

● Responsible Research: Enablers and Barriers to Women's Participation in STEM

It has been well-documented that science and innovation are key to achieving the 2030 sustainable development goals (SDGs). Yet, in most countries across the globe, there are significant gender disparities among scholars in the fields of science, technology, engineering, and mathematics (STEM), as less than 30% of the world's researchers are women (UIS, 2019). Despite being a global problem, much research investigating this issue of gender disparity has been done in the global North. Yet, to work toward inclusive innovation and achieve sustainable development in the global South, a significant amount of the world's population cannot be excluded from devising solutions to the global problems. Thus, to address these gender disparities in the research realm, an in-depth understanding of the challenges facing women scholars in all parts of the world is needed (The African Academy of Sciences, 2020).

In line with the 2023 INORM's Congress sub-theme of Funding Responsible Research and Innovation for Global Impact, this proposed, 60-minute panel presentation will discuss findings from four research studies set in various African countries - Benin, Ghana, Kenya, South Africa, Uganda, Zambia, and Zimbabwe – that sought to offer insights into the systemic barriers that can prevent women from studying and pursuing STEM-related careers. Each panelist will discuss the following issues through their study's specific entry points: 1) gender-disaggregated data in numerous STEM disciplines at higher education institutions (HEIs) in their respective research contexts; 2) both the systematic and systemic barriers to women's participation in STEM areas of study and research at higher education and research institutes; and 3) key national and institutional policies in the various countries and HEIs that are intended to promote gender equity in STEM fields, as well as if and how these policies have been contextually adopted and implemented.

Presenter:

- Dr Katie Bryant, International Development Research Centre (Canada)
Katie Bryant, a program officer in the Education and Science division at Canada's International Development Research Centre (IDRC), works with Southern scholars seeking to increase women researchers' access to and successful participation in STEM disciplines. Before joining IDRC, she worked for more than 15 years in higher education institutions in Canada, Botswana, and South Africa, supporting academics to incorporate evidence informed practices into their teaching and implementing research informed capacity building programs for early career academics. Katie holds a PhD in Education from McGill University.
- Dr Dzidzo Yirenya-Tawiah is an Environmental and Public Health Research Scientist with interest in water related diseases, environmental sanitation, climate change, gender, and sustainable development. She draws on her strong community engagement skills to drive her vision of improving public health by employing innovative strategies. She is a Senior Research Fellow in the Institute for Environment and Sanitation Studies in the College of Basic and Applied Sciences at the University of Ghana, and the Principal Investigator of the IDRC-funded GIST project, TranSforming InStituTions to Advance women leadeRs in STEM (SISTARS): Lessons from Ghana and Kenya. She holds a PhD in Zoology
- Prof Ulrike Rivett is a professor in the Department of Information Systems in the School of IT at the University of Cape Town, South Africa. Her research is based in the field of ICT4D with a specific focus on co-design approaches to design systems for vulnerable populations in under-resourced environments. Her work is application driven in fields such as the health, water, and education sector. She is the Principal Investigator of the IDRC-funded GIST project: Gender-Justice for STEM Research in Africa (GeJustA). She holds a PhD in Geomatics.
- Dr Rose Omari is a Principal Research Scientist at the Science and Technology Policy Research Institute in Ghana. Her research includes socio-economic, policy and regulatory studies in agriculture, food safety, nutrition, health, and STEM fields. Rose has a BSc degree in Biochemistry and Food Science, an MPhil in Food Science and a PhD in Rural Sociology (Food Studies). She has participated in several gender analysis and mainstreaming processes while working at the Ministry of Food and Agriculture. Rose is the Principal Investigator for the IDRC-funded project (2020-2022) investigating systemic barriers to women's participation in engineering education and careers in Ghana and Benin.

- Prof Sunungurai Chingarande holds a PhD in Sociology from the University of Zimbabwe. She is an expert in gender equality. She has experience in gender analysis and gender audits, development of gender policies, gender scorecards, gender mainstreaming strategies and action plans for programmes in various sectors. Sunungurai is a gender resource person for the African Group of Negotiators, a think tank of experts that provides technical support to African governments for effective engagement in climate change policy formulation. She is the Principal Investigator of the “Bridging the gender gap in Science at Women’s University in Africa” project funded by IDRC.
 - Prof Faith Njoki Karanja is a Geospatial Engineer, Associate Professor, and Chair of the Department of Geospatial and Space Technology at the University of Nairobi. Her research interests are in the application of Geoinformation in Natural Resource Management, Food Security, Poverty Eradication, Climate Change and Women Empowerment. She has also been a mentor for secondary school girls in UNESCO/Government of Kenya STEM Mentorship Program. She is the Co-PI in the project TranSforming InsTitutions to Advance women leadeRS in Science Technology Engineering and Mathematics (SISTARS): Lessons from Ghana and Kenya. Faith has a PhD degree in Geoinformation from the University of Hannover, Germany.
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