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Gender transformative change for climate action

Taking a gender transformative
approach for resilient and
sustainable agrifood systems

Joint Programme on

Gender
Transformative
Approaches

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**Taking a gender transformative
approach for resilient and
sustainable agrifood systems**

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Abbreviations

FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
FORMAPROD	Vocational Training and Agricultural Productivity Improvement Programme
GALS	Gender Action Learning System
GAP	good agricultural practices
IFAD	International Fund for Agricultural Development
JP GTA	Joint Programme on Gender Transformative Approaches for Food Security, Improved Nutrition and Sustainable Agriculture
JP RWEE	Joint Programme on Rural Women's Economic Empowerment
NTFPs	non-timber forest products
SBCC	social and behaviour change communication
SDG	Sustainable Development Goal
UNCISPAL	Union of Indigenous Organizations of San Pablo del Lago
UNFCCC	United Nations Framework Convention on Climate Change
WFP	World Food Programme



Introduction

Climate change is straining agrifood systems across the globe, posing dire consequences for the food security and nutrition status of nations (FAO, 2021c; Lipper *et al.*, eds., 2018). Rises in global average temperature and associated effects, such as shifts in weather patterns and increases in the frequency and intensity of extreme weather events, are impacting the quality and reliability of natural resources (Weiskopf *et al.*, 2020) and causing decreases in agricultural yields (FAO, 2021c), livestock productivity (Rojas-Downing *et al.*, 2017) and fish production (FAO, 2019), as well as leading to severe losses of and damage to lives. Climate change also affects off-farm segments of agrifood systems, disrupting food value chains and negatively impacting food storage, transport, retail and consumption patterns (Campbell, 2022; Vermeulen, Campbell and Ingram, 2012). Agrifood systems are also important contributors to climate change: they constitute one-third of global anthropogenic greenhouse gas emissions, with the largest contribution coming from agriculture, land use, and land-use change activities (Crippa *et al.*, 2021).

Men and women whose livelihoods depend directly on agrifood systems are particularly vulnerable to the effects of climate change. The capacity to adapt to climate variability and change is largely determined by factors such as control over economic resources (e.g. access to productive assets) and access to information, skills and technology (Burton *et al.*, 2001). These factors are also intrinsically shaped by social institutions and gendered power relations. The roles and behaviours socially attributed to men and women partly determine how they may experience climate change (e.g. risk perception, vulnerability, differentiated impacts) and the manner and extent to which they are able to cope with its negative effects (e.g. behaviours and coping strategies) (IPCC, 2019).

It is estimated that, annually, female-headed households suffer income declines of 8 percent due to heat stress and 3 percent due to floods, compared to male-headed households (FAO, 2024). A rise of 1 °C in long-term average temperatures has also been shown to correlate with a 34 percent decrease in the total incomes of households led by females compared to those led by males (FAO, 2024). Heat stress exacerbates the income disparity between these two household types by USD 37 billion annually, while floods widen this gap by USD 16 billion per year (FAO, 2024).

By mid-century, under a worst-case scenario, climate change could potentially drive up to 158 million additional women and girls into poverty globally, exceeding the total number of men and boys affected by 16 million (Turquet *et al.*, 2023). Considering that environmental stress, alongside social and economic inequalities, is a key depressor of women's agency (Rao *et al.*, 2019); that climate change is expected to "increase or heighten" existing gender inequalities (IPCC, 2014, p. 796); and that these inequalities are already pervasive in agrifood systems (FAO, 2023a), it is thus fundamental to use climate-resilient programmes that consider and address structural causes of gender inequality in agrifood systems.

The recently approved Voluntary Guidelines on Gender Equality and Women's and Girls' Empowerment in the Context of Food Security and Nutrition highlight the important role that women and girls play in disaster risk reduction and in managing the effects of climate, including their vital knowledge on successful techniques for climate change adaptation and their role in the management of early warning systems (CFS, 2023). The Guidelines emphasize how, despite women's role in climate change adaptation and mitigation, their socially ascribed roles negatively impact their participation in sustainable development

efforts and their access to technology, services and financial resources needed to effectively adapt to climate change. The work programme on the Global Goal on Adaptation of the Paris Agreement also includes a clear commitment to the development of country-driven, gender-responsive national adaptation plans, policy instruments, and planning processes or strategies (UNFCCC, 2023b), while the COP 28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action and the COP28 Gender-Responsive Just Transitions and Climate Action Partnership include commitments for the advancement of women's and girls' rights for climate action in agrifood systems.

The commitment to address the structural causes of gender inequality in climate change adaptation and mitigation in food security and nutrition efforts also features prominently across the United Nations Rome-based Agencies – FAO, IFAD and WFP. For example, the FAO Strategy on Climate Change (2020–2031) promotes planning and implementation of gender transformative climate action. Similarly, the WFP Climate Policy highlights the role that participatory, location-specific and gender transformative approaches can play as catalysers for the empowerment of women and girls in climate actions that are already contributing to building climate resilience. The WFP Gender Policy also highlights the role of time-saving and climate-resilient actions and technologies to improve livelihoods and redistribute the burden of unpaid work for women and girls. A core principle of the IFAD Environment and Natural Resources Management Policy is to promote equality and empowerment for women and Indigenous Peoples in managing natural resources, and the IFAD Gender Transformative Mechanism in the Context of Climate Adaptation highlights the crucial role of a gender transformative approach for sustainable climate resilience, including challenging gender norms and addressing gender inequalities. Since 2012, IFAD's flagship Adaptation for Smallholder Agriculture Programme has significantly increased the participation of women and marginalized groups in climate action and adaptation strategies. It has been a strong advocate of the Gender Action Learning System which it will employ within its projects for gender empowerment in an adaptation context. Together, since 2019, the Rome-based Agencies have been implementing the Joint Programme on Gender Transformative Approaches for Food Security, Improved Nutrition and Sustainable Agriculture (JP GTA) in collaboration with and through financial support from the European Union. The JP GTA advances food security, enhances nutrition, and promotes sustainable agriculture by addressing the underlying factors of gender discrimination and catalysing transformative initiatives that foster gender equality and empower women.

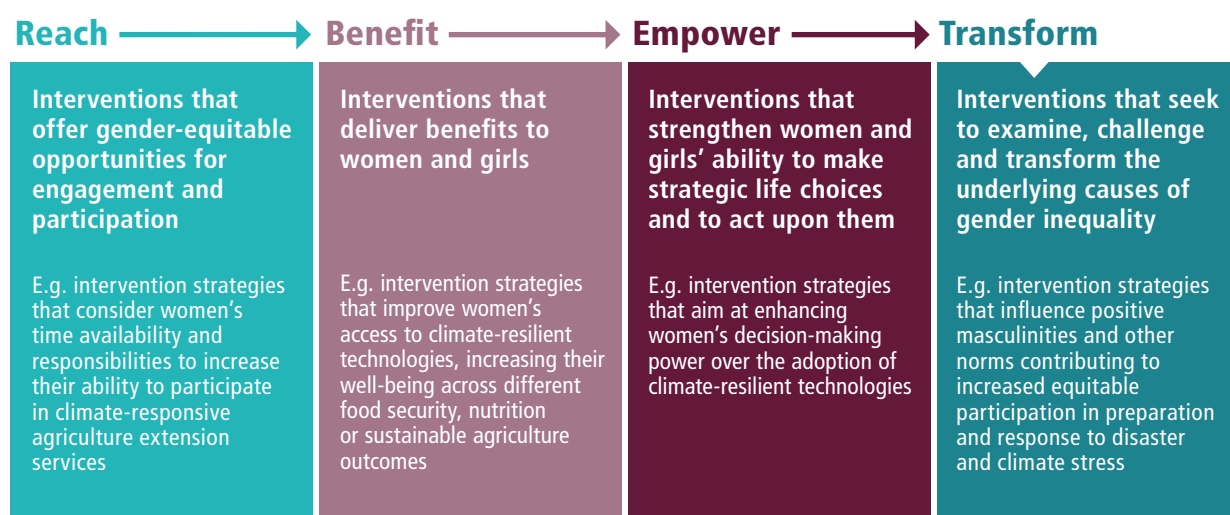
This technical study highlights the role of discriminatory social institutions, unequal power relations and agency in influencing climate resilience processes for sustainable agrifood systems. It also defines core characteristics of gender transformative change in climate resilience programming and presents a collection of climate change interventions that address different dimensions of gender transformative change and the management of disaster risks in agrifood systems. The main audience for this study consists of food security, agriculture, climate and gender practitioners and experts with an interest in gender transformative change in interventions related to climate adaptation and disaster risk management.

1 Gender transformative interventions

Interventions that ensure the engagement and participation of women and girls in programme activities (“reach”, Figure 1) often fail to bring specific benefits to these individuals or to empower them. Similarly, interventions that may be designed to bring specific benefits to women and girls (“benefit”, Figure 1) or that aim at empowering them by improving their ability to make strategic life choices, and to act upon them (“empower”, Figure 1), may also fall short in their ability to transform discriminatory social institutions that sustain and maintain gender inequality (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023). To achieve the latter, gender transformative interventions place a specific focus on building the agency of women and girls, thus transforming unequal power relations and building more equitable social institutions (“transform”, Figure 1).

Interventions aiming at “transforming” discriminatory social institutions and unequal power relations will often be implemented alongside other “reach”, “benefit” and “empower” activities. Distinguishing between these four interventions can help practitioners plan their activities more strategically and have clearer expectations about the potential impact of each of these in terms of gender and women’s empowerment outcomes (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

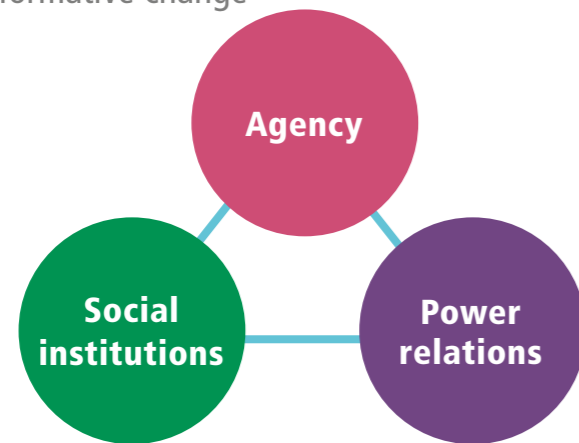
FIGURE 1. Gender transformative interventions: reach, benefit, empower, transform



Source: Adapted from Johnson, N., Balagamwala, M., Pinkstaff, C., Theis, S., Meinsen-Dick, R. & Agnes, Q., eds. 2018. How do agricultural development projects empower women? Linking strategies with expected outcomes. *Journal of Gender, Agriculture and Food Security (Agri-Gender)*. <https://doi.org/10.22004/ag.econ.293596>; Quisumbing, A., Gerli, B., Faas, S., Heckert, J., Malapit, H., McCarron, C., Meinsen-Dick, R. & Paz, F. 2023. Assessing multicountry programs through a “Reach, Benefit, Empower, Transform” lens. *Global Food Security*, 37: 100685. <https://doi.org/10.1016/j.gfs.2023.100685>.

Interventions that follow gender transformative approaches seek to actively examine, challenge and transform the underlying causes of gender inequality rooted in inequitable social institutions (FAO, IFAD and WFP, 2021). Their aim is to address unbalanced power dynamics and relations, discriminatory gender norms and roles, harmful practices, and unequal formal and informal rules, as well as discriminatory legislative and policy frameworks that create and perpetuate gender inequality (FAO, IFAD and WFP, 2021). Related to these approaches, gender transformative change involves processes that bring about change in three main dimensions: agency, power relations and social institutions (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023) (figure 2).

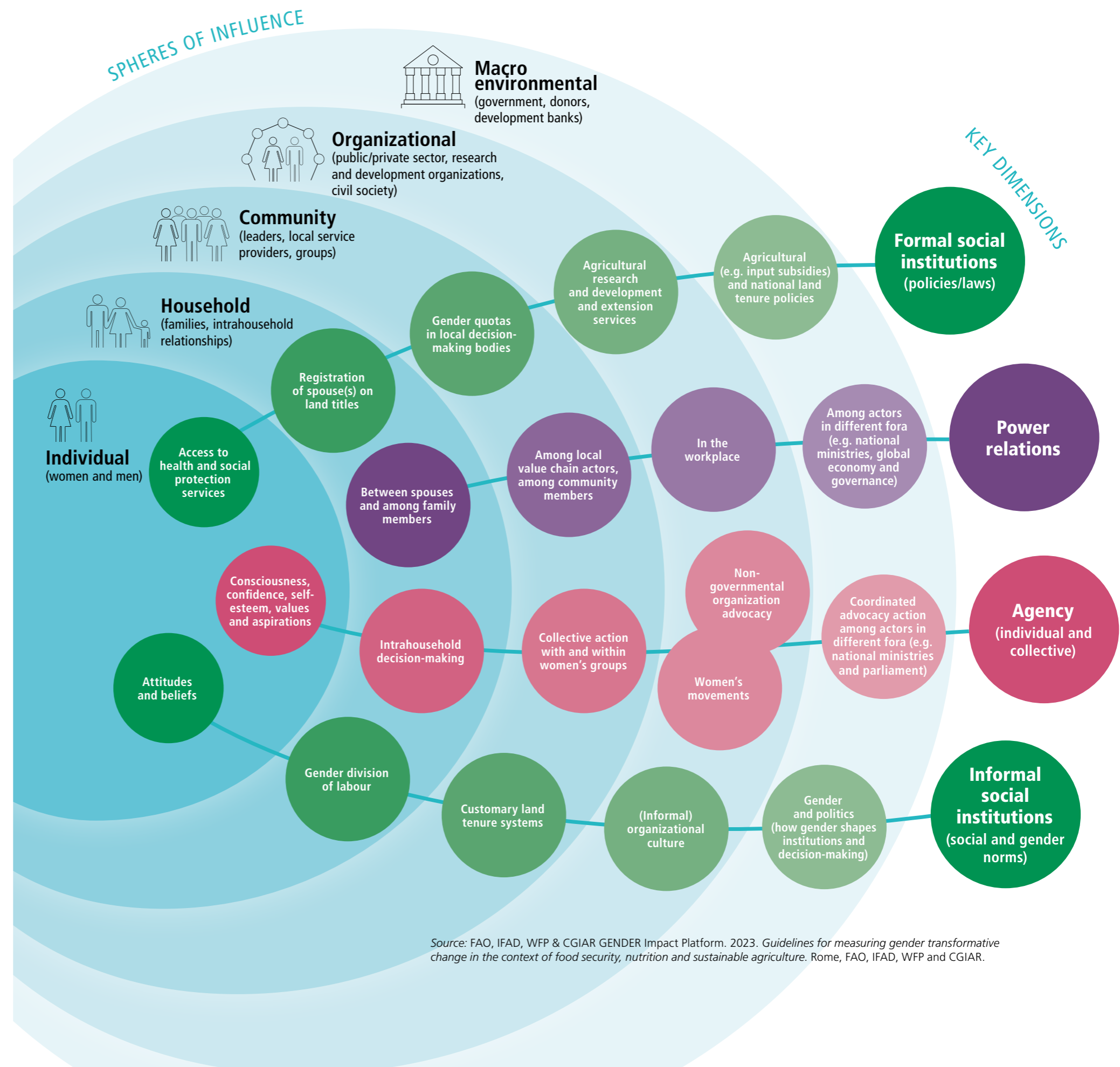
FIGURE 2. Key dimensions of gender transformative change



Building agency relates to processes that strengthen individual and collective decision-making power, confidence, consciousness, aspiration and self-esteem, as well as building knowledge, skills and capabilities (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023). Challenging unequal power relations entails shifting away from inequitable power dynamics – such as using power to suppress, coerce, discriminate, corrupt or mistreat others – towards fostering more constructive power relations between spouses, relatives and community members, and with religious leaders, business people, government workers and state officials (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023). Promoting equity within social institutions necessitates modifications in both informal institutions (unspoken social norms, customs, values, traditions and sanctions) and formal institutions (written constitutions, policies, laws and regulations). Bringing about these changes would have a positive influence in building agency and more equitable power relations. Gender transformative change can occur across different spheres of influence, namely individual, household, community, organizational and macroenvironmental. Together, these key dimensions across different spheres of influence help build a useful framework¹ for measuring gender transformative change (figure 3).

¹ For more details on the framework, refer to the Guidelines for measuring gender transformative change in the context of food security, nutrition and sustainable agriculture

FIGURE 3. A framework for measuring gender transformative change in the context of food and nutrition security and sustainable agriculture



Source: FAO, IFAD, WFP & CGIAR GENDER Impact Platform. 2023. Guidelines for measuring gender transformative change in the context of food security, nutrition and sustainable agriculture. Rome, FAO, IFAD, WFP and CGIAR.

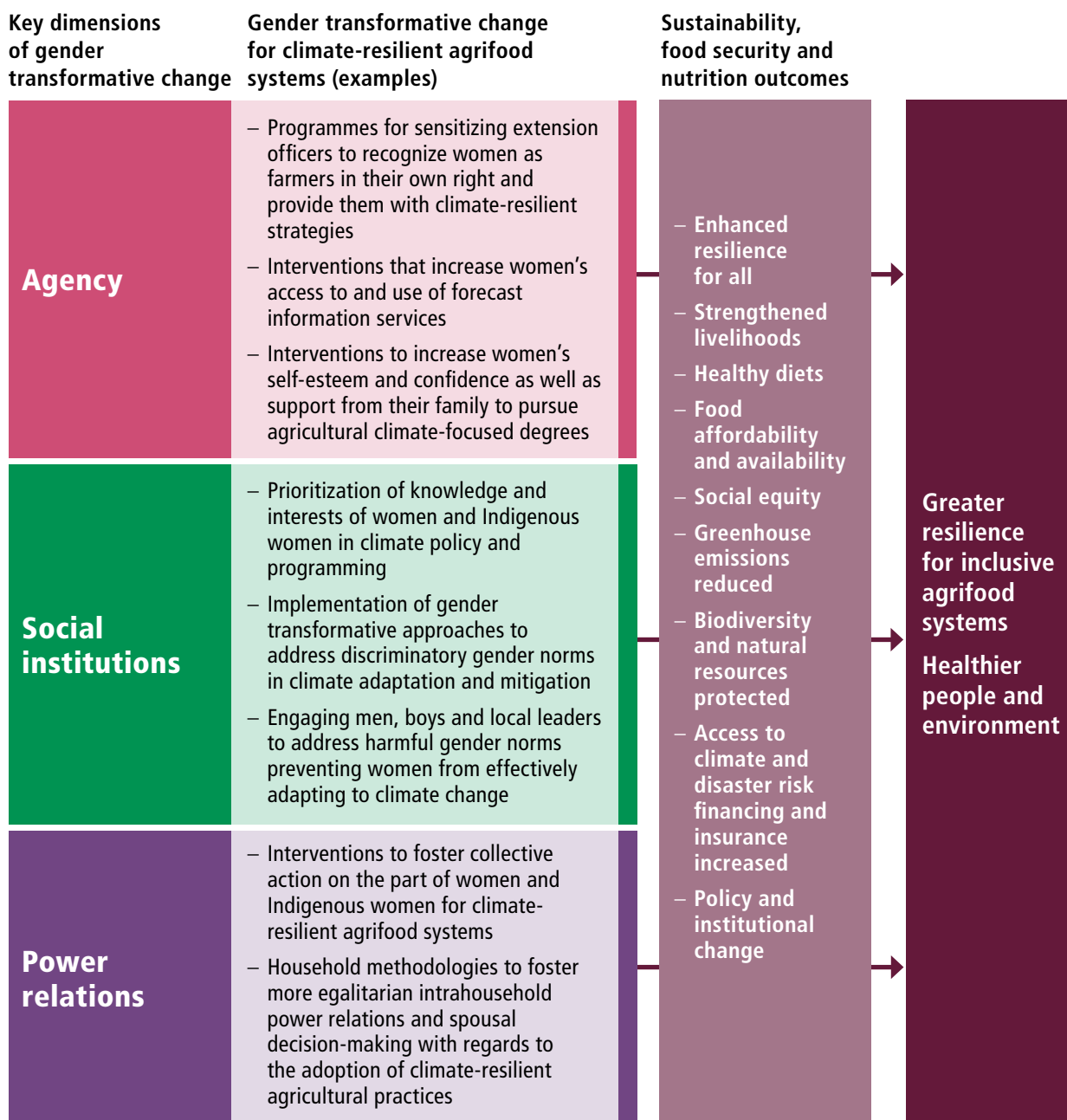


2 Gender transformative change for climate-resilient and sustainable agrifood systems

Social inequalities stemming from unfair and discriminatory social norms and unequal power dynamics across the agrifood system influence the distribution of climate change impacts and the ability to act in response to them. These social inequalities can exacerbate vulnerability, especially among the most marginalized groups, and limit the scope of available options for climate action (Bryan *et al.*, 2024). The impacts of climate change can in turn put women in a more disadvantaged position, often creating a perilous cycle. The implementation of gender transformative approaches can help dismantle the systemic barriers that perpetuate this cycle, empowering women to mitigate and adapt to the impacts of climate change, thus fostering resilience and sustainability for all.

As applied to climate change action and initiatives for food security and nutrition, gender transformative approaches seek to question and address unequal power relations, gender norms and other discriminatory social institutions (e.g. policies or laws) that discriminate against women and/or men in their ability to effectively respond to climate change, including the ability to benefit from climate change adaptation and mitigation programmes and services, and to access timely weather and climate information. In other words, within a context of climate change, gender transformative approaches aim at building agency and generating change in unequal power relations and social institutions that drive inequality in climate change adaptation and mitigation processes.

By purposively addressing agency, discriminatory social institutions, and unequal power relations that prevent men and women from effectively responding to climate change, gender transformative approaches can help make climate-resilient technologies, services and programmes more responsive to women's and men's needs as well as helping to eradicate forms of gender-based discrimination in already climate-strained agrifood systems (Figure 4).

FIGURE 4. Gender transformative change for climate-resilient agrifood systems

Source: Authors' own elaboration.

Promoting gender-equitable social institutions for climate-resilient and sustainable agrifood systems

Social institutions, both at the formal (e.g. laws, policies) and informal level (e.g. social norms), mediate men's and women's ability to mitigate and adapt to the effects of climate change, to recover in the aftermath of a crisis, and to benefit from climate-resilience interventions in agrifood systems.

Formal institutions

Women's differentiated knowledge, views and contributions are fundamental to designing climate-resilient agrifood system policies and regulatory frameworks, including policies

for disaster risk management and/or reduction, to ensure benefits for all stakeholders. Increasing the representation in climate change policy decision-making processes of diverse women and actors allows these individuals to introduce new perspectives and ideas that are particularly pressing or relevant and that would have otherwise likely been overlooked or not carefully considered. However, the participation of women in climate change decision-making and action is being prevented by unequal access to information and education opportunities and limited access to technology, alongside discriminatory cultural and social norms, unconscious bias, gender stereotypes and patriarchal systems (Turquet *et al.*, 2023). Recent efforts from the United Nations Framework Convention on Climate Change (UNFCCC) have achieved considerable progress in integrating a gender perspective into constituted body processes and in increasing female representation in those processes (UNFCCC, 2023a, 2023c). Increasing the share of female representation in parliaments has also been shown to be correlated with the adoption of more stringent climate change policies (Mavisakalyan and Tarverdi, 2019).

Besides the issue of limited female representation in climate change policy decision-making, agrifood system policies themselves do not sufficiently address the structural root causes of gender inequality to provide support for climate action. For example, in a sample of 83 low- and middle-income countries, less than 20 percent of their main agricultural policies addressed discriminatory social norms or gendered vulnerabilities to climate change (FAO, 2023a). In addition to enhancing the inclusion of gender transformative considerations into national agricultural policies, other key formal institutions to advance climate and gender equality and women's empowerment include policies and plans in the context of the UNFCCC (such as the National Adaptation Plans) as well as ministerial-level budgeting for climate action and district-level development plans.

In some contexts, written policies and regulatory frameworks coexist with customary laws, with implications for climate resilience. For example, customary laws can prevent women from claiming an equal share in the distribution of inheritance, even if statutory law protects women's rights to land inheritance (Doss and Meinzen-Dick, 2020). In other contexts, following divorce or widowhood, women may face land and property grabs and evictions by their in-laws, even when these practices are also banned by statutory laws (Bennett *et al.*, 2006). This has important consequences for the ability of women to withstand the negative impacts of climate change. For example, land is frequently used as a form of collateral to access credit from financial institutions. As such, women who do not have formal ownership of land (sole or joint) cannot easily access formal credit to, for instance, invest in alternative livelihoods, implement improved climate adaptation measures (e.g. climate-resilient practices) or counteract production losses derived from extreme climate events, shifts in rainfall patterns, etc. Lower levels of asset ownership also limit women's ability to use financial products such as climate risk insurance or to receive payouts from these. In addition, the lack of digital and financial inclusion (e.g. when women cannot have bank accounts or businesses in their own name without their husband's permission) creates a barrier for women's access to disaster risk financing. Customary tenure systems may advance or hinder women's land rights to different extents, depending on the context. When customary land tenure, laws or institutions are legally recognized, it is thus important that women's land rights are explicitly protected. In a sample of 41 countries that recognize customary law in their legal system, only 51 percent explicitly protected women's land rights (FAO, 2023b).

Informal institutions

Informal social institutions, especially gender norms, are strongly linked to individual vulnerability to natural disasters (Hunter *et al.*, 2016) and to climate change adaptation behaviour (Bechtoldt *et al.*, 2021).

BOX 1. What are social and gender norms?

Social norms are rules, often implicit, that most people accept, comply with and follow.^a They establish what is considered to be typical and appropriate behaviour within a given group or community.^b Social norms are shaped by belief systems and are embedded in formal and informal institutions.^c

Gender norms are a subset of social norms that are produced and reproduced by social interactions. They define, for each group or societal context, what is acceptable and appropriate behaviour for men and for women.^d From these gender norms arises a system of interwoven inequalities between men and women, including gender differences in power, access to and control over resources, and agency,^d which are often disfavourable to women.

In agrifood systems, gender norms dictate appropriate roles and rules of conduct for men and women, resulting in gender differences in men and women's involvement in on- and off-farm activities and in care and domestic work, as well as differences in their access to and control over income and credit; access to and ownership over assets and agricultural inputs; and access to climate information and extension services.^{e, f} Gender norms also bring about differences in women's and men's decision-making power and negotiating skills in households, communities, organizations and macroenvironmental institutions.^{e, f}

Notes: ^a Harper, C., Marcus, R., George, R., D'Angelo, S. & Samman, E. 2020. *Gender power and progress: how norms change*. Overseas Development Institute.

^b IRH. 2021. *Social Norms Lexicon*. Washington, DC, Institute for Reproductive Health, Georgetown University.

^c IRH. 2020. *Social Norms Exploration Tool*. Washington, DC, Institute for Reproductive Health, Georgetown University. https://irh.org/wp-content/uploads/2020/04/Social_Norms_Exploration_Tool_SNET-1.pdf

^d Cislaghi, B. & Heise, L. 2020. Gender norms and social norms: differences, similarities and why they matter in prevention science. *Sociology of Health & Illness*, 42(2): 407–422.

^e FAO. 2023a. *The status of women in agrifood systems*. Rome.

^f Rietveld, A.M., Farnworth, C.R., Shijagurumayum, M., Meentzen, A., Voss, R.C., Morahan, G. & López, D.E. 2023. *An evidence synthesis of gender norms in agrifood systems: pathways towards improved women's economic resilience to climate change*. Rome, Bioversity International. <https://hdl.handle.net/10568/136053>

Gender norms play a crucial role in determining men and women's rights and access to land, water, forests and to other productive assets, information and services, including financial services. These gender differences often place women and men in different positions in agrifood systems that do not have the same advantages, also influencing their ability to effectively adapt to climate change (Huyer, 2016) or their ability to prepare for and reduce the impact of crises such as extreme weather events, as well as recover from these afterwards (Bee and Park, 2022; Brown, 2011). Gender norms also influence how information is accessed, disseminated and utilized (Jerneck, 2018). For example, gender norms mediate women's and men's roles in paid and unpaid work, with domestic household chores and child care typically considered women's responsibilities. In addition, rural women are often perceived as caregivers and helpers rather than formal agrifood system workers or entrepreneurs in their own right (Mudege *et al.*, 2017). This confines women largely to the domestic space, limiting their mobility and their access to extension and climate information services (Lamontagne-Godwin *et al.*, 2018), information on disaster risk reduction (WFP, 2023a), agrometeorological advisories (Gumucio *et al.*, 2019) or weather index-based insurance (Aheeyar *et al.*, 2019). Furthermore, gender norms can restrict women's participation in public activities, limiting further their ability to fully benefit from extension or climate services (Gumucio *et al.*, 2019). For example, in contexts where women's mobility and interactions with unrelated males are restricted due to a range of factors (including religious restrictions and gender norms related to caregiving responsibilities), women may prefer to interact only with local authorities who are female, or with female workers in banks and insurance companies.

Gender norms also shape the impacts of climate change on men's and women's division of labour and unpaid care work. As natural resources become scarcer, this increases the amount of time women must dedicate to collecting water and fuelwood. During climate shocks like heat stress, women typically experience a smaller decrease in their workloads, including agricultural hours, compared to men (Lee *et al.*, 2021; Nico and Azzarri, 2022). Women's unpaid care responsibilities also increase in the context of environmental change and stress, as nutritious foods are harder to come by and the health care needs of family members increase (Turquet *et al.*, 2023).

Gender norms related to, *inter alia*, roles, responsibilities, labour, mobility or control over resources, can influence adoption of climate-resilient agricultural technologies and disaster risk management practices (Rietveld *et al.*, 2023; Twyman *et al.*, 2014; WFP, 2023a). The introduction and adoption of these technologies may have disproportionately negative effects on rural women if local gender norms and women's priorities are not taken into account during the design of these interventions (Beuchelt and Badstue, 2013). Gender norms can also prevent women from accessing or adopting technologies if these are not deemed appropriate for the local context (FAO, 2015). These norms might prevent women from joining producers' organizations or cooperatives that play an important role in the provision of services related to climate-resilient practices (e.g. storage facilities to protect products, adoption of practices and technologies), and which might also facilitate information-sharing and create linkages with programmes and projects related to climate change action.

As climate change drives declines in agricultural productivity, it acts as a driver for rural outmigration, or magnifies already existing drivers of migration (Baada and Najjar, 2020; Prati, Cazcarro and Hazra, 2022). Gender norms impact climate-related migration processes, but they may also be changed by migration as well. Climate-related migration is predominantly male in rural areas, as gender norms constrain women's mobility and situate men as the household breadwinners (and thus the individuals who can migrate in search of wage work). Women generally stay behind to take care of the farm and the household, and to provide care for the children and elderly (Baada and Najjar, 2020). The fact that women are left as *de facto* farm managers often increases their labour responsibilities (Pandey, 2021), but this can also expand their opportunities for engaging in spaces where they previously did not, such as in community decision-making (FAO, 2023a). However, the changes in gendered labour patterns coupled with the increased decision-making power of women may also cause unhappiness among migrating men, who may perceive their masculinity and authority threatened by these emerging dynamics; this may in turn reduce the amount of remittances sent back home (Doss *et al.*, 2021).

Disaster- and climate-related stress is driving an increase in incidences of violence against women and girls, with gender norms playing an important role in enacting such violence (Castañeda-Camey *et al.*, 2020). The attributes of "provider" and "protector of families" that in many cultures are often associated with masculinity can put pressure on men during disasters or during climate-induced stress. In these situations, men might not perceive themselves as able to affirm their male identity through the fulfilment of these attributes, and often turn to violent and self-destructing behaviours to cope with the stress. Women who must walk greater distances to collect water or fuelwood (due to drought) are also increasingly more vulnerable and exposed to violence (Castañeda-Camey *et al.*, 2020). Evidence also suggests that climate change and disasters are fuelling a rise in child marriages – a practice banned by international law. Driven by entrenched discriminatory gender norms, child marriage has historically served as a coping mechanism for families facing financial strain. Despite recent declines in its prevalence, economic stress from disasters and climate change is pushing families to marry off young daughters to reduce household dependents and improve their finances (i.e. from bride prices) during lean periods (Castañeda-Camey *et al.*, 2020; Chamberlain, Beller and Udrescu, 2017; Opondo, Abdi and Nangiro, 2016).

Finally, there is a gendered nature to the impacts of extreme weather events on populations (Neumayer and Plümper, 2007), with gender norms being intrinsically linked to how men and women feel the impacts of these events and how they will be able to cope with them. Informal institutions impact how women and men can act before, during and after such events, including their ability to access the knowledge and skills on how to prepare; the ability to flee or seek shelter; access to savings, loans and credit to recover from the events; and access to and control over humanitarian assistance (WFP, 2023a). Displacement due to weather-related and other disasters can also reinforce preexisting discriminatory social norms that lead to socioeconomic disadvantages. For example, in displacement settings, women experience more difficulties in securing decent alternative livelihoods than men (IDMC, 2020).

Table 1 compiles a selection of examples illustrating different ways in which discriminatory informal social institutions influence climate resilience and disaster preparedness. Reflecting on and addressing the gender norms and other informal institutions that disadvantage men and/or women and vulnerable social groups in rural communities is central for inclusive and effective climate change adaptation and action.

TABLE 1. The role of informal institutions (e.g. social norms, customs, values, traditions and sanctions) in the climate resilience of men and women in agrifood systems

AREA	EXAMPLES
Access to and control over productive assets and services	<ul style="list-style-type: none"> – In Kenya, gender norms may ascribe masculine traits to ownership and/or commercialization of cattle, milk and livestock products, building legitimacy around men’s privilege and higher decision-making power over dairy products.^a Women’s limitations in ownership rights and decision-making over livestock (e.g. decision to sell a head of livestock) can limit their ability to use livestock as financial capital (e.g. cash, savings) to mitigate risks associated with climate change. – In Burkina Faso, gender norms restrict Peul women’s ability to attend public events with men, which reduces their access to climate forecast information.^b – In Uganda, Ghana and Bangladesh, women have lower capacity to adapt to climate change due to financial or resource constraints and due to men receiving the majority of information and extension services.^c – In Chandipur, Bangladesh, gender norms prohibit women from entering crowded buses, which partly restricts their mobility and ability to access information on climate adaptation strategies.^c
Division of labour and unpaid work	<ul style="list-style-type: none"> – Women and girls are disproportionately burdened with the responsibility for collecting fuelwood and other solid fuels (e.g. charcoal), spending an average of 1.4 hours each day carrying out these tasks.^d – In rural India and Africa, women are responsible for fetching water for domestic purposes, dedicating as much as 30 percent of their time to this task.^e The time committed to these unpaid activities is growing in areas under severe drought or environmental stress, with women now having to walk further distances to access these increasingly scarce resources, thus exposing them to greater risks of gender-based violence.^e – In Southern Asia, climate change impacts such as decreasing crop residues and biomass for energy and livestock feed or the need to re-sow or transplant crops is expected to significantly increase women’s workload, as the gendered division of labour saddles women with more responsibility over these activities.^f – In Ecuador, a diagnostic of gender norms in family farming has demonstrated how gender norms dictating women’s role in caregiving and household chores have important negative effects on their ability to participate and take decisions in productive and community activities.^g

AREA	EXAMPLES
Climate-resilient agricultural technologies	<ul style="list-style-type: none"> – In the Dowa, Nkhonkhotakota and Phalombe districts of Malawi, the rate of adoption of climate-resilient agriculture technologies is only 30 percent for women, as compared to 70 percent for men.^h Access to extension services constitutes a key determinant in the adoption of new agricultural technologies,ⁱ and thus the gender norms that limit women’s access to extension services (e.g. limited mobility) also affect the adoption of climate-resilient technology. – In Western Kenya, the adoption of the climate-resilient practice of agroforestry is influenced by gender norms that dictate that it is not appropriate for women to plant trees, an activity that has been traditionally dominated by men.^j
Climate-related migration	<ul style="list-style-type: none"> – In the Bhola district of Bangladesh, increased environmental stress is threatening traditional livelihoods and leading to predominantly female migration for wage work, despite the negative stigma associated towards migrating women, who are seen as breaking the religious and social practice of <i>pardah</i>.^k – In India,^l Nepal^{m, n} and Tajikistan,^o women from rural households where men have migrated generally face a substantial increase in labour responsibilities on the farm and in the household, as they need to assume the farm work and tasks that men were previously in charge of. This has important consequences for women’s ability to join rural organizations or groups. – In Tajikistan, women whose husbands have migrated are forced to assume so many additional tasks that they are left with no time to participate in agricultural and water-user groups.^o – In the Philippines and India, following migration, women can use men’s absence from the household as an opportunity to engage in new roles and agricultural ventures, challenging gender norms in their community.^p – In India, women whose husbands have migrated are able to increase their decision-making power in areas such as child-rearing, health care and household expenditure, and managing bank accounts, whereas this was not previously the case.^q
Extreme weather events	<ul style="list-style-type: none"> – In Bangladesh, the higher female mortality during the 1991 cyclone was linked to the religious and social practice of <i>pardah</i>, which prevents women from contributing to socioeconomic activities outside their homesteads; as a result, they were more hesitant to leave their homes to seek refuge before the cyclone.^r – In the Philippines, due to prevailing gender norms, the rate of men who know how to swim is disproportionately greater than that of women, putting women more at risk during extreme weather events.^s – In some Latin American cultures, gender norms around masculinity incline men to adopt riskier behaviour patterns during climate emergencies, with greater direct impacts on their well-being and mortality rates.^t Severe drought also drives higher rates of suicide among male farmers,^{u, e} which studies have linked to stoicism, an important pillar of rural masculinity.^v – In Pakistan, immediately after the 2010 flood, breastfeeding of infants was greatly reduced due to gender norms dictating that this should be done only in private spaces. Women did not share these concerns with male relatives, who in turn were not able to report them, with implications for the distribution of food resources in the assistance they were receiving.^w – In Democratic Republic of the Congo, Haiti, South Sudan and Syrian Arab Republic, due to pervasive sociocultural norms, women and girls find themselves in subordinate positions within local power structures. Consequently, they are frequently excluded from systematic and effective consultation regarding their needs or preferences in accessing humanitarian assistance following a disaster or emergency event.^x

AREA	EXAMPLES
Gender-based violence	<ul style="list-style-type: none"> – In Ethiopia, as a result of increased water insecurity, women experience domestic disputes over time use and face a greater risk of assault or rape while walking to water sources.^y Following the 2010–2011 droughts, the occurrence of girls being married off early in exchange for livestock also rose in the country, as families sought ways to mitigate the effects of extended droughts.^y – In displacement contexts in Sudan, South Sudan or Chad, women and girls are frequently victims of sexual abuse and gender-based violence, with many of these attacks happening when women and girls go outside the displacement shelters or refugee camps to collect fuelwood.^z – In the aftermath of hurricane Mitch, negative coping strategies among Central American men included increased gambling and alcohol consumption, with the reconstruction period following the hurricane also exhibiting an increase in sexual violence.^{aa} – In Karamoja, Uganda, climate variability and its catastrophic impacts on traditional rural livelihoods are also driving a “loss of masculinity” crisis that is translating into increasing levels of idleness, alcoholism and gender-based violence.^{bb}

Notes: ^a Tavenner, K. & Crane, T.A. 2018. Gender power in Kenyan dairy: cows, commodities, and commercialization. *Agriculture and Human Values*, 35(3): 701–715. <https://doi.org/10.1007/s10460-018-9867-3>

^b Roncoli, C., Jost, C., Kirshen, P., Sanon, M., Ingram, K.T., Woodin, M., Somé, L. et al. 2009. From accessing to assessing forecasts: an end-to-end study of participatory climate forecast dissemination in Burkina Faso (West Africa). *Climatic Change*, 92(3–4): 433–460. <https://doi.org/10.1007/s10584-008-9445-6>

^c Jost, C., Kyazze, F., Naab, J., Neelormi, S., Kinyangi, J., Zougmore, R., Aggarwal, P. et al. 2016. Understanding gender dimensions of agriculture and climate change in smallholder farming communities. *Climate and Development*, 8(2): 133–144. <https://doi.org/10.1080/17565529.2015.1050978>

^d ENERGIA. 2018. *Global Progress on SDG7: energy and gender*. Policy Brief #12. ENERGIA, World Bank—Energy Sector Management Assistance Program and UN Women.

^e World Health Organization. 2014. *Gender, climate change and health*. Geneva, Switzerland.

^f Khatri-Chhetri, A., Regmi, P.P., Chanana, N. & Aggarwal, P.K. 2020. Potential of climate-smart agriculture in reducing women farmers' drudgery in high climatic risk areas. *Climatic Change*, 158(1): 29–42. <https://doi.org/10.1007/s10584-018-2350-8>

^g FAO, IFAD & WFP. 2024. *Diagnóstico de normas de género en la agricultura familiar y campesina*. Rome. <https://doi.org/10.4060/cd0762es>

^h Chibowa, T.K., Synnevag, G., Maonga, B. & Mainje, M. 2020. Gender differentiation in the adoption of climate smart agriculture technologies and level of adaptive capacity to climate change in Malawi. In: B.R. Singh, A. Safalaoh, N.A. Amuri, L.O. Eik, B.K. Sitaula & R. Lal, eds. *Climate impacts on agricultural and natural resource sustainability in Africa*, pp. 507–526. Cham, Switzerland, Springer International Publishing. https://doi.org/10.1007/978-3-030-37537-9_29

ⁱ Peterman, A., Behrman, J.A. & Quisumbing, A. 2014. A review of empirical evidence on gender differences in nonland agricultural inputs, technology, and services in developing countries. In: A. Quisumbing, R. Meinzen-Dick, T.L. Raney, A. Croppenstedt, J.A. Behrman, & A. Peterman, eds. *Gender in agriculture: closing the knowledge gap*, pp. 145–186. Cham, Switzerland, Springer.

^j Kiptot, E. & Franzel, S. 2012. Gender and agroforestry in Africa: a review of women's participation. *Agroforestry Systems*, 84(1): 35–58. <https://doi.org/10.1007/s10457-011-9419-y>

^k Evertsen, K.F. & van der Geest, K. 2020. Gender, environment and migration in Bangladesh. *Climate and Development*, 12(1): 12–22. <https://doi.org/10.1080/17565529.2019.1596059>

^l Tiwari, P.C. & Joshi, B. 2015. Climate change and rural out-migration in Himalaya. *Change and Adaptation in Socio-Ecological Systems*, 2(1). <https://doi.org/10.1515/cass-2015-0002>

^m Pandey, R. 2021. Male out-migration from the Himalaya: implications in gender roles and household food (in)security in the Kaligandaki Basin, Nepal. *Migration and Development*, 10(3): 313–341. <https://doi.org/10.1080/21632324.2019.1634313>

ⁿ Spangler, K. & Christie, M.E. 2019. Renegotiating gender roles and cultivation practices in the Nepali mid-hills: unpacking the feminization of agriculture. *Agriculture and Human Values*. <https://doi.org/10.1007/s10460-019-09997-0>

^o Horbulyk, T. & Balasubramanya, S. 2018. *Impact of water users associations on water and land productivity, equity and food security in Tajikistan*. Colombo, International Water Management Institute.

^p Kawarazuka, N., Doss, C., Farnworth, C.R. & Pyburn, R. 2022. Myths about the feminization of agriculture: implications for global food security. *Global Food Security*, 33: 100611. <https://doi.org/10.1016/j.gfs.2022.100611>

^q Sinha, B., Jha, S. & Negi, N.S. 2012. Migration and empowerment: the experience of women in households in India where migration of a husband has occurred. *Journal of Gender Studies*, 21(1): 61–76. <https://doi.org/10.1080/09589236.2012.639551>

^r Ikeda, K. 1995. Gender differences in human loss and vulnerability in natural disasters: a case study from Bangladesh. *Indian Journal of Gender Studies*, 2(2): 171–193. <https://doi.org/10.1177/097152159500200202>

^s Hunter, L.M., Castro, J., Kleiber, D. & Hutchens, K. 2016. Swimming and gendered vulnerabilities: evidence from the northern and central Philippines. *Society & Natural Resources*, 29(3): 380–385. <https://doi.org/10.1080/08941920.2015.1046097>

^t Bradshaw, S. 2010. Women, poverty and disasters: exploring the links through hurricane Mitch in Nicaragua. In: S.H. Chant, ed. *The international handbook of gender*

and poverty: concepts, research, policy, pp. 627–632. Edward Elgar.

^u Bryant, L. & Garnham, B. 2015. The fallen hero: masculinity, shame and farmer suicide in Australia. *Gender, Place & Culture*, 22(1): 67–82. <https://doi.org/10.1080/0966369X.2013.855628>

^v Alston, M. & Kent, J. 2008. The big dry: the link between rural masculinities and poor health outcomes for farming men. *Journal of Sociology*, 44(2): 133–147. <https://doi.org/10.1177/1440783308089166>

^w Mazurana, D., Benelli, P., Gupta, H. & Walker, P. 2011. *Sex and age matter: improving humanitarian response in emergencies*. Boston, USA, Feinstein International Center, Tufts University.

^x WFP. 2023a. *Unequal Access: gendered barriers to humanitarian assistance*. Rome.

^y OCHA (UN Office for the Coordination of Humanitarian Affairs). 2017. *Horn of Africa: A call for action*. https://reliefweb.int/sites/reliefweb.int/files/resources/HOA_CALL_FOR_ACTION_Leaflet_Feb2017_1.pdf

^z Castañeda-Camey, I., Sabater, L., Owren, C. & Boyer, A.E. 2020. *Gender-based violence and environment linkages: the violence of inequality*, J. Wen, ed. Washington, DC, IUCN (International Union for Conservation of Nature). <https://doi.org/10.2305/IUCN.CH.2020.03.en>

^{aa} World Bank. 2001. *Hurricane Mitch: the gender effects of coping and crises*. Washington, DC.

^{bb} Opondo, M., Abdi, U. & Nangiro, P. 2016. *Assessing gender in resilience programming: Uganda*. BRACED.

Promoting equitable power relations for climate-resilient and sustainable agrifood systems

Addressing unequal power relations in different spheres of influence (individual, household, community, organizational and macroenvironmental) is central in achieving gender justice in climate change adaptation and disaster risk management processes.

At the individual level, enhancing a person's aspirations to build a better future and trust in their capacities to act accordingly (i.e. *power within*) is fundamental for climate action. For example, a study in the United States of America deems individual hope a critical factor to mobilize action on climate change (Marlon *et al.*, 2019). Building men's and women's sense of confidence and self-esteem in the context of climate change may come from interventions that increase awareness on their current exposure and vulnerability to extreme weather events and climate change, and from realizing the possibility to become actors of change in climate adaptation and disaster risk management.

Unequal gendered power relations that exert control over people's resources and the lives of others (i.e. *power over*) within the household or community often negatively affect women's well-being and their resilience to climate change. For example, when an extreme weather event occurs, women must often obtain permission from their husbands or senior male figures within their families or communities to leave their homes, with consequences for their ability to act during these crises (Nellemann, Verma and Hislop, 2011). Additionally, structural power inequalities between men and women coupled with increases in perceived stress associated with extreme weather events drive increases in gender-based violence (van Daalen *et al.*, 2022). In Kenya for instance, neglect of gendered power relations in the livestock sector has meant that despite the introduction of individualized payment accounts for women, men continue to have control over milk income (Tavenner, Crane and Saxena, 2021; Tavenner and Crane, 2018).

Group-based and collective approaches that foster positive forms of power, such as the power obtained through working with others towards common goals (i.e. *power with*), have emerged as central to supporting climate actions taken by women (Bryan *et al.*, 2024; Huyer *et al.*, 2024). Women's membership and participation in community-based organizations have a positive influence on the adoption of climate-resilient agricultural technologies (Birir, 2020; Turquet *et al.*, 2023). Women's participation in collective organizations, networks or cooperatives is also associated with increases in productivity as well as stronger negotiating power within families and communities to advance women's interests in climate action (Turquet *et al.*, 2023).

Unequal power relations at the macroenvironmental or organizational level have been shown to negatively impact women and other disadvantaged populations, such as Indigenous Peoples or scheduled castes. For example, a study in Nepal shows how participatory climate

change adaptation policies that fail to challenge and address the power dynamics that influence patterns of vulnerability at the local level, such as those driven by caste and gender, run the risk of allowing influential local figures to benefit disproportionately from programmes at the expense of the most vulnerable populations, thereby promoting the continued marginalization of vulnerable households (Nagoda and Nightingale, 2017). Similarly, power imbalances between institutions in the Global North and the Global South hamper the effectiveness of coproduction of climate services (Vincent *et al.*, 2020) or the ability of women, Indigenous Peoples and civil society to make their voices heard in the implementation process and negotiations of the three Rio Conventions (i.e. the UNFCCC, the United Nations Convention on Biological Diversity, and the United Nations Convention to Combat Desertification) (Turquet *et al.*, 2023).

Achieving gender transformative change therefore requires that the design of climate change adaptation and disaster risk management interventions in agrifood systems carefully considers preexisting forms of power inequalities across all spheres of influence. In addition, programmes and projects must be designed to foster more equitable gendered power relations, taking into account other intersecting forms of inequality (Box 2).

BOX 2. Intersectionality in climate change action

The adaptive capacity of people does not only depend on gender but rather on a series of intersecting social factors such as age, ethnicity, disability status, displacement status and religion, all of which drive socioeconomic inequalities.^{a, b, c} For example, young female farmers might experience less secure land tenure and lower decision-making power over land than older female farmers do, limiting their ability to implement climate-smart agricultural technologies or to access climate services.^d Similarly, gender and caste intersections can result in differences in the ability to adapt agrifood systems to climate change, with higher-caste women often presenting higher degrees of resilience to climate change and a decreased vulnerability to crises.^{e, f} Climate change has also been identified as a major factor negatively impacting the lives of Indigenous Peoples in processes of rural transformation, with Indigenous women facing more vulnerability.^g In this way, social factors influencing adaptive capacity regarding climate change, such as gender, are not independent but rather intersect with each other, often compounding vulnerability to climate change.^{h, i}

Notes: ^a Goodrich, C.G., Udas, P.B. & Larrington-Spencer, H. 2019. Conceptualizing gendered vulnerability to climate change in the Hindu Kush Himalaya: contextual conditions and drivers of change. *Environmental Development*, 31: 9–18.

^b Huyer, S., Simelton, E., Chanana, N., Mulema, A.A. & Marty, E. 2021. Expanding opportunities: a framework for gender and socially-inclusive climate resilient agriculture. *Frontiers in Climate*, 3.

^c Kaijser, A. & Kronsell, A. 2014. Climate change through the lens of intersectionality. *Environmental Politics*, 23(3): 417–433.

^d Bullock, R., Huyer, S., Shai, T. & Nyasimi, M. 2020. *The CCAFS Youth and Climate-Smart Agriculture Strategy*. CGIAR Program on Climate Change, Agriculture and Food Security.

^e Onta, N. & Resurreccion, B.P. 2011. The role of gender and caste in climate adaptation strategies in Nepal: emerging change and persistent inequalities in the far-western region. *Mountain Research and Development*, 31(4): 351–356.

^f Ravera, F., Martín-López, B., Pascual, U. & Drucker, A. 2016. The diversity of gendered adaptation strategies to climate change of Indian farmers: a feminist intersectional approach. *Ambio*, 45(3): 335–351.

^g FAO. 2023a. *The status of women in agrifood systems*. Rome.

^h Intergovernmental Panel on Climate Change. 2014. *Climate change 2014: impacts, adaptation, and vulnerability*. Cambridge, UK and New York, USA, Cambridge University Press.

ⁱ Lawson, E.T., Alare, R.S., Salifu, A.R.Z. & Thompson-Hall, M. 2020. Dealing with climate change in semi-arid Ghana: understanding intersectional perceptions and adaptation strategies of women farmers. *GeoJournal*, 85(2): 439–452.

Building agency for climate-resilient and sustainable agrifood systems

Building more equitable social institutions and power relations in agrifood systems and disaster risk management is inherently linked to, and will positively reflect on, efforts to improve agency. Agency, which refers to the ability to define one's goals and act upon them (Kabeer, 1999), is fundamental for improving men's and women's climate resilience. The ability of men and women to make choices and take actions is necessary in order for them to adapt to and withstand the negative effects of climate change and extreme weather events.

Women are important agents of change in climate action, and building their agency is thus fundamental. For example, in many African contexts, rural women are at the forefront of local crop seed selection and varietal conservation, including wild relatives, thus ensuring a wide genetic base that can prove critical for climate change adaptation (Hosken, 2017). Similarly, in the Himalayas, women's traditional knowledge has been identified as critical in fostering sustainable food practices and in implementing climate adaptation practices (Das, 2024).

Ownership and access to material assets and services is of particular importance to build climate resilience. In relation to agency, ownership of property provides the social status to access key resources and influence decision-making. Secure land ownership is a fundamental requirement for men and women to implement climate-resilient agricultural practices in their plots, to access climate extensions services or to use the land to contract weather index insurances (FAO, 2023a). Similarly, women's and men's access to markets for productive inputs such as organic fertilizers, pesticides and traditional or commercial seeds, is crucial to withstand negative effects of climate change. For example, in Eastern Africa, women are less likely to use fertilizers (Farnworth *et al.*, 2017) and to exchange seed varieties in farmers networks, which can be key for climate change adaptation (Otieno *et al.*, 2021). The quality of productive assets is also important for climate resilience. For example, rural women often grow food in plots that are smaller and of lower quality than that of men (Doss, 2014; Sabater, 2020), and declining soil moisture linked to climate change (Joo *et al.*, 2020) will only further exacerbate women's ability to access quality land.

Decision-making power is another central component of agency in efforts to build men's and women's climate resilience. Even when women do have access to resources, extension services and information, they may lack the decision-making power to decide on the adoption of a new technology. For example, in Nepal, women have borne a disproportionate labour burden since the adoption of conservation agriculture, while 51.3 percent of them reported having less decision-making power over the adoption of new agricultural practices than their male counterparts (Halbrendt *et al.*, 2014). Improved agency to act in extreme weather events is also key for survival. As such, it is fundamental to increase women's decision-making power in local communities before, during and after extreme weather events (WFP, 2023a). Table 2 presents some examples of different subdimensions of agency and their relevance for equitable, climate-resilient agrifood systems and disaster risk management.

TABLE 2. Subdimensions of agency and their relevance for equitable climate-resilient agrifood systems and disaster risk management

Self-esteem	<ul style="list-style-type: none"> – Local environmental changes can lead to feelings of grief, disorientation, and diminished work performance, along with adverse effects on interpersonal relationships and self-esteem.^a Self-esteem is crucial in combatting the climate crisis because it provides individuals with the confidence required to enact changes. – In Vanuatu, a community-based climate adaptation initiative has increased women’s self-confidence and self-esteem to engage in different activities, and has contributed to a favourable shift in community attitudes towards acknowledging the crucial roles of women in climate adaptation efforts.^b
Awareness of legal rights	<ul style="list-style-type: none"> – Awareness of legal rights concerning environmental and agricultural legislation is vital to combat gender inequality in agrifood systems. For example, insufficient awareness of inheritance laws might prevent women from having access to and control over key resources for climate change adaptation, such as land. – In Kenya, legal aid support in conjunction with sensitization activities tailored to the needs of the local community has been shown to strengthen women’s awareness of their land-related rights and men’s recognition of women’s constitutional right to own land.^c – In Nepal, a WFP assessment found that the Indigenous Peoples with disabilities surveyed often lacked agency, were unaware of their rights or entitlements, and relied on their families with limited access to support services. Among the Indigenous women with disabilities surveyed, only 5 percent were engaged in Indigenous Peoples’ organizations, while 15 percent participated in women’s organizations, self-help groups or disability organizations, with implications for their access to information and their awareness of legal rights.^d
Information, services and skills	<ul style="list-style-type: none"> – Information, such as access to reliable daily and seasonal weather forecasts, is central to preparing for and responding to extreme weather events as well as planning for agricultural production, particularly so in rainfed agricultural systems. Understanding gender preferences and barriers to climate information is important to ensure that men and women can access this information.^e – A study in Malawi shows how preferences for accessing climate information are gendered. Women in the study preferred accessing weather forecasts through radio or knowledge brokers. Men generally preferred radio, while those with higher education levels also showed a preference for Internet and mobile phone forecasts.^f – Access to information (e.g. through mobile phones) is required to receive early warning messages and information about extreme weather events and disasters. In Haiti, particularly in rural regions, there is a significant digital gender gap, which is exacerbated by limited network coverage. Women’s digital access is restricted by mobility constraints stemming from security concerns. Additionally, some women report opting out of owning smartphones to avoid issues of jealousy with their spouses, which could escalate into domestic violence.^g

Educational attainment	<ul style="list-style-type: none"> – Education is crucial for climate change adaptation, as individuals with higher levels of education, knowledge and skills are inclined to adopt new technologies and diversify their sources of income, as well as having improved access to services, all of which are crucial for climate change adaptation.^h – In rural areas, women and Indigenous Peoples often have lower levels of education than those of men and non-Indigenous Peoples.ⁱ Climate change threatens to widen preexisting inequalities in access to education. For example, in Uganda, older girls may be at a heightened risk of being withdrawn from school compared to older boys when the demand for family labour surges due to climate shocks.^{j, k} – Investing in women’s education can improve women’s land tenure security and their access to technology and resources, all of which are essential for improved climate resilience.ⁱ Targeted programmes such as school feeding programmes have been shown to be effective in reducing the number of girls who withdraw from classes when droughts occur.^l
Employment and labour conditions	<ul style="list-style-type: none"> – Safe, healthy and decent working conditions, secure employment, and access to diversified sources of income can be crucial for climate adaptation, especially so in jobs that directly depend on ecosystem services such as farming, fishing and forestry. Predicted rises in temperature will lead to increased frequency of heat stress, with associated work risks and hazards affecting vulnerable workers the most.^m – Women in agrifood systems are often employed on terms that are less favourable than those of men: i.e. part-time, informal and irregular.ⁱ During climate shocks such as heat stress, women’s workload, including their agricultural labour hours, typically decreases less than men’s workload.^{n, o}
Mobility in public space	<ul style="list-style-type: none"> – Women’s ability to move freely and safely in public spaces, including while taking public transport, is important to ensure their access to extension services, weather index-based insurance and climate information. Limitations in mobility can also affect women’s access to paid employment and their participation in agrifood systems more broadly.ⁱ – In Ethiopia and India, effective approaches to tackling mobility constraints in accessing extension services faced by rural women include conducting sessions in easily reachable venues, accommodating child care needs by allowing women to bring their children along, and offering child care services during the training sessions.^p
Decision-making power	<ul style="list-style-type: none"> – Women have limited decision-making power across different spheres of influence (individual, household, community, organizational and macroenvironmental), which is crucial for making their voice heard and for advancing their priorities and needs in climate action.^q – The application of gender transformative approaches in nutrition initiatives and climate-resilient technologies – implemented in the framework of the Zambian National Agricultural Sector Investment Program – have led to improved decision-making power for women, improved relationships within couples, and increased food security and production.^r
Group membership and activism	<ul style="list-style-type: none"> – Group membership and activism is important for improving women’s climate change resilience in a multitude of ways, including providing climate and weather information, training sessions and resources, such as microcredit.^q In India and Nepal, a study has shown how during crises (in this case COVID-19), women-led and community-based approaches were critical for women’s ability to access information. – Evidence from India shows how women’s groups and networks can facilitate women’s access to climate change and weather information.^s

Ownership of material assets	<ul style="list-style-type: none"> – Women have limited access to and control over the key material assets on which their livelihoods depend, such as land, livestock and technologies, all of which are crucial for adapting to climate change and for accessing climate-related services. For example, women’s lack of access to land in South Africa was identified as a contributing factor affecting their interest in bundled, weather-indexed insurance products.^t – Improving women’s land rights has been shown to have a positive impact on a series of outcomes relevant for agrifood systems and climate resilience, including natural resource management; access to services and institutions; food security and consumption; and women’s decision-making and bargaining power.^u For example, in Ethiopia, securing women’s land rights motivated women to participate in cash crop cultivation and to invest in improved technology.^v – Securing land rights for women would elevate their role and influence in land management institutions in such areas as climate action, land improvement and environmental conservation.^w
Health and bodily integrity	<ul style="list-style-type: none"> – Life expectancy and mortality in the aftermath of extreme weather events is gendered. Women, especially those from lower socioeconomic backgrounds, may face barriers to accessing relief and assistance, resulting in lower survival rates and diminished life expectancy.^{x, y} – Mental health and well-being are adversely affected by climate change, leading to emotions such sadness, fear, despair, helplessness and grief.^z Women consistently show higher rates depression, anxiety and stress-related disorders, while suicide is more common among men.^{aa, x, bb} – Early childhood development can also be affected by climate change. For example, climate shocks may redirect household spending away from investments in girls and towards immediate family needs, leading to deficiencies in girls’ long-term health and human capital development.^q – The overall health of individuals can also be affected by the implementation of certain technologies. For example, the implementation of climate-resilient practices such as conservation agriculture has been shown to increase women’s health risks in addition to increasing their workloads.^{cc}

Notes: ^a Clayton, S., Manning, C., Speiser, M. & Hill, A.N. 2021. *Mental health and our changing climate: impacts, inequities, responses*. Washington, DC, American Psychological Association and ecoAmerica.

^b Clarke, T., McNamara, K.E., Clissold, R. & Nunn, P.D. 2019. Community-based adaptation to climate change: lessons from Tanna Island, Vanuatu. *Island Studies Journal*, 14(1). <https://doi.org/10.24043/isj.80>

^c USAID. 2013. *Enhancing customary justice systems in the Malu Forest, Kenya. Final report*. Washington, DC.

^d WFP. 2021. *Snapshot of key findings from four assessments: Indigenous Peoples*. Rome.

^e Gumucio, T., Hansen, J., Huyer, S. & van Huysen, T. 2019. Gender-responsive rural climate services: a review of the literature. *Climate and Development*, 12(3): 1–14. <https://doi.org/10.1080/17565529.2019.1613216>

^f Henriksson, R., Vincent, K., Archer, E. & Jewitt, G. 2021. Understanding gender differences in availability, accessibility and use of climate information among smallholder farmers in Malawi. *Climate and Development*, 13(6): 503–514. <https://doi.org/10.1080/17565529.2020.1806777>

^g WFP. 2023a. *Unequal Access: gendered barriers to humanitarian assistance*. Rome.

^h Muttarak, R. & Lutz, W. 2014. Is education a key to reducing vulnerability to natural disasters and hence unavoidable climate change? *Ecology and Society*, 19(1): art42. <https://doi.org/10.5751/ES-06476-190142>

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Agamile, P. & Lawson D. 2021. Rainfall shocks and children’s school attendance: evidence from Uganda. *Oxford Development Studies*, 49(3): 291–309.

^k Björkman-Nyqvist, M. 2013. Income shocks and gender gaps in education: evidence from Uganda. *Journal of Development Economics*, 105: 237–253. <https://doi.org/10.1016/j.jdeveco.2013.07.013>

^l Staffieri, I., Sitko, N. & Maluccio, J. 2022. *Sustaining school enrolment when rains fail: a gender disaggregated analysis of the impacts of school feeding programmes on school enrolment in the context of dry shocks in Malawi*. Rome, FAO. <https://doi.org/10.4060/cb9915en>

^m International Labour Organization. 2018. *The employment impact of climate change adaptation. Input Document for the G20 Climate Sustainability Working Group*. Geneva, Switzerland.

ⁿ Lee, Y., Haile, B., Seymour, G. & Azzarri, C. 2021. The heat never bothered me anyway: gender-specific response of agricultural labor to climatic shocks in Tanzania. *Applied Economic Perspectives and Policy*, 43(2): 732–749. <https://doi.org/10.1002/aepp.13153>

^o Nico, G. & Azzarri, C. 2022. *Weather variability and extreme shocks in Africa: Are female or male farmers more affected?* Washington, DC, IFPRI. <https://doi.org/10.2499/p15738coll2.135870>

^p Petrics, H., Barale, K., Kaaria, S.K. & David, S., eds. 2022. *Good practices for promoting gender equality through rural advisory services: case studies from Ethiopia, India and Peru*. Rome, FAO. <https://doi.org/10.4060/cc3539e>

- ^q Bryan, E., Alvi, M., Huyer, S. & Ringler, C. 2024. Addressing gender inequalities and strengthening women's agency to create more climate-resilient and sustainable food systems. *Global Food Security*, 40: 100731. <https://doi.org/10.1016/j.gfs.2023.100731>
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- ^u Meinzen-Dick, R., Quisumbing, A., Doss, C. & Theis, S. 2019. Women's land rights as a pathway to poverty reduction: framework and review of available evidence. *Agricultural Systems*, 172: 72–82. <https://doi.org/10.1016/j.agsy.2017.10.009>
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- ^z World Health Organization. 2022. *Mental health and climate change: Policy Brief*. Geneva, Switzerland.
- ^{aa} Carleton, T.A. 2017. Crop-damaging temperatures increase suicide rates in India. *Proceedings of the National Academy of Sciences*, 114(33): 8746–8751. <https://doi.org/10.1073/pnas.1701354114>
- ^{bb} Khan, A.R., Ratele, K., Helman, R., Dlamini, S. & Makama, R. 2020. Masculinity and suicide in Bangladesh. *OMEGA – Journal of Death and Dying*, 86(1). <https://doi.org/10.1177/0030222820966239>
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3 Gender transformative approaches for climate change adaptation and disaster risk management: experiences from the field

Achieving gender and climate justice requires transformative approaches that can help address structural inequalities, including support for agency building and processes that transform social norms and power dynamics, to increase the climate resilience of men, women and marginalized groups (IPCC, 2022c).

This section presents case study experiences that have used gender equality approaches for climate-resilient agrifood systems and disaster risk management. These experiences have been implemented by the Rome-based Agencies with different goals and objectives in terms of reaching, benefiting and empowering women, as well as transforming discriminatory social structures and unequal power relations. Given their heterogeneity, they present different levels of information regarding the dimensions of change and spheres of influence. The cases also show varying degrees of interconnection between gender equality and the construction of climate-resilient practices. Taken together, these cases provide an example of the diversity of actions and methodologies that can be used, provided they are adapted to each context.



Two members of the Dimitra Club of the village of Saré Boubou in the Region of Tambacounda in Senegal.

Building climate resilience of rural communities through community engagement for empowerment in Senegal – Dimitra Clubs

Context

Climate change significantly affects rural women and girls in Senegal, as they are strongly dependent on the environment and natural resources for their daily livelihoods. Despite this, they are often excluded from local decision-making processes related to rural development, including climate adaptation strategies. Limited access to information, leadership opportunities and weak organizational skills further hinder their ability to respond effectively to environmental changes. These difficulties are compounded by deeply entrenched gender-discriminatory norms and practices in rural areas, which restrict opportunities for women and girls to strengthen their resilience against climate change.

In a number of its climate-resilience projects, FAO promotes gender transformative and community-led approaches such as the Dimitra Clubs, which foster the adoption of sustainable agricultural practices, enhance women's participation and leadership in decision-making, and promote social cohesion.

Action

As part of the project “Mainstreaming Ecosystem-Based Approaches to Climate-Resilient Rural Livelihoods in Vulnerable Areas,” funded by the Global Environment Facility and implemented by the Government of Senegal and FAO, Dimitra Clubs played a pivotal role in increasing the active participation of rural people, particularly women and girls, in community decision-making on climate change. As community action groups, the clubs were key in ensuring the sustainability of climate-resilience outcomes by promoting community ownership and the widespread adoption of climate-adapted practices introduced by the Farmer Field Schools. Additionally, by providing safe spaces to challenge gender-discriminatory norms (such as forced early marriage, gender-based violence and women’s disproportionate work burden), they contributed to enhancing the resilience of rural livelihoods and reducing vulnerability to climate change.

SPHERES OF INFLUENCE



Individual



Household



Community



Organizational

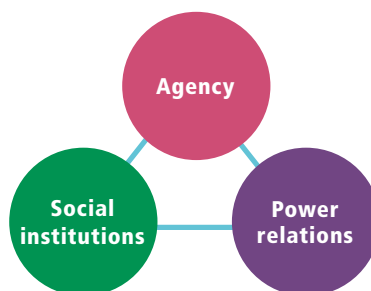


Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES

- Conducting a training series on the Dimitra Club approach, covering key steps such as problem identification (including climate threats like soil erosion and floods), assessing gender-differentiated impacts, exploring solutions utilizing local resources, agreeing on community-level actions, and reflecting on lessons learned
- Strengthening the skills of both women and men to collaborate on community development, including addressing climate issues, by enhancing key competencies in organization, problem analysis, conflict resolution, dialogue and collective action

- Launching an open call for inclusive membership in the Dimitra Clubs, welcoming all community members regardless of gender identity, age, ability, etc. This approach values diversity in climate action and challenges unequal power relations, fostering a more equitable community.
- Prioritizing women and girls as speakers in community meetings to present their analysis and proposed actions for overcoming climate challenges, ensuring their contributions are recognized by all



- Encouraging inclusive participation in Dimitra Clubs by actively engaging both women and men, in all their diversity
- Raising awareness among communities, as well as administrative and traditional authorities, about the importance of inclusive decision-making as well as women’s leadership on climate issues (e.g. cleaning wells or making borings for the water supply)
- Creating safe spaces for discussion and action around gender and climate, enabling communities to address and challenge gender-discriminatory norms

Examples of indicators/tools used to track women's empowerment/ gender transformative change

The outcomes of the Dimitra Clubs in this project were evaluated through two qualitative data collections: one conducted at the project's conclusion, and another conducted two years later. The primary methods used for data collection included focus group discussions and key informant interviews.

AGENCY	POWER RELATIONS	SOCIAL INSTITUTIONS
<ul style="list-style-type: none"> – Percentage of women members in Dimitra Clubs who demonstrate improved leadership skills and greater confidence in leading climate-related initiatives due to their involvement in the club – Percentage of Dimitra Clubs (comprising both women-only and mixed clubs) that have implemented measures to adapt to and/or mitigate the impacts of climate change – Perception among community members that, due to Dimitra Club activities, their community has stronger organizational skills, greater involvement of women, and increased self-reliance in addressing climate threats, leading to enhanced resilience 	<ul style="list-style-type: none"> – Degree to which women and men perceive an increase in inclusivity within community decision-making processes, due to the role of Dimitra Clubs – Percentage of climate-related decisions at the community level where women, due to their involvement in Dimitra Clubs, have equal participation proportional to men – Percentage of Dimitra Club members (disaggregated by gender, age, disability status and ethnicity) who perceive the clubs as safe and inclusive spaces. This includes whether they feel empowered to voice their opinions and needs, particularly concerning climate action, thereby actively challenging unequal power relations. 	<ul style="list-style-type: none"> – Number of gender-discriminatory norms (e.g. early marriage, gender-based violence, food taboos for women and girls) discussed within Dimitra Clubs, and the specific actions taken to challenge and change these norms – Enhanced representation of diverse community interests, including those of women, in climate-related projects, policymaking processes and decision-making forums, facilitated by Dimitra Clubs

Gender transformative results

- **Enhanced gender dynamics and inclusivity:** There has been a noticeable shift in gender dynamics, with increased participation of both men and women in community decision-making processes, particularly in addressing climate change. The reflections and contributions of both women and men are now valued at the community level, providing women with greater opportunities to raise their voices in decision-making, such as in village assemblies and public meetings, thereby improving their status within both the community and household.
- **Strengthened leadership and advocacy:** Women's leadership capacities in climate action have been significantly enhanced through their participation in club activities and training programmes. Both men and women have developed stronger abilities to reflect on, discuss, analyse and solve their own problems, including climate-related issues. This has led to positive changes in power relations at both household and community levels. Additionally, Dimitra Clubs have effectively advocated for community-led bans on harmful practices, such as forced marriage, and have promoted initiatives for enhanced safety, including street lighting in peri-urban areas to combat gender-based violence.

- **Promotion of equitable gender norms and social cohesion:** Dialogue facilitated by the clubs has fostered greater self-awareness among men and boys regarding equitable gender norms and behaviours. This ongoing dialogue has contributed to improved relations between women and men, generations, and diverse community members, enhancing overall social cohesion.
- **Sustained application of knowledge:** Data collected two years after the project's conclusion indicate that climate-resilient practices introduced during the project are still being applied and shared within communities. This knowledge transfer has continued even in newly established, spontaneous Dimitra Clubs in other villages.

LEARN MORE

- **Dimitra Clubs: Community Engagement for Empowerment (Webpage)**
- **Dimitra Clubs: leaving no one behind through community engagement and women's empowerment**
- **Speaking up and out about gender-based violence**
- **Strengthening Climate Resilience through People Centered Approaches**
- **Terminal evaluation of the project "Mainstreaming ecosystem-based approaches to climate-resilient rural livelihoods in vulnerable rural areas through the farmer field school methodology"**



Soap making in India.

Empowering Indigenous Peoples' communities and conserving mountain ecosystems through sustainable living choices in the Nilgiris Biosphere Reserve, India

Context

The mountains of the Nilgiris Biosphere Reserve in South India play a vital role in preserving ecosystems and water sources that are key for the livelihoods of local communities. Women are generally involved in collecting and adding value to non-timber forest products (NTFPs), while men are responsible for the sales. The changing climate coupled with access challenges for NTFP collection have reduced the options for sustainable forest-based livelihoods. Yet the strong patriarchal norms of the communities, combined with low literacy among the women, limit women's decision-making concerning climate change adaptation. Women also face challenges in accessing formal employment, financial services and markets.

In this context, the Last Forest and Keystone Foundation initiative works closely with 150 villages and supports nearly 6 500 households, primarily through the Aadhimalai Producer Company, to promote sustainable livelihoods and empower Indigenous Peoples' communities.

Action

The Last Forest initiative is working towards changing unequal power relations and discriminatory social norms, gender biases and stereotypes that perpetuate gender inequalities. In parallel, it supports women in earning income through the production of artisanal honey and personal care products, increasing their economic empowerment and agency by building their skills and providing opportunities for knowledge sharing. In terms of climate change objectives, the initiative focuses on conserving mountain ecosystems, promoting sustainable practices and building climate resilience. Additionally, the Keystone Foundation is introducing a peer review and certification system (Participatory Guarantee System Wild) for the sustainable collection of wild NTFPs.

SPHERES OF INFLUENCE



Individual



Household



Community



Organizational

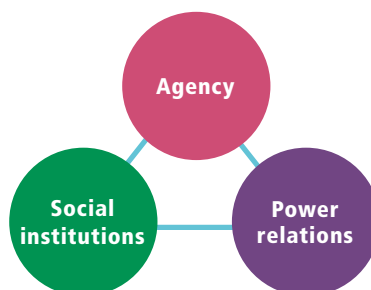


Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES

- Strengthening women's capacity building in sustainable agriculture, natural resource management, climate-resilient practices value addition, quality protocols, and entrepreneurship
- Promotion of women's leadership within their communities, focusing on building confidence in decision-making, consciousness and aspirations

- Advocating for gender-responsive policies and regulations that promote women's rights, economic empowerment and climate resilience
- Challenging and transforming unwritten social norms, customs, values and traditions that perpetuate gender inequalities, as well as existing stereotypes and biases
- Creation of local institutions that mandate at least 33 percent female representation: a village-level governing body (Grama Sabha) and the Forest Rights Committee, a key decision-making body for forest resource collection and management which has legitimate status under the Forest Rights Act



- Engaging with community leaders and representatives, including spouses, parents and entrepreneurs, to challenge gender biases and promote more equitable relationships within households and communities
- Advocacy and awareness campaigns about gender-based discrimination and violence, and the importance of equal power relations
- Challenging social norms and promoting positive masculinity and gender equality among government workers, state officials and other stakeholders

Examples of indicators/tools used to track women's empowerment/ gender transformative change

Most of the Last Forest and Keystone Foundation monitoring activities have gender-disaggregated data and build on a baseline and post-intervention line.

- Body mass index to track nutrition status
- Return-on-investment assessment
- Community well-being assessment framework with the following indicators: physical health, mental health, livelihood score, social security, land security and cultural Identity
- Individual and community Forest Right entitlement
- Women's participation in Participatory Guarantee Systems operations

Gender transformative results

- Improved representation of women in decision-making institutions
- Forest Rights entitlements in the name of the head of household and their spouse
- Increase in the number of households with social entitlements
- Increased sales, leading to increase in women employed with the farmer producer organization
- Women-led, community-based initiatives that include health interventions, biodiversity assessments, water stewards and climate educators
- Women from the tribal community holding key positions in the governance and management of the farmer producer organization (three of the six directors are women from tribal communities)
- Women making up at least one-third of members in community-based decision-making institutions, such as the Forest Rights Committee, Forest Management Committee and community-based alliances
- Women engaged in farm- and forest-based activities, leading to positive change in unequal power relations within households, communities and organizations as well as changes in otherwise discriminatory gender norms

LEARN MORE

- [Last Forest website](#)
- [Keystone Foundation website](#)
- [Mountain Partnership: members voices](#)
- [Mountain Partnership Products Initiative](#)
- [Global IFOAM PGS Platform](#)



Vestine, Jean Felix and their baby are participants of the JP RWEE programme in Gisagara District, Rwanda.

Gender-equitable climate-resilient agriculture within rural households in Rwanda

Context

In Rwanda, gender inequality persists, as women have less decision-making power and access to assets and resources than men. While agriculture is the mainstay of the economy, it is being increasingly subjected to the impacts of climate change. In addition, climate change is exacerbating gender inequality by disproportionately affecting women due to their limited decision-making power and access to assets and resources.

Action

The Joint Programme on Rural Women's Economic Empowerment (JP RWEE) implemented the Gender Action Learning System (GALS) methodology to promote intra-household gender equitable decision-making power, access to assets and resources, and knowledge on climate-resilient agricultural practices. Women and men were trained as GALS Champions, including training in nutrition and climate change adaptation with a focus on the benefits and application of climate-resilient agricultural practices. The aim of the GALS methodology is to empower both women and men, promoting greater autonomy in their lives while fostering sustainable change for gender equality and justice.

SPHERES OF INFLUENCE



Individual



Household



Community

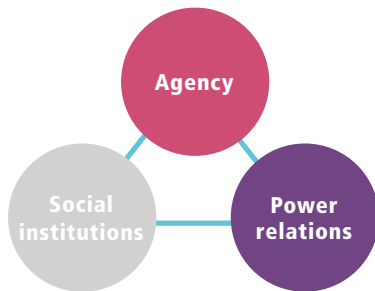


Organizational



Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES



- Training in nutrition and climate-resilient agricultural practices
- Participatory tools to increase women's confidence and self-esteem (through joint visioning and discussion)

- Participatory tools (e.g. Diamond Dream, Gender Balance Tree) to analyse intrahousehold power relations and envision a more gender-equitable household for which they developed a map and common goals.

Examples of indicators/tools used to track women's empowerment/ gender transformative change

Household surveys were used to capture data on responsibilities for agriculture-related activities and knowledge on climate-resilient agricultural practices disaggregated by gender (i.e. before and after percent change across several indicators), reflecting changes in gender roles and women's empowerment, such as:

- caring for small livestock;
- caring for large livestock;
- planting, weeding, harvesting, threshing, drying, storing, processing for sale;
- pricing the harvest;
- looking for markets and selling the harvest;
- keeping the money of harvest

Gender transformative results

Using joint couple training in climate-resilient approaches and household participatory tools, the JP RWEE increased the awareness of climate-resilient agriculture practices, increased the level of confidence of women across a range of areas – including in their ability to express opinions and make decisions – and fostered more gender-equitable intrahousehold relations and divisions of labour.

Main results achieved

- Greater confidence in terms of climate change resilience
- Greater confidence and skills to make decisions on the use of income
- Greater confidence in public speaking and expressing opinions on family and community matters
- Greater confidence among women to carry out more responsibilities, including representing other women at community level
- Greater self-esteem, from having a more equal role within the household
- Reduced disparity in the level of responsibility for agricultural activities between men and women, with more gender-equitable responsibility achieved in 13 out of 14 activities

LEARN MORE

- [Joint Programme on Rural Women's Economic Empowerment \(JP RWEE\)](#)
- [GALS methodology](#)
- [Here comes the sun: solar-powered irrigation brings crops back to life in Rwanda](#)
- [Solar-powered irrigation brings crops back to life in Rwanda \(video\)](#)



A Lebanese woman farmer cultivates vegetables grown with support from FAO under the PSDP programme.

Farmer Field Schools as an entry point to shift social norms for equal opportunities and engage women to improve climate-resilient food systems, Lebanon

Context

The Productive Sector Development Programme (PSDP) is a joint UN programme implemented by FAO, United Nations Industrial Development Organization, United Nations Development Programme, International Labour Organization, United Nations Entity for Gender Equality and the Empowerment of Women, and United Nations Children's Fund, in close coordination with relevant government counterparts and private sector partners, and funded by Global Affairs Canada. One envisaged outcome of the programme is the improved capacity of women and men farmers, women- and men-led cooperatives, and micro-, small and medium-sized enterprises to create and sustain gender-equitable job opportunities and adopt environmentally sustainable practices.

In the project implementation areas of Lebanon, there are land and water use and management practices that are inadequate, inefficient and unsustainable. This is adversely affecting the sustainability of the food systems, which, in turn, is increasing the country's vulnerability to climate change. This situation requires the adoption of new agricultural

practices by both men and women farmers, which is unfortunately constrained by women's lower access to information and participation in decision-making compared to that of men. Such access and participation are often influenced by prevailing social norms that affect their decision-making power on climate-related practices and mitigation measures.

Action

The FAO Farmer Field School (FFS) approach was used for training 305 farmers on good agricultural practices (GAP) in the fruits and vegetables value chain in North-Lebanon and Akkar districts. In total, 14 FFS were established with an average of 75 percent women membership. The intervention had three main goals with relation to gender equality: 1. providing equal rights, access to and control over skill development opportunities, production inputs and market opportunities for men and women so they can contribute to and benefit from environmentally sustainable best practices; 2. creating a supportive environment at the household and community level, specifically engaging with peers (men and women), norm holders and/or reference groups to transform unequal gender and social norms; and 3. addressing the root cause of gender inequalities lying in the social norms, attitudes and behaviours that dictate how women and men are expected to behave and the opportunities that they are offered.

SPHERES OF INFLUENCE



Individual



Household



Community



Organizational

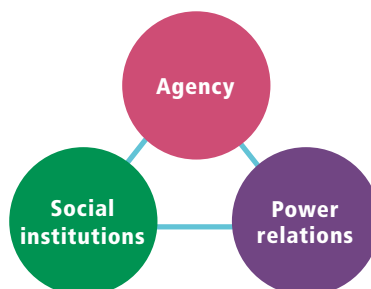


Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES

- Improving economic autonomy of women farmers through training and access to productive inputs
- Provision of training on leadership and on soft and technical skills for women
- Managing demonstration plots with women farmers to lead as progressive farmers, increasing their engagement in farming activities and contributing to the adoption of GAP and climate adaptation

- Building more positive power relations through engagement of individuals in farming households (spouses, sons, grandfathers, daughters, sisters-in-law) or the community (neighbours) in FFS activities
- Involving women along with other farming household members and norm holders early in the FFS participatory approach, dialogue and experiential learning



- Enhancing women's leadership role in production systems in a safe and collaborative environment as they observe, experiment and raise their concerns
- Delivering training modules on a number of key issues, such as processing, marketing and branding, to increase women's self-confidence and men's recognition of women's knowledge and contribution to GAP application

Examples of indicators/tools used to track women's empowerment/ gender transformative change

The intervention included a mix of reach, benefit, empower and transform indicators:

AGENCY	SOCIAL INSTITUTIONS
<ul style="list-style-type: none"> – Percent increase of men and women in knowledge gained on integrated pest management and other practices (pre- and post-training test + post-training satisfaction) – Percentage of women who are now applying good agricultural practices (using a progress monitoring tool for scoring and noting observations by technical advisors, with time series data along the season cycle for each individual man and woman farmer participating in the FFS group) – Number of men and women gaining better access to markets through application of integrated crop management guidelines – Increase in yield at progressive women farmers' fields – Number of women keeping farm records 	<p>Qualitative observations and discussions with men and women farmers on their perceptions regarding shifts in social norms, such as:</p> <ul style="list-style-type: none"> – Women should not plough land / choose pest control methods or apply pesticides / market their produce themselves. – Descriptive norm: Only men in their community plough land / choose pest control methods or apply pesticides / market their produce. – Injunctive norm: People in the community would disapprove of a woman who ploughs land / chooses a pest control method or applies pesticides / markets the produce herself. – Reference group: The husband or other individual in the close circle would disagree or apply sanctions, preventing his wife from engaging in agriculture or ploughing the land.

Gender transformative results

The intervention helped to build the capacities of women and men in applying environmentally sustainable good agricultural practices for the fruits and vegetables value chain. This led to higher yields, safer quality produce and a recognition of women's potential to contribute to and benefit from climate change adaptation and inclusive mitigation measures, ultimately contributing to increased efficiency and improved resilience of the food system. The intervention contributed to a shift in unequal power relations and discriminatory gender norms, attitudes and behaviours towards more inclusive, efficient and resilient food systems in Lebanon.

Main results achieved

- The economic autonomy of women farmers was increased, allowing them to partake in decision-making and engage in marketing of their products.
- Women felt more confident in their ability to make their voice heard.
- Women's decision-making power was boosted on the use of inputs and applied practices.
- Demonstration plots and inter-/intrafamily dialogues led to discussions of common problems, solutions and social topics, contributing to positive changes in relationships at household and community levels.
- A shift in norms, attitudes and behaviour was observed, and also confirmed by women farmers themselves. New tasks were observed for some women farmers such as ploughing, marketing, pest control, and negotiating with wholesale market agents.
- Attitudes about gender equality in family life have changed. Although patriarchal attitudes about family and the distinct role of men and women in the household still persist in some communities, participants revealed during focus group discussions that gender relations have improved during the project period.

LEARN MORE

- **The Productive Sector Development Programme (PSDP) Makes a Positive Impact in Lebanon**



Rosa Delicia Cobos Chiriboga from the 2 de Febrero Community Development Association of the Paute canton in Azuay province, Ecuador.

Roots of equality, Ecuador

Context

The projects “Roots of Equality” and “Producing and Knowing Our Food” implemented in Ecuador constitute the WFP contribution to the JP GTA, carried out in close coordination with FAO and IFAD, and funded by the European Union.

The main gender inequalities that the projects address are found among women producers, who have little economic autonomy and therefore a lower adaptive capacity towards the climate crisis. This is exacerbated by their low access to decision-making spaces to express their practical needs and, above all, their strategic interests as rural women producers who seek to promote clean, environmentally friendly production.

Action

The intervention, carried out by WFP Ecuador and partners, applies gender transformative approaches in the provinces of Manabí, Azuay and Imbabura, working with the Union of Indigenous Organizations of San Pablo del Lago (UNCISPAL) in 13 Indigenous communities of the Kayambi people.

The main goal of the project is to support the development of agrodiverse gardens and farms that are resilient to climate change, for instance by integrating duck production within rice cultivation to avoid the use of agrochemicals, reduce production costs, reduce carbon dioxide emissions, and regenerate local fauna and flora. By supporting women's entry into this male-dominated space, the project aims as well to promote opportunities for the participation of women producers in decision-making spaces at the political level, contemplating an orientation towards agroecology that is environmentally friendly and respects local traditions and knowledge.

SPHERES OF INFLUENCE



Individual



Household



Community



Organizational

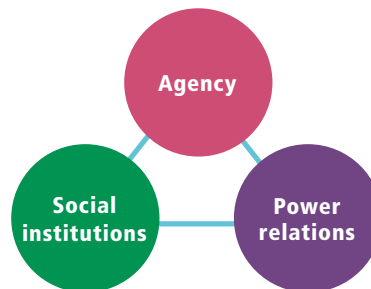


Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES

- Skills development on agroecological production for women and men
- Strengthening women's capacities for production without agrochemicals
- Improving women's income by establishing commercial networks
- Training and awareness raising about rights in terms of health, education and access to basic employment

- Strengthening Rural Women's Roundtables as an implementation of the National Agricultural Strategy for Rural Women
- Recognizing Indigenous "cosmivision" on how to equitably strengthen the community relationship, and its alignment with UNCISPAL statutes and regulations
- Social and behaviour change communication (SBCC) on discriminatory gender norms concerning women's decision-making and leadership
- Implementation of SBCC communication strategy on women's work in agricultural production, while promoting the participation of men in care work



- Ensuring nurseries are equitable and inclusive spaces
- Positive discrimination measures to increase women's participation in decision-making spaces
- Promoting the participation of men in unpaid care work
- Establishing networks based on trust between women and producers to advance community-based proposals

Examples of indicators/tools used to track women's empowerment/ gender transformative change

The intervention included a mix of reach, benefit, empower and transform indicators:

AGENCY	SOCIAL INSTITUTIONS
<ul style="list-style-type: none"> – Number of women and men participating in agroecological production – Number of registrations of productive activities within the nurseries (disaggregated by sex and age) – Percent increase in income for women producers – Percent increase in knowledge gains among men and women (pre- and post-training test; visual evidence) – Number of women in leadership positions 	<ul style="list-style-type: none"> – Statutes, regulations and laws applied within UNCISPAL that favour leadership roles for women and vulnerable groups, through positive gender discrimination – Number of associations and agreements on sale of agroecological products – Qualitative observations and discussions with men and women farmers on their perceptions regarding shifts in discriminatory gender norms regarding production, women's leadership and decision-making

Gender transformative results

The intervention has helped to establish nursery spaces where the knowledge, skills and abilities of the promoters, both men and women, are applied to the multiplication of horticultural species of high nutritional value, using environmentally friendly practices. When they are subsequently transplanted to families' lands, these nurseries are already adapted to the environment in terms of climate, altitude and humidity. In addition, families can use these healthy products to balance their daily diet and increase their resilience to the effects of climate change. Finally, the intervention has helped generate a surplus of production, which is then marketed in fair, inclusive and equitable spaces from producers to consumers directly, creating a relationship of loyalty and generating economic income that strengthens women's economic autonomy as well as the families' livelihoods.

Main results achieved

- Women have increased their self-esteem by participating in production.
- The knowledge and values of community elders and Indigenous Peoples have been preserved.
- The number of women in leadership positions has increased both in production (nurseries) and political (roundtables) spaces.
- UNCISPAL reports more equitable dynamics at community level.
- Twenty-two learning communities have been formed with the Ministry of Agriculture and Livestock to enhance the knowledge and experience of producers to move towards cleaner production.
- UNCISPAL, jointly with Ministry of Agriculture technicians and the support of WFP, developed learning communities whose promoters (26 men and women) now share their knowledge with the rest of the members of the UNCISPAL communities.

LEARN MORE

- [Espacio Raiz de la Igualdad \(webpage\)](#)



A young woman monitors a rainfall station to gather data for climate information services.

Integrated gender transformative resilience building, Guatemala

Context

Guatemala is one of the countries most vulnerable to natural hazards, and the increasing frequency and intensity of droughts, as well as excessive rains, abrupt changes in temperature, severe flooding and landslides have led to chronic food insecurity in recent years, which has been exacerbated by the COVID-19 crisis. All these factors increase vulnerability, especially among smallholder farmers who lack adequate methods to manage climate-related shocks.

Women's low economic empowerment, limited control over income, and greater time spent in unpaid activities at home constitute major barriers to meeting their basic food and nutritional needs, as well as those of their families. Limited access to education and land for women, as well as a lack of alternative means of income, reduces even more the adaptive capacity of families and of women in particular, in an environment of growing climate variability. The programme aims to increase women's capacity to cope with the effects of climate change by strengthening their economic autonomy, which includes improving access to decision-making spaces to express their needs and interests and improve their actions towards clean, environmentally friendly production.

Action

WFP Guatemala implements integrated, gender transformative resilience-building activities in seven departments, which include income generation, asset creation, environmental rehabilitation, community governance, financial inclusion (such as savings and loan associations and access to microinsurance) and nutrition as well as SBCC, with a focus on gender-specific necessities and opportunities, and economic empowerment of rural and Indigenous women. By focusing on protecting women's economic activities beyond just agricultural production – where women often face barriers in decision-making due to issues of land ownership – the project aims to enhance women's participation in the economy.

SPHERES OF INFLUENCE



Individual



Household



Community



Organizational

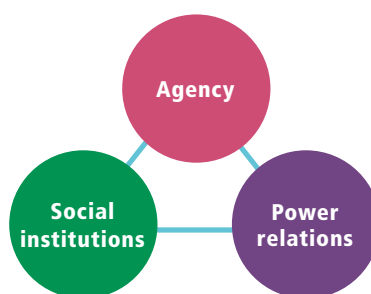


Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES

- Financial education and savings and loan methodology (mainly focused on women at individual and collective level)
- Training in climate services (women and men, at individual and collective level)
- Facilitating access to disaster risk financing such as climate insurance
- Supporting the creation of women's associations focused on entrepreneurship (collective level) and providing technical assistance (individual and collective level)

- Social and behaviour change communication (SBCC) activities to positively influence behaviours and habits, with the aim of improving gender-sensitive health and nutrition practices to complement resilience-building efforts



- Training on gender equality, gender-based violence and inclusive masculinities (women and men, individual and collective level)
- Training on human and women's rights (women, individual level)

Examples of indicators/tools used to track women's empowerment/ gender transformative change

The intervention included a mix of reach, benefit, empower and transform indicators:

AGENCY	POWER RELATIONS	SOCIAL INSTITUTIONS
<ul style="list-style-type: none"> – Number of individuals trained in savings and loan methodology (W/M) – Number of individuals trained in topics related to climate information (W/M) + number of individuals forming part of the climate informant network for anticipatory actions (W/M) – Number of individuals trained in financial education and insurance products (W/M) + number of individuals with insurance premiums (W/M) – Number of women's associations with entrepreneurship + income generated per group – Description of women's perception of the importance of developing their capacity to participate (perceptions survey) 	<ul style="list-style-type: none"> – Number of individuals trained in gender equality, gender-based violence and inclusive masculinities (W/M) 	<ul style="list-style-type: none"> – Percentage of men who recognize the importance of changing their discriminatory attitudes to eradicate violence against women and girls – Men's perception of the importance of their contribution to caregiving activities within the household (perceptions survey) – Qualitative contribution analysis, using participatory action research methods such as participatory impact mapping

Gender transformative results

The intervention is contributing to disaster risk reduction and generating inclusive food value chains that are resilient to climate change and other shocks, while generating opportunities for female smallholder farmers and entrepreneurs. Transformative changes are also observed, as the project is creating a savings culture and enabling access to financial insurance products adapted to the needs of smallholder farmers and small-scale producers, with a focus on the integration of women, to prevent losses and enable faster recuperation from shocks.

Main results achieved

- Women who otherwise do not have access to or control over household finances have taken the initiative to provide credit to other members of the group.
- Women and men participate in the gathering of climate information and are connected to a nationwide Anticipatory Actions network, creating local agency over information gathered and helping educate individuals in information analysis (148 women).
- A total of 7 622 women have been trained on financial education and possess an insurance premium for productive activities beyond just agriculture, thus facilitating access to women, who mostly do not own land.
- Over 250 groups with entrepreneurs have been established, with business plans for the generation of sustainable income.

- A total of 7 589 women have received a parametric microinsurance policy, covering both drought and excessive rain (88 percent of all policies issued).
- In 2022, 9 370 people were insured and trained in financial education, out of which 82 percent (7 622) were women. Four municipalities were involved in operating the insurance product.
- Women and men have learned about gender equity and gender equality, as well as fundamental rights of women, children and Indigenous populations.
- Beneficiary women's awareness of their rights has increased, including awareness of the institutions they can consult in case of gender-based violence.
- There have been observable changes in the participation of men in non-remunerated household activities usually done by women. For activities in the eastern region of the country, the perception of shared decision-making on economic resources among beneficiaries increased from 41.6 percent to 77.4 percent between baseline and intermediate monitoring.
- Women have participated in climate adaptation activities (soil conservation, reforestation, water infrastructure rehabilitation, etc.) which were previously reserved for men in the community.
- An insurance product, parametric insurance, was designed specifically to meet the needs of women, while also being accessible to a broader population. The insurance compensates for the interruption of productive activities, with payouts to support women's investments in such activities, thus fostering organizational processes and economic empowerment.

LEARN MORE

- **Venta de Comida**
- **Venta de Huevos**
- **Grupos de GACEM**



A female participant of the Vocational Training and Agricultural Productivity Improvement Programme (FORMAPROD) in Madagascar.

Vocational Training and Agricultural Productivity Improvement Programme (FORMAPROD) – Madagascar

Context

The GALS+ approach was integrated into the FORMAPROD programme in Madagascar,² which aimed to improve agricultural productivity and income for small-scale farmers through professional training for rural youth. Madagascar, a country characterized by high poverty rates and a predominantly rural population, faces significant gender inequalities that are further exacerbated by the impacts of climate change. The GALS+ initiative was implemented to address these gender gaps by enhancing women's decision-making power, economic participation, and resilience to climate impacts within agrifood systems.

² With the support of the Adaptation for Smallholder Agriculture Programme: Phase 2 (ASAP 2) <https://www.ifad.org/en/initiatives/adaptation-smallholder-agriculture-programme-phase-2>

Action

The GALS+ initiative used a participatory approach to integrate gender, youth, climate and nutrition dimensions into the FORMAPROD programme. This involved training in the GALS approach, which included tools such as the Vision Journey, Gender Balance Tree and Challenge Action Tree. These tools helped participants to visualize their goals, identify gender imbalances, and plan actions to address challenges related to climate and nutrition. Through GALS+ the project influenced intrahousehold dynamics by promoting joint decision-making and equitable financial management. Women's participation in economic activities and decision-making processes also increased, leading to a more balanced distribution of household responsibilities, while fostering gender equity and building resilience against climate change.

The project engaged women's groups and community leaders to address gender inequalities and enhance resilience to climate change. This involved community dialogues and advocacy efforts aimed at challenging traditional gender norms.

SPHERES OF INFLUENCE



Individual



Household



Community



Organizational

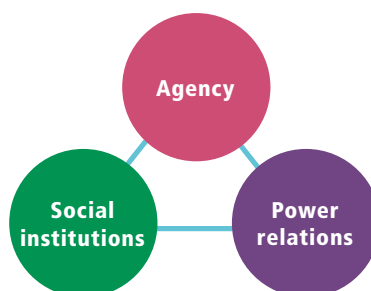


Macroenvironmental

KEY DIMENSIONS OF GENDER TRANSFORMATIVE CHANGE AND ACTIVITIES

- Training and participatory exercises to enhance women's knowledge, skills and confidence
- GALS+ methodologies to promote equitable financial management
- through Agricultural Development Fund and business plans
- Resource mobilization strategies considering the needs expressed at the grassroots level
- Creation of new jobs to enhance economic autonomy
- Promotion of collective action through producers' associations or groups related to agriculture, livestock and fisheries, as part of the Vision Journey

- Encouraging changes in discriminatory social norms through GALS+ implementation
- Document analysis and interviews to identify possibilities for policy changes and amendments promoting gender equity



- Shifting power dynamics within households and communities by promoting joint decision-making and encouraging men's participation in household chores
- Establishment of local consultation structures to support the creation of new jobs to enhance the economic autonomy of young women producers

Examples of indicators/tools used to track women's empowerment/gender transformative change

The intervention included a mix of reach, benefit, empower and transform indicators:

- Increase in self-reported confidence levels among women, measured through surveys assessing self-esteem and aspirations
- Changes in decision-making dynamics within households, tracked through surveys on joint decision-making and financial management
- Shifts in community norms and participation rates, such as increased attendance of women in community meetings and membership in women's groups
- Policy changes and amendments promoting gender equity, evaluated through document analysis and stakeholder interviews

Gender transformative results

- Through GALS+ sessions, joint financial management improved by 22 percent. According to 98 percent of respondents, household income is managed transparently.
- Male dominance in decision-making dropped from 51 percent to 5 percent.
- Women's participation in community meetings increased by 27 percent, and membership in women's groups rose by 17 percent among participants, reflecting a positive change in community engagement and leadership roles.
- Informal changes included a significant increase in men's participation in household chores, from 35.7 percent to 81 percent, and a reduction in physical violence against women by 20 percent among participants.
- Among participants, 65 percent implemented improved management practices for forest resources, including reforestation efforts, sustainable use of fruit trees, and conservation of forest cover, which directly contribute to increased resilience against climate impacts.
- Participation of women in leadership roles related to environmental management and climate adaptation increased, as evidenced by a 27 percent rise in women attending community meetings and a 17 percent increase in women joining community groups focused on climate resilience and natural resource management.

LEARN MORE

- [FORMAPROD website](#)
- [GALS methodology](#)

4 Concluding remarks and call for action

Climate change is having, and is predicted to continue to have, dire consequences for rural populations across the globe. Populations whose livelihoods depend on agrifood systems are particularly vulnerable to extreme weather events and climate change. Within these populations, discriminatory social institutions and unequal gendered power relations shape expectations regarding the appropriate roles and responsibilities for men and women, and define the spaces where the associated actions can occur (Gumucio *et al.*, 2019). Lack of agency, discriminatory social institutions (e.g. laws, policies, gender norms) and unequal power relations play a crucial role in creating and sustaining gender inequalities in climate action. This results in a system of compounded inequalities that place particular segments of the society – who might be discriminated against for their gender, race, disability status, etc. – in a more vulnerable position when building their resilience to climate change. Discriminatory social institutions and unequal power relations also limit men’s and women’s ability to participate and be an integral part of important climate adaptation and disaster risk management decision-making processes at individual, household, community and policy levels (Huyer and Partey, 2020).

Addressing the structural causes of social and gender inequality is thus a prerequisite towards achieving sustainable and equitable climate-resilient agrifood systems. This requires interventions that actively engage women and men differently, recognizing their different needs and roles as well as the barriers they face, and also taking into consideration the role of unequal power relations and discriminatory social institutions in climate change action. As the case studies presented in this study show, gender transformative approaches hold great potential to address these structural causes of inequality and enhance the resilience of the people who depend on agrifood systems and of the systems themselves.

To achieve gender transformative change, it is ideal to simultaneously challenge unequal power relations, discriminatory social institutions and build people’s agency. There are different entry points for addressing these dimensions when designing and implementing projects and programmes, and a balance will need to be struck depending on each context.

Without a clear framework for gender transformative change to guide the design and implementation of projects and programmes, there is a risk that actions will be isolated with little impact on the end results, that the resources allocated to them will be underfunded and that the monitoring and evaluation system will fail to capture the changes that have been made.

The cases presented here show that projects and programmes might approach the three dimensions of transformative change with varying intensity, depending on which dimensions are most pressing in each case. The spheres of intervention can also vary, with strong investment at individual, household and community levels. More efforts are needed to develop gender-responsive climate-related policies and legal frameworks to address structural gender inequality in agrifood systems. In this regard, it is necessary to understand the climate-related hazards that affect agrifood systems and the gender-differentiated and context specific impacts of climate change, to inform policy design aimed at effectively improving the coping and adaptation mechanisms of those most at risk, who are often women.

Women's leadership is increasingly seen as a critical pillar for achieving climate-resilient agrifood systems (Morgan, Bryan and Elias, 2024). Some of the examples presented in this publication highlight the importance of women's leadership for achieving a range of positive social, economic and environmental outcomes. The case on "Empowering Indigenous Peoples' communities and conserving mountain ecosystems through sustainable living choices in the Nilgiris Biosphere Reserve, India" shows the benefit of addressing intersecting forms of inequality, such as ethnicity and gender. It finds that women from tribal communities have succeeded in holding 50 percent of key governance and management positions in the farmer producer organization. Moreover, at least one-third of the members in the community-based decision-making institutions are women, thus bringing about positive changes in unequal power relations within households, communities and organizations, as well as changes in otherwise discriminatory gender norms.

As climate change does not impact everybody equally and empowerment levels differ across different groups of women, an intersectional approach, such as the one applied in the project showcased in the India case study, allows for better capturing the different needs and compounding vulnerabilities of individuals due to their social status as well as aspects of identity, such as race, gender, class and sexual orientation.

Collective approaches that foster positive forms of power, such as the power obtained through working with others towards common goals, emerge as central to supporting women's climate action (Bryan *et al.*, 2024; Huyer *et al.*, 2024). The Dimitra Clubs, presented in the case on "Building climate resilience of rural communities through community engagement for empowerment in Senegal – Dimitra Clubs", enhance participation and community engagement by bridging two critical areas of work: Collective action through community engagement for empowerment, and Gender transformative change. The outcomes sought are boosting self-confidence, promoting self-empowerment, and encouraging the adoption of climate-smart agriculture practices and nature-based solutions. Given that engaging men and boys is essential to achieving better outcomes, accelerating this process while promoting a collaborative model that includes both women and men helps to open up restrictive decision-making spaces without triggering violence against women. Finally, by involving all community members, local authorities and village leaders, the approach also triggers changes in unwritten social norms that are often gender discriminatory and that have important consequences for the climate resilience of men and women.

As the case studies illustrate, attention to context is also important. The specificities of the context and the intersecting power relations influence the extent to which women may fully, equally and effectively influence decisions related to climate-resilient agricultural practices (Morgan, Bryan and Elias, 2024). This requires an enabling environment in which both women and men participate on equal terms and with equal opportunities – one in which women are provided with the necessary technical skills, information, resources and networks, as well as having decision-making power to ensure their voices are heard and respected. Efforts should be focused on strengthening women's agency, in particular by enabling their leadership through the elimination of restrictive gender norms, thus improving their capacity to adapt to and withstand the negative effects of climate change and extreme weather events.

Gender-responsive climate finance is another critical area that has been highlighted in the different cases. Strengthening women's economic autonomy is crucial for diversifying livelihoods, which increases the adaptive capacity of households and communities while helping interrupt the vicious cycle of gender discrimination. The "Integrated gender transformative resilience building, Guatemala" case shows how enhancing women's access to capital and financial services increases their ability to cope with climate-related events and crises. Key interventions – such as peer-to-peer lending to support women who otherwise do not have access to or control over household finances or assets; providing financial education and facilitating access to insurance to protect women's economic initiatives against both drought and excessive rainfall; developing business plans for women's enterprises;

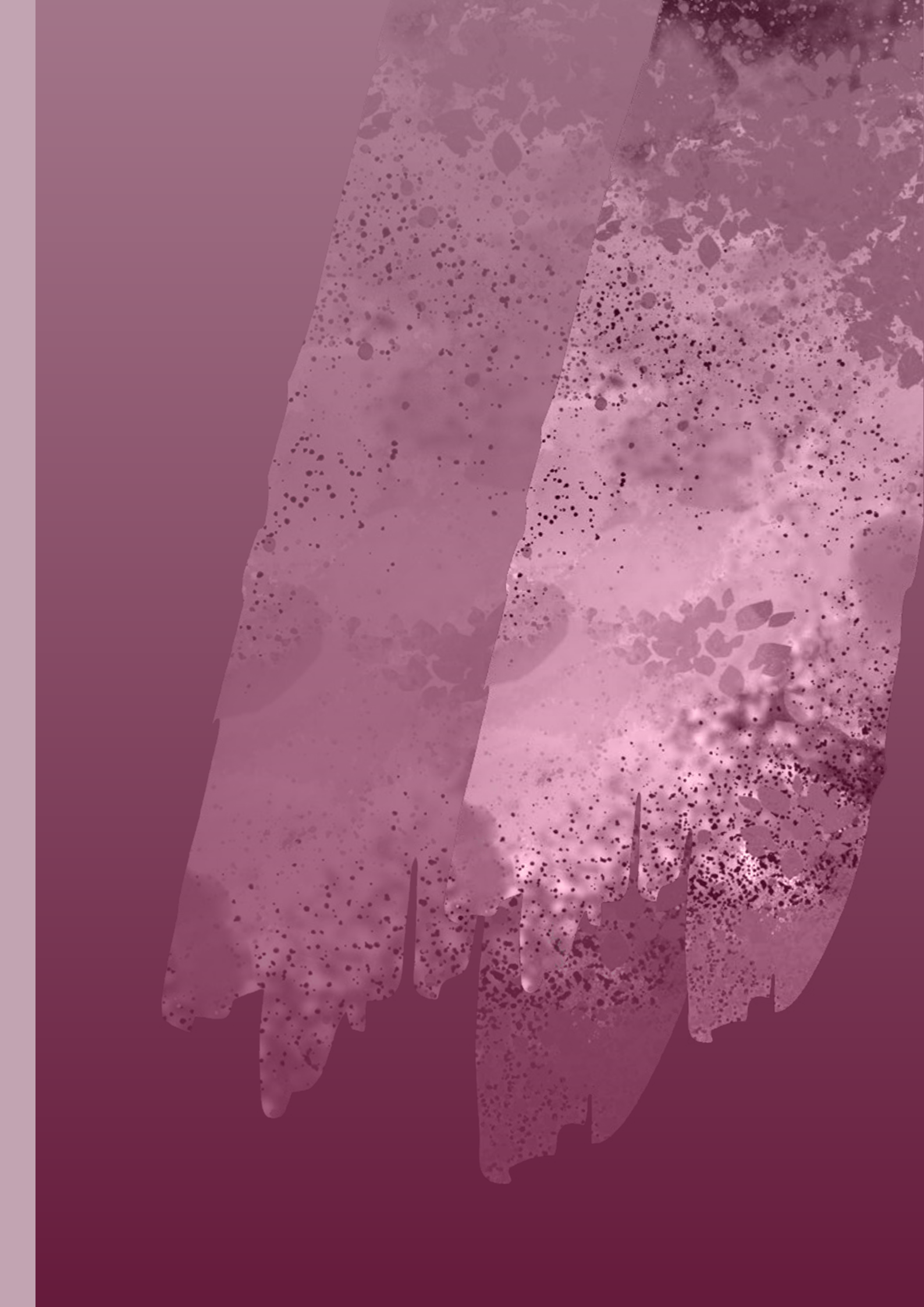
and creating women's associations and developing hard and soft skills – have contributed to the adoption of climate-resilient practices through outcomes related to women's voice and agency, such as increased mobility, decision-making and involvement of men in domestic work.

The "Roots of equality, Ecuador" case presents the experiences of implementing SBCC through a communication strategy to influence shifts in gender norms and values in agriculture and natural resource management. Once gender barriers and gaps have been identified, particularly discriminatory gender norms and biases that influence climate change adaptation initiatives (gendered division of labour, increase in women's workload from climate change impacts, etc.), a communication strategy can challenge these both individually and institutionally. In this area, it is important not to lose sight of the use of information and communications technology to stimulate substantive changes in behaviour to adopt more equitable gender norms and effective climate change adaptation actions.

In all of the cases presented, improved access to and control over strategic resources such as information, advisory services and technology are fundamental to women's ability to respond to the impacts of climate change and to initiate and implement preparedness. Therefore, climate-resilient technologies and related services and programmes need to be more responsive to the different needs of women and men in order to improve climate change adaptation.

Gender transformative approaches are implemented alongside more "traditional" gender-responsive approaches, such as those to close gender gaps, enhance women's access to resources, and develop skills and technical capacities, among others, as evidenced by all case studies. As gender transformative approaches for climate resilience are implemented, it remains crucial that interventions have the ability to track progress in achieving gender equality, including gender transformative change. Unfortunately, the use of gender transformative indicators remains the exception rather than the rule. It is common to find experiences that fall within the scale of reach, benefit and/or empower, but few cases use indicators to measure gender transformative change. There is an associated lack of dedicated investment in gathering evidence of the social impact of climate-resilient initiatives through gender transformative outcomes that promote changes in discriminatory social and gender norms, and that go beyond the direct beneficiaries to progressively influence the wider society. There is a need to improve the capacity of projects and programmes to demonstrate multiple impacts, sustainability and scaling-up capacity, and to demonstrate the comparative advantages of changing discriminatory social institutions and unequal power relations to achieve positive climate adaptation outcomes.

Climate resilience and gender transformative goals should thus be jointly pursued together, through initiatives that close gender gaps while addressing agency, gender norms and other discriminatory social institutions that hinder women's or men's ability to effectively adapt to climate change, have decent employment opportunities, and/or achieve food security through access to nutritious food. As such, working at the intersection of Sustainable Development Goal (SDG) 5 (Gender Equality), SDG 2 (Zero Hunger), SDG 1 (No Poverty) and SDG 13 (Climate Action) using gender transformative approaches will be fundamental to achieve equitable and sustainable agrifood systems.



Glossary

Agency: Agency refers to the ability to define one's goals and act upon them (Kabeer, 1999).

Agrifood system: The agrifood system covers the journey of food from farm to table – including when it is grown, fished, harvested, processed, packaged, transported, distributed, traded, bought, prepared, eaten and disposed of. It also encompasses non-food products that constitute livelihoods as well as the activities, investments and choices that play a part in delivering these food and agricultural products. In the FAO Constitution, the term “agriculture” and its derivatives include fisheries, marine products, forestry and primary forestry products (FAO, 2021a).

Climate action: Climate action refers to efforts taken to combat climate change and its impacts. These efforts involve reducing greenhouse gas emissions (climate mitigation) and/or taking action to prepare for and adjust to both the current effects of climate change and the predicted future impacts (climate adaptation) (EUR-Lex, 2024).

Climate change adaptation: In human systems, this refers to the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, this refers to the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects (IPCC, 2022a).

Climate change mitigation: A human intervention to reduce emissions or enhance the sinks of greenhouse gases (IPCC, 2022b).

Climate change: A change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use. Note that the UNFCCC (in Article 1) defines climate change as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”. The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes (IPCC, 2022a).

Disaster risk financing: Disaster risk financing is an overarching term for instruments that protect individuals, small businesses, institutions or governments from the impacts of extreme weather events and disasters. These instruments can be arranged before a crisis or after a crisis. Disaster risk financing can largely be grouped into two categories: a) mechanisms such as insurance that enable the transfer of risk to the market, which can trigger a payout in case of disaster; and b) mechanisms that retain and manage risk internally, such as contingency funds or savings (WFP, 2023b; GIZ, 2021).

Disaster risk management: Disaster risk management refers to the implementation of disaster risk reduction policies and strategies to prevent new disaster risks, reduce existing disaster risks and manage residual risks, which helps to strengthen resilience and reduce disaster losses (UNDRR, no date). Disaster risk management includes disaster risk prevention, mitigation, preparedness, finance and response activities.

Gender norms: A subset of social norms, gender norms are informal rules and shared social expectations which determine and assign socially acceptable roles, behaviours, responsibilities and expectations to male and female identities. By influencing expectations for masculine and feminine behaviour that is considered socially acceptable and appropriate, gender norms directly affect individuals' choices, freedoms and capabilities (FAO, 2021b).

Gender transformative approach: A gender transformative approach seeks to actively examine, challenge and transform the underlying causes of gender inequalities rooted in discriminatory social structures. As such, a gender transformative approach aims to address unequal gendered power relations and discriminatory gender norms, attitudes, behaviours and practices, as well as discriminatory or gender-blind policies and laws that create and perpetuate gender inequalities. By doing so, it seeks to eradicate systemic forms of gender-based discrimination by creating or strengthening equitable gender relations and social structures that support gender equality (FAO, IFAD and WFP, 2022).

Gender transformative interventions: These interventions include specific measures to change discriminatory social structures, sociocultural norms and gender relations to achieve more shared and equal power dynamics, decision-making and control of resources, as well as support for women's empowerment (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

Gender transformative programming: Gender transformative programming involves taking a gender transformative approach to project and programme design, implementation, monitoring and evaluation throughout the project cycle. Programming strategies move beyond women's empowerment towards transforming unequal power relations and the social institutions which perpetuate and reinforce gender inequalities. At the core of gender transformative programming lie interventions that aim to address strategic gender interests in addition to practical gender needs, by triggering changes in agency, power relations and social structures at individual and systemic levels and across informal and formal life spheres (FAO, 2021b).

Intersectionality: Intersectionality refers to how different social identities, such as gender, socioeconomic status, age, ethnicity, geographical location, marital status and physical abilities, intersect to shape experiences of discrimination and oppression (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

Masculinities: Masculinities comprise the various ways of enacting oneself and acting as a man. They refer to the specific expectations and values attributed with being and becoming a man in a given society (adapted from OECD, 2021).

Power over: *Power over* is defined as control over people, resources and the lives of others. Power over involves using power to repress, force, coerce, discriminate against, corrupt or abuse others (Hillenbrand *et al.*, 2015; FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

Power to: *Power to* acknowledges the unique potential of every person to shape their lives and world. It involves activating a person's capacity to act (their *power within*) in the real world (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

Power with: *Power with* is an expression of collaborative and collective power through mutual support, collaboration and recognition of and respect for differences. *Power with* involves finding common ground among shared and different interests and building collective strength. Based on mutual support, solidarity and collaboration, *power with* can exponentially multiply individual talents and knowledge in a synergetic manner. This expression of power can construct bridges across different interests to promote equitable power relations and strengthen gender equality (Hillenbrand *et al.*, 2015; FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

Power within: *Power within* has to do with a person's sense of self-worth and self-knowledge; it concerns the power of an individual. It involves a person's capacity to imagine and have hope, and affirms the common human search for dignity and fulfilment (FAO, IFAD, WFP, and CGIAR GENDER Impact Platform, 2023).

Practical gender needs: Practical gender needs are a response to immediate perceived necessity, identified within a specific context. They are practical in nature and often stem from inadequacies in living conditions such as water provision, health care and employment (EIGE, 2016).

Resilience: Resilience is the ability of individuals, households, communities, cities, institutions, systems and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all (United Nations, 2020).

Social institutions: Social institutions comprise the formal and informal rules and norms that organize social, political and economic relations – i.e. the underlying rules of the game. Formal institutions include: (i) political institutions such as parliaments, political parties, written constitutions, laws, policies, rights and regulations enforced by official authorities; (ii) formal membership organizations such as cooperatives; and (iii) economic institutions such as markets, private companies and banks. Informal institutions consist of the (usually unwritten) social norms, customs or traditions that shape thought and behaviour, such as kinship, marriage, inheritance and religion. In practice, formal and informal rules and norms can be complementary, competing or overlapping. Informal social norms may influence the design and implementation of formal institutions (GSDRC, 2014).

Social norms: Social norms are unwritten “rules” governing behaviour shared by members of a given group or society. They are informal, often implicit, rules that most people accept and abide by. In contrast to individually held attitudes or beliefs, a social norm is defined by beliefs that are shared about a behaviour or practice (ALIGN, 2019). As such, the norms exist when a practice is considered both typical and approved of within a given group. Social norms can influence or uphold behaviour, and are typically maintained by social approval or disapproval for engaging in a behaviour (FAO, IFAD and WFP, 2022).

Strategic gender interests: These are interests identified by women as a result of their subordinate social status that tend to challenge gender divisions of labour, power and control, as well as traditionally defined norms and roles (adapted from ESCWA, 2023).

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