RUFORUM Working Document Series (ISSN 1607-9345) No. 15: 155-158
Available from *http://repository.ruforum.org*

Research Application Summary

The Network of African Science Academies and its leading integrated research for Agenda 2030

Olang-Kado, J.
Network of African Science Academies (NASAC), P.O. Box 201-00502 Nairobi, Kenya
Corresponding Author: jolang@nasaconline.org

Abstract

The Network of African Science Academies (NASAC) Secretariat is based in Nairobi, Kenya and is the affiliate Network for InterAcademy Partnership (IAP) in Africa. The Network of African Science Academies is a consortium of merit-based science academies in Africa and aspires to make the "voice of science" heard by policy and decision makers. The focus of NASAC is to enhance the capacity of existing national science academies and champion the cause for creating new academies where none exist (NASAC, 2017). The Network of African Science Academies provides a mechanism for pooling together expertise on the African continent through the auspices of the respective National Academies to participate in generating and disseminating the evidence-base for policy decision making. The Network operations are designed based on flagship programs. An example of flagship programs at NASAC is the Leading Integrated Research in Africa for Agenda 2030 (LIRA-2030). The LIRA-2030 is run in partnership with the International Council for Science (ICSU) together with its Regional Office for Africa and the International Social Science Council (ISSC) and is supported by the Swedish International Development Cooperation Agency (Sida). The aim of LIRA-2030 is to foster research collaboration primarily among early career scientists based in Africa. The LIRA-2030 flagship program supports regional research collaboration on global sustainability, focusing on global environmental change, disaster risk reduction, sustainable energy and human health and well-being in the urban environment. It also aims to promote the integration of gender equity and poverty reduction dimensions in research practice and content.

Key words: African Science Academies, Integrated Research, Kenya

Résumé

Le Secrétariat du Réseau des Académies des Sciences Africaines (NASAC) est basé à Nairobi au Kenya et est le réseau affilié pour le Partenariat InterAcademy (PIA) en Afrique. Le Réseau des académies des sciences africaines est un consortium d'académies des sciences fondées sur le mérite en Afrique et aspire à faire entendre la «voix de la science» par les décideurs politiques. L'objectif de la NASAC est de renforcer la capacité des académies scientifiques nationales existantes et de défendre la cause de la création de nouvelles académies là où elles n'existent pas (NASAC, 2017). Le Réseau des académies africaines des sciences fournit un mécanisme pour rassembler les compétences sur le continent africain sous les auspices des académies nationales respectives pour participer à la production et à la diffusion sur la base factuelle pour la prise de décision politique.

Les opérations du réseau sont conçues sur la base de programmes phares. Un exemple de programmes phares de la NASAC est la recherche intégrée de premier plan en Afrique pour l'Agenda 2030 (LIRA-2030). Le LIRA-2030 est géré en partenariat avec le Conseil international pour la science (CIUS) avec son Bureau régional pour l'Afrique et le Conseil international des sciences sociales (CISS) et est soutenu par l'Agence suédoise de coopération internationale au développement (ASDI). Le but de LIRA-2030 est de favoriser la collaboration de recherche principalement parmi les scientifiques en début de carrière basés en Afrique. Le programme phare LIRA-2030 soutient la collaboration de recherche régionale sur la durabilité mondiale, en mettant l'accent sur le changement environnemental global, la réduction des risques de catastrophe, l'énergie durable et la santé humaine et le bien-être en milieu urbain. Il vise également à promouvoir l'intégration des dimensions d'équité entre les sexes et de réduction de la pauvreté dans les pratiques et contenus de recherche.

Mots-clés: Académies des sciences africaines, Recherche intégrée, Kenya

Introduction

Leading Integrated Research for Agenda 2030 in Africa (LIRA 2030) has the vision of cultivating the next generation of scientists in Africa who will produce and communicate integrated solutions-oriented and policy relevant knowledge. The aim of this 5-year programme is to strengthen capacity in Africa to undertake integrated research via supporting a network of over 30 integrated research projects on global sustainability across Africa. With financial support from the Swedish International Development Agency (Sida), the Network of African Science Academies (NASAC) manages the research funding scheme, in partnership with the International Council for Science (ICSU) (ICSU, 2017) and its Regional Office for Africa (ICSU ROA) as well as the International Social Science Council (ISSC). The Network of African Science Academies (NASAC) was established on 13th December 2001 in Nairobi, Kenya, and is the affiliate network in Africa for the Inter Academy Partnership. The Network is a consortium of twenty four (24) merit-based science academies in Africa and aspires to make the "voice of science" heard by policy and decision makers within Africa and worldwide (NASAC, 2017). NASAC is dedicated to enhancing the capacity of existing national science academies and encourages African scientists to create new academies in countries where none exist. The NASAC provides a mechanism for respective science academies to implement cross boarder projects that are geared towards building the evidence-base for policymaking. The LIRA 2030 is an example of the many projects under the auspices of the NASAC.

Thematic focus of the LIRA 2030

Since its inception in 2016, the program provides two-year collaborative research grants worth €90,000, with a thematic focus on global environmental change, disaster risk reduction, sustainable energy, human health and well-being in urban environments and related nexus. These grants (Table 1) are intended to support integrated and solutions-oriented research by reaching across disciplines, and engaging with other knowledge

partners (e.g., civil society, policy makers, and private sector). The grants are expected to foster research collaboration among early career scientists in Africa, with an emphasis on researchers based in low income countries. It also funds training activities on co-design and co-production, science communication and science advice to governments. The trainings are delivered by ISSC and form the basis for developing full proposals by selected grantees. Furthermore, the program also promotes the integration of gender and poverty reduction dimensions in research practice and content to improve its societal relevance. The research frameworks of Future Earth, the Integrated Research on Disaster Risk, and the Health and Wellbeing in Urban Environments research programmes will provide an overall thematic framing for the programme's activities.

Table 1. List of Grants under the LIRA 2030

Title	Lead Institution	Collaborators
Assessment and characterization of volcanic and flood hazards and their health implications in the cities of Goma (Democratic Republic of Congo), Buea and Limbe (Cameroon)	University of Buea, Cameroon	Goma Volcanological Observatory, DR Congo
Co-designing energy communities with energy poor women in urban areas (Kenya, Uganda and South Africa)	University of Nairobi, Kenya	Makerere University, Uganda and Stellenbosch University, South Africa
Delivery of clean air strategies for mitigating household air pollution and associated respiratory illnesses in urban informal settlements in Dar es Salaam (Tanzania) and Lilongwe (Malawi)	University of Dar es Salaam, Tanzania	Lilongwe University of Agriculture and Natural Resources, Malawi
Reducing human exposure to combustion-derived pollutants in urban areas of the Lake Victoria watershed; Improvement of indoor air quality in selected urban communities of Kampala (Uganda) and Mwanza (Tanzania)	Makerere University, Uganda	University of Dar es Salaam, Tanzania
Biogas-supported decentralized water treatment system for communities in Diepsloot (South Africa) and Chambishi (Zambia) townships	MINTEK, South Africa	Copperbelt University, Zambia
Health effects of indoor air pollution from cooking stoves in Kigali (Rwanda) and Dar er Salaam (Tanzania)	University of Rwanda, Rwanda	Muhimbili University of Health and Allied Sciences, Tanzania
Limiting the health hazards of fossil fuel generators' use in Lagos (Nigeria) and Dakar (Senegal) with traditional knowledge	University of the Sahel, Senegal	University of Lagos, Nigeria
Mitigating risks to flood-related waterborne diseases in Abidjan (Ivory Coast) and Kampala (Uganda)	Centre Suisse de Recherches Scientifiques, Ivory Coast	Makerere University, Uganda
Towards healthy communities: Citizen science for improved air quality in Nairobi (Kenya) and Addis Ababa (Ethiopia)	Stockholm Environmental Institute, Kenya	Horn of Africa Regional Centre and Network, Ethiopia

It is an important priority for the programme to reach a broad range of audiences, ranging from the scientific community to policy makers and the public at large. The knowledge generated by the programme is expected to inform policy processes such as the Sendai Framework on Disaster Risk Reduction (UNISDR, 2017) and the 2030 Agenda for Sustainable Development (United Nations, 2017).

Networking and funding opportunities under LIRA 2030 programme

Annual events to promote scientific exchange and provide opportunities for South-South and North-South collaboration have been implemented and more are scheduled for the remaining period. By so doing, outstanding young scientists get opportunities for career-development through nominations to participate in international scientific committees and conferences, working groups, and inter-governmental policy processes.

Governance arrangements include a scientific advisory committee, which was appointed in June 2016. This committee comprises of natural and social scientists from Africa, stakeholder representatives and leadership representatives of all partners involved. The committee meets every year to define the programme's scientific strategy, make research funding decisions based on review of research proposals and agree on the development of the programme.

Acknowledgement

This paper is drawn from a presentation made by the author during the launch of the University of Burundi Doctoral School, 20 – 21 July 2017, Bujumbura, Burundi.

References

International Council for Scientific Unioins (ICSU). 2017. International Council for Scientific Unioins. Retrieved May 23, 2017, from https://www.icsu.org/what-we-do/funding-programmes/leading-integrated-research-for-agenda-2030-in-africa

Network of African Science Academies (NASAC). 2017. Network of African Science Academies. Retrieved May 23, 2017, from www.nasaconline.org

United Nations Internationa Strategy for Disaster Reduction (UNISDR). 2017. Sendai framework for disaster risk reduction 2015-2030. Retrieved May 23, 2017, from United Nations office for Disaster Risk Reduction: https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf

United Nations. 2017. Sustainable Development Goals. Retrieved May 23, 2017, from http://www.un.org/sustainabledevelopment/sustainable-development-goals/