrimination, and the capability for women to own and control their lives and contribute to societal changes. To empower women, provision of education, capacity development, financial support and changes in the legal frameworks would be required to facilitate property rights and fair treatment at family level.

The **Declaration** highlights the role of African women and emphasizes that the African women should take part in the development of the African continent. It calls on policymakers and international institutions to take actions for the empowerment of women in Africa by investing on the education of girls.

A copy of the Declaration can be found on the NASAC website on www.nasaonline.org.

Member-Academy's Feature



THE TANZANIA ACADEMY OF SCIENCES (TAAS)

The Tanzania Academy of Sciences (TAAS) is a non-political, non-sectarian, non-profit making national body of distinguished, learned men and women in physical, natural and social sciences and technologies. Tanzania Academy of Sciences was founded on 24 February 2004 by 25 senior scientists and registered as a Non-Governmental Organization (NGO). It was launched on 24 June 2005, by His Excellency, Benjamin William Mkapa, the then President of the United Republic of Tanzania. The academy has 131 fellows, honorary fellows, and associate members.

The vision of TAAS is *“To be the epicenter for promotion of excellence in the advancement and application of science, technology and innovation for national socio-economic development in Tanzania”*. The mission of the academy is *“To promote scientific and technological learning and the utilization of scientific and technological knowledge for national socio-economic development”*. The major goals of TAAS are promotion, advancement and application of Science and Technology for socio-economic development of Tanzania, and provision of quality, neutral policy and strategic advice. In addition, TAAS is a platform for evidence based opinion exchange among stakeholders and for provision of realistic science based policy responses and homegrown solutions that are in line with current and future national aspirations and needs.

The Academy has strongly promoted strategic linkages, networking and collaborations. In this respect, jointly with IAP, IAMP and NASAC, TAAS has participated in issuing authoritative statements on global issues. Key meetings and publications held include: ‘Engaging and Influencing Government and Decision Makers’; The Development of Agricultural Research Strategy in Tanzania; The Implications of Climate Change to Sustainable Agriculture and Health; LIGHTING A FIRE Vol 1, a book authored by 31 Tanzanian scientists; the Deliberations on Science, Technology and Innovation Inputs to the Tanzania Constitution Reform; Is Tanzania ready for uranium mining?; and Implications of gas and oil exploration, production and sustainably investing revenue: how best to prudently manage and invest gained revenue to safeguard national interests and to avoid the resource curse. Others are Implications of Climate Change to Sustainable Agriculture and Health; Appropriate Technologies for Sustainable Energy in Off-grid Rural communities (Smart Villages Initiative); “Genetically Modified Organisms (GMO) Technologies, Processes and Products: Which way for Tanzania?”; “The Increasing Occurrence of Cancers in Tanzania: Best options for Prevention and Control”; “Policy support to push for financing, quality and comprehensive analysis of Tanzania Science, Technology and Innovation (STI) journals, and

coming up with strategies to increase quality and use of on line journals”; and Women and Sustainable Development in Africa. TAAS has initiated a Young Science Academy.

In partnership with the Royal society, IAP, IAMP, TWAS, and NASAC, TAAS has facilitated scientists to attend international scientific training and conferences and to access competitive award schemes. This includes the Leverhulme Royal Society African Awards from 2008 with the aim to develop and sustain excellence in science in Ghana and Tanzania scientists by doing collaborative research with scientists from United Kingdom (UK) in the areas of agriculture, water and sanitation, basic human health research, biodiversity and energy.



Fellows and Dignitaries of TAAS during the Launch of a TAAS Book "Lighting a Fire"

The Network of African Science Academies (NASAC) was established on 13th December 2001 in Nairobi, Kenya and is currently the affiliate Network for InterAcademy Partnership (IAP) in Africa.

NASAC is a consortium of merit-based science academies in Africa and aspires to make the “voice of science” heard by policy and decision makers within and outside the continent. NASAC is dedicated to enhancing the capacity of existing national science academies and champions in the cause for creation of new academies where none exist.

As at November 2016, NASAC comprised of the following twenty four members:

- Académie des Sciences et Techniques du Sénégal (ANSTS)
- Académie Nationale des Sciences du Burkina (ANSB)
- Académie Nationale des Sciences et Technologies du Congo (ANSTC)
- Académie Nationale des Sciences, Arts et Lettres du Benin (ANSALB)
- Académie Nationale Des Sciences, Arts Et Lettres Du Togo (ANSALT)
- Academy of Science of South Africa (ASSAf)
- Academy of Sciences of Mozambique (ASM)
- African Academy of Sciences (AAS)
- Algerian Academy of Science and Technology (AAST)
- Botswana Academy of Sciences (BAS)
- Cameroon Academy of Sciences (CAS)
- Ethiopian Academy of Science (EAS)
- Ghana Academy of Arts and Sciences (GAAS)
- Hassan II Academy of Science and Technology in Morocco
- Kenya National Academy of Sciences (KNAS)
- Madagascar's National Academy of Arts Letters and Sciences
- Mauritius Academy of Science and Technology (MAST)
- National Academy for Cote d'Ivoire
- Nigerian Academy of Science (NAS)
- Sudanese National Academy of Science (SNAS)
- Tanzania Academy of Sciences (TAS)
- The Uganda National Academy of Sciences (UNAS)
- Zambia Academy of Sciences (ZaAS)
- Zimbabwe Academy of Sciences (ZAS)

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