

GENDER EQUALITY AND INCLUSIVITY IN RESEARCH FUNDING POLICIES AND PRACTICES: EVIDENCE FROM GHANA

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ABSTRACT

Gender equality and inclusivity are increasingly recognised as central to the effectiveness and sustainability of national research and innovation systems. Yet evidence on how these commitments are translated into research funding governance in low- and middle-income contexts remains limited. This study examined the extent to which gender equality and inclusivity are embedded in national research funding policies and *formal funding procedures and instruments* in Ghana. The study adopted a qualitative institutional analysis design, drawing on a systematic review of national development, science, technology and innovation (STI), and research funding policy documents, complemented by a comparative analysis of selected international research funding frameworks. Insights from a national dissemination and validation workshop with policymakers, research funders, and research institutions were used to contextualise the findings and refine interpretation and recommendations. Findings revealed that while gender equality is widely acknowledged within Ghana's national and organisational policy frameworks, it is weakly operationalised within research funding systems. Gender considerations are largely framed as aspirational principles rather than embedded within funding instruments, eligibility criteria, evaluation processes, or accountability mechanisms. Organisational gender policies tend to operate in parallel to research funding governance, limiting their influence on resource allocation and leadership within funded research. The analysis further highlighted the absence of intersectional approaches, limited use of gender-disaggregated data, and weak mechanisms for addressing implicit bias in funding decision-making. Comparative insights demonstrate that more gender-responsive research funding systems are characterised by deliberate institutional design, including mandatory requirements, targeted funding instruments, and robust monitoring frameworks. The study concluded that advancing gender equality in Ghana's research funding system requires a shift from gender-aware policy commitments to gender-transformative funding governance. Embedding gender equality and inclusivity within the design, implementation, and accountability structures of research funding is essential not only for equity, but also for strengthening research quality, relevance, and national innovation capacity.

Keywords: Gender equality and inclusivity; Research funding systems; Science, technology and innovation (STI); Policy implementation; Ghana.

Introduction

Gender equality and inclusivity (GEII) have become increasingly prominent objectives within global science, technology and innovation (STI) policy agendas. International frameworks such as the Sustainable Development Goals and UNESCO's recommendations on science and scientific researchers emphasise the importance of inclusive research systems for innovation quality, social relevance, and sustainable development (UNESCO, 2017; United Nations, 2015). Despite this growing policy attention, progress towards embedding GEII within research and innovation systems remains uneven, particularly in low- and middle-income country contexts where structural and institutional constraints persist (Tijssen, Kraemer-Mbula, & Tomaney, 2021). Research funding systems occupy a central yet under-examined position in shaping gender and inclusion outcomes within STI ecosystems. Funding rules, eligibility criteria, evaluation processes, and accountability mechanisms collectively determine who is able to access research resources and whose knowledge is legitimised (Lepori *et al.*, 2019). While these systems are frequently presented as gender-neutral and merit-based, feminist and institutional scholarship has shown that such neutrality can mask embedded power relations and reproduce existing inequalities (Acker, 1990; Waylen, 2014). However, empirical evidence on how these dynamics operate within national research funding systems in African contexts remains limited (Mouton & Blanckenberg, 2018).

In Ghana, national commitments to gender equality are articulated across development, education, and STI policy frameworks. The country has made notable progress in promoting women's participation

in education and public life, and gender considerations increasingly feature in policy discourse with the passing of the Affirmative Action Law in 2024 (NDPC, 2025). Nevertheless, persistent gender disparities in research careers, leadership positions (Omari *et al.*, 2024), and access to research funding suggest that policy commitments do not automatically translate into inclusive institutional practice (Boshoff, 2017; Mama, 2011). Understanding how gender and inclusivity are embedded or neglected within research funding mechanisms is therefore critical for advancing equitable STI governance. Existing literature on gender and STI in Africa has largely focused on descriptive analyses of women's participation in science, technology, engineering, and mathematics (STEM), barriers to career progression, and representation in research leadership (Huyer, 2015; Beoku-Betts, 2014; Omari *et al.*, 2024). While these studies provide important insights, they often pay insufficient attention to the institutional architectures that structure research participation, particularly research funding systems. Moreover, studies that engage with STI governance tend to emphasise policy intent rather than implementation, leaving limited understanding of how formal GEII commitments are operationalised in practice (Schiebinger & Schraudner, 2011; African Academy of Sciences, 2020; Elsevier, 2020). This paper addresses this gap by examining the extent to which gender equality and inclusivity are embedded in national research funding policies and *formalised funding practices* in Ghana. Here, "practices" refers to the procedural rules and routines codified in funding instruments and guidelines, such as eligibility conditions, application requirements, assessment criteria, panel procedures, and reporting templates, through

which policy commitments are translated into funding decisions. Drawing on a qualitative institutional case study, the study analyses research funding policies, procedural guidelines, and funding instruments to assess how GEII principles are articulated and enacted across key stages of the funding process. Guided by a gender systems and feminist institutionalist perspective, the analysis conceptualises research funding systems as gendered institutions in which formal rules and informal norms interact to shape inclusion outcomes (Acker, 1990; Waylen, 2014).

The study is guided by three research questions:

1. How are gender equality and inclusivity reflected in existing research funding policies and guidelines in Ghana?
2. How are these principles operationalised in *formal funding procedures and instruments* (e.g., eligibility rules, application requirements, assessment criteria, and reporting)?
3. What gaps and inconsistencies exist between policy commitments and implementation?

This study makes three key contributions: (i) empirically, it provides evidence from an African national research system on the institutionalisation of GEII within research funding governance; (ii) conceptually, it extends gender systems analysis to the domain of research funding, highlighting how ostensibly neutral procedures can reproduce inequality; and (iii) from a policy perspective, it identifies concrete entry points for reform, offering insights relevant to research councils, policymakers, and development partners seeking to advance inclusive STI systems.

Conceptual and analytical framework

This study is grounded in a gender systems and feminist institutionalist perspective, which conceptualises institutions as gendered structures shaped by both formal rules and informal norms. Rather than viewing gender inequality in research systems solely as a problem of representation or individual capacity, this approach emphasises how institutional arrangements systematically advantage certain groups while constraining others (Acker, 1990; Waylen, 2014). Within STI systems, gender operates through interconnected dimensions of power, norms, practices, and resource allocation, producing persistent inequalities even in the presence of formal equality policies. Research funding systems constitute a particularly influential institutional domain within STI governance. Funding policies, eligibility criteria, evaluation procedures, and decision-making structures collectively shape access to research opportunities and determine whose knowledge is prioritised and rewarded (Lepori *et al.*, 2019). Although these mechanisms are often framed as neutral and merit-based, feminist institutionalist scholarship demonstrates that ostensibly neutral rules can embed historically gendered assumptions about career trajectories, productivity, and availability, thereby reproducing exclusionary outcomes (Acker, 1990; Schiebinger & Schraudner, 2011; Ledin *et al.*, 2007; UNESCO, 2021). From a gender systems perspective, inclusivity extends beyond binary gender categories to encompass intersecting forms of disadvantage related to career stage, institutional location, caregiving responsibilities, disability, and socio-economic background (Huyer, 2015). In research funding contexts, inclusivity therefore depends not only on explicit gender provisions

but also on the flexibility, transparency, and accountability of funding mechanisms. Where funding systems fail to recognise diverse career pathways or structural constraints, they risk privileging already-advantaged researchers and institutions.

Analytically, this study examines research funding systems as gendered institutions across four interrelated dimensions. First, policy articulation, which refers to the extent to which gender equality and inclusivity are explicitly acknowledged in funding policies and guidelines. Second, operationalisation, encompassing eligibility rules, application procedures, and evaluation criteria through which policy commitments are translated into practice. Third, decision-making structures, including the composition and functioning of review panels and governing bodies responsible for funding allocation. Fourth, accountability and monitoring mechanisms, which determine whether GEII commitments are tracked, enforced, and evaluated over time.

Experimental

Study design

This study adopts a qualitative institutional analysis design (Chua & Yau, 2022; Polski & Ostrom, n.d.) to examine the extent to which gender equality and inclusivity (GEII) are embedded in national research funding policies and practices in Ghana. The design is grounded in document-based analysis of formal policy and procedural instruments that shape access to and allocation of research

funding. Accordingly, the study focuses on the *formal procedural architecture* of funding governance (what the rules and instruments require) rather than providing an outcome evaluation of how these rules are enacted in day-to-day implementation. The analysis draws on a structured review of research funding policies and related documents, complemented by comparative and gap analyses to identify strengths, weaknesses, and areas for reform. In addition, insights from a national workshop were used to contextualise, validate, and refine the interpretation of findings and the development of recommendations.

Review of existing policies and practices

The primary method involved a systematic review of existing research funding policies, guidelines, and institutional documents relevant to Ghana's national research and innovation system. Documents reviewed included national policy frameworks, strategic plans, funding guidelines, calls for proposals, and procedural instruments used by research funding bodies and affiliated institutions (Council for Scientific and Industrial Research, 2020, 2022; Ghana Atomic Energy Commission, 2022; Ghana Tertiary Education Commission, 2023; Ghana Academy of Arts and Sciences, 2020; University of Ghana, n.d.; University of Cape Coast, 2014; Kwame Nkrumah University of Science and Technology, 2019). See Table 1 for list.

TABLE 1

Policies and Policy Instruments in Ghana Reviewed

No.	Name of policy	Key areas of interest
1	Ghana Beyond Aid Charter and Strategy Document	☐ Strategic goals related to self-reliance and sustainable development, including gender-inclusive approaches in innovation and research funding.
2	Ghana National Research Fund (NRF) Act (Act 1056)	☐ The legal framework establishing the National Research Fund, its objectives, governance structures, and funding criteria. ☐ Relevant sections addressing inclusivity, equity, and gender considerations in research funding.
3	National Development Planning Commission (NDPC) Long- and Medium-Term Frameworks	☐ National development policies linking research funding to inclusive growth and gender-sensitive development goals.
4	National Gender Policy (2015)	☐ Framework for integrating gender equity across sectors, including research, science, and innovation. ☐ Alignment of research funding mechanisms with national gender objectives.
5	National Science, Technology, and Innovation (STI) Policy (2024–2030)	☐ Policies promoting gender equality and inclusivity within Ghana's STI landscape. ☐ Provisions for equitable resource allocation and the participation of women in STEM research.
6	Policies of Key Research Institutions in Ghana	☐ Internal policies of institutions: ○ Council for Scientific and Industrial Research (CSIR) Gender Policy (2020) ○ Ghana Atomic Energy Commission (GAEC) Strategic Plan ○ Ghana Tertiary Education Commission, Strategic Plan 2022 ○ Ghana Academy of Arts and Sciences, Strategic plan
7	Tertiary Education Policies and Guidelines	☐ Research funding frameworks within Ghanaian universities, including criteria for grants and scholarships. ☐ Policies addressing gender equity in higher education and academic research. ☐ University of Ghana, Gender Policy ☐ Kwame Nkrumah University of Science and Technology, Research and Gender Policies ☐ University of Cape Coast, Research Policy
8	The Coordinated Programmes 2021–2025	☐ National medium-term development frameworks

The review focused on identifying how gender equality and inclusivity were articulated within policy texts and how these commitments were reflected in operational funding practices. Document analysis was guided by a set of analytical questions aligned with GEII principles, including the presence of explicit gender and inclusion references, provisions addressing access and participation, and mechanisms for implementation, monitoring, and accountability. This approach enabled a structured assessment of both policy intent and procedural design (Lepori *et al.*, 2019; World

Bank, 2020). To strengthen the institutional assessment, a comparative approach was also employed to examine similarities and differences across funding policies and practices within Ghana and to compare with other countries in Africa and the Global North (Table 2). This involved comparing how GEII considerations were addressed across different funding instruments and institutional contexts, as well as assessing alignment between national gender equality commitments and operational funding procedures.

TABLE 2

List of External Policies and Instruments Reviewed for Comparative Analysis

No.	Name of policy	Purpose and key areas
1	Australian Research Council (ARC) Gender Equality Statement	☐ Policies ensuring gender equity in grant success rates and monitoring. ☐ Benchmarking strategies and support for women researchers.
2	Canadian Tri-Agency Equity, Diversity, and Inclusion (EDI) Action Plan	☐ Mandates for inclusive research funding practices and collection of gender-disaggregated data. ☐ Support for underrepresented groups in Canada's research ecosystem.
3	Horizon Europe Programme's (European Union) Gender Equality in Research and Innovation	☐ Gender equality as a cross-cutting priority in research and innovation. ☐ Mandates for gender equality plans and integration of gender dimensions in project designs.
4	Kenya's National Research and Innovation Fund (KRIF)	☐ Focus on gender equity in funding allocation and capacity building.
5	Strategic Plan 2023–2027 National Science Foundation (NSF) Proposal and Award Policies and Procedures Guide (United States)	☐ Initiatives to promote systemic change and improve gender equity in STEM fields. ☐ Programmes focusing on institutional transformation and mentorship.
6	Rwanda's National Research and Innovation Fund (NRIF) Policy framework and National Research and Innovation Agenda	☐ Focus on gender equity in funding allocation and capacity building. ☐ Partnerships promoting inclusive innovation and technology transfer.
7	South Africa's National Research Foundation (NRF) Strategic Plan 2020–2025	☐ Gender equity as a key performance indicator in research funding. ☐ Programmes supporting women researchers and promoting diversity in STEM.

8	Swedish Research Council (Vetenskapsrådet) Gender Equality Policies and Guidelines for gender equality in analyses, evaluations and international work	☐ Frameworks for assessing gender equality in funding applications and decisions. ☐ Gender-aware review processes and metrics for monitoring progress.
9	United Kingdom DSIT: Gender Equality in Research and Innovation	☐ Guidelines promoting gender diversity in funding applications and reviewer panels. ☐ Strategies for embedding inclusivity into interdisciplinary research funding.

Identification of gender and inclusivity gaps

Building on the policy review and comparative analysis, the study identified key gender and inclusivity gaps within research funding systems. This process involved examining areas where GEII commitments were absent, weakly articulated, or insufficiently operationalised. Particular attention was paid to structural and procedural elements such as eligibility criteria, application requirements, evaluation and selection processes, decision-making arrangements, and monitoring mechanisms. These elements were analysed to understand how formal funding rules and procedures may enable or constrain inclusive participation in research funding, especially for underrepresented groups.

National workshop

To complement the document-based analysis, the study drew on insights from a national workshop convened as part of the *EquiSTEM: Bridging Gender Gaps in Research and Evaluation* project, a comprehensive training programme proposed by Ghana's Ministry of Environment, Science, Technology and Innovation (MESTI) under the Science Granting Councils Initiative (SGCI) to advance gender equality and inclusivity in research and evaluation processes through capacity building for council staff, applicants, evaluators, and researchers (Human Sciences

Research Council, 2023). The workshop brought together key stakeholders, including policymakers, research funding administrators, researchers, and gender and inclusivity experts, to reflect on issues pertaining to gender, inclusivity, and research funding in Ghana. Insights from the workshop were synthesised to assess the relevance, clarity, and feasibility of the identified gaps and proposed reforms. The stakeholder perspectives from the event were used to refine interpretations, surface contextual considerations, and strengthen the policy relevance and practicality of the recommendations.

Limitations of the study

This study has some limitations that should be acknowledged. First, the analysis relies primarily on a review of formal policy and policy instrument documents and therefore reflects stated rules and official practices rather than informal decision-making processes and organisational cultures that may also shape research funding outcomes. Second, while insights from the national workshop enhanced the contextual relevance and practical grounding of the findings, these insights were derived from collective stakeholder reflections rather than systematically collected qualitative data. Third, the comparative review of external research funding frameworks was purposive rather than exhaustive, prioritising cases with

publicly accessible documentation and explicit GEII provisions; as such, the sample does not represent all world regions, including Asia and South America. Fourth, since the primary source of the reviewed documents was the World Wide Web, we do not assert that only these documents represent the organisations mentioned. It is plausible that other documents exist that have not been published. Despite these limitations, the methodological approach provides an institutional perspective on the integration of gender equality and inclusivity within research funding in Ghana and offers a credible basis for identifying systemic opportunities for reform.

Results and Findings

Integration of gender equality in national research funding policies

The review of national development, science, and research policy frameworks in Ghana reveals a consistent pattern in which gender equality is acknowledged at the level of principle but weakly operationalised within research funding mechanisms. Across key national documents, including development frameworks, STI policies, and the legal framework governing the national research fund, gender equity is framed primarily as a cross-cutting development objective rather than as a concrete determinant of research funding design, allocation, or evaluation.

While innovation and research are repeatedly positioned as critical drivers of socio-economic transformation, there is limited articulation of how research funding systems can address gendered barriers to participation, leadership, and resource access. Gender equality is typically referenced in broad aspirational terms, without accompanying instruments such as targeted funding streams,

gender-responsive eligibility criteria, or equity-based performance indicators. As a result, women researchers and other marginalised groups remain largely invisible within national research funding architectures.

A notable gap across the reviewed national frameworks is the absence of intersectional considerations. None of the policies explicitly acknowledge how gender intersects with factors such as career stage, institutional location, disability, or socio-economic status to shape access to research funding. Furthermore, there is no systematic requirement for gender-disaggregated data in funding applications, award decisions, or post-award reporting. This lack of data infrastructure significantly constrains the ability of policymakers to assess equity outcomes or identify persistent structural barriers within the research funding system. Overall, the national policy landscape reflects a gender-aware but not gender-responsive approach to research funding. While gender equality is rhetorically endorsed, it is not embedded in the governance, instruments, or accountability mechanisms that shape funding decisions.

Gender responsiveness of organisational research and funding frameworks

At the institutional level, the analysis of research organisations, universities, and regulatory bodies demonstrates a similar disconnect between gender policy commitments and research funding practice. Several organisations have developed gender policies or strategic plans that articulate commitments to equity and inclusivity. However, these commitments are rarely translated into funding-related rules, incentives, or monitoring systems.

Research-intensive public institutions and universities largely prioritise research

excellence, productivity, and institutional competitiveness in their funding and research strategies (Kwame Nkrumah University of Science and Technology, 2018). Gender equity, where mentioned, is treated as a general organisational value rather than as a criterion shaping funding allocation, leadership opportunities, or access to research infrastructure. Few institutions provide guidance on how gender considerations should inform internal funding calls, grant evaluation processes, or research team composition.

Another significant gap lies in the absence of monitoring and accountability mechanisms.

Most organisational frameworks do not require the collection or reporting of gender-disaggregated data on research funding applications, success rates, or leadership roles within funded projects. Without such data, institutional commitments to gender equity remain largely symbolic and difficult to evaluate. Moreover, there is limited evidence of capacity-building initiatives, such as mentorship, grant-writing support, or leadership development, designed specifically to address the structural disadvantages faced by women researchers, particularly in STEM fields.

Thus, the organisational analysis indicates that gender policies operate in parallel to, rather than within, institutional research funding systems. This separation significantly limits their transformative potential and reinforces existing inequalities in access to research resources and decision-making power.

Comparative insights from international research funding systems

The comparative review of international research funding frameworks highlights substantial differences in how gender equality

and inclusivity are integrated into funding systems. In several high-income contexts, gender equity is institutionalised through mandatory requirements, dedicated funding instruments, and robust accountability mechanisms. These systems move beyond symbolic commitments by embedding gender considerations across the entire funding lifecycle, from application design and peer review to award decisions and impact evaluation (European Commission, 2020b; Government of Canada, 2018; Australian Research Council, 2021; National Health and Medical Research Council, 2021; National Science Foundation, 2024; Swedish Research Council, 2024). In contrast, countries with weaker gender-responsive frameworks tend to emphasise inclusivity in principle while relying on voluntary guidelines or non-binding statements. In these contexts, gender equity is rarely linked to funding eligibility, assessment criteria, or performance monitoring. As a result, progress toward equitable participation remains uneven and difficult to sustain.

A critical lesson from the comparative analysis is the importance of data-driven governance. Systems that require gender-disaggregated data and public reporting are better positioned to identify disparities, track progress, and enforce accountability (European Commission, 2020c). Additionally, the integration of intersectionality, particularly in frameworks that recognise overlapping forms of disadvantage, emerges as a key factor in addressing persistent inequities within research funding ecosystems. More broadly, recent international strategies increasingly frame gender equality as a structural condition for research excellence and innovation performance (European Commission, 2020a). The international evidence demonstrates that gender-responsive research funding does not

emerge organically but requires deliberate institutional design, sustained political commitment, and enforceable mechanisms (National Research Foundation, 2020; National Research Fund, 2023; Rwanda Ministry of Education, 2021a, 2021b). These insights provide a useful benchmark against which Ghana's research funding system can be assessed.

Cross-cutting gaps in Ghana's research funding ecosystem

Synthesising findings across organisational, national, and comparative analyses reveals five interrelated gaps in Ghana's research funding ecosystem. First, there is a lack of gender-responsive funding instruments, such as targeted grants, quotas, or incentives for women-led or gender-diverse research teams. Second, gender policies are weakly connected to funding decision-making processes, resulting in limited influence on actual resource allocation. Third, the absence of systematic gender-disaggregated data collection undermines transparency and accountability. Without reliable data, it is difficult to assess whether funding systems reproduce or mitigate existing inequalities. Fourth, intersectionality is largely absent from policy and practice, obscuring the compounded barriers faced by women from marginalised backgrounds. Although intersectionality is a relatively recent policy lens and requires more granular data and analytic capacity, its limited uptake in Ghana's research funding governance is significant because it restricts

the system's ability to address compounded disadvantage beyond gender alone. Finally, there are few mechanisms to address implicit bias within peer review and funding governance structures, such as gender-balanced panels or bias-mitigation training. These gaps collectively reinforce a research funding environment that prioritises formal equality while overlooking structural and institutional sources of exclusion.

Implications for gender-transformative research funding reform

The findings indicate that Ghana's research funding system is at an important transitional stage. While gender equality is widely recognised as a development priority, it has yet to be embedded as a governing principle of research funding design and implementation. Moving toward a gender-transformative funding system will require a shift from policy statements to enforceable mechanisms that reshape incentives, decision-making processes, and accountability structures. Embedding gender responsiveness into research funding has implications beyond equity alone. International evidence suggests that inclusive funding systems enhance research quality, broaden knowledge production, and strengthen the societal relevance of research outcomes. For Ghana, integrating gender equality and intersectionality into research funding governance represents not only a social justice imperative but also a strategic investment in the sustainability and effectiveness of its national research and innovation system.

TABLE 3

Summary of GEII Integration in Research Funding Systems

Funding System Level	Key Findings
National policy	Gender equality acknowledged rhetorically but not operationalised in funding instruments
Organisational frameworks	Gender policies exist but are weakly linked to funding rules and monitoring
Funding mechanisms	Absence of targeted instruments, gender-responsive criteria, and intersectional provisions
Governance & accountability	Limited use of gender-disaggregated data and bias-mitigation mechanisms
Comparative insights	Stronger systems embed mandatory requirements, data tracking, and accountability

Discussion

Overall, the findings point to a central contradiction in Ghana's research funding system: gender equality is increasingly visible in policy discourse but remains weakly embedded in the institutional rules that govern resource allocation. The discussion therefore moves beyond description to interpret what this contradiction means for STI governance, how it is reproduced across different institutional levels, and why it matters for efforts to build a more inclusive research system.

Gender equality as principle rather than funding logic

A central implication of the Ghanaian case is that gender equality currently functions more as a policy principle than as a governing logic of research funding. From a feminist institutionalist perspective, this reflects a pattern in which formal commitments coexist with institutional arrangements that leave dominant funding logics unchanged (Acker, 1990; Waylen, 2014). Gender equality is positioned as a cross-cutting aspiration, yet it is not embedded within eligibility criteria, funding instruments, or evaluation metrics that govern access to research resources. This gap

between policy rhetoric and operationalisation mirrors observations in other STI systems, where gender equality is frequently articulated but weakly translated into institutional practice (Schiebinger & Schraudner, 2011; Lepori *et al.*, 2019). In the Ghanaian context, the absence of gender-responsive funding mechanisms and gender-disaggregated data suggests that national research funding policies remain anchored in assumptions of neutrality that obscure structural inequalities in research careers and access to resources.

Organisational gender policies and the limits of parallelism

At the organisational level, the findings reveal a form of institutional "parallelism" in which gender policies operate alongside, rather than within, research funding systems. While research institutions and universities have adopted gender policies or inclusivity statements, these commitments rarely shape internal funding calls, grant evaluation processes, or leadership structures within funded projects. This separation limits the transformative potential of organisational gender policies and reinforces existing power relations within research systems.

Feminist scholarship has long cautioned that equality policies that are not integrated into core organisational processes risk becoming symbolic rather than substantive (Van den Brink & Benschop, 2012; Mama, 2011; Tildesley *et al.*, 2022; Mergaert *et al.*, 2022). The Ghanaian case illustrates how research excellence and productivity remain the dominant organising principles of institutional funding systems, with limited recognition of how gendered career trajectories shape researchers' capacity to compete for resources, particularly in STEM fields.

Lessons from international practice: design matters

The comparative analysis underscores that gender-responsive research funding does not emerge organically but is the result of deliberate institutional design choices. International systems that demonstrate stronger equity outcomes are characterised by mandatory gender requirements, targeted funding instruments, and robust monitoring and accountability mechanisms. These features contrast sharply with systems where inclusivity is framed as a voluntary or aspirational goal. From a governance perspective, the comparative findings highlight the importance of moving beyond awareness-raising toward enforceable mechanisms that reshape incentives and decision-making processes. The emphasis on data-driven accountability and intersectional approaches in several international frameworks reinforces arguments that equity must be embedded across the entire funding lifecycle to be effective (Huyer, 2015; Nielsen *et al.*, 2018; National Science Foundation, 2022; Swedish Research Council, 2023). For Ghana, these insights provide not only benchmarks but also practical design options for strengthening the

inclusivity of its research funding system.

Structural gaps and the reproduction of inequality

What is most analytically significant is not simply that gaps exist, but how they interact to reproduce inequality within the funding system. When eligibility rules, evaluation norms, and accountability structures are designed around assumptions of uninterrupted productivity and institutional neutrality, they tend to reward researchers who already fit dominant career models. The absence of gender-disaggregated data further entrenches this pattern by limiting institutional learning and making inequities difficult to identify, contest, or correct. These dynamics align with broader critiques of merit-based funding systems that privilege linear career trajectories and masculinised norms of academic success (Acker, 1990; Huyer, 2015). The Ghanaian case therefore illustrates how research funding can operate as a hidden institutional mechanism through which existing hierarchies are reproduced, even without explicit exclusionary intent.

Toward gender-transformative research funding reform

The broader implication of this analysis is that advancing GEII in research funding requires more than adding gender language to existing policies; it requires reconfiguring the institutional terms on which merit, excellence, and accountability are defined. A gender-transformative approach therefore involves shifting from a model that assumes neutrality to one that actively recognises structural disadvantage, diverse career pathways, and the governance conditions needed for equitable participation. In this sense, the contribution of the Ghanaian case lies not only in identifying policy gaps, but in showing why funding governance itself must become an object of

gender analysis if national research systems are to become more inclusive, credible, and developmentally effective.

Policy implications

The findings of this study point to the need for deliberate, system-level reforms to embed GEII within Ghana's research funding governance. These implications follow directly from the gaps identified across national policy frameworks, organisational practices, and comparative international evidence.

First, research organisations and funding agencies should move beyond aspirational policy commitments toward the explicit operationalisation of GEII within funding instruments (Sections 4.1 and 4.2). This requires revising eligibility criteria to recognise diverse career trajectories, including life-course interruptions, and integrating gender and inclusivity considerations into proposal evaluation criteria and scoring templates. Embedding these principles at the point of funding design is critical to shifting gender equality from a rhetorical commitment to a governing logic of resource allocation.

Second, decision-making structures represent a critical entry point for reform (Section 4.4). Funding agencies should institutionalise gender-responsive practices in reviewer selection and training, including attention to gender balance on review panels and the provision of guidance on unconscious bias and inclusive assessment. Such measures strengthen, rather than undermine, merit-based evaluation by accounting for structural inequalities that shape research careers and access to resources.

Third, the absence of robust accountability and monitoring mechanisms significantly constrains progress toward inclusive funding outcomes (Sections 4.1

and 4.4). Research funding bodies should introduce systematic collection and use of gender-disaggregated and inclusion-sensitive data across the funding cycle, from application and review to award and project completion. Regular reporting on these indicators would enhance transparency, support institutional learning, and enable evidence-based adaptation of funding policies.

Fourth, embedding GEII within research funding systems requires institutional coherence and leadership (Sections 4.2 and 4.5). Fragmentation across funding instruments and agencies points to the need for coordinated national frameworks that align gender equality objectives across ministries, research councils, and public research institutions. Such coordination is essential to ensure that GEII functions as a core governance principle rather than as a project-based or donor-driven initiative.

Finally, the findings underscore the importance of complementary capacity-building initiatives to support institutional reform (Section 4.5). While policy and procedural changes are necessary, their effectiveness depends on the capacity of institutional actors, including funders, reviewers, and researchers, to interpret, implement, and sustain GEII measures in practice. Training, learning platforms, and communities of practice can therefore play a critical role in reinforcing system-level change and embedding inclusive norms within research funding governance.

Conclusion

This paper examined the extent to which gender equality and inclusivity are embedded in national research funding policies and practices in Ghana. Drawing on a gender systems and feminist institutionalist framework, the study

demonstrates that while GEII is increasingly visible in policy discourse, research funding systems largely remain gender-neutral in design and operation. This neutrality, rather than ensuring fairness, risks reproducing existing inequalities by failing to account for structural differences in access, opportunity, and power.

By foregrounding research funding systems as gendered institutions, the study contributes empirical evidence from an African context to debates on inclusive science, technology, and innovation (STI) governance. The findings *suggest* that policy commitments alone are insufficient to advance equity unless they are translated into concrete funding instruments, evaluation procedures, and accountability mechanisms that reshape the formal rules guiding allocation decisions. In doing so, the paper responds to calls for more implementation-oriented analyses of gender equality in research systems by examining how GEII is (and is not) embedded in the procedural design of funding governance, particularly in low- and middle-income countries.

The Ghanaian case offers broader lessons for national research systems seeking to advance GEII. It indicates that meaningful progress is more likely where gender and inclusivity considerations are integrated into the core architectures of research funding governance, especially the design of calls, eligibility rules, assessment criteria, panel processes, and monitoring. In Ghana, this places particular responsibility on the National Research Fund and its governing structures to embed GEII within funding instruments and reporting requirements; on MESTI and relevant oversight ministries to coordinate national STI governance and ensure policy coherence; and on GTEC, public universities, and research institutes (e.g., CSIR and related agencies)

to align organisational gender commitments with internal grant schemes and research governance arrangements. Future research could build on this analysis by examining how specific reforms are implemented and with what effects over time, including through interviews and implementation-focused field studies.

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