



Science Advice Skills Development Program (SASDP)

Science advice is a key area for science capacity development in Africa. It has the potential to create notable contributions to developing research and innovation in Africa. The scientific community in the African continent is engaged in a range of scientific research in different areas, specifically to address the continent's various challenges. The employment of relevant African scientific knowledge in decision making must be emphasized as this is important for society. There is an urgent need for effective communication to connect scientists and policymakers. There is also a responsibility for scientists to convey their knowledge and findings of their research to policy makers, and to the public.

INGSA-Africa, the Regional Chapter of the International Network for Government Science Advice, in its aim to build capacity of African Scientists across Africa for effective communication of science advice, developed a mentorship Program – Science Advice Skills Development Program (SASDP) that ran over a period of 3 months in 2022. The objective of the SASDP was to support mid-career African scientists and researchers in strengthening their skills to communicate their research results and viewpoints as science advice to their identified audiences and to foster their overall development.

The theme of the SASDP was Climate Change in Africa, focusing on areas of Health, Water, Energy and Food Security. INGSA-Africa launched the Call for Mentees in June 2022 and invited relevant organizations (recognized academic or research institutions; Academies of Science) in Africa, which are engaged in science advice, to nominate qualified staff as mentees under its Science Advice Skills Development Program (SASDP). More than 30 applications were received from a range of African organisations. Call for mentors were launched simultaneously inviting experienced professionals, policy-active scientists/researchers/policy makers, preferably in a field connected to climate change with the capacity to provide voluntarily one-to-one mentorship to mid-career African scientists interested in learning about, and contributing to, science advice.

Ten mid-career scientists and researchers from 8 African countries were selected for participation in the mentorship program. Expertise, common interests and language of communication were considered when determining the pairing of mentor-mentees. Mentees were paired with 10 mentors from 8 different countries, from continental, regional or national agencies.

The SASDP started with a contact phase in the form of a virtual mentor-mentee introductory workshop on 14 September 2022 where core topics - such as introduction to tools for transformative policy advice and experiences, balancing political realities and scientific advice and the role of science in addressing climate change in the African continent - were addressed by invited specialists in science advice. The SASDP officially concluded through a virtual workshop on 15 December 2022, where findings and outputs of mentorship program were shared by the mentees while the mentors discussed their experience engaging with mentors. The program was also presented to representatives of the parent organisation, INGSA, at a workshop organized on 5 December 2022 as a side-event of the World Science Forum in Cape Town, South Africa.

The SASDP mentees, mentors, a short bios and the projects they worked on are listed below:

[Dr Temitope O. Sogbanmu, Nigeria/ Professor Paul Arthur Berkman, USA](#)

Mentee: Dr Temitope O. Sogbanmu, Nigeria



Dr. Sogbanmu holds a doctorate degree in Environmental Toxicology and Pollution Management with several years of experience in the risk assessment and management of organic pollutants in various matrices. She is the Founder/Lead of the EUEPiN Project through which she engages various stakeholders including policymakers, practitioners and researchers in the ‘environmental evidence ecosystem’ to facilitate evidence-informed decision making (EIDM). Dr Sogbanmu is a Lecturer at the University of Lagos, an ardent researcher with several publications, multiple award/grant winning scholar, NYA Vice President as well as an Advocate of the UN SDGs, AU Agenda 2063, Evidence for Policy and Science Communication.

Mentor: **Professor Paul Arthur Berkman, USA**



Professor Paul Arthur Berkman is a science diplomat, applying, training and refining informed decisionmaking to balance national interests and common interests for the benefit of all on Earth across generations. Prof. Berkman is the Founder and President of the Science Diplomacy Center™, serving also as a Faculty Associate with the Program on Negotiation (PON) at Harvard Law School and Associate Director of Science Diplomacy in the Harvard-MIT Public Disputes Program as well as an Associated Fellow with the United Nations Institute for Training and Research (UNITAR). Among his many awards, most recently the United States Department of State and Norwegian Ministry of Foreign Affairs awarded Prof. Berkman the Fulbright Arctic Chair 2021-2022

Project: The Global Indigenous Youth Summit on Climate Change (GIYSCC) - dialogue convened by, for and among indigenous youths of the world.

Dr. Linda Maud Palm, Ghana/ Dr Alhaji U. N’jai, USA/Sierra Leone

Mentee: Dr. Linda Maud Palm, Ghana



Dr. Linda Maud Palm is a Senior Research Scientist at the Ghana Atomic Energy Commission and a lecturer at the School of Nuclear & Allied Sciences. Linda’s specialty is in Environmental toxicology and its impacts. Her work comprised monitoring atmospheric POPs, contaminated site assessment, PAHs in smoked foods and quantifying harmful marine algae in water and shellfishes. Linda’s team pilot tested “plastic waste fishing nets collection scheme” in some fishing communities. Presently, Linda is reviewing policies related to plastics waste management in Ghana and Sierra Leone. Dr. Palm is a Queen Elizabeth II Advance Scholar and an Associate of OPCW.

Mentor : Dr Alhaji U. N’jai, USA/Sierra Leone



Dr. Alhaji U. N’jai is a technical leader, thought leader, and scholar with broad research interests at the intersection of biomedical science (infectious disease, toxicology, immunology,

genomics, systems biology), environmental science, public health, anthropology, indigenous knowledgebase systems, and sustainability. He is currently a lecturer at University of Sierra Leone and research fellow in the Department of Pathobiological Sciences, University of Wisconsin-Madison. He is the Founder and Chief Strategist for Project 1808, Inc, a US nonprofit and Sierra Leone community-based organization, whose mission is to transform communities through education that is linked to service, innovation, cultural empowerment, technical and leadership skills development at the Schools, Community, and University. From 2011-2016, he was Senior Scientist and Toxicologist, Global Research and Development at Procter & Gamble, Cincinnati, Ohio, USA. Dr. N'jai is currently a technical advisor for the Directorate of Health Securities and Emergencies (DHSE) at Sierra Leone Ministry of Health and Sanitation (MOHS). He also serves as the Chairman of the One Health Technical Working Group in Sierra Leone.

Project: A review of plastic waste management practices; an opportunity for science-based policy formulation in West Africa; case study of Ghana and Sierra Leone.

Dr Zacharie Merlin Ayissi, Cameroon/ Karima Kadda Touati Bergheul, Algeria

Mentee: **Dr Zacharie Merlin Ayissi, Cameroon**



Dr Zacharie Merlin Ayissi is a Lecturer and Head of Department of Automotive and Mechatronics Engineering at the ENSPD of the University of Douala. He holds a PhD in Energy and an MBA. He received a solid training in scientific advice resulting in a certificate of participation. His publications deal with the formulation of biofuels to combat pollution from petroleum products. He is Africa Regional Expert in Industrial Safety of CBRN Risk Sworn to risk reduction in the African Atlantic coast. He is also coordinator of a university research laboratory that works for the development of renewable energies, the management of sustainable projects and the reduction of pollution from industrial and automotive combustion that generates greenhouse gases.

Mentor: **Karima Kadda Touati Bergheul, Algeria**



Présidente De l'Association des Femmes en Economie Verte, Membre de la Commission Permanente de l'Environnement, la transition énergétique et le développement durable au Conseil Economique, Social et Environnemental (CNESE), Ingénieur d'État en Electrotechnique (Université des sciences et de la technologie Houari Boumediene 1993), Mentor of women in Energy with the Program « Women Energize women » With the German Federal Ministry for Economic Affairs and Climate Action (BMWK), and GIZ.

Project: Advocacy for the integration of innovative and sustainable solutions into public decision-making for the respect of environmental commitments and the acceleration of the energy transition in Cameroon.

Dr Azeb Assefa Mersha, Ethiopia/ Dr James Mawanda, Uganda

Mentee: Dr Azeb Assefa Mersha, Ethiopia



Dr Azeb Assefa Mersha is an assistant professor in Ethiopian Civil Service University. She obtains her PhD from Utrecht University, the Netherlands. Her dissertation dealt with nexus between climate change adaptation and gender. She holds MA degree in Development Studies from Institute of Social Studies, the Netherlands and BA degree in Geography from Dilla University, Ethiopia. Azeb has experiences in teaching in higher education, offering trainings and conducting consultancy services on broader environment, development and gender related areas. She is passionate about the relationship between environmental problems including climate change and social issues and strongly believes that environmental and social justices have to be dealt as two sides of the same coin.

Mentor: Dr James Mawanda, Uganda



Dr James Mawanda is accredited with the UN Global Platform for Disaster Risk Reduction (GP2022) and a Member of the UNDRR Stakeholder Engagement Mechanism. James is an

Associate Partner, Interdisciplinary Centre on Climate Change and Health (ICCH), University of Hamburg, Germany. Member, Global Consortium on Climate and Health Education, Columbia University, and a member of the African Climate Policy Centre (ACPC) & United Nations Economic Commission for Africa (ECA). Mentor, Land Accelerator Africa by World Resources Institute (WRI); an Editorial Board Member, International Peer-Reviewed Journals and Books (IPRJB), USA. Member, FAO's Global Forum on Food Security and Nutrition (FSN Forum).

[Project: A Policy Brief on bolstering gender transformative approach of National Climate Change Adaptation Policy in Ethiopia](#)

[Dr Olayinka Oluwasina, Nigeria/ Rosemary Nakaggwa, Uganda](#)

Mentee: Dr Olayinka Oluwasina, Nigeria



Dr Olayinka O. Oluwasina is a Lecturer at The Federal University of Technology, Akure, Nigeria. She has an enthusiastic drive for positive change in applied material science to marine pollution remediation, with a keen interest in ocean acidification, adsorption, and data science. Her research interest focuses on synthesizing and functionalizing graphene oxide to clean up polluted coastal waterways and ensure potable water.

Mentor: **Rosemary Nakaggwa, Uganda**



Mrs Rosemary Nakaggwa is a Thematic Coordinator /Technical Advisor with GIZ/ Civil in Uganda Society Support, Programme (CUSP) from APRIL 2020 to date: Providing advisory support to Civil Society Organizations and network bodies towards improved governance and organizational development and linking the water sector and other GIZ water programmes with CUSP.

Project: Smart agriculture and clean cooking; improving people's livelihood, health and wealth conditions and reducing climate change effects all at a go.

Dr Benjamin Oyelami, Nigeria/ Dr Kalule Okello David, Uganda.

Mentee: **Dr Benjamin Oyelami, Nigeria**



Dr Oyelami is a Communication Manager/Researcher at the Innovation Lab for Policy Leadership in Agriculture and Food security (PiLAF), University of Ibadan, Nigeria. His area of research interest is Agricultural Policy, Entrepreneurship along the Agricultural Value Chain

as well as Rural Development. He has been actively involved in improved technology transfer and trainings among rural folks involved in enterprises around cassava, soybean and maize commodities including the dissemination of Afla-safe biotechnology used to control aflatoxin in grains.

Mentor: Dr Kalule Okello David, Uganda



Dr Kalule Okello David is a Senior Research Scientist with a background in Plant Genetics and Breeding employed by Uganda National Agricultural Research Organization (NARO). He is also a Fellow of Uganda National Academy of Science (UNAS).

Project: Understanding the structures and mechanisms put in place by government and development agencies to promote climate-smart agriculture (CSA) in Oyo State, Nigeria.

Dr Anthony Raphael Ijala, Uganda/ Dr Abdess Salem Saumtally, Mauritius

Mentee: Dr Anthony Raphael Ijala, Uganda



Dr Ijala is a senior Research Officer, and Agricultural Entomologist at the National Agricultural Research Organisation (NARO), Ministry of Agriculture, Animal Resources and Fisheries Kampala, Uganda. HE conducts research on pest situations, developing technologies for pest management, and efficacy trials for chemicals and biopesticide applications in Uganda and provides science advice on pest management strategies and chemical applications. He also provides master training for Desert locust control & EHS for chemical applications in Uganda.

Mentor: Dr Abdess Salem Saumtally, Mauritius



Dr Saumtally is the former Director, Mauritius Sugarcane Industry Research Institute (MSIRI) and is the Chairman of the Higher Education Commission Mauritius. He is also the President, Mauritius Academy of Sciences and Technology. Salem Saumtally a plant pathologist and an Emeritus Member of the American Phytopathological Society (APS). He became Director of MSIRI in 2012 and managed two Research and Development (R&D) plans before he retired. He forms part of the Executive Committee of the International Society of Sugar Cane Technologists (ISSCT), an apex international body for sugarcane.

Project: Use of phyto-based pesticides for the control of pests in cereals, pulses and fruit trees in Uganda.

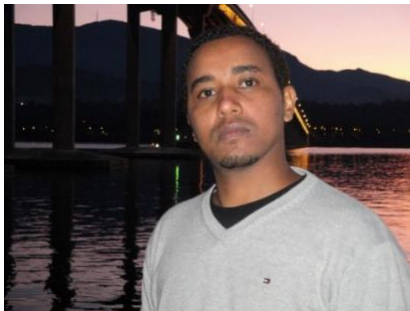
Dr Sosdito Mananze, Mozambique/ Dr Nega Emiru, Ethiopia

Mentee: Dr Sosdito Mananze, Mozambique



Dr Mananze is a Lecturer/Researcher at the Eduardo Mondlane University, Maputo, Mozambique. He is currently involved in teaching, research and administrative roles at the University where he coordinates several research

Mentor: Dr Nega Emiru, Ethiopia



Dr Nega Emiru, with more than 12 years of work experience and solid postgraduate training is passionate professional working at the crossroads of agriculture, natural resources management and climate change with geographic focus in Ethiopia and Africa region. He worked with various local, national and regional institutions spanning research, policy and practice. His thematic and functional areas of interest include climate change adaptation, sustainable land management, agricultural transformation and rural livelihoods, project cycle management, indigenous knowledge and institutions, knowledge and innovation management, science advice to policy, and research management in developing countries. Nega holds a PhD from the University of Tasmania, Australia with thesis research focus on adaptation to climate change in pastoral and agropastoral systems in Southern Ethiopia.

Project: Enhancing the role of earth observation data for improved agriculture production and food security in Mozambique: Tools for better farm management

Dr Steven Mathetsa, South Africa/ Dr Mario Rivero Huguet, Canada

Mentee: Dr Steven Mathetsa, South Africa



Dr. Steven Mathetsa is a registered scientist with the South African Council for Natural Scientists Profession (SACNASP). He has over 17 years' hands-on experience in Environmental Management spanning several industries which include power generation, pulp and paper, mining, logistics and government. He has developed and implemented operational strategies, compliance policies and management plans within water, waste, biodiversity, climate change and air quality. He is currently employed by Transnet National Port Authority (TNPA) as a Sector Specialist: Water. Dr Mathetsa's PhD research (Wits) focused mainly on Water-Energy-Climate Change nexus. He is currently completing Post-Graduate Diploma in Energy Leadership at Wits Business School.

Mentor: Dr Mario Rivero Huguet, Canada



Dr Mario Rivero Huguet is Head Science, Policy and Innovation, AI and Digital technologies lead at the British High Commission, Ottawa. He has more than 15 years of experience in government, commercial and international relations, science diplomacy and innovation. He is responsible for strengthening Quantum, Digital ID, AI and Data Science collaborations. He also works on strategic programmes with the Global Partnership on AI (GPAI) during COP26 and G7 UK presidencies and worked with G7 and G20 member states and OECD to strengthen collaboration and align AI policies. He has expertise in writing policy briefings.

Project: [The role of science in the policy development within South African water resource management space: Case study to parliamentarians.](#)

[Dr Abdul-Azeez Anjorin, /Dr Victor Chalwe, Zambia](#)

Mentee: **Dr Abdul-Azeez Anjorin**



Dr Abdul-Azeez Anjorin is a trained Fellow on sero-molecular epidemiology of viruses from the WHO reference Laboratory at the Luxembourg Institute of Health; a certified ProMED-EpiCore health professional for infectious disease, and a Senior Lecturer and Medical Virologist at the Lagos State University Department of Microbiology where he currently serves as the team lead, Influenza & Other Respiratory Tract Viruses (IORTV) research. His experience in the area of climate change is from working on One-health perspective featuring zoonotic and reverse- zoonotic diseases that are seasonal and pandemic in nature.

Mentor: Dr Victor Chalwe, Zambia



Dr Victor Chalwe is the Deputy Director, National Health Research Authority. He is a medical doctor, Associate Professor of Health Sciences and Public Health Specialist with 22 years of health experience, including more than 19 years of research experience serving as co-Investigator or Principal Investigator on over 35 malaria and HIV/TB studies and other health systems research. In addition to university graduate training, he has completed a wide range of short trainings and workshops, including biostatistics, research ethics, good clinical practice, research methodology, publication and cultural epidemiology.

Project: [Effects of Climate change on emerging and re-entering viral diseases.](#)