



CHAPTER 9

# Gender and Food Systems: Avenues for Transformation?

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## Introduction

Worldwide, approximately 1.23 billion people are employed in agrifood systems, and 3.83 billion live in households that are linked to or reliant on these systems in some way (Davis et al. 2023). In Africa, experts estimate that between two-thirds and four-fifths of all jobs are in agrifood systems; nonagricultural agrifood system jobs account for only a small portion of this employment and are mainly concentrated in urban areas (Davis et al. 2023). Population growth and rapid urbanization, the growing risks of climate change, and persistent problems of malnutrition all mean that rural and urban African agrifood systems need to transform both substantially and rapidly to achieve the goals of sustainable, equitable, and healthy food systems.

Widespread food system transformation is already occurring, both globally and in Africa, with mixed implications for welfare (Tschirley, Haggblade, and Reardon 2014; Reardon et al. 2021). If unchecked, some changes—such as rapid urbanization, increased commercialization, and a move to high-value nodes of the value chain—can easily perpetuate broader economywide inequalities, such as the exclusion of poor or marginalized farmers (Dolan and Humphrey 2000; Reardon et al. 2003; Reardon and Barrett 2000; Weatherspoon, Cacho, and Christy 2001), particularly in Africa. Woodhill and colleagues (2022) estimate that by 2050 almost all extreme poverty will be in Africa and will be concentrated among the rural population, the vast majority of whom rely on agrifood systems for their livelihoods.

Inequalities related to gender compound—and intersect with—those arising from poverty, with women's contributions to and participation in food systems often undervalued or unrecognized (FAO 2023; Quisumbing et al. 2021b). Women play a key role in African agriculture, often providing the bulk of the agricultural labor while simultaneously anchoring unpaid domestic and care work (FAO 2011, 2023; Folbre 2014). The dual burdens of productive and reproductive work exist both for women who are heads of households and for those in dual-adult households. How food systems transformation will impact gender relations is unclear. While increased market orientation and value chain specialization provide opportunities for rural households to diversify and increase their incomes, with positive implications for economic outcomes (Maertens, Colen, and Swinnen 2008; Maertens and Swinnen 2012; Maertens and

Verhofstadt 2013; Minten, Randrianarison, and Swinnen 2009), these changes will not necessarily improve gender relations within and outside the household. In contexts where women are excluded from the more lucrative value chain activities or where the gendered division of unpaid labor disadvantages women, food systems transformation could exacerbate intrahousehold male-female inequalities (Barrientos 2014; Coles and Mitchell 2011; Hill and Vignieri 2014; Njuki et al. 2011). For example, commercialization is associated with decreased women's decision-making on use of harvest and control over revenue in Ethiopia and Nigeria, although women's control of revenue increases dietary diversity (Berhane, Abay, and Seymour 2022). Being able to disentangle the impacts on both absolute and relative measures of empowerment is crucial to our ability to answer the question: to what extent (if at all) is food systems transformation able to support or even catalyze transformation toward gender equality and women's empowerment?

Likewise, can greater women's empowerment or gender equality lead to more efficient, equitable, or productive food value chains in Africa? The answer to this is also not obvious. Access to key inputs such as land, livestock, and extension and financial services is highly gender-inequitable (FAO 2011, 2023; Quisumbing et al. 2014; Aguilar et al. 2015; Doss and Morris 2001; Kilic and Goldstein 2015), and women perform the lion's share of unpaid domestic and care work. On average, women spend at least three times as many hours as men on unpaid work, and women have a higher total work burden than men when both unpaid and paid work are considered (United Nations 2020). Increased women's empowerment and gender equality could result in a more equitable distribution of resources or of food-systems-related decisions, with positive consequences. There is also some evidence that women's empowerment is positively associated with agricultural productivity (Seymour 2017; Diiro et al. 2018; Anik and Rahman 2021).

In this chapter, we build upon the gender and food systems framework developed by Njuki and colleagues (2022) to assess the associations between measures of women's empowerment and specific food systems outcomes. Among the many ways to measure women's empowerment (see Elias et al. 2021 for a review), we focus on the Women's Empowerment in Agriculture Index (WEAI), an internationally validated multidimensional decomposable index (Alkire et

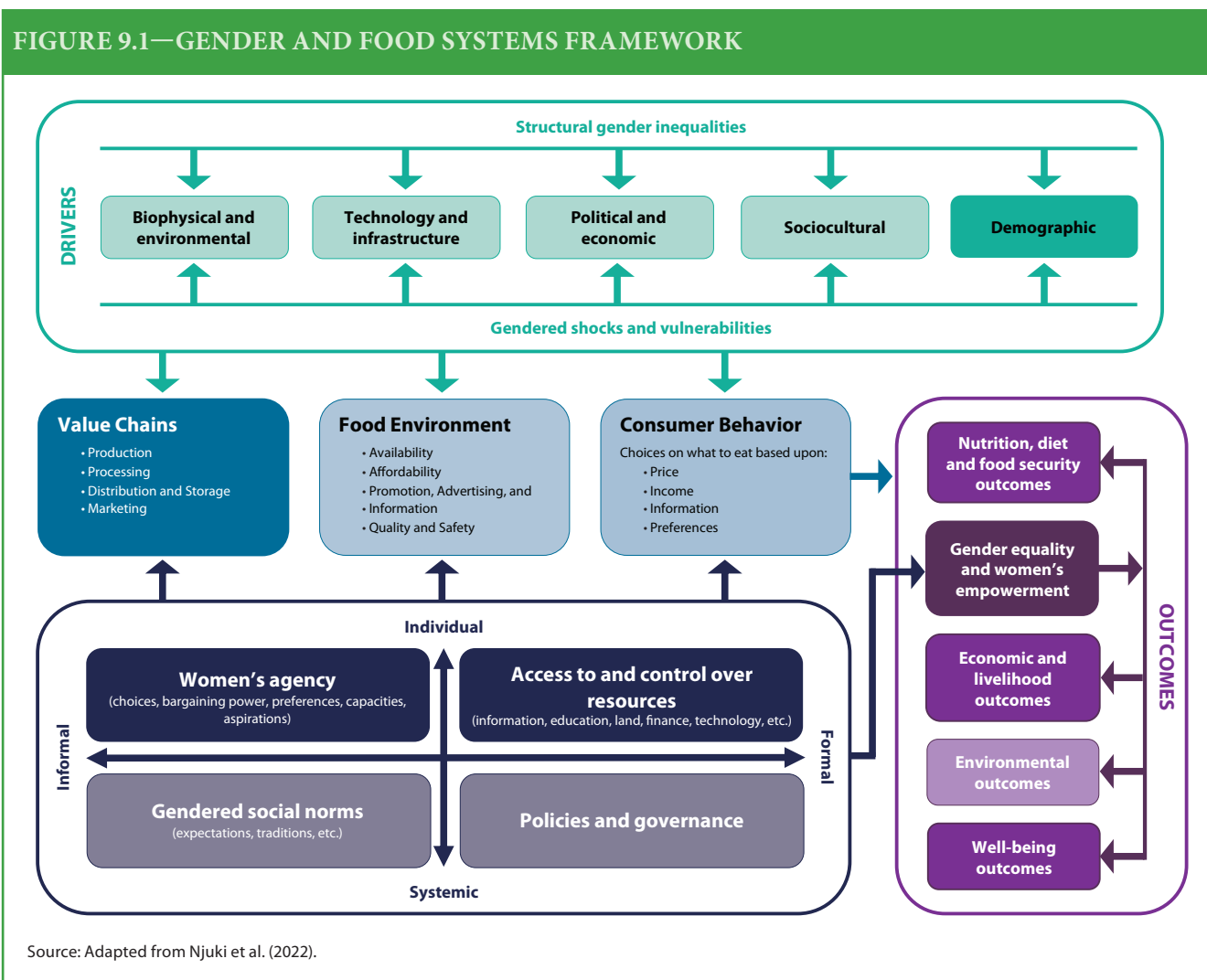
al. 2013; Malapit et al. 2019; Malapit et al. 2017) that assesses both individual empowerment and household-level gender parity. We use measures of improved nutrition and food security, economic and livelihood outcomes, environmental outcomes, and well-being as our key food system outcomes. We then present our findings from a synthesis of mixed-methods evaluations of interventions with women’s empowerment objectives to draw out implications for programs and policy. We conclude with policy recommendations to support gender-transformative food systems transformation.

## The Gender and Food Systems Framework

The gender and food systems framework (Njuki et al. 2022) is our starting point for analyzing relationships between gender equality and food systems transformation. We expand the framework to include nutrition and food security outcomes along with dietary outcomes and make the interconnected relationships between the five food systems outcomes (lower right corner of Figure 9.1) more explicit.

In this framework, gender is conceptualized as an important lever for progress across all aspects of food systems. Food system drivers are anchored in a gendered social, political, institutional, and economic system with structural gender inequalities. Because of these underlying inequalities, risks and shocks affect men and women differently, resulting in differential vulnerabilities and

capacities to adapt. These drivers in turn influence the three main components of food systems—value chains, food environments, and consumer behavior—and their outcomes. Details about the various components of food systems and



their interactions across four dimensions—individual, systemic, formal, and informal—are presented in Njuki and colleagues’ (2022) review.

The lower right quadrant of Figure 9.1 presents an array of food systems outcomes: nutrition, diet, and food security outcomes (including water, sanitation, and hygiene [WASH] outcomes); gender equality and women’s empowerment; economic and livelihood outcomes (primarily in agriculture); environmental outcomes (interpreted to include natural resources outcomes); and well-being outcomes, such as life satisfaction and children’s education.<sup>1</sup> We focus on these key food systems outcomes and use the framework to answer our two questions: (1) can women’s empowerment and gender equality lead to better outcomes along the food system; and (2) can food systems transformation catalyze transformation toward gender equality and women’s empowerment?

## Linkages Between Women’s Empowerment, Gender Equality, and Food Systems Outcomes: The Literature on Africa

### Overview of the Synthetic Review

We draw on a recently completed synthetic review of relationships between women’s empowerment, gender equality, and food systems outcomes (Myers et al. 2023) to explore these issues in the African context. Our measures of women’s empowerment and gender equality are based on WEAI (Alkire et al. 2013; Malapit et al. 2017). Our measures of nutrition, diet, household food security, and WASH outcomes include anthropometric measures for children (height-for-age z-score, weight-for-height z-score) and body mass index (BMI) for women; individual dietary measures (child dietary diversity score, women’s dietary diversity score, maternal dietary diversity score); household measures of dietary diversity and per capita calorie availability; and WASH practices. Because the WEAI measures were initially developed for the agricultural sector, our economic and livelihood outcomes pertain mainly to agriculture, including agricultural

production, yields, crop choice, and technology adoption. The well-being outcomes included in our study are measures of life satisfaction and children’s schooling, as several studies considered these linkages. We also included environmental and natural resources outcomes in our search.

Our search strategy is described in detail by Myers and colleagues (2023). We categorized each paper meeting the inclusion criteria according to primary food system outcome, study country, type of data (cross-section or panel) and sampling design, empowerment measure used, key findings, and whether the estimated relationships with empowerment measures were positive, negative, mixed, or null (coefficient estimates that were statistically insignificant). We also identified whether studies attempted causal identification or were primarily observational (that is, estimating associations rather than causal relationships).

The 30 publications meeting our inclusion criteria covered agricultural and mostly rural populations in nine African and five Asian countries, with two studies covering multiple countries. Counting each country in multicountry studies separately, there are a total of 39 country-study observations, with the three most studied countries being Bangladesh (30.8 percent of studies), Ghana (15.4 percent), and Nepal

**TABLE 9.1—DISTRIBUTION OF PAPERS BY STUDY COUNTRY**

Country	Number of papers	Distribution
<b>Africa</b>		
Ghana	6	15.4
Kenya	2	5.1
Malawi	1	2.6
Mozambique	2	5.1
Niger	3	7.7
Rwanda	1	2.6
Tanzania	1	2.6
Uganda	1	2.6
Zambia	1	2.6
<b>Asia</b>		
Bangladesh	12	30.8
Cambodia	1	2.6
India	2	5.1
Nepal	5	12.8
Timor-Leste	1	2.6
<b>Total</b>	<b>39</b>	<b>100.0</b>
Source: Authors.		
Note: The number of papers exceeds the number of papers that met our selection criteria because some papers included multiple countries.		

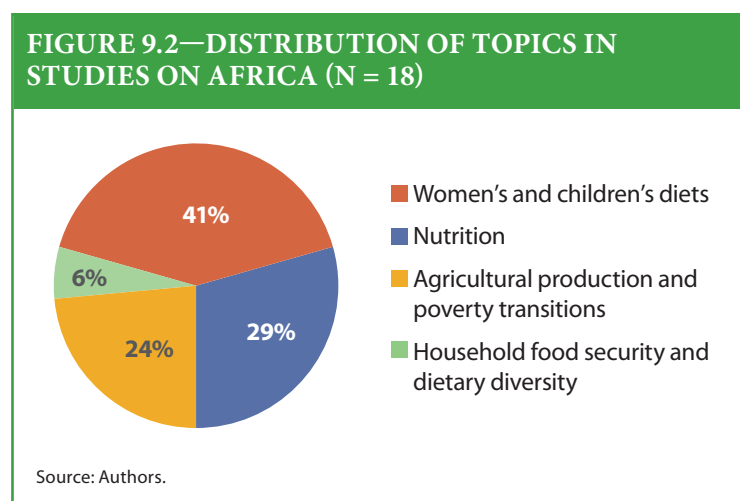
<sup>1</sup> The Njuki et al. (2022) framework adapts the work of de Brauw et al. (2019), which in turn draws from HLPE (2017).

(12.8 percent) (Table 9.1). Nine African countries are included in our review, but no Latin American or Caribbean countries are included, indicating a gap in the literature.

Studies in the nine African countries addressed women’s and children’s diets (41 percent), nutrition (29 percent), agricultural production and poverty transitions (24 percent), and household food security and dietary diversity (6 percent) (Figure 9.2). We found no studies on life satisfaction or children’s education using African data. Our discussion of the relationship between women’s empowerment and gender equality and food systems outcomes will focus on the Africa studies but will also draw on the global results.

## Nutrition, Diet, Food Security, and WASH Outcomes

The studies on Africa included in our review are summarized in Table 9.2.



**TABLE 9.2—RELATIONSHIPS BETWEEN EMPOWERMENT AND FOOD SYSTEMS OUTCOMES, AFRICA STUDIES<sup>a</sup>**

Outcome	Study	Country	Type of data, sampling, and survey design	Empowerment measure(s) <sup>b</sup>	Results (statistically significant results only)	Positive, negative, mixed, or null results
<b>Nutrition, diet, and food security outcomes</b>						
Nutrition	Malapit and Quisumbing 2015	Ghana <sup>c</sup>	Cross-section. 2,027 women ages 15–49 and 1,437 children under 5. Data from Ghana FTF 2012.	Women’s empowerment score  Intrahousehold inequality score  10 WEAI indicators	Greater equality within the household favors boys’ HAZ, for example, reducing the intrahousehold inequality score by 10 percentage points is associated with a 0.10 increase in boys’ HAZ.	Positive; differential associations by child gender
	Quisumbing et al. 2021 <sup>c</sup>	Bangladesh, <sup>d</sup> Cambodia, Ghana, <sup>c</sup> Mozambique, Nepal, <sup>e</sup> Tanzania	Cross-section. Data from BIHS in Bangladesh; Suaahara baseline in Nepal; and FTF surveys in Cambodia, Ghana, Mozambique, and Tanzania.	Women’s empowerment score  Intrahousehold inequality score  10 WEAI indicators	Women’s empowerment score and gender equality are positively associated with child HAZ.  Lower intrahousehold inequality is associated with lower women’s BMI. A greater number of agricultural decisions, more autonomy in production, and a higher number of hours worked are associated with lower BMI; comfort with speaking in public and satisfaction with leisure are associated with higher BMI.	Mixed

*continued*

**TABLE 9.2—RELATIONSHIPS BETWEEN EMPOWERMENT AND FOOD SYSTEMS OUTCOMES, AFRICA STUDIES<sup>a</sup>**

Outcome	Study	Country	Type of data, sampling, and survey design	Empowerment measure(s) <sup>b</sup>	Results (statistically significant results only)	Positive, negative, mixed, or null results
	Ross et al. 2015	Ghana <sup>c</sup>	Cross-section. 2,405 women. Data from Ghana FTF 2012.	CI 10 WEAI indicators	Women's BMI <sup>f</sup> is negatively associated with autonomy in production and positively associated with ownership of assets, access to and decisions on credit, group membership, and leisure.	Mixed
	Zereyesus 2017	Ghana <sup>c</sup>	Cross-section. 1,629 households with children under 5 and women of reproductive age (15–49). Data from Ghana FTF 2012.	CI Principal components from principal components analysis of WEAI	Women's empowerment score has a positive effect on household health status (that is, the number of stunted children, the number of wasted children, and the number of underweight women).	Positive
	Zereyesus et al. 2017	Ghana <sup>c</sup>	Cross-section. 1,393 women under 50 with children under 5. Data from Ghana FTF 2012.	CI 10 WEAI indicators	There was no significant association between CI, the 10 WEAI indicators, and children's HAZ and WAZ.	Null
Individual diets	Kassie et al. 2020	Kenya	Cross-section. 711 farm households from 60 villages: 361 adopters of push-pull technology and 350 nonadopters. Study collected A-WEAI from women respondents only; adult males were not interviewed.	Women's empowerment score (based on A WEAI) 6 A-WEAI indicators	Women's empowerment score has a positive and significant effect on WDDS.	Positive
	Malapit and Quisumbing 2015	Ghana <sup>c</sup>	Cross-section. 2,027 women ages 15–49 and 1,437 children under 5. Data from Ghana FTF 2012.	Women's empowerment score Intrahousehold inequality score 10 WEAI indicators	Women's empowerment score is strongly associated with the quality of infant and young child feeding practices and weakly associated with child nutritional status. Adequacy in credit decisions is positively correlated with women's dietary diversity.	Positive
	Onah, Horton, and Hoddinott 2021	Uganda, Rwanda, Malawi, Zambia, Mozambique	Cross-section. 10,041 married women. Data from FTF surveys in Africa.	Women's empowerment score 10 WEAI indicators	Autonomy in production decisions, input in production decisions and activities, and comfort speaking in public are positively associated with WDDS. Improved autonomy in production and input in production associated with improved likelihoods of consumption of dairy products and fruits and vegetables, including vitamin A-rich produce.	Positive

*continued*

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Outcome	Study	Country	Type of data, sampling, and survey design	Empowerment measure(s) <sup>b</sup>	Results (statistically significant results only)	Positive, negative, mixed, or null results
	Quisumbing et al. 2021c	Bangladesh, <sup>d</sup> Cambodia, Ghana, <sup>c</sup> Mozambique, Nepal, <sup>e</sup> Tanzania	Cross-section. Data from BIHS in Bangladesh; Suaahara baseline in Nepal; and FTF surveys in Cambodia, Ghana, Mozambique, and Tanzania.	Women's empowerment score  Intrahousehold inequality score  10 WEAL indicators	Higher workload is associated with more diverse child diets.  Lower intrahousehold inequality is associated with a higher likelihood of exclusive breastfeeding.  A greater number of agricultural decisions, greater autonomy in production, a greater number of agricultural assets owned, and a greater number of income decisions are associated with lower WDDS; greater confidence in speaking in public is associated with higher WDDS.	Mixed
	Ross et al. 2015	Ghana <sup>c</sup>	Cross-section. 2,405 women in northern Ghana. Data from Ghana FTF 2012.	CI  10 WEAL indicators	Women's dietary diversity is negatively associated with autonomy in production and positively associated with ownership of assets, access to and decisions on credit, group membership, and leisure.	Mixed
	Tsiboe et al. 2018	Ghana <sup>c</sup>	Cross-section. 2,642 households. Data from Ghana FTF 2012.	Women's disempowerment score	Women's carbohydrate, protein, and fat intake is negatively correlated with adequacy in income, production, and leadership indicators.	Positive relationship with empowerment (negative relationship with disempowerment)
Household dietary diversity	Quisumbing et al. 2021c	Bangladesh, <sup>d</sup> Cambodia, Ghana, <sup>c</sup> Mozambique, Nepal, <sup>e</sup> Tanzania	Cross-section. Data from BIHS in Bangladesh; Suaahara baseline in Nepal; and FTF surveys in Cambodia, Ghana, Mozambique, and Tanzania.	Women's empowerment score  Intrahousehold inequality score  10 WEAL indicators	Autonomy in production, control over income decisions, and satisfaction with time spent or leisure are all positively associated with household dietary diversity score.	Positive
<b>Economic and Livelihood Outcomes</b>						
Agricultural production	Diiro et al. 2018	Kenya	Cross-section. 707 maize-farming households in western Kenya.	Women's empowerment score (based on A-WEAL)  6 A-WEAL indicators	Women's empowerment score significantly increases maize productivity.  Female- and male-managed plots experience significant improvements in productivity when the women who tend them are empowered.	Positive

*continued*



**TABLE 9.2—RELATIONSHIPS BETWEEN EMPOWERMENT AND FOOD SYSTEMS OUTCOMES, AFRICA STUDIES<sup>a</sup>**

Outcome	Study	Country	Type of data, sampling, and survey design	Empowerment measure(s) <sup>b</sup>	Results (statistically significant results only)	Positive, negative, mixed, or null results
	Tankari 2018	Niger	Cross-section. 338 dual-adult households. Primary male and female adults interviewed, excluding co-wives, February–June 2016.	Whether household achieves gender parity (based on WEAI)  Intrahousehold inequality score (based on WEAI)	Gender parity is negatively associated with adoption of inorganic fertilizers; gender parity is positively, but insignificantly, correlated with adoption of organic fertilizer. Results are similar for the empowerment gap: as women have lower empowerment scores than the primary man in their household, the household is more likely to use inorganic fertilizer.	Negative for inorganic fertilizer
	Wouterse 2017	Niger	Cross-section. 769 adults in 500 households. Surveyed in April–May 2015.	Average household empowerment score (average of women’s and men’s empowerment scores)	More empowered households are more likely to have <i>zai</i> pits (a type of planting pit common to the Sahel), and empowerment is associated with higher agricultural yields.	Positive
	Wouterse 2019	Niger	Cross-section. 769 adults in 500 households. Surveyed in April–May 2015.	Average household empowerment score (average of women’s and men’s empowerment scores)	Empowerment scores of the household positively affect the quantity of agricultural output. An increase of 1.0% in average empowerment increases output by almost 1.0%.  Empowerment interacts positively with returns to equipment and negatively with returns to fertilizer.	Positive. Because outcomes and empowerment scores are at the household level, interpretation of returns to empowerment differ from other studies focusing on individual empowerment.

Source: Adapted from Myers et al. (2023).

Note: a Acronyms used in this table are defined as follows: BIHS = Bangladesh Integrated Household Survey; BMI = body mass index; CI = Composite Inadequacy Count index; FTF = Feed the Future; HAZ = height-for-age z-score; WAZ = weight-for-age z-score; WDDS: women’s dietary diversity score.

b “Women’s empowerment score” refers to the WEAI women’s empowerment score, unless otherwise indicated. “Intrahousehold inequality score” is the difference between the men’s and women’s empowerment scores within the same household. Unless A-WEAI is indicated, all scores are based on the original WEAI.

c Ghana FTF: Northern Ghana Feed the Future Survey.

d BIHS (Bangladesh Integrated Household Survey), nationally representative of rural Bangladesh.

e Suaahara Survey.

f Although Ghana as a whole is at a phase of the nutrition transition where there are high rates of overweight and obesity in adult women, this is not the case for the sample used in this study. This study reports that 22.3 percent of women were underweight (BMI < 18.5), compared to only 6.2 percent of women nationally in the 2014 Ghana Demographic and Health Survey.



## Nutrition

The strongest finding in our global review is the positive relationship between women's empowerment and children's nutrition outcomes; this relationship also holds in the Africa studies. 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. Moreover, both women's empowerment and intrahousehold gender equality matter for children's nutrition outcomes. Greater equality within the household is positively correlated with height-for-age z-score in Ghana (Malapit and Quisumbing 2015) and in a multicountry pooled study including Bangladesh, Cambodia, Ghana, and Nepal (Quisumbing et al. 2021c).

While there appear to be benefits to children's nutritional status associated with women's empowerment and intrahousehold gender equality, women's empowerment is not unambiguously positively associated with women's own nutritional status. For example, in Ghana, Ross and colleagues (2015) do not find a significant relationship between women's aggregate empowerment score and women's BMI in a Multiple Indicators, Multiple Causes (MIMIC) model.<sup>2</sup> However, decomposing the empowerment score into its component indicators reveals that all five indicators are significantly associated with higher BMI for women but with offsetting signs. *Asset ownership, credit decisions, group membership, and satisfaction with leisure* are all positively associated with women's BMI, but *autonomy in production* has an unexpected negative relationship. Upon further investigation, Ross and colleagues (2015) uncovered a significant unexpected 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. Alternatively, such women may surrender some autonomy in production so they can focus on other activities that are more important to them.

Similarly, the most striking result from the six-country study by Quisumbing and colleagues (2021c) in Bangladesh, Cambodia, Ghana, Nepal, Mozambique, and Tanzania is 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. The researchers find that 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. 2021c).

## Individual (Maternal and Child) Diets

Similar to the results for nutritional status, both the aggregate empowerment score and specific aspects of empowerment matter for individual diets. The results for the individual indicators illustrate the trade-offs between different dimensions of women's empowerment and dietary outcomes. For example, higher *workload* (which contributes to lower empowerment scores) is associated with higher children's dietary diversity in Bangladesh, Cambodia, Ghana, Mozambique, and Nepal (Quisumbing et al. 2021c).

Nor can we assume that women's diets necessarily improve when they are more empowered in agriculture. Several studies document significant associations between women's empowerment indicators and women's dietary diversity scores across several African countries (see Kassie et al. 2020 for Kenya and Onah, Horton, and Hoddinott 2021 for Uganda, Rwanda, Malawi, Zambia, and Mozambique). However, the component indicators show mixed results. For example, Quisumbing and colleagues' (2021c) multicountry study finds that comfort with 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.

## Household Food Security and Dietary Outcomes

The third category of nutrition-related outcome indicators comprises outcomes measured at the household level. They are broadly related to food security and

<sup>2</sup> Although Ross and colleagues (2015) use BMI as a measure of health status, we treat it as an indicator of nutritional status.

include the share of specific types of food retained for home consumption, household dietary diversity, and household calorie availability.

Kassie and colleagues (2020) find positive associations in Kenya between the household dietary diversity score and women's aggregate empowerment score. Consistent with the findings on diets and nutrition outcomes, different component indicators matter in different contexts (Quisumbing et al. 2021c). Overall, the findings suggest that increasing women's empowerment and reducing intra-household inequality between women and men contribute to household food security, but household wealth, gender norms, and country-specific institutions are also of critical importance. Quisumbing and colleagues (2021c) find that a large proportion of the variance in household and women's dietary diversity is accounted for by country fixed effects and household wealth; women's empowerment accounts for only a small share. This pattern suggests that diet, nutrition, and food security outcomes cannot be expected to improve automatically without an effort to also address the underlying determinants of poor nutrition (Quisumbing et al. 2021c).

## Economic and Livelihood Outcomes: Agricultural Production

The next category includes studies analyzing economic and livelihood outcomes, with a focus on agricultural production and productivity measures.

Several studies find positive associations between various empowerment measures and production indicators (Diirro et al. 2018; Wouterse 2017, 2019). Women's aggregate empowerment scores are positively associated with increased productivity among maize farmers in Kenya (Diirro et al. 2018). Diirro and colleagues (2018) find that women's empowerment in agriculture significantly increases maize productivity, with female- and male-managed plots both experiencing significant increases in productivity when the women who tend them are empowered.

Wouterse's (2017, 2019) studies in Niger examine relationships between the average empowerment in a household (the average of men's and women's empowerment scores) and agricultural outcomes. Wouterse (2019) finds that average empowerment scores are positively associated with agricultural output,

and that an increase of 1.0 percent in average empowerment increases output by almost 1.0 percent. She also finds that empowerment interacts positively with returns to equipment and negatively with returns to fertilizer (Wouterse 2019). In another study, Wouterse (2017) finds that more empowered households are more likely to have *zai* pits (planting pits), and empowerment is associated with higher agricultural yields.

These studies indicate that women's empowerment and gender equality are associated with improved food systems outcomes, but not all dimensions of empowerment matter for good nutrition. Importantly, there may be trade-offs between some dimensions of empowerment, such as women's workload and their increased involvement in agriculture.

## *Can Food Systems Interventions Be Designed to Promote Women's Empowerment and Gender Equality?*

### The Reach, Benefit, Empower, and Transform Framework

The discussion thus far has focused on the instrumental gains from women's empowerment and gender equality. Recently, increased recognition of the intrinsic value of women's empowerment and equality, evidenced by their recognition as one of the United Nations (UN) Sustainable Development Goals (SDG5), has led to the design of projects and interventions with women's empowerment as one of their explicit objectives. Recent impact evaluations of these projects have uncovered some key elements that are essential for the achievement of these empowerment objectives. We draw from syntheses of impact evaluations conducted under the Gender, Agriculture, and Assets Project, Phase 2 (GAAP2); the UN Joint Programme on Rural Women's Economic Empowerment (JP RWEE); and Agricultural Technical Vocational Education and Training for Women (ATVET4W).

To assess whether projects achieve their empowerment objectives, we use the "Reach-Benefit-Empower" framework (Johnson et al. 2018), which was subsequently expanded to include "Transform" objectives (Quisumbing

**TABLE 9.3—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 life choices and put them into action	Go beyond the woman and her household to change gender norms and systems on a larger scale
Objective	Ensure that women have the same opportunity to access the program activities as men: <ul style="list-style-type: none"> <li>• Address barriers to participation, such as program information, timing, or location of meetings and training</li> </ul>	Require more than reaching women: <ul style="list-style-type: none"> <li>• Women value the intervention</li> <li>• Direct benefits accrue to women</li> <li>• Women's needs, preferences, and constraints are considered in the intervention design</li> </ul>	Go beyond reaching and benefiting women: <ul style="list-style-type: none"> <li>• Increase women's agency</li> <li>• Shift gender norms and attitudes among participants</li> </ul>	Go beyond empowering individual women: <ul style="list-style-type: none"> <li>• Involve men</li> <li>• Change gender norms at the community and societal levels</li> <li>• Address structural and institutional barriers</li> <li>• Mobilize the power of the collective</li> </ul>

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

et al. 2023). In this RBET framework (Table 9.3), projects that reach women include them in program activities; those that benefit them improve women's well-being outcomes, including income, health, and nutrition. Typical indicators for "reach" include the number of women and men attending training or extension programs; "benefit" indicators include income earned by women or women's nutritional status indicators. But neither "reach" nor "benefit" objectives explicitly address increasing women's agency, their ability to make strategic life choices (Kabeer 1999) and to act on them, and many projects that claim to empower women only have strategies to reach or benefit them. Finally, gender-transformative approaches "emphasize interventions that aim to *transform constraining gender norms, attitudes and behaviors* towards those that support gender equality" (Pyburn and van Eerdewijk 2021, 23) and typically adopt a

holistic approach to change gender norms at the community and societal levels, address structural and institutional barriers, and mobilize the power of the collective.

## Insights from Quantitative Impact Evaluations

Impact evaluations of projects with explicit women's empowerment objectives provide evidence on what works to empower women and close the empowerment gap. We draw on a synthesis of impact evaluations conducted across the GAAP2 (Quisumbing et al. 2022) and JP RWEE (Quisumbing et al. 2023) portfolios, focusing on the African projects in these portfolios, and the ATVET4W program in Benin and Malawi (Eissler et al. 2021; Ragasa et al. 2021).

The GAAP2 portfolio comprises 13 agricultural development projects that co-developed the project-level WEAI (pro-WEAI) (Malapit et al. 2019) and used it to evaluate their projects' impacts on women's empowerment and gender equality. All projects completed qualitative studies prior to the COVID-19 pandemic, but this synthesis is based on the 11 projects that completed endline data collection before December 2020. These completed evaluations were implemented in South Asia (Bangladesh [three], India, and Nepal), West Africa (Burkina Faso [two], Ghana, and Mali), and East Africa (Ethiopia and Tanzania). All but one of the partner projects worked through nongovernmental organizations; most of them used group-based approaches, though they did not work exclusively with women's groups. For this chapter, we focus on the African projects, all of which used pro-WEAI, which has three domains and 12 indicators, in their quantitative impact assessments.<sup>3</sup>

The first phase of JP RWEE, implemented by the Food and Agriculture Organization of the United Nations, the International Fund for Agricultural Development, UN Women, and the World Food Programme, covered seven countries, of which four conducted mixed-methods impact assessments using WEAI-based measures. The JP RWEE Ethiopia project was part of the GAAP2

3 Pro-WEAI has three domains, covering instrumental agency, intrinsic agency, and collective agency. The instrumental agency (power to) domain has the most indicators: (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.

portfolio; the other African country is Niger. For comparability across the JP RWEE projects, we computed impact estimates using A-WEAI, which has five domains and six indicators, the thresholds of which were adjusted to be consistent with pro-WEAI cutoffs for the synthesis study.

The GAAP2 projects aimed to improve women's empowerment and nutrition outcomes, and some projects also aimed to improve incomes. Many of these were nutrition-sensitive agriculture (and livestock) programs that included such activities as homestead food production, with emphasis on nutrient-dense crops, provision of nutrition information, and nutrition behavior change communication. Strategies used to empower women were broadly classified as (1) providing goods and services, (2) strengthening organizations, (3) building knowledge and skills, and (4) influencing gender norms—though there was considerable variability in the content of programming within each of these categories.

Most GAAP2 projects provided goods and assets to beneficiaries (for example, goats, financial services, improved seeds, technology packages) or facilitated the acquisition thereof (for example, small-scale irrigation pumps). Although this type of project strategy is expected to affect instrumental agency, such programs could potentially affect aspects of intrinsic agency as well. One such project was a microfinance intervention delivered through rural savings and credit associations in Oromia, Ethiopia. Among the project beneficiaries, a subgroup maintained access to credit between baseline and endline, while a subgroup lost access to credit provided because of nonrepayment or because they left the group. Hillesland and colleagues (2022) found that those beneficiaries who maintained access to credit experienced a positive impact on the *respect within the household* indicator.

Most projects also used group-based approaches. Membership in these groups can affect aspects of collective agency and provide access to different types of resources such as information, technology, credit, and other inputs. In Burkina Faso, savings group members who received a comprehensive intervention package reported an increase in the average number of empowerment indicators with “adequate” scores, while the comparison group saw a decrease in average adequacy over time (Crookston et al. 2021).

Training and the building of knowledge and skills were also important parts of the GAAP2 projects' strategies; evidence suggests that the mode of providing extension matters. For example, findings from an impact evaluation 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) indicate that the positive impacts of all types of training on women's empowerment outcomes may have arisen from implementation modalities that provided information jointly to both husbands and wives. None of the African projects tested alternative delivery strategies within the same program, an important area for future work.

Approaches to changing gender norms varied across the portfolio. Some projects worked only with women (such as a 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 household members. Except for one project that was focused on small-scale irrigation (iDE in Ghana), the African projects in the GAAP2 portfolio implemented training that attempted to change gender norms and increase women's agency, using gender dialogues (Grameen in Burkina Faso), training women on financial literacy and entrepreneurship (JP RWEE in Ethiopia), and training on household budgeting and gender awareness (Maisha Bora in Tanzania).

In contrast, JP RWEE Phase 1 had a more explicit women's empowerment focus in working toward four interrelated outcomes: (1) improved food and nutrition security, (2) increased income to sustain livelihoods, (3) enhanced participation and leadership, and (4) a more gender-responsive policy environment for rural women (FAO, IFAD, UN Women, and WFP 2021). JP RWEE implemented its projects with adaptations to specific country contexts. In Ethiopia, JP RWEE strengthened the technical capacity of women-run rural savings and credit cooperatives that offer financial products to women farmers. In Niger, program interventions were delivered through Dimitra Clubs, or community listener clubs. Rural radio stations raised awareness of themes identified and requested by the clubs themselves and became a platform for community-level groups to promote dialogue and a safe place for both men and women to talk about their challenges openly. JP RWEE projects used strategies to involve other household members, commonly called “household methodologies.” One country that employed the household methodologies approach through the Gender Action Learning System (GALS)—Kyrgyzstan—demonstrates the gains from involving men (Quisumbing et al. 2023). In Kyrgyzstan, two types of household methodologies—GALS and an adaptation of GALS with



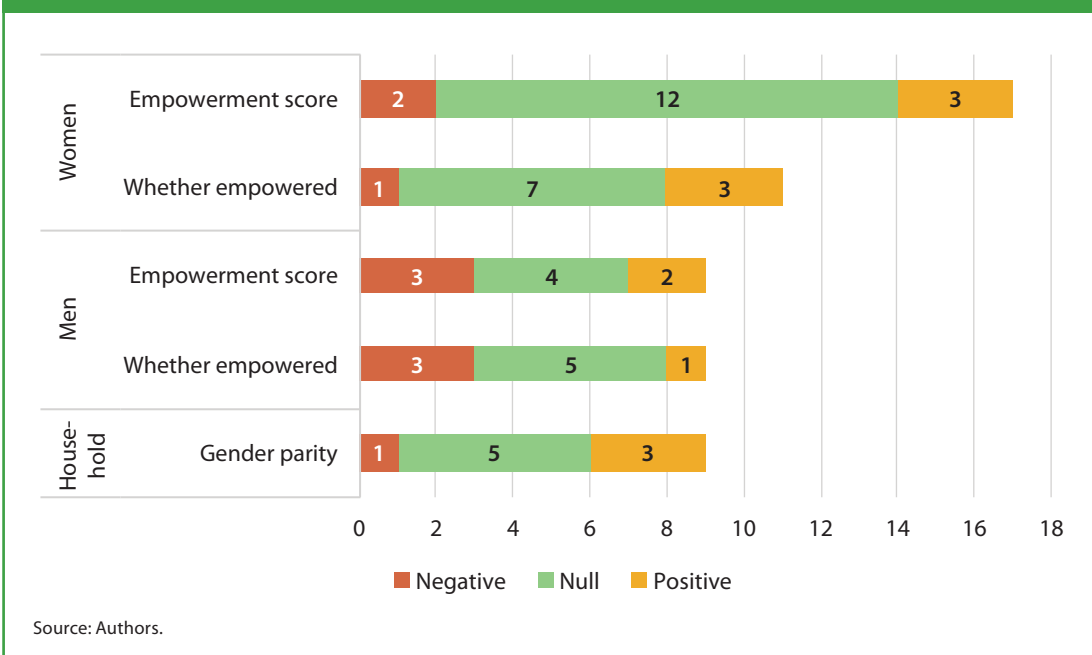
business training—promoted behavioral change for gender justice, improved planning of livelihood strategies, equitable workload distribution within households, management of income-generating activities, and women’s entrepreneurship. These resulted in increases in women’s empowerment as well as in the likelihood of attaining gender parity.

Figure 9.3 presents, for the African projects in the GAAP2 and JP RWEE portfolios, the distribution of project impacts on women’s and men’s empowerment scores, their respective empowerment status (whether the individual was empowered), 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, and most projects did not have a significant impact on gender parity (Figure 9.3).

A closer look at the individual indicators reveals similar patterns (see Quisumbing et al. 2022, 2023), with most of the significant impacts in the GAAP2 portfolio observed on instrumental agency indicators, possibly because these are more easily targeted and monitored by projects.<sup>4</sup> Several instrumental agency indicators are significantly affected: (1) the types of activities for which the woman controls income, (2) the types of assets she controls (including land), and (3) the types of credit or financial services that she makes decisions about. Reflecting on the group-based approaches used in these projects, there are positive impacts on the number of types of groups to which a woman belongs. Very few projects have impacts on aspects of intrinsic agency. Although there are very few significant impacts on men’s indicators, it is important to note any negative impacts on men, because they may indicate possible backlash against women’s empowerment projects.

An important finding from the JP RWEE synthesis is the need to pay attention to workload. Although impacts on women’s aggregate workload were minimal, productive work may have increased at the expense of reproductive work (Quisumbing et al. 2023). In the Ethiopia sample, women who maintained

**FIGURE 9.3—DISTRIBUTION OF PROJECT IMPACTS ON WOMEN’S AND MEN’S EMPOWERMENT SCORES, EMPOWERMENT STATUS, AND HOUSEHOLD GENDER PARITY, AFRICAN PROJECTS IN GAAP2 AND JP RWEE PORTFOLIOS**



credit access did not experience significant impacts on overall workload. However, the increase in productive work hours was offset by reducing reproductive work and time spent on secondary childcare (time spent caring for a child while doing a primary activity). In contrast, women who lost access to credit increased their total and reproductive workload and decreased their time spent on childcare as a primary activity. In the Niger sample, beneficiary women’s productive work hours did not increase but reproductive work hours did.

### Insights from Qualitative Work

Project teams working with IFPRI researchers conducted qualitative assessments in all the GAAP2 studies and the JP RWEE Ethiopia project (which was also

<sup>4</sup> We analyzed a different version of the indicators, namely the continuous versions on which adequacy cutoffs were based. Thus, they are defined slightly differently from those in footnote three, but capture the same concept.

part of GAAP2), as well as in conjunction with studies linked to an ATVET4W program implemented in Benin and Malawi, which were part of the development of pro-WEAI for Market Inclusion (pro-WEAI+MI) (Malapit et al. 2023). The qualitative studies elicited a nuanced understanding of *how* projects affected empowerment that went beyond the quantitative indicators.<sup>5</sup>

Findings from the GAAP2 qualitative studies in Burkina Faso, Ethiopia, and Mali reveal that beneficiaries perceive capacity-building projects as having a strong, positive influence on their self-efficacy (Meinzen-Dick et al. 2019). Overall, many women beneficiaries described feeling more confident and directly attributed their increased confidence to the program activities. Notably, women beneficiaries in the Grameen project in Burkina Faso shared that their participation in a savings group encouraged norm change around women's ability to contribute to household income at the community level (Kieran, Gray, and Gash 2018). This aligns with the emic notion of women's empowerment as being able to do things for others (Meinzen-Dick et al. 2019). Similarly, in the ATVET4W Benin study, participants explained that the training increased women's financial independence, which led to increased intrinsic agency and self-confidence (Eissler et al. 2021).

The qualitative studies conducted in the GAAP2 projects in Burkina Faso, Ethiopia, and Mali also find that gender norms constrain women from participating in decisions about agricultural production overall. For instance, in Burkina Faso, focus groups showed that men are considered the head decision-makers around poultry production and marketing. But beneficiary women in a poultry value chain intervention said raising poultry increased their self-confidence in their skills and capacities; gaining financial independence was critical, as they no longer needed to rely on their husbands' permission or direction on how to spend money (Eissler et al. 2020). In Malawi, many women are tied by the norms dictating the role of a "good wife" who often must defer to her husband. Similarly, norms about women's roles when away from home may also sometimes limit their ability to engage in agricultural business activities (Ragasa et al. 2021).

The qualitative data provide more nuanced insights on aspects of collective agency that are not necessarily captured in the indicators of group membership and membership in influential groups. The qualitative studies that examined

perceptions of group membership (Ethiopia and Tanzania projects) affirm the improvements in collective agency as well as the interlinkages with other aspects of empowerment. Qualitative studies on projects that emphasized group formation and strengthening in Ethiopia and Tanzania showed that constraints on participation in groups, such as a lack of spousal support, a lack of transportation, or time poverty (which are aspects of instrumental and intrinsic agency), limited the participation of some women in the overall project.

Qualitative studies further show how different types of agency are inter-linked (Meinzen-Dick et al. 2019). Freedom of movement, work balance, and intrahousehold respect are all important for women to be able to participate in groups (collective agency), which gives them confidence to speak in public, while a study among the Masai in Tanzania found that fear of intimate partner violence (IPV) constrained women from participating in groups (Krause et al. 2018). Participation in microfinance groups provides access to credit and enables women to contribute to household income, which leads to control over income and input into productive decisions. Women in the Grameen program reported that their role in their savings group not only empowered them individually but also contributed to changing norms regarding women's ability to contribute to household income (Kieran, Gray, and Gash 2018). Similarly, in the qualitative study of the Malawi ATVET4W program, decision-making and work balance are strongly linked, especially in producer households in which deciding what tasks to do cannot be disentangled from when to do them. This is especially the case for married women, as unmarried women do not need to consult with their husbands (Ragasa et al. 2021). Meanwhile, in the Benin study, the findings highlight the interlinkage of time use and women's ability to participate in income-generating activities, as well as training to strengthen their contributions to income-generating activities (Eissler et al. 2021).

Thus, some base level and forms of agency may be necessary for women to be able to participate in project activities that would benefit them or increase their empowerment. Identifying these linkages and baseline information about each of the aspects of empowerment can help projects to adapt their strategies, such as by ensuring that women have freedom of movement if they are expected to attend group meetings or training.

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5 No qualitative study was conducted in Niger, the other Africa study in the JP RWEE portfolio.

## Looking Beyond Agriculture to Market Inclusion

Our review of evidence draws from impact evaluations of gender- and nutrition-sensitive agricultural development projects. Yet, food systems go beyond agriculture and include processing and marketing of agricultural projects. Studies on women's empowerment in other nodes of the value chain are more limited, partly because of data limitations. We briefly highlight aspects discussed in Quisumbing and colleagues (2021b) and introduce new evidence from our efforts to develop pro-WEAI+MI (Malapit et al. 2023).

Njuki and colleagues (2022) find considerable evidence on the link between the consumer behavior component of food systems and women's empowerment and gender equality, especially women's roles in consumption and traditionally female activities such as food preparation and feeding children. The existing evidence on the food environment component, which includes food availability and affordability, as well as women's access to markets, points to women's relative poverty and limited freedom of movement as the primary factors constraining women's empowerment and gender equality. This conclusion suggests that successful value chain-focused interventions could also expand women's access to the food environment. However, evidence on value chains, the third component of food systems, and how they relate to women's roles, women's empowerment, and gender equality, is scarce (Coles and Mitchell 2011; Rubin, Manfre, and Barrett 2009). This is not surprising, because existing tools have focused mostly on the agricultural part of food systems. The limited literature focusing on women's involvement in value chains, both in traditional and high-value crops, has identified pathways whereby food system commercialization can increase women's involvement in specific activities, but this literature has not necessarily determined whether this leads to increased empowerment.

Interventions often aim to (1) enhance women's roles in agricultural value chains where they already operate, for example, by increasing their involvement in specific nodes or stages of the value chain with the potential for value addition, such as processing or marketing, and/or (2) expand opportunities for women to start operating within new value chains. While increasing opportunities for women's engagement in food system commercialization can improve equality and empowerment and is often correlated with increasing their control over income and, relatedly, bargaining power within their households (Rubin, Manfre,

and Barret 2009; Getahun and Willanger 2018), the link between market inclusion and women's empowerment is not automatic. Moreover, it may be difficult for resource-poor women to fully participate in market-focused interventions, particularly without the support of asset transfers (Heckert et al. 2023).

It is therefore strategic to focus on how the value chains component of food systems relates to women's empowerment and gender equality. We draw on our studies in four countries with very different structural and social contexts (Bangladesh, Benin, Malawi, and the Philippines), where we use pro-WEAI+MI to analyze links between empowerment and value chain factors. Details of these studies are found in Malapit and colleagues (2023).

Our analysis across the four countries suggests that entrepreneurship is not necessarily empowering for rural women. In our Bangladesh sample, men in entrepreneurial households are more likely to be empowered, but women in those households are not. This may relate to gender norms in Bangladesh as well as the scale of the enterprise in which women entrepreneurs are involved. Small-scale enterprises with low returns (such as trading) may not be empowering. Greater involvement in the market is also not necessarily associated with gender equality. For example, in our Benin sample, a decrease in the amount of the household's main commodity sold was correlated with higher gender equality. Some commodities may provide more opportunities for empowerment. For example, high-return export sectors (such as seaweed in the Philippines) or commodities that do not require large-scale operations or that can be grown close to the home (such as swine in the Philippines), could reduce trade-offs between market work and domestic and care work.

In our samples, training and extension services are usually associated with greater empowerment but may differentially benefit men and women. In the Philippines, access to extension services had a stronger correlation with men's than women's empowerment. In Benin, receiving ATVET4W training was associated with a higher likelihood of only the man being empowered. In Malawi, receiving the ATVET4W training was not significantly associated with individual men's and women's empowerment, but it was associated with a higher likelihood that the woman is more empowered and that the man is less empowered, which may be a consequence of the proximity of the training to the survey and the types of couples selected for the program. In the Malawi sample, receiving other types of agricultural training was positively correlated with the probability of being



empowered, with higher empowerment scores for both men and women, and with greater gender parity.

All in all, culture and context determine whether participation in value chains—and which node of the value chain—is empowering. This suggests that food system and value chain interventions that seek to empower women should consider the social and cultural contexts in which these food systems operate, so that interventions “do no harm” and do not exacerbate existing gender inequalities.

## Implications for the Design of Gender-Sensitive Food Systems Interventions<sup>6</sup>

Although the GAAP2 and JP RWEE portfolios are quite different, and findings from pro-WEAI+MI are still emerging, there are common threads. First, intentionality is important if food systems interventions are to achieve their women’s empowerment objectives. The large number of insignificant impact estimates highlights the need for projects to focus explicitly on empowerment rather than assume that projects aiming to reach and benefit women will automatically empower them. The two cases with negative aggregate impacts—a project in Bangladesh that had minimal gender content and JP RWEE beneficiaries in Ethiopia who lost credit access—underscore the importance of deliberate strategies to ensure that projects “do no harm” to women’s empowerment. Comparing across regions, projects in South Asia were more likely to show significant impacts on women’s empowerment than those in Africa, perhaps reflecting a longer history and more experience with designing programs to address particular forms of women’s disempowerment. The negative impact on men’s aggregate indicators in some African projects may be cause for concern, if these create potential for backlash.

Our findings also reinforce the need to pay attention to both project implementation and context. The mixed results of projects on tolerance of IPV illustrate the importance of both. In the homestead food production project in Mali, beneficiaries reported an increased number of instances in which IPV was not justified, indicating a heightened critical consciousness of what is (and is not) acceptable in spousal relationships. In the other projects, women’s identification of fewer instances in which IPV is unjustified may indicate that women are

willing to tolerate more instances of IPV in exchange for other types of freedoms. Qualitative findings from the Grameen project found that empowered women are perceived to be “autonomous” yet “submissive” to their husbands and families (Kieran, Gray, and Gash 2018). This is similar to Mosedale’s (2014) finding that among the Afar in Ethiopia, women gain social status by submitting to IPV without protest, and that increase in status is associated with empowerment.

Moreover, programs may need to provide sustained exposure to the intervention to maximize the potential for projects to benefit and empower women. Those that are not sufficiently intensive in their approaches, such as community-based programs with selective uptake of multiple project components, may not provide sufficient exposure and have more limited empowerment outcomes, as may have been the case with a poultry project in Burkina Faso and a nutrition intensification program in India (Heckert et al. 2023; Kumar et al. 2023). Some base level of not only empowerment but, more importantly, resources needed to take up the interventions (time, material, information, and financial resources) may also be needed for projects to succeed. Findings across relatively “light-touch” projects suggest that in exceptionally poor contexts, women and their households need a baseline level of resources or potentially asset transfers to be able to benefit from or be empowered by agricultural development projects. This is particularly true in livelihood-focused projects that require significant capital investments.

We note that empowerment is also an ongoing and iterative process in which each stage in the process contributes to further empowerment; if this process is interrupted, then women may have difficulty further empowering themselves (Dupuis et al. 2022). The negative outcomes for women who lost credit access in the Ethiopia JP RWEE project provide a cautionary note in this regard.

Lessons learned from applying the RBET lens to evaluating the empowerment impacts of JP RWEE reinforce those learned from the GAAP2 portfolio. Similar to GAAP2, the JP RWEE synthesis suggests that future projects can *build on the successes of group-based approaches*. In all the countries, women’s groups have been core to the success of the programs, helping women build social capital, participate in public spaces, and provide opportunities to express their views.

All development interventions also need to be *mindful of workload implications*. Many project designers assume that women have time to participate in

<sup>6</sup> This section draws heavily from Quisumbing et al. (2022) and Quisumbing et al. (2023).

development interventions. Yet, even if impacts on total workload are largely insignificant, workload remains a barrier to empowerment, and women often reduce reproductive work to take on program activities. Promoting labor-saving technologies for reproductive work, providing childcare as a program component, and encouraging men to do care work may help reduce women's reproductive workload.

There is also suggestive evidence of the need to involve men in these approaches. Both portfolios (with a few exceptions) emphasized women's groups and creating a safe space for women to develop their skills and confidence. Where the intervention strategy explicitly included men, as with ANGeL in Bangladesh (Quisumbing et al. 2021a) and the Kyrgyzstan JP RWEE project (Quisumbing et al. 2023), we see strong impacts on women's empowerment. If men feel excluded from development programs that target women, there is a potential for backlash, with implications for program sustainability and empowerment results. Gender norms cannot be transformed by women alone, and future work should experiment with modalities that involve men actively.

Finally, designers of agricultural development programs should recognize that empowerment is multidimensional and that interventions that target only some aspects of empowerment may not achieve their empowerment objectives. To measure progress toward these goals, these programs should include empowerment measures as part of regular monitoring and evaluation activities; this will also allow practitioners to flag potential problems as they arise. Moreover, these measures should, like WEAI, be nuanced enough to detect differences across multiple dimensions of empowerment. Additional indicators may be needed to capture transformation of gender norms at the household and, more importantly, at the community and societal levels. Moving along the continuum from “reach” and “benefit” to “empower” and “transform” may increase the effectiveness of programs that seek to empower not only rural women but also their families and communities.

## *Policy Implications and Recommendations*

Food systems transformation is catalyzing profound changes in many aspects of society, including both positive and negative effects on women's empowerment. In turn, there is growing evidence of the importance of women's empowerment

for strengthening food systems, particularly in terms of child nutrition and diets and agricultural production (the evidence regarding women's own nutrition and diets is somewhat mixed). A better understanding of these linkages is important in designing interventions that support, rather than undermine, gender equity, leading to more productive and equitable food systems. The expanded gender and food systems framework (Njuki et al. 2022) identifies key factors to consider in understanding how structural gender inequalities can affect value chains, the food environment, and consumer behavior. The framework also calls for consideration of how women's agency, access to and control over resources, gendered social norms, and policies and governance arrangements affect the outcomes of food systems.

To achieve productive and gender-equitable food systems, interventions must go beyond reaching women to ensuring that women benefit, creating opportunities for empowerment, and ultimately contributing to gender-transformative changes in norms and systems. The evidence from quantitative and qualitative impact assessments shows that this is not easy, but intentional programming and investments that build on an understanding of the particular gendered constraints in each society can achieve results over time. While there is no single formula that works, gender-transformative programs work with both men and women to address harmful gender norms and systemic barriers that prevent women from fully contributing to—and benefiting from—food systems as producers, processors, and consumers.

Collecting gender-related data on the distribution of the costs and benefits of food systems transformation, as well as on women's empowerment at both the national level (for peer review, mutual learning, and accountability) and the project level (for evidence-based planning, implementation, and monitoring and evaluation, as indicated in the Malabo Declaration), is important for building the evidence base on what works (or does not work) and guiding future programming to be more effective in supporting women's empowerment as food systems transform.