

CGIAR Generating Evidence and New Directions for Equitable Results (GENDER) Platform

CALL FOR PROPOSALS FOR RESEARCH GRANTS FOR EVIDENCE GENERATION



INTRODUCTION

The CGIAR GENDER Platform puts gender equality at the forefront of global agricultural research for development. It seeks to transform the way gender research is done, both within and beyond the CGIAR. This is in a bid to kick-start a process of genuine change toward greater gender equality and better lives for smallholder farmers everywhere.

The Evidence Module aims to build an innovative and robust evidence base to support transformation towards equitable, sustainable, productive and climate-resilient food systems. The Module focuses on co-creating, consolidating, and sharing robust evidence, identifying emergent issues and closing data gaps in the area of gender equality in agriculture and food systems. The Module aims to use evidence to develop solutions and pathways to reduce gender inequalities within the dynamics of changing food systems.

Section 1. Objectives and Scope

The Evidence Module Research Grants are aimed at generating robust evidence using appropriate rigorous and cutting-edge quantitative and qualitative methods and tools to inform policy, practice and research addressing gender equality in agriculture and food systems.

The Evidence Module will fund research activities to **generate evidence** that addresses key evidence gaps in three priority gender research themes as described below:

Theme 1: Gendered Dimensions of Institutions and Governance of Sustainable Land and Water Systems

We invite proposals from interdisciplinary research teams that seek to address a key evidence gap on **'strategies, approaches and interventions related to institutions and governance of land and water systems that contribute to gender equality and women's empowerment'**. The proposals could focus on one or more of the following dimensions:

- Assess community-managed institutions, local natural resource management practices that enable women and men of different social groups to renegotiate access, rights and participation in the governance of land and water. The research needs to explore how these initiatives and arrangements enable the reconfiguration of gender relations with respect to natural resources within the community and between communities.
- Assess how institutions and governance of land and water systems in specific contexts address the entrenched masculinities, femininities and intersectional inequalities.
- Critical analysis of issues of power, politics, and difference including participation and representation in institutions and policies governing land and water systems, and their implications for equitable and sustainable land and water systems.
- Environmental and economic outcomes of addressing gender inequalities in natural resource management through community managed institutions, local natural resource management practices for sustainable food systems.



- Assess implications of political economy changes (legislations, reforms, changing trade regimes) on the shaping of the institutions and governance governing land and water systems and the consequent outcomes of gender equality, environmental sustainability and efficient resource use.
- Innovations and investments in land and water institutions and governance that effectively address the gender gaps and contribute to gender equality.

Please refer to Annex 1 for further details on this theme.

Theme 2: Women's empowerment through engagement in agricultural value chains.

We invite proposals from interdisciplinary research teams that seek to address a key evidence gap on **'approaches, strategies or interventions focused on women's engagement in agricultural/food systems value chains and markets that have led to gender equality women's empowerment'**. The proposals could focus on one or more of the following dimensions:

- Effects of value chain development on gender equality, heterogeneous outcomes for women and multiple, concurrent processes of empowerment and disempowerment, and resilience in the context of agriculture and food systems.
- Effects of engagement in commercial value chains on women's various economic and non-economic activities and responsibilities, including time poverty and well-being, using integrated household livelihood approaches.
- Outcomes and impacts of women's involvement in new, non-production nodes of the agricultural value chain, including processing, retail and marketing on gender equality and women's empowerment in rural, urban and peri-urban contexts .
- Impact of gender intentional approaches in value chain development on the reshaping of masculinities, femininities and the roles of men and women in different social groups at different nodes of agricultural value chains, applying an intersectional approach.
- Critical analysis of ways in which economic, institutional, and environmental processes and transformations shaped by the expansion of commercial value chains influence the choices and options available to women and men.
- Good practices and approaches in value chain development for gender transformative outcomes.
- Pathways from women's participation to empowerment and the associated enablers and barriers in value chains.

Please refer to Annex 2 for further details on this theme.

Theme 3: Enhancing Gender Equality and Women's Empowerment through Climate Smart Agriculture

We invite proposals from interdisciplinary research teams that seek to address a key evidence gap on **'gender equality, women's empowerment and resilience through Climate Smart Agriculture (CSA)'**. The proposals could focus on one or more of the following dimensions:

- Assess gender equality gains in resilience through climate-smart agriculture (CSA) technologies; assess whether and how CSA technologies affect gender equality; and assess impact of CSA technologies on women's resilience, work burden, and incomes. Analysis of intra-household dynamics in CSA adoption decisions and gendered distribution of the gains made in terms of household production, incomes and nutrition by using CSA technologies.



- Assess the extent to which various models, approaches and strategies enhance women's access to agro-climatic information, technologies, livelihoods and credit/finance, and expand economic opportunities for women in a changing climate and rapidly evolving food systems.
- Identify and assess measures to enhance decision-making capacities of women involved in CSA: this includes exploring what kind of climate and weather related information and knowledge do women want and need? What are women's priorities for information content and formats? What are the empowering effects of the use of climate information and capacity building of women? What partnerships and platforms, including women's and community-based organizations, mobile service providers, and others, will support the generation, access, and use of climate information?
- Assess pathways of women's collective action around climate change and CSA for enhancing gender equality, agency and resilience in changing food systems
- Assessment of scalability factors and/or pathways for scaling gender-responsive CSA.
- Impact of multiple and concurrent shocks including climate change and pandemics on women's vulnerability and resilience.

Please refer to Annex 3 for further details on this theme.

We are looking for robust **high-quality research** underpinned by theory-based impact pathways and research hypotheses, grounded in **gender analytical frameworks, building on state-of-the-art literature and prior evidence, and using cutting-edge appropriate methods, and data collection tools.**

Mixed methods that creatively combine qualitative and quantitative research will be encouraged to generate a deeper and more reliable and nuanced body of evidence. We encourage **building on ongoing work to deepen understanding** in some areas or address new questions that have emerged as a result of the ongoing analyses. We encourage multi-context studies and collaboration among centers. Research that generates **cross-contextual and cross-commodity/systems** understanding would be highly preferred. The use of an **intersectionality lens** would add much value to the research. Focus on **vulnerable populations**, such as poor female-headed households, rural households in geographically remote locations, indigenous farming communities, and elderly farming households, are welcomed.

We invite research proposals that demonstrate relevance to, and linkages across, the One CGIAR impact areas and the initiatives that are under development.

Each grant will be a maximum of **USD 150,000**, and up to two (2) grants per theme will be awarded through a competitive selection process. The maximum duration for each awarded grant is 16 months with an estimated start date of 1 August 2021.

Funds will be allocated in 2021 and 2022 through GENDER Platform Program Participant Agreements (PPAs) with the respective Centers. Grant funds should be expended by 31 December 2022.

At the end of the grant, each project is expected to deliver the following outputs, for inclusion in the GENDER Platform Resource Hub:

- Links to the following outputs on the lead center's existing repositories:
 - Final research design aligning with standards for robust research including pre-analysis plan



- Research instruments/tools produced (survey questionnaire/s, interview guides, manuals, protocols, etc.) for open access
- Anonymised data set following FAIR (Findable, Accessible, Interoperable, Reusable) principles
- Webinar in the GENDER Platform webinar series?
- Blog post published via the GENDER Platform resource hub
- Working paper, under the GENDER Platform Working Paper Series
- Evidence explainer (s) for the GENDER Platform resource hub

Section 2. Application Process

2.1. Eligibility

Applications must be led by a CGIAR Center, and satisfy the following eligibility criteria:

- Demonstrate the ability to conduct research to international standards of excellence in the topic proposed.
- Demonstrate strong and equitable partnerships, across the CGIAR and especially with national agricultural research systems (NARS) and other low- and middle-income country partners. Concept notes must clearly show meaningful, collaborative relationships through management and scientific contributions, and capacity and learning exchange. The added value arising from bringing together complementary expertise and partnerships must be clearly described. All named researchers must have clearly defined roles and responsibilities.
- Demonstrate relevance to at least one of the key gender research themes and linkages to the One CGIAR impact areas namely: (i) Gender equality, youth, and social inclusion (ii) Nutrition, health, and food security; (iii) Poverty reduction, livelihoods, and jobs; (iv) Climate adaptation and mitigation; and (v) Environmental health and biodiversity.

CGIAR Centers are eligible to lead or be included in multiple applications. Only one successful proposal per lead Center will be selected for funding.

- All CGIAR centers are eligible to submit applications
- ICRISAT, CIFOR and ICRAF cannot be lead centers, but can be partners
- A center can submit applications to lead one or more grants
- A center will be selected to lead only ONE grant
- A center can contribute toward multiple grants
- Centers can collaborate on a research project to generate cross-contextual evidence. This will be highly encouraged. In such cases, the grant amount can be up to USD 200,000. In such instances, the total number of awards granted would reduce to keep within the budget envelope.

There is no co-financing requirement for applications. Research activities that propose to add on to existing funded, ongoing, or soon-to-be launched projects are preferred, although new projects are also eligible if they can be feasibly completed within 12-16 months.

Applications must also provide an indicative timeline and a budget summary, with estimates of each institution's costs (see section 2.2 on eligible costs).

2.2. Eligible costs



All research costs that are attributable to the project are eligible for funding, including, for example:

- Salary costs for research staff
- Data collection
- Standard class travel related to implementation of the proposed research
- Equipment
- Indirect costs – Centers should use CGIAR negotiated rates

All applications will be assessed for value for money.

2.3 Submission of applications

Applications **must be** submitted by no later than **17:00 EAT on Wednesday, 30th June** via email to Grecia Tibayrenc G.tibayrenc@cgiar.org. Proposals submitted after the deadline will not be considered.

Submissions **must include** 2 documents:

1. Cover letter from the Deputy Director-General of the Center (not longer than one page)
2. Full application (PDF, including annexes)

To facilitate an on-time review, applications must adhere to the requirements and template length set out in the proposal format.

CVs and letters of support should be included as appendices to the proposal document.

All enquiries on submissions must be made in writing to Ranjitha Puskur at r.puskur@irri.org.

Section 3. Selection Process

The proposals will be assessed by a panel of external peer reviewers, with oversight provided by the GENDER Platform Director and the GENDER Platform Science Officer.

Eligibility criteria

- Does the proposed research address at least one of the gender research themes specified in Section 1?
- Does the proposed research demonstrate the ability to conduct robust high-quality research to international standards of excellence in the topic proposed?
- Does the proposed team have appropriate expertise?
- Does the proposed research demonstrate meaningful, collaborative partnerships with any of the following:
 - Multiple CGIAR centers?
 - NARS?
 - Other partners in low- and middle-income countries?
- Are researcher roles, responsibilities, and contributions clear and complementary?
- Does the proposed research have clearly identified linkages to the One CGIAR impact areas?

Proposal Assessment criteria

The proposal will be judged based on the following criteria:

1. Strong gender and intersectionality focus
2. Robust theoretical foundations
3. Clear research questions



4. Methodological rigor
5. Innovation
6. Outreach and uptake Plans
7. Strategies for capacity strengthening
8. Deliverables and value for money
9. Meaningful collaboration
10. Relevance of project for the GENDER Platform and OneCGIAR initiatives

Section 4. Dissemination, Data Sharing, and Intellectual Property

Information on awarded grants will be made publicly available on the GENDER Platform website, and methods and tools, open access data generated by the project will be shared in the GENDER Platform Resource Hub. Publications produced as a result of the project will be subject to the GENDER Platform branding guidelines.

Publications produced as a result of the project should be published under a suitable open access license, preferably CC version 4.0 license

(<https://creativecommons.org/licenses/by-nc/4.0/>), which encourages unrestricted re-use and adaptation of content. Outputs should also be in line with the “CGIAR Branding Guidelines”, available at <https://library.cgiar.org/handle/10947/4373>, and any other relevant policy and/or guidelines adopted by the Platform and CGIAR and communicated in writing to the grantees. All products produced under these grants should acknowledge CGIAR Fund Donors, using the statement “This work was carried out as part of the CGIAR GENDER Platform and supported by CGIAR Trust Fund Contributors (<https://www.cgiar.org/funders/>)”.

Grantees will be expected to collaborate with the GENDER Platform and its partners on research uptake and dissemination activities, including but not limited to, presentations at seminars and conferences, webinars, trainings, workshops, blogs, briefs, and interviews.

Section 5. Application Form

Please see the [application form in Annex 4](#).

Section 6. Frequently Asked Questions (FAQs)

Please see the [FAQs in Annex 5](#).



ANNEXES

Annex 1

Theme 1: Gendered Dimensions of Institutions and Governance of Sustainable Land and Water Systems

Existing discriminatory socio-cultural norms and practices influence access, ownership and control of natural resources for women and men. Further, these norms dictate the manner in which natural resources such as water and land are managed and governed with gender at the centre of it. In essence, gender relations largely determine and preserve the rights and responsibilities to natural resources including land and water which are critical in sustaining food systems. As Joshi et al. (2019) posit, they determine ownership, tenure, and user rights particularly when it comes to related infrastructure, services, technologies, innovations, and interventions. Gender is increasingly being recognized as a crucial factor for both land and water resources governance globally but despite this, women are still excluded in among other things, decision-making, a reality that depicts gaps in governance practices. This is the case globally but particularly in developing countries which has resulted in consequences related to efficient and sustainable use of these resources. Gender intersects with other factors such as class, religion, ethnicity, among others, which propagate the culture of who loses out or gains when one combines all the factors that determine access, control, and use of land and water resources. For instance, different members of a household in different contexts have significantly disparate rights to use family land based on gender.

The United Nations Department of Economic and Social Affairs projects that the world population will grow from 7.7 billion in 2019 to reach 8.5 billion in 2030, 9.7 billion in 2050 and 10.9 billion in 2100 (Christensen et al. 2019). It is expected that with an increase in the world population, comes changes in dietary and consumption patterns which put pressure on finite natural resources such as land and water in food systems. Coupled with changing livelihood sources from agriculture to other alternatives as a result of rural-urban migration, land use changes (from subsistence to cash crop, development of buildings on what was previously agricultural land), and land degradation translates to increased demand for food and diversified diets. This means that agricultural production requires a shift to focus on empowering those involved in agriculture and food systems, particularly women, to practice more sustainably.

Various instruments have set policy measures to guide countries in the governance and management of land and water including the Sustainable Development Goals (SDGs) and a myriad of international agreements and conventions. Countries have also put in place legal frameworks that protect the rights of women and men regarding the same resources, with achieving equality being a guiding principle. Also, even though globally progress is being made in terms of recognizing the intersection between agriculture and governance of natural resources such as land and water, there is still exists the tendency to treat the two (agriculture and governance) as distinct and parallel agendas, with natural resources as economic resources and gender as being mostly about women. The ecofeminists point out the women's inherent wisdom and commitment to nature being overlooked by patriarchy and the neoliberal design of natural resource appropriation and accumulation, which is detrimental to the well-being of both men and women (Joshi et al. 2019).

A focus on gender equality and inclusion helps connect governance and management natural resources to agriculture and food systems. Different feminist approaches have different perspectives at the connections between sustainable natural resource management and



gender. For instance ecofeminists argue that patriarchy and neoliberal design of natural resources appropriation and accumulation have overlooked women's perspectives and stake to natural resources such as land and water. They tie this to the male-dominated institutions and mandates which, the result has been detrimental to the well-being of both women and nature. On the other hand, feminist political ecologists critique the singular focus on women because this kind of thinking ignores the other constructs of difference, divide, and inequality in the politics and economics of natural resource access, use, and governance. That tying nature to women was often detrimental to them. Leach et al., (1999) argue that the focus should be on reversing structural inequalities and not just on "fixing women". Joshi et al. (2019) also suggest that we should not overlook the differences that exist in thinking between academic, activist, and R4D scholarship on gender-power dimensions in terms of natural resources management and governance. These differences should be embraced.

When seeking to address the system that governs land and water resources in agriculture and food systems it is critical to go beyond looking at the extent to which women benefit from these resources and to critically analyze issues of power, politics, and difference including participation and representation in institutions and policies. This brings the issue of implementing hybrid systems of access to water where permits are involved, such that small-scale users who cannot afford permits get fair access like the high impact users. With this approach small-scale users have a legal status that is equal to, or has a priority status over, permits, while at the same time regulating high-impact users who are known to overdraw resources.

Unravelling and analysing the water and land –gender-poverty nexus and its influence on food security, livelihood, and household nutrition will help in creating an understanding on the vulnerable situation women and marginalised communities find themselves in. For women to benefit and participate in the development of sustainable food systems, it is necessary to include poverty and gendered barriers to land and water rights. A starting point could be in addressing the gender gaps in the water and land sectors which are considered as key enablers of gender water inequalities. These also lead to less attention being given to innovations and investments in the sector that would address the existing gaps.

Governance of land and water resources must address the complex structural dynamics of gender inequalities in rapidly changing contexts. The changing dynamics must continuously inform research agenda on rights to resources such as land and water from a gender perspective. The solutions to the existing persistent problems cannot be simplistic as putting in place policies and legal frameworks. It requires synergy between natural resource R4D to agendas and feminist approaches which can make a dent in the entrenched cultures, practices, and values of policy and practice related to NRM and agricultural R4D; these have to embrace intersectional analysis.

Evidence gaps:

It is imperative to truly address inequalities in land and water sector governance by critically analysing issues of power, politics, and difference including how people take part and are represented in institutions. The following evidence gaps heavily draw from (Joshi et al., 2019).

- There is a need for research that goes well beyond popular women-environment narratives. Simply "adding women" to interventions, research, and programs will not achieve the SDG of reaching the furthest behind. Political as the environment might be, focus has to be on pushing for approaches that will deal with root causes and the systemic and structural barriers to gender inequality.
- There is a need for analyses that will go well beyond looking at what happens within households and communities when it comes to addressing issues of gender and land



rights. The analyses will need to articulate with wider political-economic structures and historical dynamics characterised by new ways of capitalist expansion into land governance regimes.

- There is a need to look at the issue of uncultivated lands that sometimes come under communal property regimes as “commons”. These have been historically appropriated and colonized to form plantations of cash crops. Some of this land is also being individualised and privatized. This reality provides researchers with possibilities to investigate and confront gender inequalities as well as challenging the individualization, marketization and consumer/client focus of the neo-liberal paradigm.
- There is need for further research on customary water law as current insights only scratch the surface. Robust evidence-based action research on how farmer-led irrigation development is shaped by customary water law principles and how a pro-poor hybrid water legislation can help secure these practices is needed.
- There is an opportunity to investigate how Multiple Use Water Services (MUS) as a policy intervention and strategy for water resource planning inspires/ has inspired innovations. This approach has the ability to help local communities, especially poor and marginalized women to access resources for food security and livelihood development.

In addition, an evidence gap mapping conducted by the Evidence Module indicated that few studies in this theme looked at economic and environmental outcomes of institutional arrangements and governance mechanisms on Sustainable Land and Water Systems. Decision-making was reported as the most commonly evaluated social outcome of interest. The gap map points to a need to situate these mechanisms in the larger political economy and capture a range of interlinked outcomes and impacts. Much of the studies in this theme are concentrated in Africa followed by Asia, with few in MENA and Latin America.

References

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- Joshi, D., Monterroso, I., Gallant, B., Perera, K., & Peveri, V. (forthcoming, 2021). *A Gender-Natural Resources Tango: Water, land, and forest research*. Chapter 6 in Pyburn, R. and van Eerdewijk, A. (eds.) *Advancing gender equality through agricultural & environmental research: past, present and future*. IFPRI, Washington.
- Leach M. Mearns R. Scoones I. 1999. Environmental Entitlements- Dynamics and Institutions in Community-Based Natural Resource Management. *World Development*, 27(2), 225–247.



Annex 2

Theme 2: Women's empowerment through engagement in agricultural value chains

Women play a critical role in the agricultural value chains in developing countries. Due to deep-seated gender inequalities in informal and formal institutions, women and men commonly engage under different terms in value chains, concerning different activities in the same value chain or across different value chains altogether. Their roles include production, post-harvest processing, and marketing, roles that are often informal, undervalued, and under-resourced. To put this into perspective, Giroud and Huaman (2019) estimate that the share of women employed in agriculture in Sub-Saharan Africa is 55.1 percent, while in Southern Asia the share reaches 58.5 percent. Nevertheless, their contribution in value chain development activities does not always result in their empowerment. Women are farmers, workers, and entrepreneurs like men but existing gender gaps hinder their access to productive resources, markets, and services (Coles and Mitchell 2010; FAO 2011; Klasen 2018). The common situation is that their roles are mainly in small-scale production and trade in informal markets, while men focus more where capital and resources are required and profit is made. Women's participation in transportation, marketing, and sales is also limited particularly outside local markets which hinders them from gaining from profitable areas of the value chain.

The change that is being sought is about women making informed decisions that would affect the outcome that they desire in terms of their livelihoods, welfare, and nutrition of their dependents. Women's empowerment is an important goal that not only benefits women but communities in general, particularly in terms of food security, child nutrition, education, and health. It is undeniable that women have less access than men to the resources and opportunities they need to be profitably and sustainably productive. Increasing their access to resources and assets such as land, livestock, training, financial services, extension, technology, and employment would boost their productivity. This would also help in generation of economic gains whose results would include food security, improved nutrition, improved social benefits, among others. If the outcome being sought by engaging women in value chains and entrepreneurship development is women's empowerment, then involved women are likely to gain confidence and self-efficacy. As argued by Ihalainen et al. (2019), this in turn will help in challenging restrictive gender norms in agriculture and food systems that relegate women to subsistence and the domestic sphere.

As Ihalainen et al (2019) posit, interest among research and development actors has shifted towards developing more "inclusive" value chains, and addressing the "gender gap in agriculture" (Huyer, 2016). This has resulted in a research and development agenda focused on supporting women in agricultural value chains. Countries' policies and plans need to demonstrate strong commitment to promoting women's empowerment with clear indicators that can be used to measure progress of interventions in agricultural value chains and entrepreneurship. These interventions need to be structured in a manner that acknowledges varied context needs and aspects of relevant intersectionality. Assessments of these interventions will benefit from data that demonstrates evidence on gender roles, women's access to assets and resources, improved gender relations, and time use. Women's empowerment programs and innovations need to acknowledge and include intersecting interventions that also address structural barriers that limit women's ability to benefit from agriculture related activities. The outcome of such considerations will assist governments and development partners in planning, budgeting, and implementation of services that would address the impediments that women face in agricultural based value chains



Evidence gaps

There are a myriad of evidence gaps on women's empowerment in agricultural value chains and entrepreneurship that the CGIAR GENDER Platform agenda would like to address. The listed evidence gaps draw heavily from Ihalainen et al., 2019, Stoian et al., 2018, and Jeckoniah et al., 2012.

- Systematic evidence that demonstrates causal linkages or laying out a clear theory of change between participation and empowerment in agricultural value chains.
- Action research that demonstrates the linkage between increased time poverty and unpaid work, job market segregation, lack of adequate social protection, and gender-based violence. It would be important to consider the impacts of health pandemics such as COVID-19.
- Evidence on barriers to women's empowerment and on the building blocks or pathways to women's empowerment.
- Consistent and robust conceptualization and measurement of empowerment in the context of value chains.
- As women in many contexts face considerable financial and social barriers to adopting production-enhancing machinery, there is little evidence linking mechanization to empowerment.
- Gender-equitable value chain development (VCD) efforts can create spaces for women to come together to access mutual financial, social, and technical support, to collectively market their products for better prices, among other benefits. Such approaches demonstrate how VCD efforts can facilitate multidimensional empowerment, however, there is little evidence of enhanced collective agency resulting in women successfully challenging poor working conditions or exploitative labor practices.
- While gender dynamics have been studied across a wide range of value chains, evidence in literature remains patchy and biased toward certain geographies, nodes, and specific value chains. The reasons behind this are unclear, for instance, Africa has had the majority of studies possibly as a result of the increasing emphasis on value chains in international development. In Asia focus tends to be on forestry and aquaculture while in Latin America, it has been on coffee.
- Despite recent attention to various processing nodes, a lot of studies assessing empowerment outcomes focus on the production node. Few studies provide any information on traders and retailers, particularly in urban and peri-urban settings.
- Despite the complex ways in which households engage with multiple commercial and non-commercial activities, empowerment outcomes are assessed exclusively in relation to a single value chain. More analysis utilizing integrated household livelihood approaches is critical to understanding the ways in which changes in engagement with commercial value chains affect various economic and non-economic activities and responsibilities, including, for instance, women's time poverty.
- There is a need to collect quantitative and qualitative baseline data across multiple dimensions of empowerment in order to make it possible to assess change over time. This approach is key in identifying heterogeneous outcomes and understanding multiple, concurrent processes of empowerment and disempowerment.



The Evidence Gap Map highlighted that most studies in this theme have concentrated on social outcomes, particularly decision-making, followed closely by changes in social, cultural and gender norms. Studies have largely focused on production roles within agricultural value chains. The focus on other nodes within value chains have been limited. Studies captured in this theme have largely used qualitative methods and have similarly been concentrated in Africa, and a few in Asia and Latin America.

References

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Annex 3

Theme 3: Enhancing Gender Equality and Women's Empowerment through Climate Smart Agriculture

Climate change is a key challenge impeding agricultural growth and food security, necessitating an urgent need for transformative action (Aggarwal et al. 2018). About 75% of the world's poor live in rural areas, with agriculture as their most important income source; therefore, raising agricultural productivity and incomes in the smallholder production sector is crucial for reducing poverty and achieving food security, as a key element and driver of economic transformation and growth, and within the broader context of urbanization and development of the non-farm sector (Lipper et al. 2014).

In agriculture, in the global South as a whole, women constitute 43% of the workforce (Glazebrook et al. 2020). United Nations (2020) also observes that the sector employs more than 50% of the women's workforce in regions such as Southern Asia, Sub-Saharan Africa, and Oceania (excluding Australia and New Zealand), (United Nations 2020). Women and men experience climate change impacts differently due to their socially constructed roles and responsibilities. These also determine their rights and opportunities which are defined by variables including gender norms, socio-cultural background, religion, ethnicity, etc. (Fisher and Carr 2015). Further, (Chanana-Nag and Aggarwal 2020) posit that gender-specific roles in agriculture define the differences in the impact of climate variability and change, and thus the adaptation interventions of women and men. Despite the significant role that women play globally in the agricultural sector, they face gender-specific constraints that encumber access to productive resources, financial support, information, and services required to be viable and competitive (Kristjanson et al. 2017). Climate change is not gender-neutral and as Chanana-Nag & Aggarwal 2020 articulate, there are differences between men and women in terms of their adaptive capacities and vulnerabilities to climate change. With reduced gender gaps there is the potential of obtaining significant poverty reduction and improved nutritional outcomes, with possible implications for intergenerational transmission of hunger and malnutrition, as women tend to spend more of the income on children's health and education (UN Women UNDP UNEP 2015). Further, socioeconomic variables such as poverty and lower access to resources compared to men, are crucial contributing factors for the differences in vulnerabilities and coping capacities of men and women (Mehtar et al. 2016).

One approach to build sustainable and resilient food systems under a changing climate is Climate-Smart Agriculture (CSA). The approach aims to sustainably improve agricultural incomes and productivity, achieve food and nutrition security, adapt and build resilience to climate change; and reduce emissions from agriculture. It involves the integration of multiple interventions including the development of technologies and practices, climate change models and scenarios, information technologies, insurance schemes, value chains, and the strengthening of institutional and political enabling environments (Lipper et al. 2014).

CSA aids in the development of technical, policy, and investment conditions to achieve sustainable agricultural development for food security under a changing climate. A recent study (Khatri-Chhetri et al. 2019) shows how different CSA options such as direct-seeded rice, green manuring, and system of rice intensification can potentially reduce the labor burden of women in agriculture while helping them improve productivity and income. Similarly, Mittal (2016) highlights how ICT-based advisories can enable a reduction in the information gap among men and women farmers to cope with climate risks. Women's participation in economic activities and their overall empowerment has also been higher in villages where CSA activities have been promoted (Hariharan et al. 2020). These pieces of evidence show how CSA



approaches can enable a reduction in vulnerabilities of men and women farmers to climate risk thereby building the resilience of the household or communities in the longer run.

Evidence gaps

A recent scoping review on gender and CSA (Chanana 2021) revealed several evidence gaps relevant to the CGIAR GENDER Platform agenda.

- More concrete evidence is required on *how CSA adoption impacts different outcomes of gender inequality* including decision making, health and nutrition, overall time poverty or changes in labor, change in resource access and change in production related activities.
- Further research is required to *understand gender interactions with dimensions* such as climate finance, insurance, water-based interventions, and capacity building.
- Research is required to understand the scalability factors or pathways for scaling gender-responsive CSA.
- Gendered impact of climate-conflict linkage is something that is broadly unexplored and requires attention.
- Impact on women's vulnerability due to multiple shocks including climate change and pandemics.
- Conditions that encourage women's centrality across climate change interventions
- When looking at the *CSA adoption or climate change adaptation* theme, few articles identified specific barriers for women including weaker land rights of females in matrilineal societies, lack of finances and irrigation facilities, and cost of technology.
- There is limited empirical evidence on interventions which reduce the labor and time use of women. There is sparse evidence on intra-household dynamics in CSA adoption decisions.
- *Resilience* as an important factor in adaptation was not efficiently covered.
- *Intersectionality* is limited in the literature related to CSA adoption. How gender intersects with factors such as age, education, marital status, etc. to affect the access to resources, adaptive responses, as well as access to and use of climate information still remains a black box.
- Africa and South Asia dominate existing studies on Gender and CSA, with the distribution of studies skewed to countries such as Kenya, Ethiopia and India

The EGM revealed that while the challenges posed by climate change on agriculture and gendered dimensions of risk and resilience have received substantive attention in the last decade, there is a gap in terms of understanding the outcomes and gendered impacts of applying Climate Smart agriculture in different spheres including but not restricted to economic and environmental outcomes. Among the areas missing evidence is the understanding of how gains from the use of CSA are distributed in the community and within the household.



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