A MANIFESTO

MORE WOMEN in RESEARCH



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Foreword

The need to bridge the gender gap in research

It is a great honour to introduce this "More Women in Research" manifesto that represents a crucial call to action for advancing gender equity in academia and research, especially across the African continent.

Why is it so vital to call for more women in research?

Research, by its very nature, is a powerful tool. Research is a systematic process of inquiry that uncovers new knowledge, drives innovation, and informs and direct societal change. From technology and medicine to social sciences and countless other fields, research plays a central role in shaping our world. Yet, we must acknowledge that the gender composition of the research community greatly influences not only the questions we ask but also the solutions we find.

In this context, increasing the participation of women in research is not just a matter of diversity. It is a matter of justice. As we oppose and challenge patriarchal structures that often dominate our



societies, it becomes clear that research not only helps start the conversation about equity but also provides support for advocating for it. Women researchers bring a unique perspective, a perspective that is often more inclusive and holistic. It is also a perspective that is attuned to the specific concerns and interests of women. Hence, women researchers' presence in the research community is essential to advancing gender justice and ensuring that the knowledge we produce reflects the increasingly more complex and diverse realities of society.

However, the issue is not just about increasing the number of women researchers. It is also about positioning women in leadership roles within research communities and in institutions of higher learning. Leadership is what drives the agenda of any profession, so without women in positions of influence, the research agenda is incomplete. Women in leadership can ensure that the research process itself is inclusive and equitable, not only for women but also for other marginalized groups.

One key strategy to achieving the goals of more women in research and research leadership is mentorship. We must recognize that mentorship plays an essential role in developing future leaders. Women currently in leadership must step forward as mentors, guiding and supporting the next generation of women researchers to take their place in key positions of the research community.

This manifesto is a clarion call for more women in research, more women in leadership, and more research that ensures gender justice. Together, we can foster a research environment that is not only inclusive but also transformative, ensuring the generation of new knowledge is for the betterment of our societies.

Prof. Tibatemwa-Ekirikubinza Lillian Winifred (Ph.D); LL.D (Honoris Causa) Justice of the Uganda Supreme Court



Preface

This manifesto addresses issues of concern for African women in research and it is a call to action.

Despite the fact that a growing number of women are acquiring post-graduate degrees and entering the field of research, at the time of writing less than 30% of the world's researchers are women, and in the fields of science, technology, engineering and mathematics (STEM) only 31% of the graduates are women.

At Africa's 97 top-ranked universities, only 21% of the chancellors and 14% of the vice-chancellors¹ are women. Across universities south of the Sahara, women make up only 24% of the academic staff. Of the 2,510 African-led studies recorded in the African evidence research database, only 32% are led by women². Even when women advance to university level, studies show that most women drop out at the post-bachelor level. This phenomenon, known as the "leaky pipeline", refers to the progressive reduction in women's participation at the different stages of a research career.

Women face many barriers to their advancement in research. These include the social costs of not fulfilling their biological roles as mothers and society's expectation that they are responsible for child-rearing and caregiving, issues that their male counterparts do not have to contend with. Additional challenges include a lack of access to information about research opportunities, gender-blind institutional policies (such as those relating to promotions and publications), lack of access to research grants, lack of mentorship, sexual harassment, bullying, task dumping, gender-based discrimination at work, gender stereotypes, and patriarchal and hostile work environments. These issues are prevalent in the workplace and social-cultural structures in general.

Considering the many challenges women face, it is important to take deliberate steps to change these dismal statistics and ensure that there are more women breaking the glass ceilings in research.

This manifesto is therefore a combination of aspirations and an intentional call to action by those women who already understand the different ways in which they are disenfranchised and the many ways in which they can exercise their agency to overcome these barriers. The manifesto provides all relevant stakeholders with a reference document that they can use to assess and inform their policies and actions as they relate to the entry into and advancement of women in research. "While the key focus of this manifesto is academic research, we also acknowledge it's relevance for women in action research. While the two fields are distinct, women may face similar challenges across both fields.

Supported by the Ministry of Foreign Affairs of Denmark, Danida Fellowship Centre, MS TCDC Tanzania and YouLead Africa, 50 African women in research from 12 different countries in Africa met over the course of five days in Arusha, Tanzania, (4-8 March 2024), to discuss how to promote more women in research within the African context.

The 12 countries represented were Burkina Faso, Burundi, Egypt, Ethiopia, Ghana, Kenya, Rwanda, Somaliland, South Africa, South Sudan, Tanzania and Uganda. It is worth observing that these African countries belong to different economic regional blocs, including the Southern African Development Community (SADC), the East African Community (EAC), the Economic Community for West African States (ECOWAS), the Inter-Governmental Authority for Development (IGAD).



During their meeting, the women engaged in presentations, debates, group discussions, plenaries and brainstorms, and they also reviewed documents to develop specific recommendations on how to get the various stakeholders to include more women in research. These stakeholders include women in research (ourselves), government institutions, formal institutions of higher learning and research institutions, publishers, funders (local and international), the private sector, civil society and the media.

An online dialogue meeting, held on 3 October 2024, brought together 278 predominantly women researchers from across Africa and beyond to gather final input for the manifesto, expanding the consultation beyond the original 50 women who participated in the "More Women in Research" engagement seminar.

The event featured three distinguished keynote speakers: Justice Professor Lillian Tibatemwa-Ekirikubinza of the Supreme Court of Uganda, Professor Ruksana Osman, Senior Deputy Vice-Chancellor (Academic) at the University of the Witwatersrand, and Dr Njoki Wamae, Assistant Professor of Politics and International Studies at the United States International University Africa.

The manifesto's recommendations to address the underrepresentation of women in academia and research drected to eight key stakeholder groups were presented by Dr Agatha Alidri, Faculty of Education and Humanities, Gulu University, Uganda, Dr Lanoi Maloiy, Independent Feminist Researcher, Kenya, Dr Lizelle van Dyk, Associate Professor, University of the Witwatersrand, Johannesburg – School of Chemical and Metallurgical Engineering, South Africa, Dr Jenny Falconer, Director and Technical Manager, Cwenga Technologies, South Africa, Dr Lea Pare Toe, Target Malaria, Burkina Faso and Dr. Sika Abrokwah, Assistant Research Fellow, Centre for Coastal Management, University of Cape Coast, Ghana.

These recommendations were thoroughly discussed among the participants, and the key insights from these discussions have been integrated into the manifesto, which was updated on 20 October 2024.

For a detailed overview of the feedback and suggestions during the More Women in Research online meeting 3 October 2024, please refer to <u>Annex 1 Online</u>.

Preamble

WE, Women in Research from twelve countries in Africa, of diverse economic, social and political backgrounds, religions, races, occupations, ages, resource endowments, marital status, parental status, abilities and challenges.

Having participated 4 - 8 March 2024 in the seminar More Women in Research in Arusha, Tanzania and a series of discussions, debates, brainstorms, plenaries and document reviews on the situation of women in research, we are:

APPALLED that although women comprise nearly half of the world's population they remain underrepresented in the field of research where only approximately one-third of researchers globally are women and an even more dismal number are in academic leadership positions,

CONVINCED that having more women in research serves as a catalyst for more equitable social development,

AWARE that women in research face many barriers when seeking access to research grants, authorship and publication, promotions and academic leadership positions,

COGNISANT of the patriarchal systems and gendered bias in which most academic and research institutions and publishers are embedded,

AWARE of the societal, cultural and biological roles that African women are expected to play, often at the cost of their research careers,

AWARE of the lack of mentors and adequate mentorship to help women navigate the world of research,

AWARE that women in research struggle with recognising their own agency and capacity,

MINDFUL of the various settings – often determined by politics, security and conflict - in which African women researchers live and operate,

MINDFUL that the significance of having (more) women in research extends beyond the individual professional advantages it offers to women in the field and in their careers,

AWARE that the world is facing immense challenges that call for new knowledge and innovative and diverse solutions and that diversity (including gender) in a group strengthens innovativeness in collective problem solving,

UNDERSCORING the need to EMPOWER women in research,

We hereby adopt this Women's Manifesto as an affirmation of our commitment and as an agenda for a call to action to increase the number of women in research and in research leadership.

We call upon women in research, government institutions, institutions of higher learning, research institutions, publishers, funders (local and international), the private sector, civil society, the media, among others, to commit to adopting and implementing the recommendations of this Manifesto.



Background

Women around the globe are leading ground-breaking research. However, despite their remarkable discoveries, women still represent just one third of researchers globally, and their work rarely gains the recognition it deserves.³ This figure holds true in developed regions such as the European Union where women represent 33% of researchers and in countries such as Germany where the figure is 31%. Gender differences persist not only in the number of researchers, but also in scientific output and the number of registered patents: women publish less and patent less than men⁴ do. The gender difference is even more visible in the dismally low number of women who have received a Nobel Prize in the natural sciences (26 out of 621 - 4.2%), the economic sciences (3 out of 621 - 0.48%) and literature (17 out of 621 - 2.7%)⁵. When we dissect this data further by region, it is striking that African women, and even worse, those who are less privileged, are further marginalised as far as recognition of their contribution to science and research6 is concerned.

Institutions of higher learning, which are crucial for nurturing researchers and scientific discoveries, also suffer from the under-representation of women. For instance, globally only 35% of the staff in higher education are women. In the European Union, only 21% of the women in academia have reached the highest level in an academic career⁶. While there is a dearth of data for many developing countries, country-level statistics in developed countries and some developing countries reflect the aggregate value. For example, in Japan only 24.7% of full-time university staff are women and in Mexico only 38.6%. For staff members who have been privileged enough to attain full professorship, just 26% are women in U.S. colleges and universities and 22% in India.

Data from many developing countries on the level of research and women representation in institutions of higher learning, especially in African countries and in Africa as a continent, are missing. While there is a need to collect and publish such data, anecdotal evidence from major universities across African countries can help fill this gap. The use of data in meaningful policy formulation cannot be ignored, especially as it pertains to addressing gender disparities and inequities in research and in institutions of higher learning on the continent.



Manifesto objectives

The objectives of this manifesto are to:

- 1. Create awareness of the inequalities and challenges women face in research especially by:
 - a) Summarising data presented in statistics on women in research and relevant literature.
 - b) Presenting key takeaways from the stories and experiences shared at the seminar.
- 2. Lead the process of breaking the glass ceiling for women in research especially by:
 - a) Committing to future actions.
 - b) Calling the various stakeholders to action.
- 3. Contribute to the body of knowledge in the area of women in academia and research.

Approach

These objectives will be achieved by utilising key takeaways from the seminar "More Women in Research" that was attended by 50 African women researchers from 12 countries (Burundi, Rwanda, Burkina Faso, Kenya, Uganda, Tanzania, South Africa, Ethiopia, Somaliland, Egypt, South Sudan and Ghana).

The methods used included plenary discussions, the Arusha debate, brainstorming sessions, group discussions, and a review of current literature on women in research and skills development in this area.

Seminar outcomes

Key takeaways from stories and experiences

- Women, just because they are women, face challenges in their careers in research that are never faced by their male colleagues.
- Research must be gender sensitive as this contributes to the quality and inclusivity of research outcomes.
- Women on the continent have different challenges depending on their home country's gender policies and the worldview that prevails in their societies.
- By being a successful woman in research you make a difference simply because your success inspires other women.
- Administrative positions such as heads of schools and departments, assistant deans, deans, deputy vice-chancellors and vice-chancellors are vehicles for influencing policy development and change. Women must also have a voice on these platforms.
- Women have many different reasons for wanting to achieve success in research.
- Intersectional differences influence the success of women in research.
- Today, motherhood and a successful research career often conflict, with each often posing significant obstacles to the other
- Policy and societal norms can promote or impede success in research for women.
- Funding is a major driver for success in research and more so for women, as it enables us to navigate some of the challenges we experience in the roles we play in our families. The importance of public and private sector funding is noted.
- We need to share our stories publicly.
- Women are central to breaking down the barriers that keep them from entering research spaces.

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Recommendations to eight stakeholders

The aim of our recommendations to stakeholders is to facilitate the process of breaking the glass ceiling for women in research, particularly those in Africa. We call on all our stakeholders to initiate processes in their respective spheres that will bring about decisive positive change for women in research.

As a general recommendation, we call upon all stakeholders to initiate discussions about how women's roles in the family may hinder their advancement in research careers and what needs to be done to bring about change.

Women in research (individuals, groups, networks) refers to all those who identify as female and who participate, contribute and achieve outcomes in fields of research that include, but are not limited to, science, technology, engineering and mathematics (STEM), the social sciences, the humanities and the arts.

Government institutions represented by those who are in charge of making policies and making funding available for special government initiatives.

Government institutions are formal organisations or entities established by a government to carry out specific functions or tasks, and hold certain responsibilities within a society. They are responsible for implementing and enforcing government policies, laws, and regulations. Government institutions operate at various levels, including local, regional, national and sometimes international levels, depending on their scope and mandate.

Formal institutions of higher learning and research institutions that include universities, universities of technology and other formal training institutions where research is conducted, and any other private and government research facilities.

Funders are persons or institutions that fund research and development. These include government agencies, non-governmental organisations (NGOs), international organisations, philanthropic foundations, corporate and development partners and academic institutions.

The private sector refers to that part of the economy that is owned, controlled and operated by private individuals or entities.

Publishers are responsible for the dissemination of academic knowledge through the research journals and academic books that they publish.

Civil society organisations (CSOs) are non-governmental, non-profit organisations that address social, economic, political or environmental issues and promote the interests and well-being of citizens. These organisations are typically formed by citizens who come together voluntarily to pursue a common cause or goal. Civil society organisations play a crucial role in advocating for social change, providing services to communities, promoting human rights, fostering democracy and holding governments and other powerful entities accountable. Civil society organisations are knowledge and research-based.

The media refers to the various communication channels that are used to disseminate information, news, and other content to a wide audience.

Women in research

As women in research, we acknowledge that without the assistance of other stakeholders, as discussed in the next few sections, the statistics will remain unchanged. We also acknowledge that WE have the biggest part to play in changing the current narrative. We therefore commit to doing the following and recommend that our fellow women in research do so to:

- Actively work to change narratives.
 - a) Societies in African countries have a gender-biased yardstick that is used to measure the success of a woman. This yardstick has several indicators, but the two with the highest percentages are whether a woman has maintained a successful marriage (regardless of the health of the relationship) and whether she has produced offspring. This forces women to put more weight on the indicators that will raise their profile and standing in the society. Consequently, as women we need to work actively to promote other success indicators within our societies such as being role models to demonstrate what is achievable.
 - b) The majority of women who are well equipped to be positive role models are the women that society has labelled 'bad role models' because they espouse characteristics that are contrary to society's expectations of a 'good/successful woman'. Even when a woman is well accomplished in her professional role, she is labelled as being against the institution of marriage and considered a threat to the institution, if she is unmarried, divorced, holds a higher position in society than her husband, or earns more than her husband.
- Have open and honest conversations with our families about our career aspirations and how to share family responsibilities.
 - a) Balancing family and research can be very difficult as women are often trapped in their reproductive roles and tend to shy away from opportunities that will advance their research and career in fear of the cost to their families. Anecdotal evidence shows that women are scared of accepting career development opportunities, even when such opportunities are presented to them, because of the many responsibilities and expectations that come with them. This can even be the case when the opportunity presented is a full professorship.
- Actively seek out growth opportunities to build self-esteem.
 - a) Women sometimes feel inadequate and shy away from taking on certain tasks and responsibilities because of the way they are socialised from childhood. They grow up with the idea that certain privileges, tasks, roles and positions in society are men's birthright and that the advancement and survival of a family and society as a whole depends on men.
- Commit to our own agency in research.
- Consciously support one another by reading and citing women authors.
- Build women research communities and networks
 - a) Create and maintain unified women researchers communities, for example WhatsApp groups, for networking and support to facilitate continuous engagement, mentorship, and knowledge sharing among women researchers.
 - b) Host gatherings, monthly, quarterly or bi-annually to maintain active participation and provide continuous support, updates, and opportunities for women in research.



Government institutions

In making policy, government institutions have the power to define the abilities and freedoms available to their constituents. It is therefore imperative to recognise that the role of a government and its views on women have an overarching effect on the position of all other stakeholders and their motivation to bring about real and sustainable change.⁷

This manifesto wishes to acknowledge that each country is governed in a unique set of conditions by a governance structure that has its own agenda and faces unique and sometimes considerable challenges in achieving the goals of this document. In light of this, it is important to understand that valuable and significant change will look different in each and every country. This manifesto aims to create a set of goals that are broad enough to cater for the different starting points of each government while at the same time providing the basis for meaningful methods to measure and acknowledge progress. No country has reached gender parity and the World Economic Forum's 2022 Global Gender Gap report estimates that it will take 132 years to reach global parity. This rate of change must be accelerated.

We recommend the development and implementation of policies that fundamentally change the academic environment for women and explicitly promote gender equality in research, including targeted funding, mentorship programmes and family-friendly policies to support the equitable promotion of women. The outcomes and progress of these policies should be measured and reported transparently.

Thus, we recommend governments to consistently:

- Initiate policies that deliberately target a minimum level of 30% women in research positions in academia across all disciplines and especially in STEM. Where this target has already been achieved, increase it by increments of 5% to a maximum of 50% as the long-term target.
- Remove the physical and structural barriers to the entry of women and girls into the STEM fields, for example by investing in smart learning centres.
- Initiate award schemes to identify and recognise women who excel in various fields of research, innovation, and administration/management.
- Facilitate the establishment of safe and inclusive workspaces that encourage and recognise the active participation and contributions of women in research by providing services such as lactation rooms and day care centres in both public and private workspaces.
- Allocate a minimum of 30% of all government research funds to women-led research projects but with a long-term strategy that will ensure equal opportunities for all.
- Make it mandatory for gender sensitivity to be mainstreamed into project budgeting and implementation.

- Mainstream gender in the education curriculum at all levels to ensure the development of gender-sensitive citizenry.
- Include women and other marginalised groups in the consultation and design of policies that affect them.
- Establish policies that support paternity leave for both married and unmarried women and leave to 'other' family members to support single mothers.

Institutions of higher learning and research institutions

These are gendered institutions. Unconscious or implied bias hampers gender equality and this can be seen in the discrimination women face in accessing and enjoying research opportunities and privileges. Women continue to be underrepresented in research as a result of institutional impediments and we recommend that institutions of higher learning and research institutions do the following to address these impediments:

- Make a deliberate effort to recruit more female academic staff.
- Create a conducive environment with a gender sensitive infrastructure that supports women in academia and research.
- Take deliberate steps to adopt activities that empower female researchers to write research grants.
- Provide seed grants for early career female researchers to support their research and publications.
- Put gender supportive policies such as affirmative action in place in research opportunities, leadership and management positions to ensure a greater gender balance.
- Enter and maintain partnerships with external institutions that have registered progress in recruiting and advancing the careers of women researchers.
- Lobby for scholarships for female staff and girls in STEM.
- Universities in Africa should create a budget for research grants that includes costs related to professional development, research publication and attending conferences.
- Universities should subscribe to journals and reference databases including data banks from and for women in research in African countries, as African researchers in general, lack access to quality reference materials, especially articles published in journals.
- As women are expected to balance the dual roles of family responsibilities—such as being a wife, mother, and caregiver—with their professional duties as researchers, to support them in managing these roles, institutions should provide resources like lactation rooms, on-site childcare (ideally subsidised), and extended family responsibility leave.
- Encourage the creation of female mentorship associations to raise awareness about the contributions of women in academia and research, promote teamwork, and build capacity in research and academic writing among female researchers.
- Have policies where women achievers in academia are recognised in order to inspire women in the early stages of their careers in research.
- Bridging gender gaps in research roles
 - a) Conduct surveys to assess the extent of administrative work being carried out by women researchers and take deliberate steps to ensure that the burden of academic administrative tasks is equitably distributed between men and women in research.
 - b) Deliberately promote equity in roles and responsibilities.
- Introduce research retreats for women:
 - a) Dedicated research retreats for women, providing them the time and space to focus on their research activities without the distractions of domestic responsibilities.

- Public speaking and presentation skills training:
 - a) Introduce public speaking boot camps specifically for women researchers to build their confidence and skills in presenting research findings, addressing barriers created by historical patriarchal structures.

Funders

The core responsibility of an academic and researcher is to continuously generate and disseminate knowledge. Career advancement is therefore tied to producing good quality research and that is heavily dependent on funding. Historically, the participation of women (and the leadership roles available to them) in funded research projects has been low⁹, the reason being that funders generally provide women with fewer funding opportunities and resources than their male colleagues. Not surprisingly, this has a negative impact on their career progression^{10,11}.

A broad spectrum of funders support research and researchers namely universities and institutions of higher learning, development partners, government, the private sector and NGOs, to name but a few. It is crucial that funders introduce strategies to improve women's access to research funds, to build the capacity of women in leadership roles and to create an enabling research environment that considers the specific needs of women with family responsibilities.

Here are our recommendations to funders:

- Selection committees
 - Funders should acknowledge their inherent power in controlling when and where funding is granted, and they should use their power fairly, taking into consideration the existing inequality in opportunities in academic and research spaces. This can be done by ensuring that their grant selection committees are inclusive, not only in terms of gender and ethnicity but also in terms of nationality and social background.
 - Funders' selection committees should be aware and informed of the issues that women face in research globally, but also specifically in the context of the countries where the funding is destined to be spent.
 - Funders should have mechanisms in place to train their selection committee members on gender awareness.



- Funding models and opportunities
 - Funders should clearly indicate their positions regarding gender and inclusivity in their goals, objectives and targets.
 - Funders should allocate a quota of research grants to women-led research teams.
 - Such funding should not impose age restrictions. It should account for the fact that African women researchers often take longer than men to reach the PhD level, with many surpassing the age of 35 by the time they do.
 - Grants should address women-specific needs, including childcare, welfare, wellness, and medical coverage, to provide comprehensive support—especially for women in developing countries—ensuring they can successfully complete their research.
 - The funding should cover essential equipment and services, such as laptops and internet access, which may be difficult for women, especially those from marginalised communities, to obtain.
 - Funders should provide funding opportunities that deliberately target all-woman research teams.
 - Funders should provide seed grants targeting individual early-career women researchers.
 - Funders should clearly indicate the maximum budget amount that can be requested in a grant call and should refrain from allocating a lower amount than that requested in the proposed research budget, even if this means that fewer research grants can be awarded.
 - Funders should provide funding opportunities for establishing and enriching mentorship programmes for women in research in academic and research institutions.
 - Funders should create platforms that recognise and reward individuals who volunteer their time to mentor women in research.
- Funders should insist that applications for funding meet the following requirements:
 - Research teams must adopt gender-sensitive structures that actively involve marginalised women, with clear definitions of "gender sensitivity" and "marginalised" provided.
 - Applications must emphasise gender sensitivity in the implementation of research projects.
 - Applications must include gender-sensitive research budgets, covering costs such as paid maternity leave, support for nannies or daycare during research activities, and additional assistance for accompanying family during travel.
 - Where global partnerships between multiple institutions in different countries is a condition for funding, there must also be the requirement that the power to make decisions is fairly distributed among the institutional partners, and between male and female participants.

■ Handling of funds

- Funders must ensure that funding reaches the intended recipients by implementing strict reporting and auditing procedures for the universities hosting the research.
- Funders must ensure that funds are not controlled solely by men and that management structures do not obstruct the funds from reaching women researchers.

Publishing

- Small grants and capacity-building training should be provided to journals from the Global South, including support for accreditation and indexing processes.
- Incentives should be provided for publishing research outputs in accredited Global South journals.



The private sector

The private sector has a key role to play in advancing gender equality as the sector benefits from it. In order to remain relevant, businesses must act on issues of concern to the public, such as gender equality¹². Indeed, studies show that advancing women's equality can lead to exponential economic growth¹³ for countries and for the private sector, including emerging and critical sectors such as renewable energy and agribusiness. Other studies show that supporting women's roles in the private sector can advance peace and stability.¹⁴

However, entrepreneurship is still largely gendered and there is a weak support infrastructure at the higher levels of education to change this. The private sector relies on university research outputs and ideas to create wealth, as well as the products and services used by women. Creating synergies between universities, governments and the private sector can advance entrepreneurship amongst women, leading to benefits for all parties¹⁵. While being mindful that private sector actors vary in size and thus can have a varying impact on gendered entrepreneurship, they all have a role to play in advancing women in research.

The private sector is therefore urged to take the following steps:

- Develop a strategy for university-private-public partnership in research. Industries should provide mentorship through student and researcher placements and endeavour to allocate 50% of these positions to female mentees.
- Fund research, particularly women-centred research.
- Establish a framework to ensure that women make up at least 50% of the staff in research and development units.
- Appoint women to leadership positions.
- Make welfare provisions available to women employees, such as day care facilities at the work place, family allowances during field visits, flexible work environments and flexible schedules such as blended office spaces, remote work places, and hybrid work models.
- Build the research capacities of women employees through training, refresher courses, national and international conferences.
- Create collaborative spaces for private sector engagement with women researchers.
 - a) Create open innovation spaces for co-creation with women researchers.



Publishers

It is acknowledged, that there is a gender gap in academic publishing¹⁶. We have already pointed out that women constitute approximately 29% of global researchers and 24% of researchers in Africa¹⁷. On top of this dearth of women in research, women academics have lower levels of productivity in every discipline and tend to be less credited in publications and patents than their male counterparts are.^{18,19,20} The root causes of this gender gap have not been well established. Some researchers attribute it to an unsupportive research environment, to the fact that women's domestic responsibilities often conflict with work, and that women's contributions are undervalued in academia^{21,22}.

Most of the research on the gender gap stems from or concentrates on women academics in the Global North. The few studies that focus on the gender gap in Africa concentrate mostly on South Africa²³. There are a few studies that focus on a handful of West African states and Kenya. The studies highlight the tension that women academics experience in balancing work and domestic responsibilities – a tension that most male academics do not have to contend with²⁴. All this is compounded by a lack of data on women in academia in Africa, including the intersectional challenges faced by women of different ethnic, racial and class backgrounds that may present barriers in academia and make it difficult to navigate in the academic environment²⁵.

It is important to have gender disaggregated data in order to identify and address this gender gap in academic publishing.

Here is what publishers and journals should do:

- Publish comprehensive periodic data showing gendered and intersectional differences relating to the submission, editing, reviewing and publication of articles as well as gendered analyses of the citations within published articles. This will provide accurate indications of any gendered gaps, biases and or gender blindness in publication policies and practices. This data must also specifically indicate how many female scholars from the Global South are included in the editorial, review, citation, and publication processes.
- Encourage editorial and review boards to require more citations of female authors in reviewed articles, using a 'representative referencing' approach. Journals should also take a proactive approach with this requirement in their calls for papers.

- Promote open innovations for publishing for African women researchers
 - a) Financial barriers prevent African women researchers from publishing their work. Publishers should therefore broaden their financial support to include all African countries and reduce publishing fees to ensure accessibility for African women researchers.
- Information gate for publishing
 - a) Create platforms that provide information on where especially young researchers with valuable research but lack of knowledge about publishing opportunities can publish their work.
- Have teams of editors and reviewers that reflect gender balance as studies show that women authors are less inclined to submit articles to journals whose editorial teams are perceived to be gender biased. Moreover, studies also show that female authors are likely to include sex and gender analyses in their articles while female reviewers are more likely to appreciate gendered perspectives when reviewing submitted articles compared to male reviewers.
- Promote more women to journal leadership positions as studies show that more women in journal leadership positions tend to recommend more women editors and reviewers.
- Proactively invite more women and encourage women from marginalised regions and ethnicities to submit articles for publication when making calls for papers.
- Initiate special grants that provide financial support for writing retreats for women researchers in order to help them manoeuvre themselves out of the social and cultural demands that otherwise limit the time and resources they can allocate for writing and publishing.
- Provide editors, editorial teams and reviewers with training on diversity and unconscious gender bias and on countering bias during the review and publication process.
- Make public commitments and targets to achieve inclusive gender and intersectional policies in content, review and editorial roles in order to be held accountable.





Civil society organisations

Civil society organisations (CSOs), such as community-based non-government organisations, play a key role in advancing gender equality and women's rights in particular. They also contribute to science research through the production of data and knowledge. They play a governance role in deliberations on research activities and risk assessment, and an advocacy role by campaigning for the transformative knowledge produced by evidence-based research that can inform policy and reform²⁶.

These organisations can also facilitate multisector consultations and network building between government, the private sector and academia. They are recognised as catalysing change agents that can assist in actualising and localising global ideals²⁷.

CSOs can advance women in research in several ways by:

- Disaggregating collected data by gender.
- Ensuring partnerships with women researchers and collaborators in research projects.
- Including women as board and advisory members of research projects and in the process of creating questionnaires to avoid inherent male bias or default male language.
- Ensuring that women are hired as trainers in CSOs training programmes and ensuring that women participate in data collection.
- Advocating for women as subjects of study and for studies on women's issues.
- Funding women in research and advocating for increased support, they can better influence power dynamics within their universities and research groups.
- Bringing the attention of politicians to the need to increase research on specific neglected women issues that persist in the countries and communities in which they are based.
- Continuing to play their role in disseminating research findings.
- Establishing CSO-university-research partnerships that focus on women's research issues.
- Supporting the publication of research by women and actively speaking out on the gender bias currently inherent in the publishing industry.



Media

"Internationally, women and minoritised racial and gender groups are underrepresented in science, technology, engineering, and math (STEM) fields,^{28,29,30}. "Recent studies point to the importance of role models for the development of STEM identity and subsequent retention in STEM of individuals from minoritised groups³¹, especially role models who share their gender or race"

Underrepresented STEM graduate students may look to traditional media representations of scientists for role models in the absence of real-world mentors who share key aspects of their identities. Female scientists are often stereotyped as subordinates or assistants to male researchers, struggling to balance family and personal obligations, and are more highly valued for their appearance, sexuality and domestic qualities than their male counterparts. Furthermore, online media platforms exhibit similar representation issues, depicting most scientists as cisgender males, white, able-bodied, middle-class, and heterosexual. How scientists, especially women in STEM, are presented in both traditional and SoMe media ought to receive considerable attention.

In Africa, although Rwanda and Namibia, for example, have made progress in bridging the gender gap in some sectors, they still have a long way to go in achieving gender equality in the media industry³². A study on the media environment in Namibia by Africa Media Barometer in 2022 found that all heads of the country's newspapers are male and even their second-incommand tends to be male, as well as those with the hard beats of politics and finance. That is despite most newspaper journalists in the country being female.³³ In Uganda, women make up only 20% of the people working in the media, according to the African Centre for Media Excellence.

To promote women's research, universities, research institutions, and national and regional bodies like Tanzania's COSTECH and Ghana's GAAS, along with media outlets and professionals (editors and journalists) across the continent, must all play a significant role.

What follows are some of the roles that our targeted entities and stakeholders can play, including proposals for how they can promote more women in research via the media.

Institutions of higher education and research institutions

- To help journalists select female researchers as expert sources, higher education and research institutions should compile and publicize lists of female experts across various fields, including law, technology, AI, chemistry, gender studies, health, education, and physics. These lists should be available on university websites and through university communication and media offices. They should be regularly updated and distributed to relevant media outlets, ideally once a year.
- Pitch women researchers' knowledge and profile stories to the media on commemorative days such as International Women's Day, Day of Women in STEM, etc.
- Actively promote and publicise junior women researchers' PhD work and awards.

National and regional research bodies

- Arrange networking and dialogue events for women researchers' on current research topics, and invite media representatives to cover these discussions.
- Institute annual awards for women researchers. This can be done in collaboration with a media house.
- Develop a "women in research" archival website.
- Provide training in monitoring social media and in promoting the work of women researchers. Arrange media and presentation training for women researchers.
- Establish social media accounts for women researchers' networks to promote their activities, highlight individual researchers' work, connect with allied networks, and engage with decision-makers and the public through various media, such as infographics, podcasts, and videos.
- Build up a network with targeted media agencies and journalists and initiate meetings between women researchers and journalists where they brainstorm together on stories.
- Collaborate with national or regional research bodies on establishing annual awards for women researchers.

Media houses

- As part of the editorial policy, actively promote women's research and women in general and quote women researchers as expert sources.
- Monitor how many women researchers are used as sources and make sure that the journalists make a deliberate effort to include women in their source portfolio.
- Arrange network meetings with women researchers and journalists and brainstorm together on stories that activity promote women researchers' voices and findings in the media.
- Collaborate with national and regional research bodies, such as COSTECH in Tanzania or GAAS in Ghana, on annual awards for women researchers.

Make a deliberate effort to

- Debunk misconceptions and stigmas about STEM.
- Feature women researchers as role models.
- Deliberately provide space to change mindsets.
- As part of editorial policy, actively promote women's research, use women's research as a source of information, and choose women as 'expert voices'.



Final comments

Many industries, countries and institutions lack adequate data³⁴ on women in research and when statistics are reported they show an overwhelming inequality based on gender.

The overarching recommendation to all stakeholders is to collect gender disaggregated data, to interrogate the figures, make changes for the better where necessary and celebrate when the figures show existing gender balance.

Necessary change will look different in different contexts. It is impossible to hold nations to the same standards when they have such disparate starting points.

Progress in one country, such as gathering data on female researchers where none previously existed, should not detract from efforts elsewhere. We must advance across all areas simultaneously. To improve our societies, research must reflect and promote equity. Achieving this requires a collaborative, systematic approach to overcoming gender barriers, creating fair opportunities for all, reducing unconscious bias, and ensuring balanced decision-making at all levels in academia and research.

No longer shall we accept the excuse that there are no ready and qualified women for positions of responsibility in research. Our time has come. We are here.



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ANNEXES

The More Women in Research manifesto is a powerful call to action aimed at addressing the significant underrepresentation of women in academia and research at all levels, particularly in Africa.

Initially drafted by 50 women researchers during the More Women in Research engagement seminar—co-organized by the Danida Fellowship Centre, MS TCDC, and YouLead Africa—the manifesto acknowledges the vast scope and complexity of the issue. We recognize that new perspectives and voices will continue to emerge each time this subject, and the manifesto's recommendations, are discussed.

In light of this, we - the editorial group of the manifesto - have decided that the manifesto will be a living document. New insights and comments will be incorporated as annexes, ensuring that the manifesto evolves with ongoing conversations. Annex 1, for example, includes the inputs and feedback from the online dialogue held on 3 October 2024, which engaged 278 participants, predominantly women researchers from across Africa. Find the online annexes here

The *More Women in Research* manifesto is created by women researchers from various fields across Africa, whose insights and contributions have shaped its content and messages. From the begining this important initiative has been supported by Danida Fellowship Centre, MS TCDC, and YouLead Africa.





