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Addressing Gender Inequalities and Strengthening Women's Agency to Create More Climate-Resilient and Sustainable Food Systems

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ABOUT THIS SERIES
This annex for a working paper, produced by the CGIAR GENDER Impact Platform, is one in a series of analytical working papers by our researchers. They were produced to inform the Food and Agriculture Organization of the United Nations to write the 2023 report on the *Status of Rural Women in Agrifood Systems.*[*]

These evidence-based papers address key themes important for gender and social equality, and women's empowerment in agriculture and food systems. They each discuss:
- current status and emerging thinking
- the theme's relevance for transformative change toward more inclusive food systems
- the evolution of equality in agriculture and food systems over the past 10 years in low- and middle-income countries
- what has proved effective to ease structural constraints, and promote equality and empowerment
- specific suggestions about interventions, programs and policies that can help make agriculture and food systems more inclusive.

COVER PHOTO CREDIT: Felix Clay/Duckrabbit/WorldFish. *Weeding maize, Mongu, Western Zambia.*

ABOUT CGIAR GENDER IMPACT PLATFORM
Generating Evidence and New Directions for Equitable Results (GENDER) is CGIAR's impact platform designed to put gender equality at the forefront of global agricultural research for development. The Platform is transforming the way gender research is done, both within and beyond CGIAR, to kick-start a process of genuine change toward greater gender equality and better lives for smallholder farmers everywhere. gender.cgiar.org.

DISCLAIMER
The working paper has gone through a process of nonblinded peer review by two reviewers external to the CGIAR GENDER Impact Platform, and has also been reviewed by the FAO team working on the 2023 FAO report on the Status of Rural Women in Agrifood Systems. The views expressed in this publication are those of the author(s) and do not necessarily reflect the views or policies of the Food and Agriculture Organization of the United Nations nor of the CGIAR GENDER Impact Platform.

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Abstract of the working paper

Climate change affects every aspect of the food system, including all nodes along agri-food value chains from production to consumption, the food environments in which people live, and outcomes, such as diets and livelihoods. Women and men often have specific roles and responsibilities within food systems, yet structural inequalities (formal and informal) limit women's access to resources, services and agency. These inequalities affect the ways in which women and men experience and are affected by impacted climate change. In addition to gender, other social factors are at play, such as age, education, marital status, and health and economic conditions. To date, most climate change policies, investments, and interventions do not adequately integrate gender. If climate-smart and climate-resilient interventions do not adequately take gender differences into account, they might exacerbate gender inequalities in food systems by, for instance, increasing women's labor burden and time poverty, reducing their access to and control over income and assets, and reducing their decision-making power. At the same time, women's contributions are critical to make food systems more resilient to the negative impacts of climate change, given their specialized knowledge, skills and roles in agri-food systems, within the household, at work and at the community level. Increasing the resilience of food systems requires going beyond addressing gendered vulnerabilities to climate change to create an enabling environment that supports gender equality and women's empowerment, by removing structural barriers and rigid gender norms, and building equal power dynamics, as part of a process of gender-transformative change.

Keywords: gender equality, social equality, women's empowerment, food systems, climate change, resilience

Glossary of terms in gender equality in agri-food systems work

Adaptation (to climate change) for human systems refers to the process of adjusting to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities (IPCC 2018). The options, strategies and measures for adaptation can be categorized as structural, institutional, ecological or behavioral (IPCC 2018).

Adaptive capacity is the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities or to respond to consequences (IPCC 2018; MEA 2005).

Agroforestry ''is a collective name for land-use systems and technologies where woody perennials (trees, shrubs, palms, bamboos, etc.) are deliberately used on the same land-management units as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence. In agroforestry systems there are both ecological and economical interactions between the different components. Agroforestry can also be defined as a dynamic, ecology-based natural resource management system that, through the integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels. In particular, agroforestry is crucial to smallholder farmers and other rural people because it can enhance their food supply, income and health. Agroforestry systems are multifunctional systems that can provide a wide range of economic, sociocultural and environmental benefits" (FAO 2015).

Aquaculture, or farming in water, ''is the aquatic equivalent of agriculture, or farming on land. Defined broadly, agriculture includes farming both animals (animal husbandry) and plants (agronomy, horticulture and forestry in part). Similarly, aquaculture covers the farming of both animals (including crustaceans, finfish and molluscs) and plants (including seaweeds and freshwater macrophytes). While agriculture is predominantly based on use of freshwater, aquaculture occurs in both inland (freshwater) and coastal (brackish water, seawater) areas" (FAO n.d.a).

Aspirations are defined as forward-looking goals or targets (Locke and Latham 2002) and as orientations toward a desired future, where such futures may be individual or collective projects, more immediate or longer term, and pertain to imaginations, affect as well as material practices (Huijsmans, Ansell and Froerer 2021).

Climate-smart agriculture (CSA) is a framework that is used to promote coordinated efforts to achieve three objectives (pillars): (1) increasing agricultural productivity and incomes, (2) adapting and building resilience to climate change at multiple scales, and (3) mitigating greenhouse gas emissions (GHG) from agriculture (Lipper et al. 2014). CSA provides a basis to evaluate alternative strategies and approaches to address climate change across the three pillars. It is often criticized for its lack of attention to political and equity dimensions.

Crop productivity or yield is the output of either a particular crop or all crops produced on a unit of land. It is usually presented in physical weight (kilograms) per hectare.

Endowment effects are the component of the gender productivity gap that is accounted for or explained by farmer characteristics and the unequal access to production inputs.

Empowerment is the process by which people who have been denied the ability to make strategic life choices acquire such an ability. It encompasses three dimensions: resources (economic, human and social preconditions), agency (power-related processes), and achievements (well-being outcomes) (Kabeer 1999).

Social empowerment entails receiving recognition in one's community.

Economic empowerment entails generating income and purchasing of assets.

Exposure and **sensitivity** to climate shocks and stressors are properties of a system, community or individual that are dependent on the interaction between the characteristics of the system (e.g., livelihood characteristics) and on the attributes of the climate stimulus (severity, duration, scale, etc.) (Smit and Wandel 2006).

Fisheries refers to the capture of aquatic organisms in marine, coastal and inland areas, as well as their processing, marketing and distribution.

Forest: "Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use." (FAO 2022)

Gender differences arise from the socially constructed relationship between women and men (Oakley 1972; Quisumbing and McClafferty, 2006). **Sex differences**, on the other hand, are biological and innate. The roles that women and men play in society show similarities and differences across classes and societies. Since the definition of men's and women's roles is specific to time and place, gender divisions are not as simple as 'ticking a box' (Moser 1989; Quisumbing and McClafferty, 2006). Gender differences affect the distribution of resources between women and men and are shaped by ideological, religious, ethnic, economic and social determinants (Moser 1989; Quisumbing and McClafferty, 2006). Being socially rather than innately determined, this distribution can be changed through conscious social action, including public policy.

Gender gaps in productivity refer to either within-household or between-household differences in productivity between women and men. Broadly, two types of gender-based farming practices exist: individual and joint production units (farms). Intrahousehold gender productivity differences involve individual farms wherein plots are distinguished by the sex (female and male) of the plot owner or manager or decision-maker, usually wife and husband who are part of the same household; interhousehold gender gaps involve productivity differences (at plot or household level) between joint farms wherein households are distinguished by the sex of the household head or farm decision-maker in the household. Interhousehold gaps also involve productivity differences between households (joint farms irrespective of the gender of household head).

Conditional gender productivity gap refers, in this report, to gendered productivity gaps reported after factoring in the gendered differences in access to and control over key agricultural resources such as land, agricultural inputs (fertilizer, improved seeds, plot area, climatic conditions, etc.).

Unconditional gender productivity gap refers to reported gender difference in productivity after taking into consideration the gendered differences in access to and use of key agricultural resources such as land and inputs (inorganic fertilizer, improved seeds, etc.).

Structural effects are the component of the gender productivity gap which is residual or unexplained by the observable factors and is due to unequal returns to production factors.

Gender integration refers to the process of applying strategies in policy and program planning, assessment, design, implementation, and monitoring and evaluation to consider gender norms and to compensate for gender-based inequalities (Catacutan and Naz 2015; Njuki et al. 2013).

Along the gender integration continuum, **gender-blind** programs are programs that ignore gender, gender differences and gender relations. **Gender-accommodating** programs acknowledge gender, gender differences and gender relations. They seek to ensure that women benefit but do not necessarily attempt to reduce gender inequality or address the

gendered systems that contribute to the differences and inequalities. **Gender-responsive/ gender-sensitive** programs acknowledge gender differences in barriers and outcomes related to specific program objectives that aim to address gender inequalities in the local context through program design and implementation. **Gender-transformative** programs (such as gender-transformative approaches below) seek to address structural barriers and transform gender relations to promote gender equality (USAID 2017; ICO 2022).

> **Gender-transformative approaches** actively strive to examine, question and change rigid gender norms and imbalances of power. They encourage critical awareness among women and men of gender roles and norms, promote the position of women, challenge the distribution of resources and allocation of duties between women and men, and/or address the unequal power relationships between women and others in the community (Rottach, Schuler and Hardee 2009).
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> The ultimate goal of gender-transformative approaches is to catalyze **gender-transformative change** whereby norms and other structural barriers to gender equality are removed and more equal power relationships emerge.

Hazard refers to the potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources (IPCC 2018).

Institutions, as commonly defined in economic and political sciences, are the "rules of the game" of a society or, in other words, the rules, norms and conventions that people devise to guide, constrain or enable human interaction and behaviors. Institutions can be established formally, through rules such as statute law, common law, regulations and the enforcement mechanisms of these, or informally, through more informal conventions, normative or self-imposed rules of behavior, traditions and their enforcement mechanisms (North 1990; IPCC 2022). From a post-institutionalist perspective, institutions are defined as "regularised patterns of behavior that are made and remade through people's practices but emerge from underlying structures and sets of 'rules in use'" (Leach, Mearns and Scoones 1999, 237).

> **Discriminatory social institutions** are formal and informal laws, social norms and practices that restrict or exclude women and consequently curtail their access to rights, justice, resources and empowerment opportunities (OECD 2018). They consist of both formal constraints (sanctions, taboos, customs, traditions, codes of conduct/ norms) and formal rules (constitutions, laws, property rights). They influence decisions, choices, and behaviors of groups, communities and individuals (OECD 2018).
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> **Social norm** is a rule of behavior that individuals prefer to conform to if they believe that most people in their reference network (i.e., people whose behaviors and beliefs matter to their own behavior) conform to it (empirical expectations) and most people in their reference network believe they ought to conform to it (normative expectations) (Bicchieri 2006). Social norms can be held in place, at least in part, by anticipation of positive and negative sanctions (Cislaghi and Heise 2018).
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> **Gender norms** are a subset of social norms defining acceptable and appropriate actions for women and men and governing behaviors and practices in a particular social context and at a particular time in a given group or society. They are informal, deeply entrenched and widely held beliefs about gender roles, power relations and standards or expectations that people tend to internalize and learn early in life. They are embedded in formal and informal institutions, nested in the mind and produced and reproduced through social interaction. Gender norms play a role in shaping women and men's (often unequal) access to resources and freedoms, thus affecting their voice, power and sense of self. They sustain a hierarchy of power and privilege that typically favours what is considered male or masculine over that which is female or feminine, reinforcing a systemic inequality that undermines the rights of women and girls and restricts opportunity for women, men and gender minorities to express their authentic selves (Cislaghi and Heise 2020; UNICEF 2020).

Laws: Rules of conduct formally recognized as binding or enforceable by an established authority. Laws relating to gender issues include personal property and inheritance laws and laws prohibiting gender-based violence, sexual harassment and discrimination (Markel and Jones 2014).

Livestock are ''domesticated terrestrial animals that are raised to provide a diverse array of goods and services such as traction, meat, milk, eggs, hides, fibres and feathers. The term livestock systems embraces all aspects of the supply and use of livestock commodities, including the distribution and abundance of livestock, the different production systems in which they are raised, estimates of consumption and production now and in the future, the people engaged in livestock production and the benefits and impacts of keeping livestock." (FAO n.d.b).

Mitigation (of climate change) refers to a human intervention to reduce emissions or enhance the sinks of greenhouse gases (IPCC 2018). Mitigation measures are technologies, processes or practices that contribute to mitigation, such as renewable energy technologies, afforestation and soil carbon sequestration.

Policies are statements by a government of what it intends to do or not to do, including laws, regulations, decisions or orders. Markel and Jones (2014) note that policies differ from laws in that they do not have legal standing; however, they govern the management, decisions and actions of institutions.

Relations are the expectations and cooperative or negotiation dynamics embedded within relationships between people in the home, market, community, groups and organizations (Hillenbrand, Karim and Wu 2015).

Resilience, broadly defined, is the capacity of social, economic and environmental systems to cope with a hazardous event, trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation (IPCC 2018). Most definitions of human resilience focus on the ability of people, households, communities, countries and systems to act upon a set of capacities to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and maintains or improves well-being outcomes, such as food security (Frankenberger et al. 2014; Mercy Corps 2016; USAID 2012, 2017).

> **Resilience capacities** include absorptive, adaptive and transformative capacities. These are subject to gender and other social distinctions as well as the intersection of these identities, including those related to age, class, caste, ethnicity, marital status and sexual identity (Béné et al. 2014; Djoudi et al. 2016).

Responses to climate change are broadly defined to include adaptation, mitigation, climate-smart or climate-resilient approaches. They can also be categorized in several different ways as coping, risk management, adaptive and transformative responses (Bryan et al. 2017; Theis, Bryan and Ringler 2019). Coping responses are usually short-term, ex post responses to experienced shocks or stresses and include actions like selling assets or changing consumption patterns and, at larger scales, humanitarian interventions (Corbett 1988; Dercon 2002). While coping responses may aim to maintain well-being at pre-shock levels, they are often associated with a deterioration in well-being, such as poorer diets and increased indebtedness. Risk management strategies, like diversifying production or livelihood activities, and adaptive responses, like adopting new agronomic practices, tend to be proactive and aimed at avoiding or minimizing harmful impacts of shocks and stresses over the medium to long term (Jost et al. 2016; Corcoran-Nantes and Roy 2018; Lawson et al. 2020). Transformative responses aim to change the fundamental attributes of a system or context to improve well-being outcomes, such as actions that directly address underlying social inequalities (McOmber, Audia and Crowley 2019; Carr 2020).

Role models are defined as individuals who inspire people to make similar choices or adopt a similar set of values and to achieve comparable results (Madhavan and Crowell 2014; Porter and Serra 2020).

Structural constraints on equality (by gender and other sources of social differentiation) are features of the institutional or normative environments (at any of multiple scales) that tend to restrain women from exerting agency and achieving their full potential.

Technical efficiency is the effectiveness with which a given set of inputs is used to produce an output. A farm is said to be technically efficient if it is producing the maximum output from the minimum quantity of inputs, such as labor, capital and technology.

Vulnerability encompasses a variety of concepts, including exposure and sensitivity to climate hazards and adaptive capacity (Adger 2006; IPCC 2018; Smit and Wandel 2006).

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CGIAR is a global research partnership for a food-secure future dedicated to reducing poverty, enhancing food and nutrition security, and improving natural resources.

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