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Measuring Women's Empowerment in Agriculture: Innovations and Evidence

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ABOUT THIS SERIES

The working paper, produced by the CGIAR GENDER Impact Platform, is one in a [series of analytical working papers](#) by our researchers. They were produced to inform the Food and Agriculture Organization of the United Nations to write the 2023 report on the Status of *Rural Women in Agri-food Systems*.*

These evidence-based papers address key themes important for gender and social equality, and women's empowerment in agriculture and food systems. They each discuss:

- current status and emerging thinking
- the theme's relevance for transformative change toward more inclusive food systems
- the evolution of equality in agriculture and food systems over the past 10 years in low- and middle-income countries
- what has proved effective to ease structural constraints, and promote equality and empowerment
- specific suggestions about interventions, programs and policies that can help make agriculture and food systems more inclusive.

COVER PHOTO CREDIT: CIMMYT/M. DeFreese. *Farmer weeding maize field in Bihar, India.*

ABOUT CGIAR GENDER IMPACT PLATFORM

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

* FAO. 2023. *The Status of Women in Agri-food Systems*. Rome.

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

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TABLE OF CONTENTS

Abstract	vi
1. Overall framing	1
2. Background	2
3. Emerging thinking around women's empowerment and food systems	3
4. Relevance	5
5. Progress on women's empowerment and gender equality	6
5.1. <i>Evolution of the conceptualization and measurement of women's empowerment</i>	6
5.2. <i>Data</i>	8
6. What works to close the empowerment gap?	8
6.1. <i>Evidence from a portfolio of agricultural development projects</i>	8
6.2. <i>Livestock interventions and women's empowerment: what works</i>	13
7. Additional benefits to closing the empowerment gap	15
7.1. <i>Children's diets and nutrition</i>	16
7.2. <i>Women's diets and nutrition</i>	17
7.3. <i>Household food security</i>	18
7.4. <i>Agriculture</i>	18
7.5. <i>Other well-being outcomes</i>	19
7.6. <i>Summary</i>	19
8. Key messages and policy recommendations	20
References	22
Annex and glossary (available online)	28

Abstract

This paper addresses women's empowerment in agriculture and discusses innovations in measuring it and emerging evidence on its relationship to development outcomes. Women's empowerment and gender equality are at the core of gender-transformative change in agriculture and a more holistic and inclusive approach to how we address gender in agriculture. We discuss the evolution of our conceptualization and measurement of women's empowerment and how thinking about gender equality and women's empowerment has advanced in the decade since the 2010–2011 SOFA. Recent empowerment measures draw upon Kabeer's definition of empowerment as a process that expands a person's strategic life choices, particularly for those who had been denied this opportunity. Using a Gendered Food Systems framework and a standardized measure of women's empowerment, the Women's Empowerment in Agriculture Index (WEAI), we review the evidence on "what works" to empower women based on impact evaluations of a portfolio of 11 agricultural development projects with empowerment objectives and a scoping review of livestock interventions. We then review the evidence on associations between empowering women and societal benefits in terms of agricultural productivity, incomes, food security, and nutrition. We conclude with recommendations for measurement and policy.

Keywords: gender equality, social equality, women's empowerment, intersectionality, food systems, livestock, nutrition, food security, agricultural productivity

1. Overall framing

Women's empowerment and gender equality are at the core of gender-transformative change in agriculture and a more holistic and inclusive approach to how we approach gender in agriculture. The framing has shifted from women's empowerment as instrumental in achieving other objectives related to health and nutrition (Sraboni et al. 2014; Galiè et al. 2019; Heckert, Olney and Ruel 2019), productivity (Diirro et al. 2018) and resource management (e.g., Sodhi, Davidar and Rao 2010), to being an objective of agriculture and food systems interventions (Elias et al. 2021).

Compared to women's empowerment, gender equality is relatively straightforward to conceptualize, and the increase in sex-disaggregated and intrahousehold data has expanded available data on gender equality in many areas. Empowerment is a more complex concept, and the choice of conceptual definition of empowerment has implications for measurement. Kabeer (1999) defines empowerment as the processes by which those who have been denied the ability to make strategic life choices acquire such an ability. Empowerment can be thought of as exercising choice over three dimensions: resources, agency and achievements. Other conceptual definitions of empowerment exist, such as the typology of power (Rowlands 1995, 1997), which juxtaposes the notion of dominating or exerting "power over" others with generative forms of empowerment, including "power within" (involving self-respect, self-efficacy and an awareness of rights), "power to" (enacting personal goals) and "power with" (acting collectively toward shared interests).

Heightened attention is being paid to empowerment in the global agenda, including through SDG 5. Concurrently, advances in the measurement of women's empowerment (Malapit et al. 2019b) mean that we now have more evidence than when the *State of Food and Agriculture 2010–2011* (SOFA) was published. Advances in the conceptualization of the agriculture and food sector, particularly new thinking on food systems, has also led to recognition of the multiple relationships between women's empowerment and gender equality and food systems outcomes (Njuki et al. 2022). Although empowerment is the right of all individuals regardless of their livelihoods or location, we focus on women's empowerment in agriculture and food systems given the importance of women in these sectors. According to FAO unpublished estimates, even if the female share of employment in agriculture and food systems has slightly declined globally (from 39.9 percent in 2005 to 38.3 percent in 2019, and from 49.3 percent to 48.3 percent in low- and middle-income countries (LMICs), a decline mostly driven by the agricultural sector, it is partly compensated for by an increase in nonagriculture food system sectors, where female participation is higher than in agriculture and has increased (from 44.1 percent in 2005 to 45.7 percent in 2019, with substantial variation across regions and countries) (FAO 2022).

In this paper we provide an overview of the evidence on women's empowerment, focusing on the agricultural sector, and describe how thinking about gender equality and women's empowerment has advanced in the decade since SOFA 2010–2011. We then examine the relevance of women's empowerment and what has been effective in empowering women. Based on a review of evidence on effects of empowering women on societal benefits in terms of agricultural productivity, incomes, food security, nutrition and environmental benefits, we make recommendations for measurement and policy.

2. Background

The concept of women's empowerment was brought to the 1995 Fourth World Conference on Women in Beijing, where the focus on the advancement and empowerment of women was included in the Beijing Declaration (UN 1995). The international community highlighted the need to challenge patriarchal and intersecting structures that subordinate women in society and create gender inequalities. Today, gender equality and the empowerment of women and girls is the focus of SDG5.

While gender inequalities related to rights, resources and responsibilities in the agricultural sector have been well documented (and are addressed in other working papers), less well documented are gaps in empowerment and agency between men and women, owing to the lack of individual-level data and the lack of consensus on how to define and measure empowerment and agency. In particular, a lack of conceptual clarity around the term "empowerment" as mobilized in the international development agenda, along with the subversion of the term in neoliberal political agendas, has diluted the concept that social activists brought to the table in Beijing (Batliwala 2007; Cornwall and Rivas 2015; Nazneen; Hossain and Chopra 2019).

Drawing on Kabeer's conceptualization of empowerment, there are three main elements to consider: resources, agency and achievements. On one hand, there is more evidence on gender equality in resources and achievements than on agency because of the existence of established metrics and rapidly increasing availability of sex-disaggregated, individual-level data (e.g., LSMS-ISA).

The typical achievements measured include poverty, income, wealth, nutrition/health (women's and children's), education, etc. While these measures of achievement provide information about gender gaps, they are not directly aligned with Kabeer's concept of empowerment, which is about goals that are unique to individuals. While the achievements that are measured may be linked or associated with individual goals, they may not provide a full picture of whether achieving them means the person is achieving their own goals.

On the other hand, data on agency remains scarce, especially at the national level. Much of the existing data either comes from individual projects and/or is only representative at subnational levels. Agency is also arguably more difficult to measure. The most common way of measuring agency has been to consider women's (and men's) participation in different decisions, typically within the household. While this captures part of agency, it does not fully depict the concept of agency, defined as "the ability to define one's goals and act upon them" (Kabeer 1999, 438). Kabeer (1999) explains that while decision-making is often used to measure agency, it can also take other forms that are unobservable (and thus difficult to measure), such as negotiation, manipulation, subversion and resistance, and it is closely related to the idea of "power within" as presented by Rowlands (1997).

Even the current use of participation in decision-making to measure agency has some challenges. Typically, this is measured as women's own reporting about their participation (or ability to participate) in household decision-making processes. It is also often discussed in terms of autonomous decisions, those decisions women make alone, versus joint decisions, those made with spouses and/or others. It is not always clear what reported joint decision-making means in terms of agency. In some cases, a joint decision could mean that women are gaining agency/voice/decision-making power—they are making decisions and acting upon their goals. In other cases, a joint decision may mean that someone else (a spouse, for example) has a say and could thus impede a woman's ability to make choices and act upon her goals. In Uganda, Acosta et al. (2019) found that

joint decision-making can mean multiple things: from being informed (either before or after a decision has been taken) to participating in conversations about the decision.

Furthermore, it is not clear that the decisions included in measures of women's empowerment are related to women's own goals. Kabeer's definition of empowerment focuses on gaining the ability to make strategic life choices—in other words, to achieve one's own goals. This implies two things. First, a change over time, that is, a transformation from not being able to make one's own choices to having that ability. Second, this focus is on strategic life choices. This implies focusing on one's own goals.

3. Emerging thinking around women's empowerment and food systems

Over the past 10 years, driven by an increase in donor interest in this area and by the imperative of monitoring progress toward the SDGs, approaches and tools to measure gender (in)equality and women's empowerment in agriculture and food systems have proliferated. While efforts to assess empowerment were previously focused mainly on qualitative understandings of empowerment, primarily from the perspectives of those whose empowerment was being assessed (emic perspectives), these more recent efforts have attempted to quantify women's empowerment and shifts therein related to women's participation in agriculture, nodes of the agricultural value chain beyond production, and food systems more generally.

The complex, multidimensional and context-specific nature of empowerment makes assessing it a challenging task. Increases in the availability of sex-disaggregated and intrahousehold data have improved assessment of the extent of gender equality in resources and achievements, but measuring agency has been more challenging. Some measurement approaches capture changes in empowerment as a process, and others as an outcome. Assessing empowerment as a process is especially challenging because it is often attempted at one point in time but must capture forward and backward movements and trajectories.

As scholars who have studied empowerment have shown, assessments should capture “different dimensions and sites of empowerment in a more holistic way, one that aims to understand the relational dynamics of power and positive change at a variety of levels, in different spaces and over time” (Cornwall 2016, 345). Most attempts to measure empowerment have collected cross-sectional data or asked respondents to recall their experiences retrospectively. These types of data have limitations compared to the use of panel data on empowerment outcomes, which are better equipped to examine longitudinal trajectories of women's empowerment and can complement qualitative assessments that focus on trajectories. Furthermore, the desire to measure across countries must be balanced with attempts to assess the contextual nature of empowerment (Richardson 2018).

Tools for measuring empowerment can be clustered roughly into four groups: tools that focus only on one dimension (resources, agency or achievements) and which assess empowerment at one level (individual, relationship or environmental); those that focus on one empowerment dimension but at multiple levels; those that use a multidimensional approach to assessing empowerment at one or more levels; and those that explore the three dimensions of empowerment at the three levels of inquiry—personal, relational and environmental. A comprehensive review of these tools (Elias et al. 2021) provides insights into the current state of efforts to measure women's empowerment (figure 1):

- First, most of the reviewed tools recognize the multidimensional and multilevel nature of empowerment in assessments, which bodes well for bringing some of the complexity of the concept into agricultural research for development (AR4D) thinking and practice.
- Yet many tools fall short of carefully exploring changes at the environmental and institutional level, and thus of shedding light on structural causes of gender inequality.
- Third, although many AR4D interventions focus on enhancing rural women’s (and men’s) resources—tangible and “countable” areas of change, such as income and assets, which are market-driven values (Narayan-Parker 2005, Cornwall 2014)—the tools reviewed focus less on this dimension of empowerment.
- Within their focus on agency, most tools explore instrumental agency (“power to”) rather than changes in intrinsic (“power within”) and collective agency (“power with”). This may be related to the difficulty of assessing the multiple dimensions of agency.

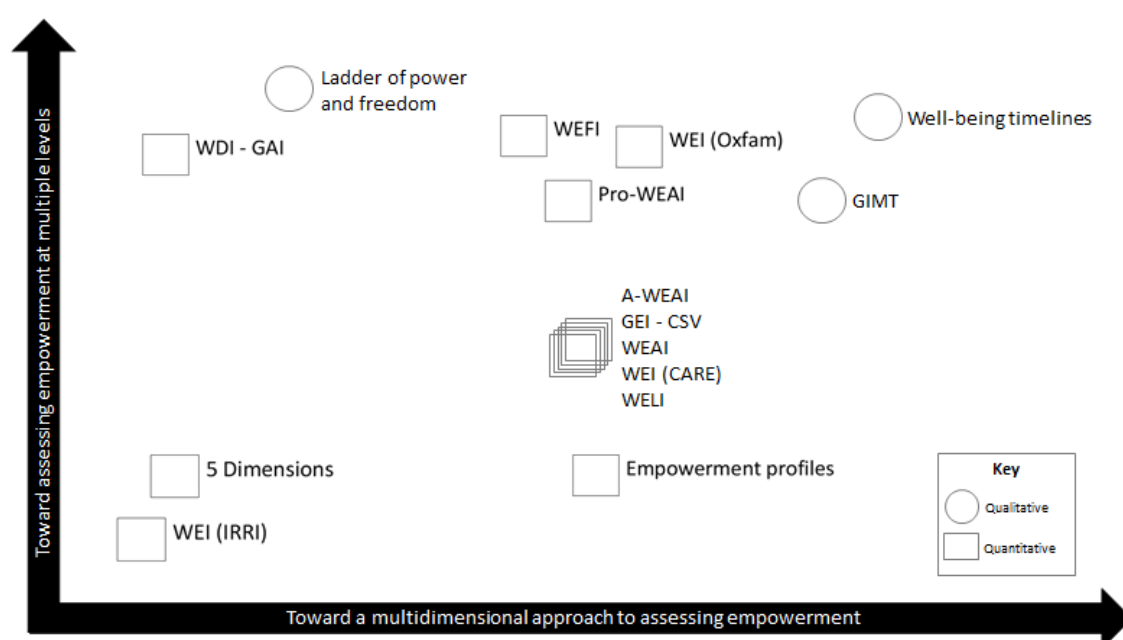


Figure 1. Mapping of empowerment measurement tools by dimension and level of empowerment

Key: WEI (IRRI): Women’s Empowerment Index, International Rice Research Institute; 5 Dimensions: Comparison of the Five Dimensions of Men’s and Women’s Empowerment; WDI-GAI: Women’s Decision-Making Index and Gender Attitudes Index; WELI: Women’s Empowerment in Livestock Index; WEI (CARE): Women’s Empowerment Index (CARE); WEAI: Women’s Empowerment in Agriculture Index; GEI-CSV: Gender Empowerment Index for Climate Smart Villages; A-WEAI: Abbreviated WEAI; Pro-WEAI: Project-level WEAI; WEI (Oxfam): Women’s Empowerment Index (Oxfam); WEFI: Women’s Empowerment in Fisheries Index; GIMT: Gender Indicator Monitoring Tool (CARE)

Source: Elias et al. (2021)

While all tools focus their assessments of the agency dimension of empowerment mostly at the personal and/or relational level, the majority situate the analysis within the household, a formerly often-neglected domain, particularly looking at relations among spouses. Some tools rely on interviews of women only, whereas others rely on interviews with both women and men, often, but not exclusively, within the same household. Discussions of intersectionality in relation to measuring women’s empowerment in AR4D remain, surprisingly, limited.

Quantitative tools for assessing women's empowerment in food systems use an etic (externally defined) perspective when defining or conceptualizing empowerment, with some exceptions. In contrast, the qualitative tools mostly, but not exclusively, use an emic perspective (the perspective of the respondent herself). Combining qualitative and quantitative methods in the measures themselves is less common, although recent metrics integrate qualitative data to a greater extent or use it for triangulation. For example, the pro-WEAI (Malapit et al. 2019b) has a suite of associated qualitative protocols, and Jayachandran, Biradavolu and Cooper (2021) used qualitative methods and machine learning to recommend a smaller set of questions to measure empowerment in rural India.

4. Relevance

Empowering women and attaining gender equality is definitional to gender-transformative change in agriculture, food systems and livestock production. Although *SOFA 2010–2011* addressed gender gaps, they were mostly in resources and achievements—it did not look at gender gaps in empowerment or agency, nor at transformation of gender norms.

Women's empowerment and gender equality are important for two reasons. First, these goals are intrinsically important, as evidenced by their elevation to SDG5: "Achieve gender equality and empower all women and girls." Second, women's empowerment and gender equality are also important for their instrumental value, because they help to attain other development objectives. The *SOFA 2010–2011* made a convincing case that gender gaps in access to resources had opportunity costs in terms of productivity. It took an instrumentalist view that gender equality was important because it contributed to the attainment of other development goals like increased productivity, incomes and food security. It did not address the goal of women's empowerment, gender equality and transformation in gender norms as goals in themselves.

The recognition of women's empowerment and gender equality as intrinsically important goals means that we need to measure, monitor and better understand processes of empowerment. Such understanding, achieved through quantitative and qualitative assessments, can help us further refine tools and concepts. Measuring and monitoring gender equality also implies that data needs to be collected on men.

Assessing empowerment in agriculture and food systems can help advance women's empowerment and gender equality in at least four ways:

- Quantitative and qualitative assessments of empowerment can support holistic design of projects, programs and policies.
- Assessments are needed to monitor whether and how initiatives such as projects, programs, policies or social movements and efforts led by women's organizations are contributing—positively or negatively—to women's empowerment.
- Measuring and/or assessing empowerment serves to build upward and downward accountability and credibility (Batliwala and Pittman 2010).
- The assessment process itself can challenge power relations (Hillenbrand et al. 2015).

5. Progress on women's empowerment and gender equality

Gender inequalities remain severe in many agriculture-dependent, LMICs. The Global Gender Gap Index shows that since 2006 the total progress made toward gender parity amounts to just 3.6 percentage points—an average reduction of 0.24 of a percentage point per year (WEF 2021). Based on the index's current trajectory, it will take 135.6 years to close the gender gap worldwide—a slowdown in pace of 36.1 years from 2020 due to the disproportionate impact of the COVID-19 pandemic on women (WEF 2019; 2021).

These findings align with the lack of progress on achieving the SDGs. The 2022 SDG Gender Index shows that no country included in the index is on track to hit the targets for every SDG-aligned gender indicator by 2030 (EM2030 2022). The index continues to show wide disparities in scores between the highest achieving regions, Europe and North America, and the rest of the world (EM2030 2022).

5.1 Evolution of the conceptualization and measurement of women's empowerment

More than a decade ago, the SOFA 2010–2011 report stated that closing the gender gap in agriculture was essential to increasing agricultural productivity, achieving food security and reducing hunger (FAO 2011). This statement was typical of the policy discourse at the time, which saw explicit links between gender equality and development outcomes, but not yet between women's empowerment and these same outcomes (Alkire et al. 2013). This focus can partly be attributed to lack of conceptual clarity, at the time, around how women's empowerment should be defined and measured and lack of availability of high-quality, sex-disaggregated data (Buvinic, Furst-Nichols and Koolwal 2014; Desai et al. 2022; Elias et al. 2021; World Bank 2011). Since 2011, considerable progress has been made on both fronts.

Research on women's empowerment has risen exponentially since 2000. While different perspectives on the measurement of women's empowerment still exist, the field has generally coalesced around a conceptual definition of empowerment based on the work of Naila Kabeer. Analyzing more than 9,000 peer-reviewed articles published on women's empowerment between 1999 and 2019, Priya, Venkatesh and Shukla (2021) found that Kabeer's (1999) article in *Development and Change*, in which she defines empowerment 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, was cited more than any other article.

Tremendous progress has also been made since 2011 on the measurement of women's empowerment in the context of agriculture-dependent, LMICs, with great improvement, in particular, on the direct, quantitative measurement of different aspects and levels of women's agency (Desai et al. 2022; Elias et al. 2021).¹ Whereas different disciplines traditionally prioritized the measurement of different aspects of agency, interdisciplinary approaches have gained ground since 2011, including several multidimensional indices of women's empowerment.²

1. Direct approaches to measuring women's agency, which aim to directly measure the expression of agency, contrast with indirect approaches, which focus on measuring the material or economic resources that shape women's ability to exercise agency (Desai et al. 2022). The latter has traditionally been viewed as straightforward, as information on access to many resources is routinely collected in household surveys (e.g., land ownership, educational attainment or employment).

2. For example, psychologists have tended to measure intrinsic agency through related concepts, such as self-determination and self-efficacy (Bandura 1997; Ryan and Deci 2000), whereas economists, rooted in intrahousehold bargaining theory, have focused on assessing instrumental agency by measuring women's participation in intrahousehold decision-making (Laszlo et al. 2020; Doss 2013).

Launched in 2012, the WEAI measures women's agency and inclusion in agriculture across five domains—production, resources, income, leadership and time—and is calculated based on survey interviews with women and men from the same households (Alkire et al. 2013). The WEAI comprises two subindices: the Five Domains of Empowerment index (5DE), which measures women's empowerment at the individual level, and the Gender Parity Index (GPI), which directly compares the empowerment of women and men from the same households. Used in 58 countries and 230 organizations as of December 2021, data collected using the WEAI family of indicators provides the most comprehensive picture of women's empowerment in agriculture and the empowerment gap between men and women across continents and contexts.

Prior to the launch of the WEAI, most quantitative metrics of women's empowerment had been unidimensional (i.e., focused on measuring a single aspect of agency) or indirect (i.e., focused on measuring women's access to material or economic resources) and were often calculated based on country-level statistics, rather than self-reported, individual-level data. No existing metric exclusively focused on measuring women's agency within the agricultural sector.

In the years following the launch of the WEAI, there has been a proliferation of multidimensional empowerment indices based on the Alkire-Foster (2011) methodology using individual-level data. Some are directly related to the WEAI, such as abbreviated WEAI (A WEAI) and project-level WEAI (pro WEAI). A WEAI measures the same domains of empowerment as the WEAI but uses a subset of the original indicators. Pro WEAI, which combines qualitative and quantitative data, shares a core set of common indicators with A WEAI but includes additional indicators to improve its ability to track change in empowerment as a result of agricultural interventions. A more recent version of pro WEAI, the pro WEAI for market inclusion (pro WEAI+MI), examines women's empowerment along the value chain, considering the empowerment environment and factors such as sexual harassment in the workplace.

Other recent multidimensional empowerment indices use the same underlying Alkire-Foster methodology but focus on measuring empowerment in different domains (see figure 1 for several examples). The Women's Empowerment in Fisheries Index (WEFI) adapts the WEAI to a fisheries context, in addition to other changes, such as the inclusion of a gender-norms component (Cole et al. 2020). The Women's Empowerment in Livestock Index (WELI) adapts the WEAI to settings where livestock farming is the dominant form of livelihood and adds a domain on decisions related to nutrition (Galiè et al. 2019). The Women's Empowerment in Nutrition Index (WENI; Narayanan et al. 2019) and abbreviated WENI (A-WENI; Saha and Narayanan 2022) use the Alkire-Foster methodology but rely on a set of indicators quite different from those in the WEAI to measure empowerment in four domains: food, health, fertility and institutions. Notably, unlike the WEAI family of indices, the WEFI, WELI and WENI do not provide direct estimates of the empowerment gap between men and women.

Others recent indices use publicly available data from Demographic and Health Surveys (DHS), including the Survey-Based Women's Empowerment Index (SWPER; Ewerling et al. 2017), SWPER Global (Ewerling et al. 2020) and Female Empowerment Index (Rettig et al. 2020). Another survey-based index to measure empowerment across three domains (choices, values and norms) was recently developed and tested using data from India (Maiorano et al. 2021).

The aforementioned indices mostly use an etic (outsider) perspective when defining empowerment, though some used qualitative methods during index development. In contrast, Oxfam GB's Women's Empowerment Index uses an emic (insider) perspective to curate a set of indicators, used to construct the index, that represent the characteristics of an "empowered woman" in the particular socioeconomic context under analysis (Lombardini, Bowman and Garwood 2017). Qualitative tools have also been developed for measuring empowerment from an emic perspective, including the GENNOVATE Ladder of Power and Freedom (Petesch, Badstue and Prain 2018) and CARE's Gender Indicator Monitoring Toolkit (Hillenbrand et al. 2015).

5.2 Data

The *World Development Report 2012* identified the availability of “gender-relevant data” as a key challenge for advancing gender equality, noting that “[k]nowledge about what happens within households continues to be, at best, insufficient and, at worst, nonexistent” (World Bank 2011, 369). Similarly, Data2X identified women’s economic opportunities, particularly in the agricultural sector, as a key data gap hindering progress toward gender equality (Buvinic, Furst-Nichols and Koolwal 2014).

In recent years, several actions have been taken to close gender data gaps. Since 2011, the World Bank’s Living Standards Measurement Studies—Integrated Surveys on Agriculture (LSMS-ISA) program expanded coverage to eight countries in sub-Saharan Africa. LSMS-ISA surveys are one of the richest sources of timely and comprehensive data on agriculture—including information on women’s control over assets and participation in decision-making on important agricultural decisions—in the region and have been instrumental in pushing forward new research on gender and agriculture (e.g., see the 2015 special issue on gender and agriculture in sub-Saharan Africa in *Agricultural Economics*). More recently, the LSMS Plus program was launched to enhance the availability and quality of intrahousehold survey data collected in LMICs on key dimensions of men’s and women’s economic opportunities and welfare (Kilic, Moylan and Koolwal 2021; Hasanbasri et al. 2021; 2022). Nevertheless, nationally representative data on women’s empowerment continues to be scarce. While there are global gender indices, such as the Global Gender Gap Index and SDG Gender Index, data on women’s empowerment exists predominantly at the subnational level, thus there are no comparable indices for tracking changes over time in women’s empowerment or comparing patterns across countries. The DHS program, which covers a wide range of countries, is a widely used source of data on decision-making but focuses more on the reproductive, rather than the productive, sphere. Work is currently underway on the development of a streamlined Women’s Empowerment Metric for National Surveys (WEMNS) for inclusion in national-level agricultural surveys as part of the 50x2030 Initiative.

6. What works to close the empowerment gap?

It is important to understand the factors that affect empowerment, so that appropriate interventions can be designed and implemented to close the empowerment gap between men and women. We draw on the conceptual framework from Njuki et al. (2022) (annex figure 1.1) to illustrate the relationships between various factors associated with empowerment and draw on an evidence review described in [annex 1](#). We draw on these results to interpret the findings from impact evaluations of a portfolio of agricultural development projects with women’s empowerment objectives and a systematic review of livestock interventions and empowerment.

6.1 Evidence from a portfolio of agricultural development projects

Impact evaluations that explicitly treat women’s empowerment and gender equality as outcome variables are important sources of evidence on what works to empower women and close the empowerment gap. We draw on a synthesis of impact evaluations conducted across the portfolio of the Gender, Agriculture and Assets Project, Phase 2 (GAAP2)

(Quisumbing et al. 2022). The GAAP2 portfolio (annex table 2.1) consists of 13 agricultural development projects that co-developed the pro-WEAI (Malapit et al. 2019b) and used it to evaluate their projects' impacts on women's empowerment and gender equality. Pro-WEAI has three domains and 12 indicators. The instrumental agency (power to) domain has the most indicators, including: (1) productive decisions, (2) asset ownership (including land), (3) access to credit and financial services, (4) control over the use of income, (5) work balance and (6) visiting important locations. The intrinsic agency (power within) domain has four indicators: (1) autonomy in income decisions, (2) self-efficacy, (3) attitudes toward intimate partner violence against women and (4) respect within the household. Finally, the collective agency (power with) domain has two indicators: (1) group membership and (2) membership in influential groups.

In addition to women's empowerment, all projects aimed to improve nutrition outcomes, and some projects also aimed to improve incomes. The strategies they used to empower women can be broadly classified as including (1) providing goods and services, (2) strengthening organizations, (3) building knowledge and skills and (4) influencing gender norms—though there was considerable variability in content of programming within each of these categories (table 1). Outcome indicators used were the aggregate and individual indicators that comprise pro-WEAI (annex table 2.2).

Table 1. Activity areas and specific activities to empower women in GAAP2 projects

Activity area	Specific activity	No. of projects using the activity as part of their strategy
Provide goods and services	Direct provision of goods/assets to beneficiaries	7
	Direct provision of services to beneficiaries	5
	Indirect provision by supporting availability, quality or access	2
Strengthen organizations	Form/strengthen groups or other organizations (such as enterprises)	8
	Form/strengthen platforms or networks that link organizations	1
Build knowledge and skills	Agricultural training and extension	10
	Business and finance training	6
	Nutrition education	8
	Other training	4
Influence gender norms	Awareness raising about gender issues and their implications	3
	Community conversations to identify community solutions to gender issues	8

Adapted from: Johnson et al. 2018, 13

Most of the GAAP2 projects provided goods and assets to beneficiaries (e.g., goats, financial services, improved seeds, technology packages) or facilitated the acquisition thereof (e.g., small-scale irrigation pumps). Although it is expected that this type of project strategy would affect instrumental agency indicators, such programs could potentially also affect aspects of intrinsic agency. For example, Hillesland et al. (2022) found that a microfinance intervention delivered through rural savings and credit associations in Oromia, Ethiopia had a positive impact on the respect among household members indicator for the beneficiaries who were able to maintain access to credit through the microfinance intervention between the baseline and endline.

Most of the projects also used group-based approaches. Membership in these groups can reflect aspects of collective agency and also provide access to different types of resources such as information, technology, credit and other inputs. An impact evaluation of a nutrition-

intensification platform layered on an existing self-help group platform run by a large Indian nongovernmental organization, in five states of rural India, found that self-help group membership has a significant positive impact on aggregate measures of women's empowerment and reduces the gap between men's and women's empowerment scores (Raghunathan, Kanna and Quisumbing 2019; Kumar et al. 2021). In Burkina Faso, savings group members who received a comprehensive intervention package reported an increase in the average number of empowerment indicators that they were adequate in, while the comparison group saw a decrease in average adequacy over time (Crookston et al. 2021).

Training and building of knowledge and skills were also important parts of the GAAP2 projects' strategies, and there is suggestive evidence that the mode of providing extension matters. For example, an impact evaluation was conducted of a pilot project in Bangladesh that randomized the provision of agriculture, nutrition and gender-sensitization training to husbands and wives jointly (Quisumbing et al. 2021a). Findings suggest that the positive impacts of each type of training on women's empowerment outcomes may have arisen from implementation modalities that provided information to both husbands and wives when they were together.

Approaches to changing gender norms varied across the portfolio. Some projects worked only with women (such as the self-help group project in India), whereas two projects in Bangladesh worked with both women and men, as well as with community leaders and influential members of their household.

Annex table 2.3 presents the results for women's and men's empowerment status (whether the individual was empowered), their respective empowerment scores and whether the household achieved gender parity. Although all these projects had empowerment objectives, most of the impacts on women's (and men's) empowerment were insignificant (figure 2), and most projects did not have a significant positive impact on gender parity (figure 3).

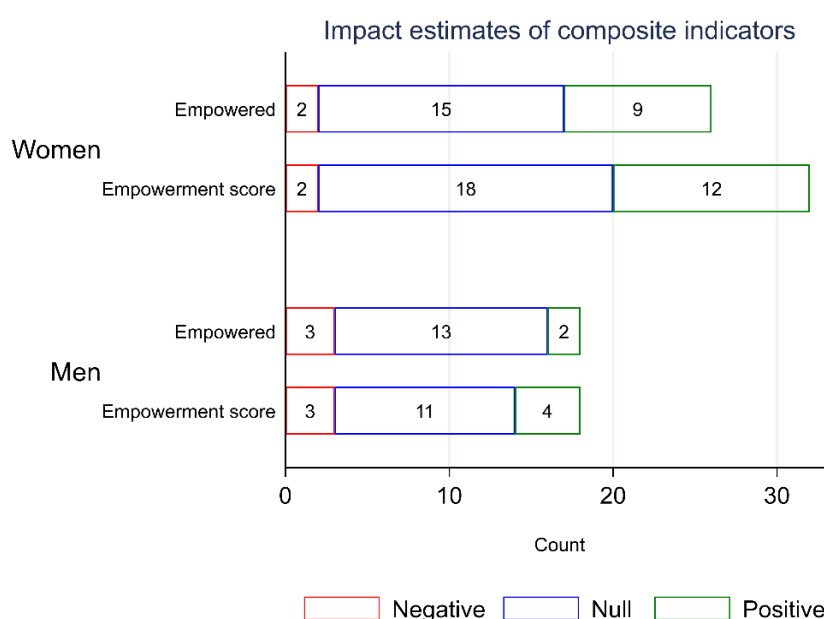


Figure 2. Distribution of GAAP2 portfolio impacts on women's and men's empowerment status and empowerment scores. Source: Quisumbing et al. (2022)

Notes: 'Count' refers to the number of estimated impact coefficients across treatment arms in the GAAP2 portfolio. 'Empowered' denotes whether the individual is empowered (binary): an individual is defined as empowered if they achieved an empowerment score of at least 80 percent (A-WEAI) or 75 percent (pro-WEAI). The empowerment score (continuous) is the proportion of indicators in which a respondent is adequate.



Because the pro-WEAI comprises several indicators that may move in different directions, changes in the aggregate index may mask changes in the component indicators. For example, an increase in the ability to make productive decisions may be counterbalanced by a deterioration in the work balance indicator (an increase in workload). The changes in the individual indicators offer more information to program designers and implementers because these can be directly observed (e.g., the number of assets a woman owns). These indicator-specific estimates also provide information on what aspects of empowerment are more directly affected by the program.

Figures 4 and 5 show the distribution of the estimated coefficients on the continuous indicators, for women and men, respectively.³ Most of the significant impacts are on instrumental agency indicators, possibly because these are more easily targeted and monitored by projects. Several instrumental agency indicators are significantly affected: (1) the number of activities for which the woman controls income, (2) the number of assets she controls (including land) and (3) the number of credit or financial services on which she decides. Reflecting the group-based approaches used in these projects, there are positive impacts on the number of groups to which a woman belongs. There are very few projects that have impacts on aspects of intrinsic agency. Although there were very few significant impacts on men's indicators, it is important to note negative impacts on men, because they may indicate possible backlash against women's empowerment projects.

Measuring Women's Empowerment in Agriculture: Innovations and Evidence 11

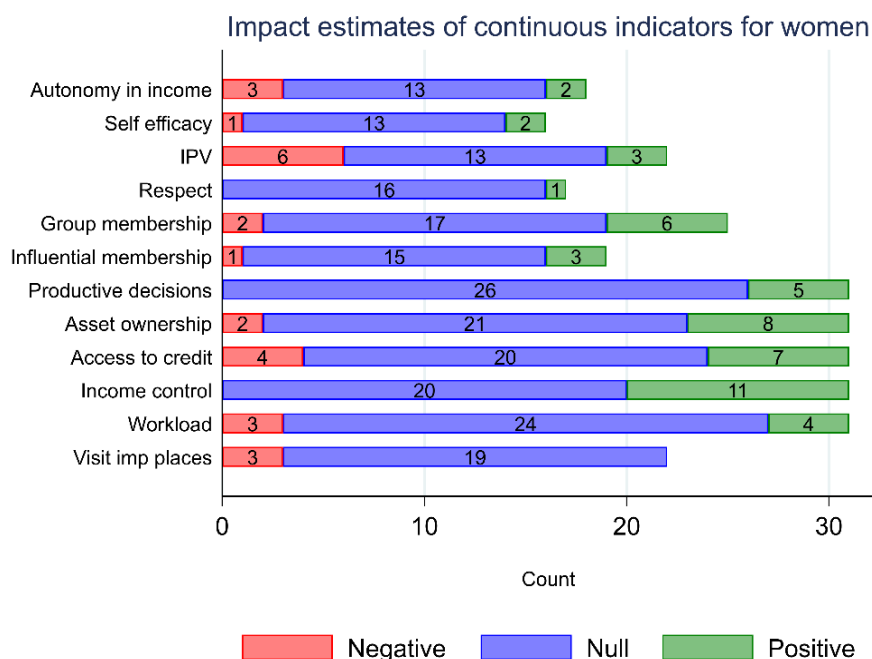


Figure 4. Distribution of estimated coefficients on women's pro-WEAI indicators. Source: Quisumbing et al. (2022)

Note: the count refers to the number of estimated impact coefficients across treatment arms in the GAAP2 portfolio.

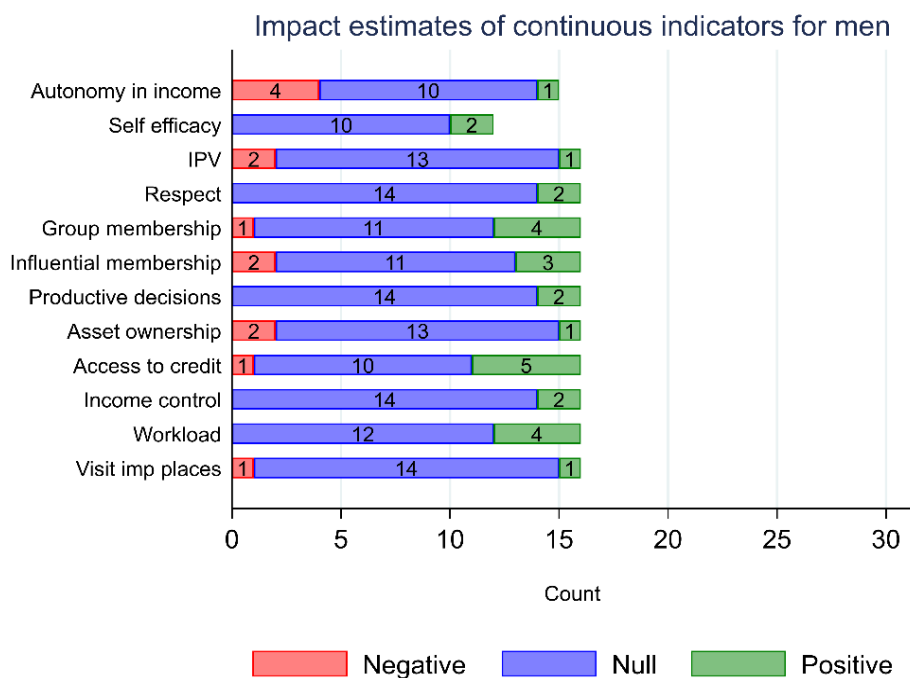


Figure 5. Distribution of estimated coefficients on men's pro-WEAI indicators. Source: Quisumbing et al. (2022)

Note: the count refers to the number of estimated impact coefficients across treatment arms in the GAAP2 portfolio

Regressions of the projects' impact coefficients on whether the project had a specific type of strategy, controlling for region, indicate that projects with a capacity-building strategy are associated with larger estimated impacts on women's credit sources and the number of locations she can visit (annex table 2.4). Surprisingly, projects with strategies to change gender norms do not have any significant impacts on instrumental, intrinsic or collective-agency indicators. Norm change is a long-standing process that may require months or years to yield a measurable difference in norms. It is thus unsurprising to find no associations in the quantitative data within the limited time frame of the impact assessments. Nevertheless, findings from seven qualitative studies of projects within the portfolio reveal that beneficiaries perceive capacity-building projects as having a strong, positive influence on their self-efficacy. Although none of the strategies show any significant impact on the size of the impact estimates on the collective-agency indicators, qualitative findings indicate that these strategies were effective because they were delivered in a group-based format. These results highlight the challenges for projects that aim to contribute to women's empowerment. Deliberate strategies are important, but they need to be adapted to the context and implemented carefully. Further work is needed to identify what works, under what conditions and through what mechanisms. Consistent ways of measuring empowerment are an important first step toward building this knowledge base; qualitative research can help understand the context and mechanisms.

6.2 Livestock interventions and women's empowerment: what works

The livestock sector has attracted attention as an arena for pursuing women's empowerment objectives. The sector is key to women's empowerment in many LMICs; women are the majority of small-scale livestock keepers in these countries and livestock play key roles in supporting livelihoods, nutrition, social status and resilience (Randolph et al. 2007). Unless women's empowerment is supported, livestock development and its associated benefits will lag behind. At the same time, livestock can provide key entry points to support the empowerment of women. Women can own livestock—particularly the smaller species—more easily than other assets (such as land and machinery); they can control the revenues generated from their livestock often without consulting their menfolk; livestock help women satisfy their traditional role as nutrition providers by providing animal source foods on a daily basis; women can invest in livestock to build their asset base in the absence of other financial institutions accessible to them; finally, women can use their livestock to face crisis by selling them in case of an urgent need for cash or keeping them in case of divorce (Galiè et al. 2022a). Livestock business, for example the sale of milk and eggs, can also provide income-generating opportunities that are often scarce for rural or peri-urban women (Galiè et al. 2022b).

However, regressive gender dynamics and norms, if not addressed, reduce the empowerment potential of livestock. Men own larger and more valuable species than women do; women tend to lose control over livestock-generated income in favor of men when this becomes lucrative (Tavener et al. 2019). Market-oriented livestock farming requires business interactions with unrelated men, which women are discouraged from by long-standing tradition; this reduces their access to input and output services, markets and other income-generating opportunities (Alesina, Giuliano and Nunn 2013; Price et al. 2018; Galiè et al. 2022b).

A scoping review conducted in 2021 and 2022 on the impact of livestock interventions on women's empowerment (and gender equality) identified 106 studies on the topic (Baltenweck et al. forthcoming). The authors adopted "decision-making," "division of labor" and "control over assets" as three broad outcomes to identify changes in women's empowerment. The most common livestock interventions that positively impacted women's empowerment include cooperatives and groups (e.g., supporting the formation of dairy cooperatives or brooder groups), followed by extension (e.g., provision of animal health or forage advice and inputs), training (e.g., on the benefits of artificial insemination or animal health practices) and education (table 2).

Table 2. Livestock interventions (number of interventions recorded in the 106 included studies)

Types of interventions	Number of studies
Groups/cooperatives	49
Extension, training, education	39
Productivity or husbandry	30
Access to output markets	27
Asset transfer	25
Access to inputs and services	25
Loans, microcredit	14
Total number of studies	106

Source: Baltenweck et al. (forthcoming)

Comparing the positive and negative impact of each type of intervention across all the *domains* of empowerment, the review found that loans and microcredit had the most positive impact across all measured indicators of empowerment, followed by asset transfer and extension, training and education (figure 6).⁴ Loans/microcredit, asset transfer/extension, and training/education had the highest impact on both “access to and control over income from livestock” and “access to and control over livestock assets,” and negative impact on “women’s labor and workload.” Most interventions generally had negative impacts on women’s labor and workload. When comparing the positive and negative impact of each type of intervention on each *indicator*, extension, training, education and groups/cooperatives were the interventions that most positively affected both “access to and control over income from livestock” and “access to and control over livestock assets.” Access to output markets emerged as the least positively impactful intervention overall.

Jumba et al. (2020) provide an example of how gender norms and dynamics influencing the distribution of labor and control over income may interact with a livestock vaccine intervention. In the studied communities of Tanzania, women provided labor for the livestock and men marketed the live animals and controlled the income earned. Because the livestock vaccine reduced the mortality of cattle, the women faced an increase in workload as they had to provide for the larger herds. This increased workload was not associated with an increase in the benefits they enjoyed because only the men sold the cattle and controlled the income. This not only resulted in women’s disempowerment, but it also reduced women’s support for the vaccine and consequently, its adoption by the households. Galiè and Kantor (2016) showed how, on the other hand, in some pastoral communities of Tanzania, women welcomed an increase in their labor associated with the introduction of improved goat breeds. These breeds had to be kept in the courtyard, given their susceptibility to disease. The courtyard was a space controlled by women, because the men spent most of their time in the savanna migrating with the herd of local breeds. As a result, women were tasked not only with looking after the new breeds but also with controlling the increased milk production, which they used to feed the children and earn some cash. Clearly, local context affects the way gender dynamics and norms interact with livestock interventions and affect women’s empowerment.

4. Source material for this figure is in annex 2, table 2.5.

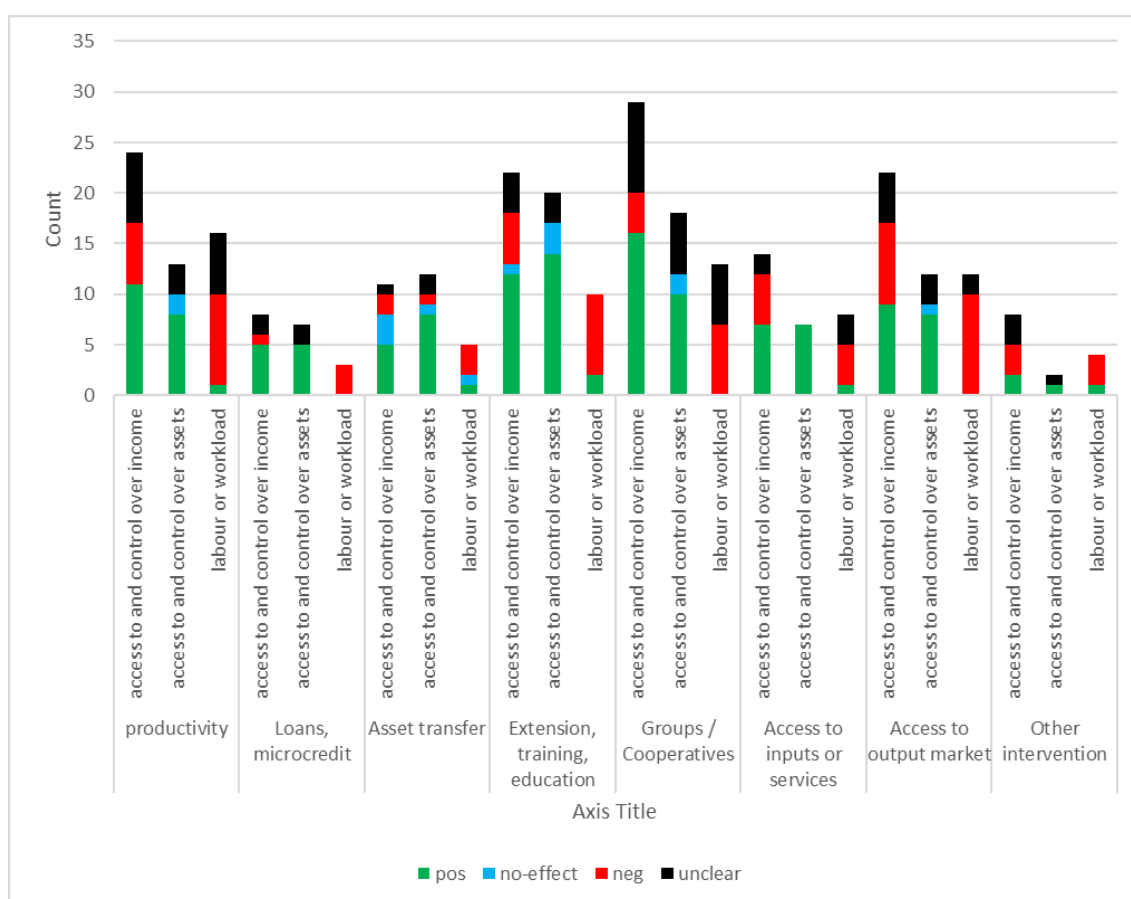


Figure 6. Impact of livestock interventions on access to and control over income, access to and control over assets, and workload. Source: based on Baltenweck et al. (forthcoming)

7. Additional benefits to closing the empowerment gap

Although most development actors acknowledge the intrinsic value of women's empowerment and gender equality, evidence for the resulting additional social benefits helps justify increased attention to these goals even in programs primarily focused on achieving other development goals such as reducing poverty, increasing productivity and improving health and nutrition.

Our review examines how gender equality and women's empowerment, as measured by the WEAI metrics (empowerment score, intrahousehold empowerment gap, component indicators), influences other outcomes of interest. We draw on a subset of studies identified in a review of literature by Myers et al. (2022), focusing on 27 peer-reviewed studies that analyze WEAI as an explanatory variable (see annex 1, table 1.1). Most of the studies (18/27) focus on nutrition, diet, food security and WASH (water, sanitation and hygiene) outcomes, and therefore the findings in this area are the most developed. Another eight studies examine economic and livelihood outcomes primarily in agriculture, as expected, given the

WEAI's focus on agricultural production. Two studies look at other well-being outcomes, such as life satisfaction and children's education. However, none of the studies to date analyzed environmental outcomes—a gap that is important to address.

Table 3 summarizes the strength of the evidence around women's empowerment as it relates to outcomes. Overall, *diets* and *child nutrition* have the greatest amount of evidence and strongest agreement that women's empowerment (as measured by WEAI) leads to improved outcomes in these areas. There is only one study each addressing links between WEAI metrics and *life satisfaction*, *educational outcomes* and *WASH*, but those show strong positive relationships with women's empowerment. Interestingly, the relationship between *women's nutrition* and women's empowerment is not as well researched as child nutrition, and the mixed results on *women's nutrition* illustrate the potential trade-offs that women may face as they engage in their multiple roles as income earners and guardians of their households' (and their own) food security and nutrition. These studies are observational studies, and estimated effects should not be interpreted as causal. We now look at each of these in turn.

Table 3. Women's empowerment in relation to development outcomes

		Amount of evidence		
		Low (1–3 studies)	Medium (4–6 studies)	High (7–9 studies)
Degree of agreement	Low			
	Medium		Women's nutrition	Household-level food security Agricultural production
	High	Life satisfaction Educational outcomes WASH		Diets Child nutrition

Note: this review is based on papers that use the WEAI or its variations

7.1. Children's diets and nutrition

Perhaps the strongest finding in the review is that women's empowerment and children's dietary and nutrition outcomes move together. When women are more empowered, as measured by the empowerment score or the WEAI component indicators, many studies document significant positive associations with various children's dietary and nutrition outcomes (Bonis-Profumo, Stacey and Brimblecombe 2021; Cunningham et al. 2015, 2019; Holland and Rammohan 2019; Malapit and Quisumbing 2015; Quisumbing et al. 2021b; Zereyesus 2017). While analyses using the aggregate empowerment score generally show positive associations, disaggregating empowerment into the component indicators shows that different indicators matter in different contexts. For example, in Bangladesh, Holland and Rammohan (2019) found that *input in productive decisions* and *speaking in public* are positively associated with children's height-for-age z-scores (HAZ) and with lower probability of stunting. In Nepal, Cunningham et al. (2015) found that *satisfaction with leisure time*, *access to* and *decisions regarding credit and autonomy in production* were positively associated with length-for-age z-scores (LAZ) for children under 2, while for children under 5, Malapit et al. (2015) found that control over income is positively associated with HAZ. In Timor-Leste, it is *group membership* and *asset ownership* that are positively associated with children's dietary diversity (Bonis-Profumo, Stacey and Brimblecombe 2021), whereas higher *workload* (which enters negatively in the 5DE score) is associated with higher children's dietary diversity in Bangladesh, Cambodia, Ghana, Mozambique, Nepal and Tanzania (Quisumbing et al. 2021b).

Additionally, it is not only women's empowerment that matters for children's dietary and nutrition outcomes but also gender equality within the household, as measured by

the male–female intrahousehold empowerment gap. Several studies have found that greater equality within the household, as measured by a reduction in the male–female intrahousehold empowerment gap, is positively correlated with HAZ in Nepal (Malapit et al. 2015), Ghana (Malapit and Quisumbing 2015), and the six-country pooled study including Bangladesh, Cambodia, Ghana, Nepal, Mozambique and Tanzania (Quisumbing et al. 2021b). Greater intrahousehold equality is also positively associated with child dietary diversity in Nepal (Malapit et al. 2015) and exclusive breastfeeding in Bangladesh, Cambodia, Ghana, Mozambique, Nepal and Tanzania (Quisumbing et al. 2021b). Another study by Malapit et al. (2019a) in Bangladesh analyzes gender gaps not only in the overall empowerment scores between men and women within the same household, but also the male–female differences in the component indicators. They find that these empowerment gaps are weakly correlated with children’s nutrition outcomes, but there are differences across boys and girls. For example, an increase in women’s credit decision-making (smaller gender gap), is positively associated with girls’ HAZ, while an increase in women’s participation in groups (smaller gender gap), is positively associated with WAZ, favoring boys rather than girls. Thus, it does not always follow that women’s empowerment benefits girls; in societies where there is son preference, more empowered women may differentially invest in boys. This result is consistent with Sraboni and Quisumbing (2018), who found a positive association between women’s empowerment and diet quality of individuals within the household, but the strength of this association varies across the life course. Women’s empowerment is correlated with more diverse diets of children under 5, but empowerment measures are not consistently associated with increases in nutrient intake for this age group. Women’s empowerment is positively and significantly associated with adult men’s and women’s dietary diversity and nutrient intakes. However, empowerment does not benefit all individuals within the household equally, with gender bias favoring boys emerging in adolescence.

7.2. Women’s diets and nutrition

While there appear to be clear benefits to children’s diets and nutrition associated with women’s empowerment and gender equality within the household, this may be occurring at the expense of women’s own diets and nutrition. Several studies document significant associations between women’s empowerment indicators and women’s dietary diversity score (Bonis-Profumo, Stacey and Brimblecombe 2021; Malapit et al. 2015; Onah, Horton and Hoddinott 2021; Wouterse 2017). However, the component indicators show mixed results.

For example, in Ghana, Ross et al. (2015) did not find a significant relationship between women’s aggregate empowerment score and women’s health status, as measured by body mass index (BMI) and dietary diversity score (DDS) in a Multiple Indicators Multiple Causes (MIMIC) model. However, when the empowerment score was broken down into its component indicators, they found that five indicators are significantly associated with better health status for women but with offsetting signs. *Asset ownership*, *credit decisions*, *group membership* and *satisfaction with leisure* were all positively associated with women’s health status, but *autonomy in production* had an unexpected negative relationship. Upon further investigation, Ross et al. (2015) uncovered a significant negative association between autonomy and income, such that a woman in a higher income group has less autonomy in production. As women increase their economic activities and contribute more income to the household, they may feel pressure to make production decisions based on others’ expectations to avoid conflict.

Similarly, the most striking result from the six-country study by Quisumbing et al. (2021b) in Bangladesh, Cambodia, Ghana, Nepal, Mozambique and Tanzania was the lack of significant association between the aggregate empowerment measures and most of the women’s nutritional outcomes. However, analysis of the component indicators reveals more significant associations with offsetting signs, suggesting potential trade-offs between different domains of empowerment. Specifically, they find that *speaking in public* is associated with improved women’s dietary diversity, but the *number of agricultural decisions*, *autonomy in production*, *number of agricultural assets owned* and *number of income decisions* are all associated with less diverse diets for women. On the other hand, greater intrahousehold equality (smaller

gender gap), a greater *number of agricultural decisions*, *more autonomy in production* and a higher *workload* are all associated with lower BMI, while comfort with *speaking in public* and *satisfaction with leisure* are associated with higher BMI. These trade-offs may arise because women's increased participation in agriculture, which increases some components of the women's empowerment score, comes at the cost of increased workload, which may impinge on BMI in low-BMI populations (Quisumbing et al. 2021b).

7.3. Household food security

Women's empowerment also appears to be positively correlated with household food security, as measured by the household dietary diversity score (HDDS). Several studies have found positive associations between HDDS and women's aggregate empowerment scores in Bangladesh (Sraboni et al. 2014; Holland and Rammohan 2019) and Niger (Wouterse 2017). Consistent with the findings on diets and nutrition outcomes, different component indicators matter in different contexts (Chitja and Murugani 2018; Clement et al. 2019; Quisumbing et al. 2021b; Seymour et al. 2019). Gender inequality within the household also matters, according to one study in Bangladesh, which found that larger intrahousehold empowerment gaps (excluding the time domain) is associated with marginally lower HDDS among nonpoor, time-poor and doubly-poor (both income- and time-poor) households (Seymour et al. 2019). This suggests that reaching full gender equality can improve household dietary diversity by 0.5 food groups, which may be more meaningful for the doubly-poor who have on average 1.5 fewer food groups than nonpoor and time-poor households (Seymour et al. 2019).

One study in Nepal looked at a different indicator of household food security, namely, the share of vegetable and cereal production kept for home consumption (Clement et al. 2019). Clement et al. (2019) found that women who are adequate in *access to and decisions about credit* keep a significantly larger share of both vegetable and cereal production for home consumption. However, women who are adequate in *control over income* keep a significantly smaller share of the vegetable production for home consumption. In this context, cereal production and sales are considered to belong in the domain of men, whereas homestead vegetable production and sales is within the domain of women. Thus, it makes sense that women with greater control over income would sell more vegetables, given that homestead vegetable production and sales are an important—often only—source of rural women's incomes (Clement et al. 2019).

Overall, the findings suggest that increasing women's empowerment and closing empowerment gaps contribute to household food security, but household wealth, gender norms and country-specific institutions are also of critical importance. Quisumbing et al. (2021b) found that household wealth and country characteristics account for a large proportion of the variance in household and women's dietary diversity, whereas women's empowerment is responsible for only a small share. This suggests that diets, nutrition and food-security outcomes cannot be expected to improve automatically without also addressing the underlying determinants of poor nutrition (Quisumbing et al. 2021b).

7.4. Agriculture

Studies that analyze economic and livelihood outcomes focus on agricultural production and productivity measures. Several studies have found positive associations between various empowerment measures and production indicators (Anik and Rahman 2021; De Pinto et al. 2020; Diiro et al. 2018; Seymour 2017; Wouterse 2017, 2019). For example, in Niger, empowerment scores are positively associated with agricultural output (Wouterse 2017, 2019). Wouterse (2019) estimated that an increase of 1.0 percent in average empowerment would increase output by almost 1.0 percent. She also found that empowerment interacts positively with the value of agricultural equipment owned by the household and negatively with the use of fertilizer by the household (Wouterse 2019), and that empowered households are more likely to have zai pits, a climate change-adaptive land-preparation method sometimes also referred to as 'planting pits' or 'planting basins' (Wouterse 2017). Women's overall empowerment is also positively associated with production efficiency in Bangladesh

(Anik and Rahman 2021) and among maize farmers in Kenya (Diirro et al. 2018). In Bangladesh, De Pinto et al. (2020) found that as women's *input in productive decisions* increased, less land was allocated to cereals and more land to vegetables and fruits. Women's participation in economic or social groups is also positively associated with greater crop diversification, as measured by an increase in land allocated to vegetables and fruits and a decrease in land allocated to cereals (De Pinto et al. 2020).

Greater equality within the household is positively correlated with production efficiency in Bangladesh (Anik and Rahman 2021; Seymour 2017). Seymour (2017) found that this result extended to plots jointly managed by women and their spouses, as well as to those that women do not actively manage.

Only two studies found potential trade-offs between empowerment and agricultural outcomes. Clement et al. (2019) found that in Nepal, women's *access to and decisions about credit* are both significantly correlated with lower wheat productivity and a greater share of cereals kept for own consumption. In Malawi, Mponela et al. (2021) found that a 1.0 percentage point increase in WEAI potentially leads to a 0.33 percentage point increase in the area allocated to legumes but reduces the amount of organic manure applied, with higher elasticity of two percentage points. In both cases, the type of crop matters: cereals are generally considered men's crops in Nepal (Clement et al. 2019), while legumes are considered women's crops in Malawi (Mponela et al. 2021).

7.5. Other well-being outcomes

Two studies in Bangladesh looked at the relationship between women's empowerment and other well-being outcomes, such as life satisfaction and children's schooling. Hossain, Asadullah and Kambhampati (2019) found that life satisfaction among women and men is positively associated with aggregate empowerment as well as seven of the component indicators: *input in productive decisions; purchase, sale or transfer of assets; ownership of assets; access to and decisions about credit; control over use of income; leisure; and group membership*. The findings on child schooling are more nuanced. Malapit et al. (2019a) found that fathers' empowerment is positively associated with younger children's schooling, while mothers' empowerment is more important for girls' education in general and in keeping older boys and girls in school.

7.6. Summary

Overall, we find that women's empowerment and gender equality, as measured by the WEAI indicators, is significantly associated with various development outcomes, but different aspects of empowerment matter for different outcomes in different contexts. While there appears to be convergence in some outcomes—especially on children's diets and nutrition—important trade-offs emerge, particularly regarding women's workload where increased engagement in agriculture may improve some aspects of empowerment, but at the same time increase women's work burdens on top of existing care and domestic work responsibilities at home.

Some notable gaps were uncovered by this review. One is the absence of any studies that cover environmental outcomes—a critical area that should be addressed by future research. Second is the lack of other economic and livelihood outcomes beyond agricultural production. This is not surprising, given the original WEAI's focus on smallholder production, but it may be changing with the development of the pro-WEAI for market inclusion (pro-WEAI+MI) tool, which expands coverage to include higher value chain activities beyond production. We hope this will yield more studies that look at broader economic and livelihood outcomes. Third, very few studies cover WASH and other outcomes such as life satisfaction and children's schooling outcomes, so more work is needed in these areas.

Finally, it is worth highlighting that the 27 studies reviewed in this section are observational studies and therefore the findings cannot be interpreted as causal relationships. We need more impact studies that will enable us to unpack the specific mechanisms through which empowerment leads to these outcome changes.

8. Key messages and policy recommendations

The key messages that emerge from this review of the evolution of women's empowerment and gender equality metrics and evidence of their relationship with development outcomes are:

- Our understanding and conceptualization of women's empowerment affect what we measure and how we measure. Current approaches to measuring empowerment have gone beyond exclusively emic (insider) and etic (outsider) views to those that draw on the strength of combined qualitative and quantitative approaches. However, most measures of women's empowerment are at the individual level and need to go beyond this, to the household and community.
- Having a standardized measure of women's empowerment (like the WEAI) facilitates comparisons across geographies but needs to be contextualized and grounded using qualitative work. Standardized measures also facilitate comparison across a project portfolio to assess what approaches work to empower women and achieve gender equality, while qualitative work can help address *how* they work.
- Processes affecting women's empowerment are context specific: factors correlated with women's empowerment are likely to vary by culture and context. Consequently, interventions that aim to empower women and improve gender equality need to be adapted to specific cultures and contexts if they are to be effective.
- Women's empowerment and gender equality have intrinsic value. Yet support for this goal can be mobilized by recognizing its social benefits—better health, diet and nutrition outcomes—and increased efficiency and agricultural productivity. Having better measures of women's empowerment also contributes to better and more rigorous analysis of the relationship between women's empowerment and gender equality and other development outcomes.
- Measuring women's empowerment is not enough. We also need to collect data on men to be able to track gender equality, to create awareness of any backlash against programs that aim to empower women and to examine how reducing the empowerment gap contributes to development outcomes.

Our review of programs and projects suggests the following recommendations for policymakers and program designers designing and implementing gender-transformative policies and programs:

- Intentionality is important. Programs that seek to empower women should have strategies that are proven to be effective in empowering them. This is likely to vary by culture and context.
- Group-based approaches have proven to be effective in empowering women. However, attention must be paid to the risk of excluding the most vulnerable from group-based programs.
- Addressing gender norms is shown to be an effective strategy for women's empowerment, but gender norms are not going to change by working with women alone. For programs to be gender-transformative, they must also involve men. In some cultures, involving key decision-makers in the household and community (in-laws, traditional leaders) may be key to program success.

- Women-targeted programs should be aware of potential trade-offs between involvement and time burden. Many well-intentioned programs unwittingly increase women's workload, which has negative consequences for several development outcomes.
- Efforts to improve data collection at the individual level and to measure different aspects of agency must continue. Research and programming must also recognize the importance of overlapping aspects of disadvantage that intersect with gender, which vary across cultures and contexts.

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ANNEX AND GLOSSARY

Available at: <https://hdl.handle.net/10568/129707>



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

gender.cgiar.org



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

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