

Equitable Careers

Exploring the barriers and enablers to intersectional gender equitable scientific career pathways

Target Audience

- Funders, implementors and researchers within higher education and research institutions in sub-Saharan Africa

The DELTAS Africa Learning Research Programme

The Developing Excellence in Leadership, Training and Science (DELTAS) initiative aimed to improve health in Africa through research driven by the most urgent regional challenges. The Learning Research Programme led by the Centre for Capacity Research at the Liverpool School of Tropical Medicine, worked alongside the DELTAS Africa consortia to produce research-based learning about how to train and develop world-class researchers, foster their careers and collaborations, and promote research uptake. Activities were distributed across four themes: Equitable career pathways; Training and development; Research Uptake; and Consortia management.

Millicent Liani led the equitable careers pathway theme exploring the barriers and enablers to gender equitable scientific career pathways in the DELTAS-funded African research institutions. A published literature review¹ completed by Millicent examined the emerging theories and evidence on the types and reasons for prevailing gender inequities in academic scientific research career progression in sub-Saharan Africa. This led Millicent to develop an integrated conceptual framework for understanding intersecting gender inequities in academic scientific research career progression in sub-Saharan African higher education institutions. A qualitative approach for primary data collection was employed including in-depth interviews with trainees/fellows and key informant interviews. The latter interviews comprised of research consortia leaders/directors, programme managers/coordinators, monitoring and evaluation officers, and supervisors (co-investigators) across selected DELTAS consortia, to corroborate information from the interviews, and to provide additional information on the enabling factors/actions that are currently or should be in place, to enhance equitable career progression.

Key Messages

- Traditional views of the male and female roles within the family and workplace shape individuals' career progression.
- Women and men face conflicting demands on their time including when to start a family and when to advance their career, and women can struggle to balance a science career and home life successfully.
- Higher education and research institutions are highly competitive environments for career progression opportunities and research funding, leading to career instability and insecurity.
- There is a dearth of female role models in leadership positions within sub-Saharan African higher education and research institutions.
- Negative research cultures exist built on gender stereotyping, bias, harassment, and bullying.
- Emphasising English as the standard scientific language places non-Anglophone speakers at a disadvantage through reduced productivity and visibility.
- Institutional reforms across policies and systems and revising the established scientific career pathway are needed.
- Gender transformative approaches are needed to support equitable career pathways.

Summary of findings

▪ Familial and socio-cultural drivers of gender inequitable scientific research career progression in selected DELTAS institutions

The first step to exploring gender equitable scientific career pathways was to understand how familial and socio-cultural drivers contribute to limit women and men researcher progression. Four themes were identified highlighting gender inequalities in pursuing scientific careers²:

- **Traditional linear scientific career pathways prevail** – there is no flexibility in the route to a permanent position within higher education and research institutions. Obtaining a PhD followed by a period of research and grant application was the norm.
- **Societal norms regarding gender dominate** – stereotypical attitudes towards women as ‘homemakers’ versus males as ‘breadwinners’ fuels more acceptance of males within the workplace and can lead to an unequal division of labour, which is detrimental to women. Men also feel under pressure as the main source of income for their household.
- **Pressure to achieve work-life balance** – achieving a work-life balance of both a successful career and home life is difficult for women. Women, particularly those with children, find it difficult to balance the expected long working hours and freedom of mobility associated with advancing a scientific career whilst also being responsible for maintaining a successful family life. Some males are reluctant to spend time away from home and be “unavailable” to their family.
- **Strategies for women navigating the work-life balance** – women are conflicted on whether to prioritise a career over marriage and family, a choice that males are not faced with. Women are often encouraged to start a family at the same time when their scientific career is also expected to progress meaning sacrifices are necessary.

▪ Institutional-level drivers of gender inequitable scientific career progression in sub-Saharan Africa

Understanding how institutional and research environments shape career progression was also researched across purposively selected DELTAS consortia institutions. From the analysis of 78 interviews, three themes emerged³:

- **Institutions are highly competitive environments for career progression opportunities and research funding** – funding awards and institutional posts are reinforced by racism, ageism, nepotism, and patriarchy. Fellows expressed frustration at the resulting insecure working environments characterised by uncertainty and financial instability.
- **Inequitable access to support systems within institutions characterised by insufficient social resources** – mentoring and dearth of female role models in positions of power within higher education institutes; inflexibility of formal rules around working policies and culture; and lack of institutional support for women researchers with nursing needs.
- **A negative research culture is perpetuated by stereotyping, bias, harassment, and bullying** – this was particularly raised by the female researchers who felt this impacted their career and who were made to feel uncomfortable in their research environment. There was also tension reported between different scientific disciplines, negative attitudes to all female research teams, and unconscious bias in recruitment.

▪ Strategies used within selected DELTAS institutions to promote gender equitable career progression

Having understood the barriers to scientific research career progression, DELTAS fellows were asked about how they navigated their career pathways, strategies used within their institutions to promote gender equitable career pathways and to provide recommendations and suggestions for improvement⁴:

- **Coping strategies** – fellows explained how they employed individual agency, resilience, and disciplined daily work-schedules to manage their time across their work-life balance. The role of religious faith and help from family members - particularly with childcare - also contributed to supporting struggling fellows.
- **Mentorship** – having an independent mentor (preferably chosen by the mentee) in addition to a supervisor was seen as beneficial to help support with pastoral care including psycho-social and personal wellbeing, as well as impartial career advice.

- **Transparency and communication** – junior researchers should feel comfortable discussing issues they are facing and be offered support. Promote awareness about the demands of a research career to solicit family support and could also engage more African women in scientific careers.
- **Structure and support** – institutions and research consortia should establish wellbeing initiatives that support a work-life balance and make available occupational therapists and counsellors to help handle psychological issues experienced by researchers.
- **Formal procedures** – the workplace/research consortia should be governed by standard operating procedures to ensure fairness and equity when dealing with sensitive issues such as harassment, bullying, and intimidation. Funders and consortia leaders should establish sanctions for grantees and researchers who portray negative behaviours at the workplace.
- **Research community and environment** – create a supportive environment incorporating discussions on how gender affects career progression and strive for a gender balance across senior leadership roles. This could be realised through structured careers and psycho-social mentoring and training early career researchers on empowerment to build confidence and resilience. Build and nurture a supportive research community through launching spaces and forums to discuss and provide mutual support.
- **Capacity development** – particularly surrounding how to identify and deal with unconscious bias and for victims to understand it is unacceptable treatment. Virtual capacity strengthening programmes would also help those unable to travel due to homelife commitments.
- **Family friendly policies** – such as the provision of mother and baby/day-care facilities within the workplace and childcare provision at conferences. Flexitime policies would also be beneficial work those juggling work-life demands.
- **Foster and secure the careers of researchers** – provide fellows with information and advice about the possible career pathways available for them and arrange placements of fellows in other research institutions across the DELTAS network to build researcher skills. Make efforts to create bridge/reserve research funds for salary support for researchers. Improve fellowship adverts, such as a disclaimer on anticipated support besides declaring that female candidates are highly encouraged to apply. Organize mock interviews for fellows.
- **Overcoming language barriers** – particularly experienced by Francophone fellows, a provision of translation services at conference and larger meetings; and fostering research collaborations between Francophone and Anglophone institutions should be strengthened.
- **Flexibility of funding schemes** – funding schemes that target African female researchers specially should be promoted, and age-limits should be scrapped for PhD and post-doctoral fellows.
- **Leadership** – conduct supervision training for supervisors and confidential supervisory evaluation by fellows, as well as periodic review of fellows’ experiences with their work environment, in addition to scientific quality. Actively support researchers in gaining relevant leadership experience.

Conclusion

DELTAS Africa has progressively promoted approaches that are **gender accommodating** towards enhancing equitable scientific research career progression in sub-Saharan Africa. Yet to maximize the impact and outcomes for researchers, there is a need to move towards **gender transformative** approaches. Such approaches remain useful as they have the potential for shifting norms and may lead to more lasting outcomes, which is an important approach towards levelling the playing field. However, such initiatives need to be carefully implemented so as not to reinforce male privileges created over the past decades.

¹LIANI, Millicent L., NYAMONGO, Isaac K., TOLHURST, Rachel. [Understanding intersecting gender inequities in academic scientific research career progression in sub-Saharan Africa](#). *International Journal of Gender, Science and Technology*, [S.l.], v. 12, n. 2, p. 262-288, sep. 2020. ISSN 2040-0748.

²LIANI, Millicent L., NYAMONGO, Isaac K., PULFORD Justin, TOLHURST, Rachel. [An intersectional gender analysis of familial and socio-cultural drivers of inequitable scientific career progression of researchers in Sub-Saharan Africa](#). *Glob health res policy* 6, 30 (2021)

³ LIANI, Millicent L., NYAMONGO, Isaac K., PULFORD Justin, TOLHURST, Rachel. [Institutional-level drivers of gender-inequitable scientific career progression in sub-Saharan Africa](#). *Health Res Policy Sys* 19, 117 (2021).

⁴ LIANI, Millicent L., NYAMONGO, Isaac K., PULFORD Justin, TOLHURST, Rachel. [Enablers of gender equitable scientific career progression in Sub-Saharan Africa: Insights from the DELTAS Africa Initiative](#) [version 1; peer review: awaiting peer review]. *AAS Open Res* 2021, 4:42

Researcher Profile: Millicent Liani



Millicent has a background in anthropology and gender and development practice having worked in the fields of public and global health, climate change, agriculture, and human nutrition. The work presented in this brief was drawn from Millicent's publication-based doctoral dissertation which she successfully defended on 6th August 2021 (University of Liverpool, UK). She holds a Master of Arts degree in Medical Anthropology and Bachelor of Arts degree with first class honours in Anthropology and Gender Studies, all from the University of Nairobi, Kenya.

“ My research provides information about how to improve research career equity for internationally competitive African researchers while acknowledging their multiple social identities ”

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