Chapter 14

# GENDER RESEARCH
## Metrics and Policies for Greater Equity and Inclusion

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## Key messages

- Over the past 50 years, research on gender in development has evolved in parallel with the growing awareness of women's role in economic development, the importance of gender relations both within and outside the household, and the recognition that women's empowerment and gender equality are important goals in themselves.
- Lessons learned from early research on women and gender showed that challenging the assumptions underlying household models can build understanding of household behavior and help identify policy instruments to influence that behavior.
- Evidence that increasing women's control of resources led to better outcomes for children inspired the design and implementation of conditional cash transfer programs worldwide, with impact evaluations of these programs subsequently generating new evidence on household behavior.
- Recognition of women's empowerment and gender equality as intrinsically valuable created impetus to improve their measurement, motivate policy action, monitor progress, and ascertain what works, ultimately leading to the development of metrics such as the Women's Empowerment in Agriculture Index.
- Research on policies, programs, and innovations that take gender into account highlights that intentional gender programming and

transformative approaches—not simply having empowerment objectives—are needed to improve women's empowerment and achieve gender equality in the longer run.

Looking ahead, gender research should aim to address:

- **Intersectionality.** Engage with aspects of disadvantage that may compound gender inequalities, such as wealth, class, caste, and ethnicity, and recognize that neither women nor men are homogeneous groups.
- **Life cycle and demographic factors.** Consider how gendered vulnerabilities and opportunities differ and evolve throughout the life cycle, with particular attention to both youth and the elderly; identify critical investments to ensure the success and well-being of young women and men throughout their working years; and assess the gender and generational implications of migration for rural areas and agricultural labor.
- **Structural and institutional change.** Examine constraints to individual agency posed by structural conditions and social norms, including through applying tools to measure and address gender inequalities in rural institutions and governance, exploring the role of aspirations and locus of control in overcoming poverty, and involving men in interventions.

Research on gender in development has evolved in parallel with the growing awareness of women's role in economic development, the importance of gender relations both within and outside the household, and the recognition that women's empowerment and gender equality are important goals in themselves. This evolution has led to meaningful insights for the design and implementation of development policies and programs. In this chapter, we trace the evolution of gender research in the context of the development discourse on gender, focusing on agrifood systems, and identify three challenges that future research should address: intersectionality, life cycle and demographic changes, and structural and institutional barriers to gender equality.

## From women in development to gender and development: Parallel evolutions of research and discourse

Although women's role as mothers, wives, and caregivers has long been recognized, research in the 1970s, including the ground-breaking *Woman's Role in*

*Economic Development* (Boserup 1970) which first called attention to women's role as agricultural producers, inspired much of the work on women in development through the early 1980s (Beneria et al. 2016). This work highlighted how the socially constructed gender division of labor varies by place and changes over time, and how the process of modernization harms women, who are either disadvantaged relative to men and/or experience an absolute loss in status over time. Discussions of the so-called female farming system in sub-Saharan Africa (in which women farm plots separately from men and specialize in different types of crops, with women traditionally cultivating food crops and men focusing on cash crops) as contrasted with the farming systems of South Asia (where farming is more intensive in male labor and family members work together on the family farm) shaped the way agricultural economists and development researchers viewed women in agriculture. This paved the way toward reducing, though not completely eliminating, the undercounting and "invisibility" of women in agriculture (Dixon 1982).

Research on women in agriculture did not always consider their involvement within the context of their relationships with men or other family and community members, however. Titles of research programs, such as the International Rice Research Institute's Women in Rice Farming Systems program, were emblematic of this singular focus on women, as were important United Nations conventions, such as the 1995 United Nations Conference on Women in Beijing. IFPRI's policy report for the conference framed women as representing the three pillars of food security: producers, income earners, and caregivers (Quisumbing et al. 1995). But the exclusive focus on women masked the importance of broader gender relations, an oversight that was impossible to ignore. For example, IFPRI research on agricultural commercialization and nutrition highlighted both the importance of women's control of income for child nutrition and the tendency for men to control income from women's crops once those crops became profitable (von Braun and Kennedy 1994).

The women's movement has been called a force that "propelled the institutionalization of the field of gender and development in the 1970s and beyond," and it has continued to influence the work of governments, their foreign assistance programs, and nongovernmental organizations, as manifested by the Women in Development approach, which explicitly recognizes women's economic and productive roles (Beneria et al. 2016, 8). The increased attention to women in development was accompanied by a focus on including women in official statistics, as well as growing discontent with widely accepted models of household behavior based on the unitary model of the household. This model

assumed that either all household members have the same preferences, pool all resources, and agree on all decisions, or that one household member makes the decisions for everyone (Becker 1981). The unitary model has been challenged, both theoretically and empirically, by collective models of household behavior that allow decision-makers to have different preferences and do not assume that households have a common goal (Chiappori 1992). These challenges arose from the growing empirical literature on household decision-making in low- and middle-income countries (LMICs), which was stimulated by theoretical developments in modeling household behavior and intrahousehold allocation and by the increased availability of sex-disaggregated data on labor, asset ownership, and decision-making with which to test these household models (Strauss and Thomas 1995).

Early work that juxtaposed the unitary model of the household against the collective model—often using a bargaining framework in which household decision-makers, usually the husband and wife, negotiated when making household decisions—frequently rejected the assumptions of the unitary model. Although tests of the unitary versus collective models can be conducted using household-level outcomes such as budget shares, comparisons using individual-level outcomes (such as individual health and nutrition indicators) are more powerful. These comparisons can test whether individuals with more bargaining power favor specific household members owing to their age, gender, position in the household, or other characteristics. IFPRI's research program on agricultural commercialization and nutrition gathered individual-level data on nutritional status (often for women and children under five years of age), as well as data on variables that could be broadly interpreted as proxies of men's and women's bargaining power, thus providing a wealth of data with which to test these models in different country contexts (von Braun and Kennedy 1994). The early 1990s were a fertile time for testing alternative household models and measures of bargaining power—and for the findings of this research to influence policy, such as the targeting of extension services and the design of conditional cash transfer programs, among others (see Chapters 8 and 11).

In the conclusion to their volume of studies on intrahousehold resource allocation by economists, demographers, sociologists, and anthropologists, Haddad and colleagues (1997) argued that using the unitary model of the household as a guideline for policy prescriptions may lead to policy failures because: (1) public transfers may have different effects, depending on who within the household receives the transfer, (2) nonrecipients of the transfer may act to counter the intent of the program or policy, (3) information may not reach the persons in the household who need it most, since the person

receiving the information does not necessarily share it, and (4) policymakers may be limited to a smaller set of instruments with which to affect development outcomes. The unitary model predicts that only changes in prices and household incomes can shift household behavior and that such changes will benefit all members of a household. In contrast, the collective model recognizes that there can be significant differences among household members and posits that household allocation can be affected by a range of policies, such as changes in property rights and access to credit, public works schemes, and legal and institutional rights (see Chapter 6).

Much of the empirical evidence supporting the collective model of the household comes from data on rural households in LMICs. This evidence includes studies showing differential propensities to spend income controlled by men or women (Hoddinott and Haddad 1995), differential effects of men's and women's assets on consumption (Doss 2006) and household expenditures and schooling (Quisumbing and Maluccio 2003), incomplete sharing of risk within the household (Dercon and Krishnan 2000; Doss 2006; Goldstein and Udry 2008), and inefficiency of resource allocation between plots managed by men and women (Udry 1996). Overall, these findings have influenced the design of programs that targeted women, such as conditional cash transfer programs and other social protection programs more broadly. In turn, these programs have generated a large body of evidence that resources controlled by women are associated with investments in child schooling, health, and nutrition, as shown by both observational and experimental studies.[1] The focus of collective models on intrahousehold bargaining has emphasized rivalry and competition among household members, ignoring areas of shared resources and interests. But the activities that individuals do together—form households, share ownership and control over some resources, work together on family farms, produce some output jointly, have and raise children together, and share in some consumption—indicate that there are gains to jointness within families and households. Therefore, more recent studies call for greater attention to joint decision-making and resource control to better understand household dynamics (Doss and Meinzen-Dick 2015; Doss and Quisumbing 2020; Fafchamps and Quisumbing 2008). Expanding the focus from women to gender creates opportunities to understand the challenges that men face, both in collaboration and competition with women.

1 Observational studies are reviewed by Quisumbing et al. (2003), among others. Yoong, Rabinovich, and Diepeveen (2012) review experimental studies of resource transfers to women versus men. Results from Yoong, Rabinovich, and Diepeveen (2012) are discussed later in this chapter.

As attention to gender issues within the household has risen, so too has awareness of the need to address gender inequalities in assets within communities and society at large. An early conference on gender and property rights identified commonalities in the constraints to women's rights to agricultural land, water, and forests, and the consequences of this for women's productivity, equity, and empowerment, and the natural environment.[2] This work has contributed to research and policy efforts to strengthen women's property rights, as discussed in Chapter 6 on tenure.

## Linkages between gender and development outcomes

The evidence against the unitary model of the household was foundational to the notion that increasing resources controlled by women—whether human, physical, social, or political capital—was important to realizing positive development outcomes. This research, to which IFPRI has contributed, has primarily influenced policy and practice in the areas of social protection, nutrition, and agriculture (Haddad et al. 1997).

The positive relationship between women's human capital, which is usually measured through educational attainment, and child nutrition and education outcomes has long been established by observational studies (Quisumbing 2003; Smith et al. 2003). A systematic review of programs transferring economic resources to women found that: (1) targeting transfers to women can improve children's well-being, especially through investments in children's health and education, and (2) the gender of the transfer recipient affects the outcomes of some programs, which is consistent with the predictions of the collective model. However, (3) increasing women's control of transfers does not guarantee positive outcomes, and (4) outcomes may depend on the type of program offered (Yoong et al. 2012). For instance, evidence from Sri Lanka finds that men entrepreneurs secure permanent increases in income after receiving cash transfers, though women entrepreneurs do not (De Mel et al. 2009).

The targeting of conditional transfers to women was a key element of Mexico's PROGRESA (Programa Nacional de Educación, Salud, y Alimentación) and its successor program, Oportunidades. PROGRESA was one of the first large-scale programs to target transfers to women, a decision based on evidence from then-emerging literature on intrahousehold allocation showing

2 This e-conference included several key papers: Lastarria-Cornheil (1997), Meinzen-Dick et al. (1997), Rocheleau and Edmunds (1997), and Zwarteveen (1997).

that resources controlled by women were associated with better child health and nutrition outcomes (Skoufias 2005). In a follow-up study with PROGRESA beneficiaries 20 years later, researchers found that children who were exposed to the program *in utero*, as infants, or as children transitioning from primary to secondary school had better educational outcomes, higher income expectations, greater geographic mobility (including international migration), and delayed marriage and childbearing (Araujo and Macours 2021). A recent review of nutritional impacts of social assistance programs found that when women or children were not specifically targeted, there was little evidence of positive impact across the assessed diet and nutrition-related outcomes of women and children. The review recommended that programs designed to improve women's and children's diets and nutrition-related outcomes should continue to target women and/or children with the transfers (Olney et al. 2022).

The *2010–2011 State of Food and Agriculture Report*, published by the Food and Agriculture Organization of the United Nations (FAO), highlighted how increasing women's control of resources could lead to gains in agricultural productivity. These findings were based on simulations that provided women farmers with the same resources as men (FAO 2011). In the FAO's 2023 report on the status of women in agrifood systems, simulations suggest that achieving gender equality at scale in agriculture and agrifood systems could increase global gross domestic product and reduce food insecurity (FAO 2023).

The important connections between gender and agriculture are also illustrated by an agriculture–nutrition linkages framework that identifies six pathways through which agricultural interventions can impact nutrition (Ruel and Alderman 2013). Of these, three focus explicitly on women and gender: women's social status and empowerment through increased access to and control over resources; women's time through participation in agriculture, which can be either positive or negative for their own nutrition and that of their children; and women's health and nutrition through engagement in agriculture.

## Measuring women's empowerment and gender equality

The recognition of women's empowerment and gender equality as Sustainable Development Goal 5 (SDG5) provided an impetus for gender researchers to develop better metrics for women's empowerment. Perspectives differ on the measurement of women's empowerment, but the field has generally coalesced around a conceptual definition of empowerment that defines it as the process

by which people expand their ability to make strategic life choices, particularly in contexts in which this ability had been denied to them (Kabeer 1999). The need for empowerment metrics reflects the rationale for measuring poverty: measurement matters if it can motivate political action, monitor progress, and help guide the design of effective policy actions, so that researchers, program designers, and policymakers can discern what works and what does not (Atkinson 2019).

In the past, many development practitioners were concerned with women's empowerment and gender equality only insofar as they could be used to achieve objectives on health and nutrition (Galiè et al. 2019; Heckert et al. 2019; Sraboni 2014), productivity (Diiro 2018), and resource management (Sodhi et al. 2010). Now, however, spurred by the adoption of women's empowerment and gender equality as an SDG, these are increasingly regarded as goals in themselves, within both agricultural research and development and food systems interventions (Elias et al. 2021; Pyburn and van Eerdewijk 2021). The Women's Empowerment in Agriculture Index (WEAI) is one of the most widely used empowerment metrics, used by 279 organizations in 69 countries as of April 2025. Unlike other indexes that rely on aggregate-level indicators, the WEAI is a survey-based index that draws from interviews of the primary adult woman and man in the same household, and, as with multidimensional poverty indexes, is additive and decomposable (Alkire et al. 2013). These properties enable policymakers to easily understand how indicators are combined and identify nuances underlying each component indicators and the constraints to empowerment for different subgroups.

The original WEAI consists of five domains (production, resources, income, leadership, and time) and 10 indicators, and the Abbreviated WEAI, developed later, is a shorter, 6-indicator version (Malapit et al. 2017). This information summarizes women's empowerment achievements in the five domains, and enables computation of the gender parity index, which compares a woman's empowerment to that of the man in her household. The WEAI was developed in consultation with stakeholders and researchers working on gender issues and piloted in three countries (Bangladesh, Guatemala, and Uganda) with IFPRI's long-term data collection partners, and was launched in 19 countries through the Feed the Future Initiative's baseline monitoring survey. Baseline findings show that lack of access to and decisions over credit, excessive workloads, and lack of group membership are the top empowerment constraints across countries (Malapit et al. 2014). Moreover, focusing on the component indicators has led to a rich understanding of trade-offs between different domains of empowerment.

Agricultural development projects subsequently adopted and modified the WEAI metrics in an attempt to monitor the impact of their projects on women's empowerment, but this proliferation of WEAI versions did not permit comparisons across projects and portfolios. The Gender, Agriculture, and Assets Project, Phase 2 (GAAP2) was a portfolio of 13 agricultural development projects in nine countries in South Asia and sub-Saharan Africa that used qualitative and survey tools to develop a project-level WEAI (pro-WEAI) (Malapit et al. 2019). The pro-WEAI can be used to measure the impacts of interventions on aspects of empowerment considered essential to a project's mission and to make comparisons across a portfolio of different projects. Each project applied to join the portfolio and was represented by a project implementor and an evaluation partner, ensuring that both research rigor and on-the-ground experience were reflected.

The process of developing the pro-WEAI led to the creation of the Reach, Benefit, Empower, and Transform (RBET) Framework as IFPRI researchers and partners examined projects' strategies in pursuit of empowerment objectives (Johnson et al. 2018; Kleiber et al. 2019).[3] In this framework (Table 14.1), projects that *reach* women include them in program activities, while those that *benefit* women improve their well-being outcomes, including income, health, and nutrition. Indicators to assess reach include the number of women and men attending training or extension programs; indicators of benefits include income earned by women or women's nutritional status. But neither "reach" nor "benefit" explicitly addresses empowerment, so projects aiming to *empower* women need to go beyond these objectives to facilitate women's ability to make and implement strategic life choices. Gender-transformative approaches emphasize interventions that aim to *transform* formal and informal systems, institutions, and markets that limit women's opportunities into those that support gender equality (Kleiber et al. 2019; Morgan et al. 2023). These approaches often aim to holistically change gender norms at the community and societal levels, address structural and institutional barriers, and mobilize the power of the collective. Most projects conceptualize "empower" as occurring at the individual level, whereas transformation occurs at a higher level and involves changes in norms and structures that may lie beyond the purview of individual agricultural development projects (Larson et al. 2024). Applying the RBET framework can facilitate discussion about the desired

3 The RBET framework was developed by IFPRI, and the CGIAR Research Program on Fish Agri-Food Systems further developed it to include "transform." See Johnson et al. (2018) and Kleiber et al. (2019).

**TABLE 14.1** The Reach, Benefit, Empower, and Transform (RBET) framework

| | Reach | Benefit | Empower | Transform |
|---|---|---|---|---|
| Definition | Include women in program activities | Increase women's well-being | Strengthen the ability of women to make and implement life choices | Go beyond the woman and her household to change systems, gender norms, and power relations on a larger scale |
| Objective | Ensure that women have the same opportunity to access program activities as men:<br>• Address barriers to participation, such as program information, timing, or location of meetings and trainings | Require more than reaching women:<br>• Women value the intervention<br>• Direct benefits accrue to women<br>• Women's needs, preferences, and constraints are considered in the intervention design | Go beyond reaching and benefiting women:<br>• Increase women's agency<br>• Shift gender norms and attitudes among participants | Go beyond empowering individual women:<br>• Involve men<br>• Change gender norms at community and societal levels<br>• Address structural and institutional barriers<br>• Mobilize the power of the collective |

**Source:** Quisumbing et al. (2023), adapted from Johnson et al. (2018) and Morgan et al. (2023).

level of impact and identify actions and indicators related to empowerment and transformation, rather than merely reach or benefit. Better understanding of the strategies undertaken, and the theory underlying which aspects of agency can change as a result, can point to specific indicators of agency that should be measured to assess impacts.

Using the pro-WEAI and RBET framework to evaluate the GAAP2 portfolio and the UN Joint Program for Rural Women's Economic Empowerment (JP RWEE) illustrates the value of having a standardized metric to evaluate empowerment impacts of development projects. A synthesis of mixed methods impact evaluations of 11 GAAP2 projects highlights the need for projects to design their strategies specifically for empowerment, rather than assume that projects aiming to reach and benefit women automatically empower them (Quisumbing et al. 2024). In the GAAP2 portfolio, the projects that succeeded in empowering women were intentional about their project strategies, designed activities specific to cultures and contexts, and paid attention to unintended consequences (such as backlash from men or increased workload for women).

For example, a homestead food production project in Bangladesh, which provided women with gardening materials and trainings, found that the women often sold surpluses of the vegetables they produced and maintained control over the income generated, either saving it or spending it on personal needs, family needs, additional food, or their children's education (Dupuis et al. 2022). Beneficiaries of this project reported greater confidence and

motivation when they saw their gardens becoming productive. In a project that organized rural women in Ethiopia into savings and credit associations, the opportunity for women to earn money helped them develop a positive self-image and be proactive about their rights and responsibilities (Hillesland et al. 2022). Women participating in a poultry value chain project in Burkina Faso said raising poultry increased their self-confidence in their skills and capacities. For these women beneficiaries, gaining financial independence was critical, as it helped them to rely less on their husbands' permission or direction for how to spend money (Eissler et al. 2020).

For the JP RWEE project, IFPRI was brought in to synthesize results across four country programs that used WEAI metrics in their impact evaluations. The synthesis across these four studies highlights the potential of group-based approaches, the importance of involving men, and the need to be mindful of increased workload resulting from women's involvement in livelihood programs (Quisumbing et al. 2023). In Ethiopia, Kyrgyzstan, and Nepal, women talked about their workload increasing owing to the time required to participate in groups and livelihood interventions. However, while trainings increased women's time burden in Kyrgyzstan, participation in the Gender Action Learning System (GALS) led to a rebalancing of household duties among family members, allowing women to direct their time to income-generating activities (University of Central Asia 2021). In Ethiopia, women expressed that their actual time use was less important to them than control over how they spent their time, or what has been called time-use agency (Eissler et al. 2022; Mulema et al. 2021). Even if they increased time spent on productive work, women themselves may perceive this as positive, if they benefit from the returns.

Comparing the distribution of impacts from GAAP2 and JP RWEE on composite indicators of empowerment and gender equality shows that a larger proportion of JP RWEE projects had positive impacts on women's empowerment indicators than did the GAAP2 portfolio, reflecting JP RWEE's more women-focused programming. Some of the JP RWEE projects also implemented GALS, an approach that involves the whole household in setting goals and identifying activities to achieve those goals. But both programs reported far less impact on men's empowerment, whether positive or negative, and the achievement of gender parity within the household, suggesting that shifting norms to achieve gender parity is more difficult.

The availability of empowerment metrics and development outcomes from the same datasets enables a more direct analysis of links between women's empowerment and those outcomes, as compared to using proxy indicators.

**TABLE 14.2** Women's empowerment in relation to food systems outcomes

| Extent of agreement among studies | Number of studies | | |
|---|---|---|---|
| | Low (1–3 studies) | Medium (4–6 studies) | High (7–13 studies) |
| Low | | | |
| Medium | | • Women's nutrition and diets<br>• Household-level food security and diets | • Agricultural production |
| High | • Life satisfaction<br>• Children's educational outcomes<br>• Water, sanitation, and health<br>• Poverty transitions | | • Child nutrition and diets |

**Source:** Myers et al. (2023).

A study reviewing empirical research on the association between women's empowerment, measured using the WEAI, and primary food systems outcomes across a range of different contexts confirms that fostering women's empowerment may have a positive effect on many food systems–related outcomes (Myers et al. 2023). Table 14.2 presents the amount of evidence on these outcomes and the extent of agreement among the studies. Women's empowerment seems to be closely linked to improved child nutrition and is also associated with household-level food security and, to a lesser degree, with women's own diets and nutrition. Although there is evidence that women's empowerment and intrahousehold gender equity are also positively associated with agricultural productivity, the context and type of crop matter. As often occurs with studies involving empowerment, household, societal, and institutional factors such as wealth, class, and norms frequently play critical moderating roles. Although women's empowerment is an important goal in itself, demonstrating its positive association with other development outcomes helps to build a constituency and policy support for programs and policy to enhance women's empowerment and gender equality.

Lessons learned from metrics for measuring empowerment across multiple domains and aspects of women's lives, as well as growing demand for such metrics, highlight the need for similar empowerment metrics that can be used at the national level and in large multi-topic surveys. Such metrics need to be collected with shorter survey modules and capable of measuring women's empowerment across livelihood strategy, life cycle stage, or period of structural transformation. To meet this demand, IFPRI, along with the World Bank Living Standards Measurement Studies unit, Emory University, and multiple

partners in the pilot countries of Bangladesh, Guatemala, Malawi, and Nepal led the development of the recently launched Women's Empowerment Metric for National Statistical Systems (WEMNS) (Seymour et al. 2024). These partners included the National Statistics Office in Malawi, independent research institutes in Nepal, and long-term data collection partners in Bangladesh and Guatemala that had been involved in piloting the WEAI.

WEMNS consists of 12 indicators of instrumental, intrinsic, and collective agency, as well as agency-enabling resources. Findings from the pilot studies suggest that programming and policy investments to address women's lack of confidence with engaging their communities, leading in organizations, and influencing spending decisions can contribute meaningful gains to women's empowerment globally. Currently, WEMNS data are being collected at scale by the FAO in Liberia, Sierra Leone, and Tanzania. The availability and analysis of nationally representative data on women's empowerment, along with data on agriculture, diet, and food security outcomes, from these countries and elsewhere has the potential to inform priority investments to support women's empowerment, lead to a clearer understanding of the linkages between women's empowerment and other key development outcomes, and support the monitoring of progress toward women's empowerment and gender equality.

## Challenges for future work

### Intersectionality

Gender research has not fully engaged with other aspects of disadvantage that may compound gender inequalities, such as wealth, class, caste, and ethnicity. In Viet Nam, for example, IFPRI's ongoing work with the Alliance of Bioversity International and CIAT and Wageningen University & Research shows that in certain ethnic minority communities, men are less empowered than women (Lan Nguyen et al. 2024). Intersectional approaches also recognize that women (and men) are not homogeneous groups—a high-caste or wealthy woman in South Asia may be more disempowered than a low-caste or poorer woman due to the influence of patriarchy (Doss et al. 2022). Similarly, a woman's role in the household can also make a great difference in her empowerment. While past gender research often compared outcomes for male and female household heads, women in male-headed households typically achieve lower empowerment scores than do female household heads, and mothers-in-law are often more empowered than their daughters-in-law.

### Life cycle and demographic factors

Intersectional approaches can also be used to consider how gendered vulnerabilities and opportunities differ and evolve throughout the life cycle, with particular attention to both youth and the elderly. First, considering the rural livelihoods of youth (often defined as those ages 15 to either 24 or 34), the focus on the paid work of youth frequently emphasizes the roles of young men. Research that considers the productive and reproductive roles of young women and men is important for understanding their unique experiences and needs to support the development of their livelihoods alongside complementary roles in their families and communities (Heckert et al. 2021). In addition to addressing immediate concerns about young people's vulnerabilities and lack of land, capital, or other resources, there is also a need to identify critical investments to prepare young women and men for continued success and well-being as they advance through their prime working years.

While the current rhetoric has largely focused on youth, there has been little recognition of either the vulnerabilities or increased knowledge and experience associated with aging, the increase in caregiving work for the "sandwich" generation who are simultaneously caring for young children and aging parents, or the inequalities related to an individual's position in the household (for example, daughters-in-law relative to mothers-in-law).

Migration has particularly important implications for the gender and generational composition of rural areas and agricultural labor. Both qualitative and quantitative studies in areas with high levels of male outmigration reveal important changes in the scope of women's agency within households and community institutions (Doss et al. 2022; Meinzen-Dick et al. 2022). The movement of men out of agricultural labor affects women's productive and reproductive workloads, as well as gender dynamics and shifts in rural gender relations (Doss et al. 2021). In Nepal, a country with high rates of male outmigration, migration may increase women's mobility and decision-making roles after their husbands migrate, especially among Dalit and Janajati households, but wives with migrant husbands face stress from added responsibilities and workload, both domestic and care work and especially productive nondomestic work, which can lead to disempowerment (Kaspar 2005; Sijapati et al. 2017).

### Structural and institutional change

While exercising agency is at the core of women's empowerment, individual agency is constrained by structural conditions and gendered social norms, which are the informal institutions that dictate appropriate behavior for women and men. Thus, addressing structural and institutional barriers to

gender equality may be the most important step to transform gender relations. Women's voice and agency beyond the household level are critical for access to essential resources and decision-making power, which can contribute to resilience to climate change (Hidrobo et al. 2024; Njuki et al. 2022; Takeshima et al. 2022). The *2024 Global Gender Gap Report* highlights slow progress in women's empowerment in various spheres, including political empowerment; at the current rate of progress, it will take 134 years to close the gender gap. An interdisciplinary approach is key to addressing structural and institutional barriers, with important roles for social psychology, sociology, and political sciences (WEF 2024). Governments, international organizations, development organizations, the private sector, and civil society, especially women's organizations, can all play an important role in addressing these barriers. There are a growing number of tools to measure and address gender inequalities in rural institutions and governance, including the Social Institutions and Gender Index (SIGI) and the Women's Empowerment in Agrifood Systems (WEAGov) assessment tool (ElDidi et al. 2021; OECD 2023). Understanding the interplay between the mutually reinforcing areas of empowerment and structural/institutional change will be an important area of future research to highlight potential entry points for meaningful change across the system.

Recent research highlights the crucial role of aspirations and locus of control—the degree to which people believe that they, rather than outside forces, can control outcomes of events in their own lives—in overcoming poverty, showing that a positive mindset can empower individuals to strive for better outcomes (Jayachandran 2018). A study in Kyrgyzstan finds that women with higher aspirations are more likely to espouse egalitarian gender attitudes, as are their husbands, who themselves have higher aspirations. These women play a greater role in household decision-making, and their spouses are more likely to agree with them about women's roles in decision-making (Kosec et al. 2022).

Women often perceive that they have limited agency over their lives, which can reduce their motivation to pursue progress and change. Role models offer a powerful mechanism to boost aspirations for the future. Successful women entrepreneurs, government officials, or private-sector leaders offer examples of the possibilities that can be achieved. Exposure to a female role model in popular media can significantly improve the educational outcomes of female students (Riley 2024). The influence of role models extends beyond media and can be mediated by various actors, including teachers, politicians, family members, and siblings.

To address systemic and institutional barriers effectively, involving men in interventions is critical. In some contexts, women's decision-making is

perceived as threatening to masculinity, even if women report their spouses consulting them before taking a decision (Meinzen-Dick et al. 2019). Spousal approval may dictate women's access to credit, either in terms of women needing to seek permission to participate in credit groups or men exerting undue influence on how borrowed funds should be spent. However, projects that involved men have been able to slowly change behavior and task-sharing. For example, discussions with program staff in the Nepal JP RWEE project indicate that men willingly took on additional reproductive work and shared women's workload. The positive impact of GALS-related interventions on men and women alike in Kyrgyzstan is consistent with emerging evidence from other countries (for example, a gender and nutrition agricultural intervention in Bangladesh that trained husbands and wives together) that involving both men and women in gender-transformative approaches, rather than focusing on women alone, may be key to effective and sustainable programs (Quisumbing et al. 2021, 2023). By not involving men, program designers may be making incorrect assumptions about men's ability and willingness to change. For example, a study in Saudi Arabia reveals that men often misjudge their peers' support for women working outside the home (Bursztyn et al. 2020). Correcting these misconceptions has been shown to increase the likelihood of women securing higher-paying jobs. Similarly, in Uganda, exposing men to videos that challenge gender stereotypes in agriculture has been shown to enhance women's empowerment within the sector (Lecoutere et al. 2023).

## Concluding remarks

This retrospective and prospective view of gender research shows that challenging the assumptions underlying household models, whether the unitary model or the reliance of many collective models on the bargaining model, may be key to understanding household behavior and discovering policy instruments to influence that behavior. The finding that increasing women's control of resources improved children's education, health, and nutrition inspired the design and rigorous testing of Mexico's PROGRESA, which led to the design and implementation of conditional cash transfer programs worldwide. In turn, impact evaluations of these new programs—and their expansion into different countries, contexts, and areas of intervention—generated new evidence that expanded our understanding of household behavior.

Many of the programs targeting women viewed women's empowerment as instrumental to achieving development objectives. However, the recognition

of women's empowerment and gender equality as intrinsically valuable created the impetus to measure them better, motivate policy action, monitor progress, and ascertain what works. This led to the development of empowerment metrics, such as the WEAI and its variants and the recently developed WEMNS, in collaboration with country and institutional partners.

IFPRI and partners have long engaged in research and development of innovative measurements and tools on gender norms and on women's voice and leadership in policy processes and governance. At the project level, collaborating with partners on the co-design and rigorous testing of gender-responsive and gender-transformative policies, programs, and innovations has shown that merely having empowerment objectives is not enough. Intentional gender programming and transformative approaches are needed to increase women's empowerment and achieve gender equality in the longer run. Generating evidence and taking action are two important parts of a process for policy research to influence programs and policies, and for those policies themselves to expand the evidence base for our understanding of gender dynamics and household behavior. Acknowledging the complementarity of research and action will enable us to better address the research and policy gaps in the areas of intersectionality, life cycle and demographic factors, and structural and institutional change.

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