



## How can food systems and nutrition interventions contribute to women's empowerment and gender equality?

Food insecurity, hunger, and malnutrition persist globally, with 783 million people facing chronic hunger in 2023.<sup>1</sup> Women are disproportionately affected, representing 60 percent of food insecure people worldwide.<sup>2</sup> Restrictive gender norms and inequalities contribute to these disparities, influencing food security, nutrition, health, livelihoods, and rights for women.<sup>3</sup> Therefore, empowering women might contribute to improved food security by removing some barriers to their autonomy and participation in food systems.<sup>4</sup>

On one side of the spectrum, gender-transformative interventions have shown positive impacts on some nutrition-related outcomes and addressing of certain root causes of gender inequalities.<sup>5</sup> However, the impact of food systems and nutrition (FSN) interventions on women's empowerment remains underexplored. Understanding how these interventions interact with gender dynamics can inform policymaking for transformative change, fostering inclusive and equitable food systems and sustainable development.

Building on the [FSN living evidence and gap map \(E&GM\)](#), 3ie recently completed a rapid evidence assessment (REA) to assess the impacts of different types of food supply chains, consumer behavior, and food environment interventions on women's empowerment in low- and middle-income countries (L&MICs).<sup>7</sup> The REA included evidence covering 42 programs in 19 L&MICs.

### Highlights

#### What is the effect of FSN interventions on women's empowerment outcomes?

FSN interventions positively affect women's empowerment outcomes:

- Food supply chain interventions boost collective action, leadership, women's empowerment, and access to economic resources.
- Consumer behavior interventions positively affect access to economic resources and decision-making.

To ensure more accurate, reliable, and comprehensive conclusions, more data are needed to assess the impacts of:

- Consumer behavior interventions on women's time use, collective action and leadership, gender-transformative outcomes, and self-esteem.
- Food environment interventions on overall outcomes.<sup>6</sup>

#### How to maximize interventions' effectiveness?

- FSN interventions should address gender-restrictive norms and adopt a holistic, gender-transformative approach in the design, securing women's active participation and benefit.
- For sustainable impacts, interventions should mitigate extra burdens they might place on women, which could affect their participation and outcomes.
- Interventions should strengthen the positive link between FSN and women's empowerment—although their individual effects are small, they can create mutual benefits.

## What is the state of the evidence on the effect of FSN interventions on women's empowerment?

**The quantitative evidence base on the effect of FSN interventions on women's empowerment is relatively scarce compared to the size of the body of evidence on FSN interventions.** This REA identified 44 unique quantitative studies, which amount to just 2 percent of the papers found in the FSN E&GM.

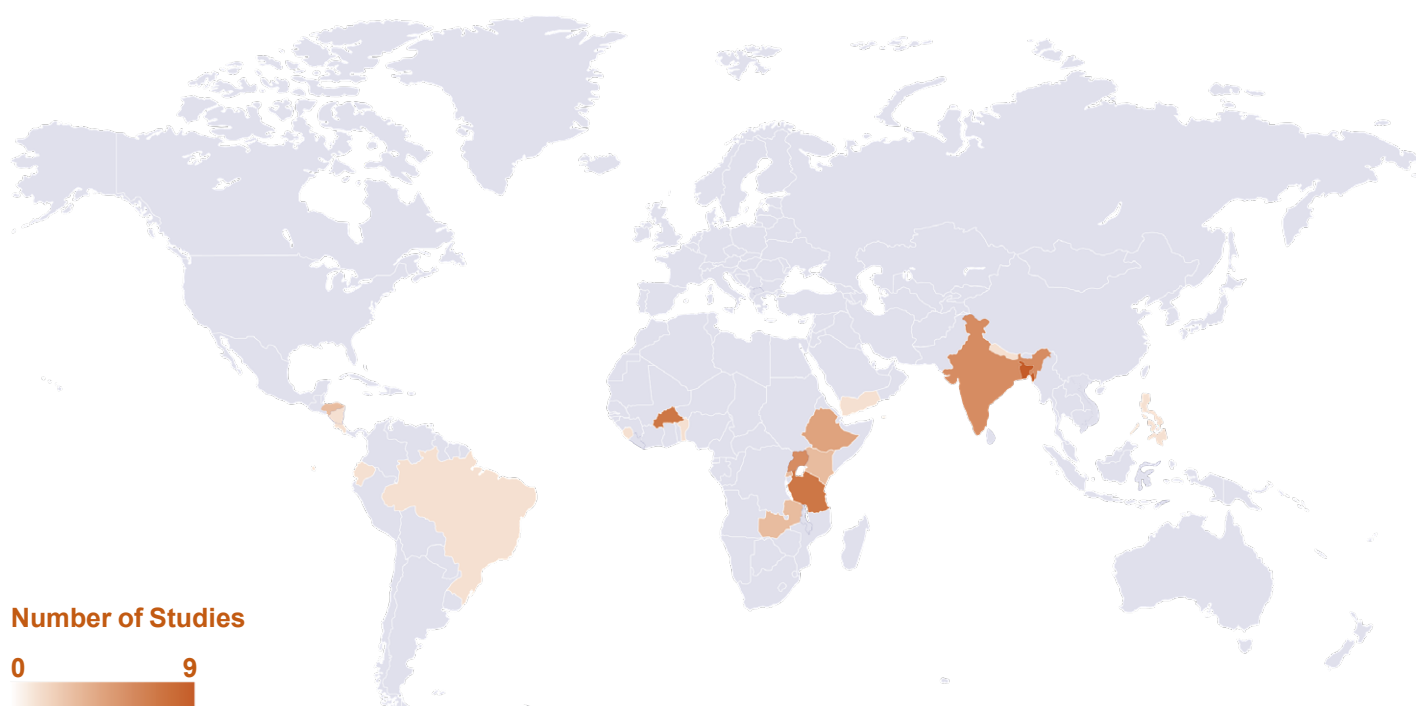
**Included studies mostly focus on interventions in Sub-Saharan Africa and Southeast Asia.** Half of the studies took place in Sub-Saharan

Africa (n=22). South Asia was the second most prevalent region (n=14), and six evaluations also focused on Latin America and the Caribbean. However, only one study was conducted in the Middle East and North Africa (n=1) and East Asia and the Pacific (n=1), respectively.

**Evidence is unevenly distributed across interventions and outcomes and does not cover all the specific interventions of each category.** We found 36 studies on food supply chain interventions that mostly focus on

women's decision-making, access to resources, land and asset ownership, and other empowerment outcomes. Many of these interventions were educational programs like farmer field schools. However, there was a gap in research on other crucial areas of the food supply chain, such as food storage, distribution, processing, packaging, and waste management. Similarly, other intervention categories, such as consumer behavior or food environment, have a much smaller body of evidence.

**Figure 1: Map of studies by country**



**Table 1: Distribution of quantitative IEs by intervention-outcome pairing**

	Food supply chain	Consumer behavior	Food environment	Grand total
Decision-making	22	3	2	26
Other empowerment outcomes and indices	15	3	2	19
Access to economic and livelihood resources	15	5		18
Ownership of land and assets	15	2		16
Control over resources	11	5	1	14
Collective action and leadership	11	1		11
Gender transformative outcomes	8	1		10
Self-esteem	8	1		9
Time use	6	1		6
Women's rights	5			5
Grand Total	36	8	5	44

## What is the effect of FSN interventions on women's empowerment outcomes?

**FSN interventions show mostly positive effects on women's empowerment outcomes.** We conducted 14 meta-analyses; 9 of them showed significant positive impacts on women's empowerment. None of the interventions had negative effects. We found that some *food supply chain* interventions had a statistically significant, moderate, and positive effect on *collective action, leadership*, and other empowerment indices. *Consumer behavior interventions* improved access to economic and livelihood resources. We also identified small positive effects of some *food supply chain interventions* on access to economic livelihood resources, decision-making, or gender-transformative outcomes, and of some *consumer behavior interventions* on control over resources and decision-making.

**There were no consistent patterns in how different factors affect women's empowerment outcomes.** When we looked at intervention features, contexts, study methods, and many other moderators, we did not identify any consistent patterns in how they influenced women's empowerment. However, we noticed that *food supply chain* interventions in countries with higher gender inequality had a greater positive impact on some women's rights.

**Nearly 70 percent of the included estimates have a high risk of bias.** This means that the included quantitative study results might have been influenced by factors such as how study participants were chosen and how outcomes were collected and analyzed. Moreover, the overall

quality assessment of the qualitative evidence led to nearly 60 percent of the studies being excluded due to quality concerns, with the remaining studies assessed as low to moderate quality.

**There are several gaps in the body of evidence,** including *consumer behavior interventions on women's time use, collective action and leadership, gender-transformative outcomes, self-esteem outcomes, and food environment* interventions on most of the measured outcomes. Therefore, it is important to interpret these findings cautiously, meaning that the absence of positive effects on some outcomes reported in this systematic review does not indicate that the interventions were ineffective.



## What are the main barriers, facilitators, and unintended consequences of FSN interventions?

### **Restrictive gender norms, violence, and women's low self-esteem are major obstacles for women.**

These barriers limit women's asset control, wages, mobility, and participation in income-generating activities, reinforcing male dominance in households and communities. Economic and political systems often exacerbate these restrictive gender norms, making it even harder for women to improve their empowerment. Further, certain groups of women, such as orphaned girls, young farmers, and out-of-school adolescents, may face additional challenges that can affect their involvement and benefits from interventions.

### **On the other hand, evidence shows that a supportive social environment and liberalizing restrictive norms can catalyze the effects of FSN interventions on women's empowerment outcomes.**

Changing social norms—including men challenging traditional gender roles, buy-in from local authorities, or community role models advocating for women's empowerment—facilitated women's active participation and increased their benefits from interventions. This change can be fostered through close communication between intervention staff, participants, and local stakeholders, using tools such as communication campaigns and field visits.

### **FSN interventions can unintentionally add social, economic, or administrative burdens on women, increasing their stress beyond their existing household and community responsibilities.**

These interventions might also create dependency among participants. Consequently, participants, especially women, might lack the incentive to either participate in an intervention that will increase administrative, social, or economic pressure or not *graduate* from an intervention that addresses a social, economic, or political need.





## What should policymakers, researchers, and practitioners consider when working in this sector?

### For policymakers and implementers

**Policymakers and implementers can contribute to women's empowerment by implementing FSN interventions.** Some FSN interventions have demonstrated small yet positive effects on women's empowerment outcomes, such as *access to economic resources, decision-making, or collective action and leadership*. In addition, by building on the available evidence, policymakers and implementers can further explore the iteratively positive relationship between FSN and women's empowerment.

**To maximize the effect of FSN interventions on women's empowerment outcomes, policymakers and implementers should consider the importance of addressing gender-restrictive norms.** Although women's empowerment might not be the primary objective of FSN interventions, their design should tackle gender-restrictive norms that hinder women's participation and benefits. Adopting a gender-transformative approach may enhance the effectiveness and inclusiveness of FSN interventions by involving other stakeholders (e.g., men, political authorities, role

models), addressing additional vulnerabilities women face, or specifically targeting women in their design.

**Implementers and policymakers should be mindful of the potential burdens and dependencies that interventions might impose on women beneficiaries.** Given their numerous roles and responsibilities at home and in the community, participating in FSN interventions could add administrative, social, or economic pressures on women (e.g., more labor demands, processes for marriage registration, childcare, etc.). Additionally, interventions must be designed sustainably to prevent creating dependencies, particularly in income-generating activities. For empowerment to be effective, interventions should be feasible and sustainable from the participants' viewpoint.

### For researchers

**Despite the growing body of evidence on FSN and women's empowerment, several evidence gaps remain.** The current body of evidence on FSN and women's empowerment only represents a small part of the wider body of evidence on FSN and does not cover some intervention aspects

(particularly under *consumer behavior and food environment*), outcomes (particularly related to inclusive policymaking), or geographies, because regions such as Middle East and North Africa or East Europe remain underrepresented. In addition, the analysis of designs highlighted the need for larger follow-up periods to observe the interventions' longer term effect on women's empowerment.

**Enhancing analyses' accuracy through improved methodological rigor and transparency** will benefit both quantitative and qualitative evidence. Future research can address some of the methodological gaps observed in the body of evidence to enhance the reliability of findings and potentially increase the accuracy of both quantitative and qualitative data.

**Finally, considering the constant growth of the FSN body of evidence, future research should seek to update the current synthesis findings on women's empowerment and FSN.** As evidence grows, some evidence gaps might be filled and allowed to bring a new perspective or additional interventions and outcomes to the analyses that will better inform future programming.



## About this brief

This brief is based on the report, *The effects of food systems interventions on women's empowerment: A rapid evidence assessment*. The brief is authored by Etienne Lwamba, Ingunn Storhaug, Pierre Marion, Ashiqun Nabi, Sanghwa Lee, and Shannon

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## Endnotes

<sup>1</sup> World Food Programme (WFP). 2024. *A Global Food Crisis*. Accessible at: <https://www.wfp.org/global-hunger-crisis>.

<sup>2</sup> WFP. 2021. *WFP Gender Policy*. Rome, Italy: WFP. Accessible at: [https://executiveboard.wfp.org/document\\_download/WFP-0000132139](https://executiveboard.wfp.org/document_download/WFP-0000132139).

<sup>3</sup> Feed the future. 2022. *Empowering Women for Food Security*. Accessible at: <https://cg-281711fb-71ea-422c-b02c-ef79f539e9d2.s3.us-gov-west-1.amazonaws.com/uploads/2022/08/Womens-Empowerment-Fact-Sheet-1.pdf>; Maraka, Joshua M. 2021. "Gender Equality, Women's Empowerment and Food Systems." *CGIAR Gender Platform* (blog). November 15, 2021. Accessible at: <https://gender.cgiar.org/news/gender-equality-womens-empowerment-and-food-systems>.

<sup>4</sup> Ibid.

<sup>5</sup> Berretta, Miriam, Meital Kupfer, Shannon Shisler, and Charlotte Lane. 2023. "Rapid Evidence Assessment on Women's Empowerment Interventions within the Food System: A Meta-Analysis." *Agriculture & Food Security* 12 (1): 13. <https://doi.org/10.1186/s40066-023-00405-9>.

<sup>6</sup> Overall outcomes refer to control over resources, time use, decision-making, self-esteem, and other empowerment outcomes and indices.

<sup>7</sup> For more details, see <https://3ieimpact.org/sites/default/files/2024-04/FSNWE-REA-Protocol.pdf>.



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