



DOI: <https://doi.org/10.38035/dijemss.v7i4>
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Women's Agency in Community-Based Agriculture: A Systematic Review of Women Farmers' Groups

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Abstract: This article examines women's agency in community-based agriculture, focusing on Women Farmers' Groups (Kelompok Wanita Tani). The study explores how agency is conceptualised, enabled, and constrained within these collectives, clearly distinguishing it from mere participation and outcome-based measures of empowerment. A Systematic Literature Review of 31 peer-reviewed articles published since 2010 was conducted using Scopus, Web of Science, and Google Scholar. By applying qualitative thematic synthesis, the findings reveal four interrelated themes. First, agency is a multidimensional and process-oriented construct that encompasses decision-making power, resource control, and autonomy, though it has varying levels of conceptual clarity. Second, collective action, participatory governance, and capacity-building act as highly context-dependent enabling mechanisms. Third, institutional support is critical but carries the risk of creating program-dependent empowerment through top-down interventions. Fourth, persistent structural constraints such as gender norms, unequal resource control, and time poverty continue to limit autonomy despite active participation. Ultimately, these organizations only foster transformative empowerment when conditions permit meaningful decision-making and control over agricultural practices. This review contributes by clarifying the conceptual boundaries between participation, empowerment outcomes, and women's agency, providing a process-oriented understanding of how this agency is negotiated.

Keywords: Women's agency, women farmers' groups, community-based agriculture, women's empowerment.

INTRODUCTION

Women play a critical role in community-based agriculture, contributing substantially to food production, household nutrition, and rural livelihoods across many low- and middle-income countries (Doss et al., 2018; Gonzalez Parrao et al., 2021). Women are actively engaged in small-scale farming, home gardening, post-harvest processing, and informal food markets, often alongside significant unpaid care and domestic responsibilities (Surma, 2023; Bryan et al., 2017). Despite their central role, women continue to face persistent structural barriers in

access to land, productive assets, credit, training, and decision-making authority within agricultural systems (Doss et al., 2018; Gonzalez Parrao et al., 2021).

In response to these gendered inequalities, collective arrangements such as women farmers' groups, cooperatives, self-help groups, and community-based producer organisations have been widely promoted as mechanisms to enhance women's empowerment in agriculture. These groups are expected to facilitate collective action, improve access to resources and markets, and strengthen women's participation in agricultural decision-making processes (Farnworth et al., 2022; Farnworth et al., 2021; Rai et al., 2025). Consequently, women farmers' groups have become a central feature of agricultural development programmes and gender-focused policy interventions.

However, empirical evidence on the empowerment effects of women farmers' groups remains inconclusive. While many studies document positive outcomes such as increased income, enhanced skills, improved food security, and greater participation in agricultural activities, these outcomes do not necessarily translate into women's agency (Malapit, 2017). Participation in group activities may occur without women gaining meaningful control over resources, strategic decisions, or innovation processes. Recent literature therefore highlights the need to distinguish between participation, empowerment outcomes, and agency as a process of decision-making and control (Meinzen-Dick et al., 2019).

Women's agency is increasingly conceptualised as the capacity to make purposeful choices and to act upon those choices within existing social, economic, and institutional constraints (Wagle et al., 2010). In agricultural contexts, agency encompasses decision-making power over production and income, control over productive assets, leadership within collective organisations, and the ability to influence how agricultural practices and interventions are adopted (Malapit, 2017). Nevertheless, much of the literature continues to equate agency with observable outcomes such as productivity gains or technology adoption, thereby obscuring the processes through which women gain—or fail to gain—autonomy and voice.

Community-based agriculture is also closely linked to innovation, including new farming techniques, organisational practices, and digital tools for coordination and marketing. In smallholder settings, innovation is typically incremental, socially embedded, and shaped by collective learning processes rather than formal research and development systems (Kivimaa et al., 2019; Opola et al., 2021). However, innovation does not inherently enhance women's agency. Studies show that innovation-related interventions may increase women's workloads or reinforce existing gender hierarchies when women lack control over decision-making and resource allocation (Farnworth et al., 2019). This underscores the importance of examining innovation as a process that intersects with organisational structures and power relations, rather than as an outcome in itself (Petesch & Prain, 2018).

A growing body of research has examined women's empowerment in agriculture using diverse methodological approaches, including qualitative case studies, mixed-method designs, and quantitative indices such as the Women's Empowerment in Agriculture Index (WEAI) (Malapit, 2017). Several reviews have synthesised evidence on women's participation, productivity, and food security outcomes. However, existing reviews often prioritise measurement frameworks or economic impacts, with limited attention to how women's agency is conceptualised and shaped within women farmers' groups as organisational and institutional settings (Meinzen-Dick et al., 2019). As a result, there remains insufficient synthesis of the mechanisms through which collective action, institutional support, and innovation-related practices enable or constrain women's agency in community-based agriculture.

To address this gap, this study conducts a systematic literature review of research on women farmers' groups in community-based agricultural contexts, with a specific focus on women's agency. Drawing on 31 peer-reviewed studies published since 2010, the review aims to clarify how women's agency is conceptualised, identify mechanisms that enable or constrain

agency within women farmers' groups, examine the role of institutional and external support, and highlight persistent gaps in the literature. Rather than evaluating the effectiveness of specific interventions, this review adopts a process-oriented perspective to understand how women's agency is formed, negotiated, and limited within collective agricultural settings.

Accordingly, the study is guided by the following research questions:

1. How is women's agency conceptualised in the literature on community-based agriculture and women farmers' groups?
2. What mechanisms enable or constrain women's agency within women farmers' groups?
3. What roles do institutional and external support structures play in shaping women's agency?
4. What limitations and gaps remain in existing research on women's agency in community-based agriculture?

By foregrounding agency as a central analytical concept, this review contributes to contemporary gender and development scholarship by moving beyond participation and outcome-based assessments toward a deeper understanding of empowerment processes. The findings also offer insights for policymakers and practitioners seeking to design community-based agricultural interventions that support more transformative forms of women's agency. The problem formulation contains article questions that must be explained in the discussion and answered in the conclusion.

METHOD

1. Research Design

This study adopts a Systematic Literature Review (SLR) to synthesise existing research on women's agency in community-based agriculture, with a particular focus on women farmers' groups. An SLR is appropriate for addressing conceptual and process-oriented research questions, as it allows for a transparent and replicable synthesis of findings across diverse methodological approaches (Booth, 2016; Snyder, 2019).

Rather than evaluating the effectiveness of specific interventions, this review aims to clarify how women's agency is conceptualised, enabled, and constrained within collective agricultural settings. Given the heterogeneity of the literature, the review employs a qualitative thematic synthesis to integrate evidence from qualitative, quantitative, mixed-method, and review studies (Braun & Clarke, 2021b).

2. Search Strategy and Data Sources

The literature search was conducted using major academic databases commonly used in social science and agricultural research, including Scopus, Web of Science, and Google Scholar. To enhance coverage and reduce the risk of omission, backward and forward citation tracking was applied to key articles (Wohlin et al., 2022).

Search strings were developed iteratively to capture studies at the intersection of women, agency, agriculture, and collective organisation. Keywords included combinations of:

- a. "women's agency" OR "women's empowerment"
- b. "women farmers' groups" OR "women farmer organisations" OR "Kelompok Wanita Tani"
- c. "community-based agriculture" OR "collective action" OR "farmer groups"

The search was limited to peer-reviewed journal articles published from 2010 onwards, reflecting contemporary debates and frameworks in gender and agricultural research. (Braun & Clarke, 2021b).

3. Inclusion and Exclusion Criteria

Studies were selected based on predefined inclusion and exclusion criteria to ensure analytical relevance and consistency.

Inclusion criteria were:

- a. A focus on women in agricultural contexts.
- b. Explicit or implicit discussion of women's agency or empowerment.
- c. Examination of group-based or community-based agricultural arrangements, such as women farmers' groups or cooperatives.
- d. Peer-reviewed journal articles published since 2010.

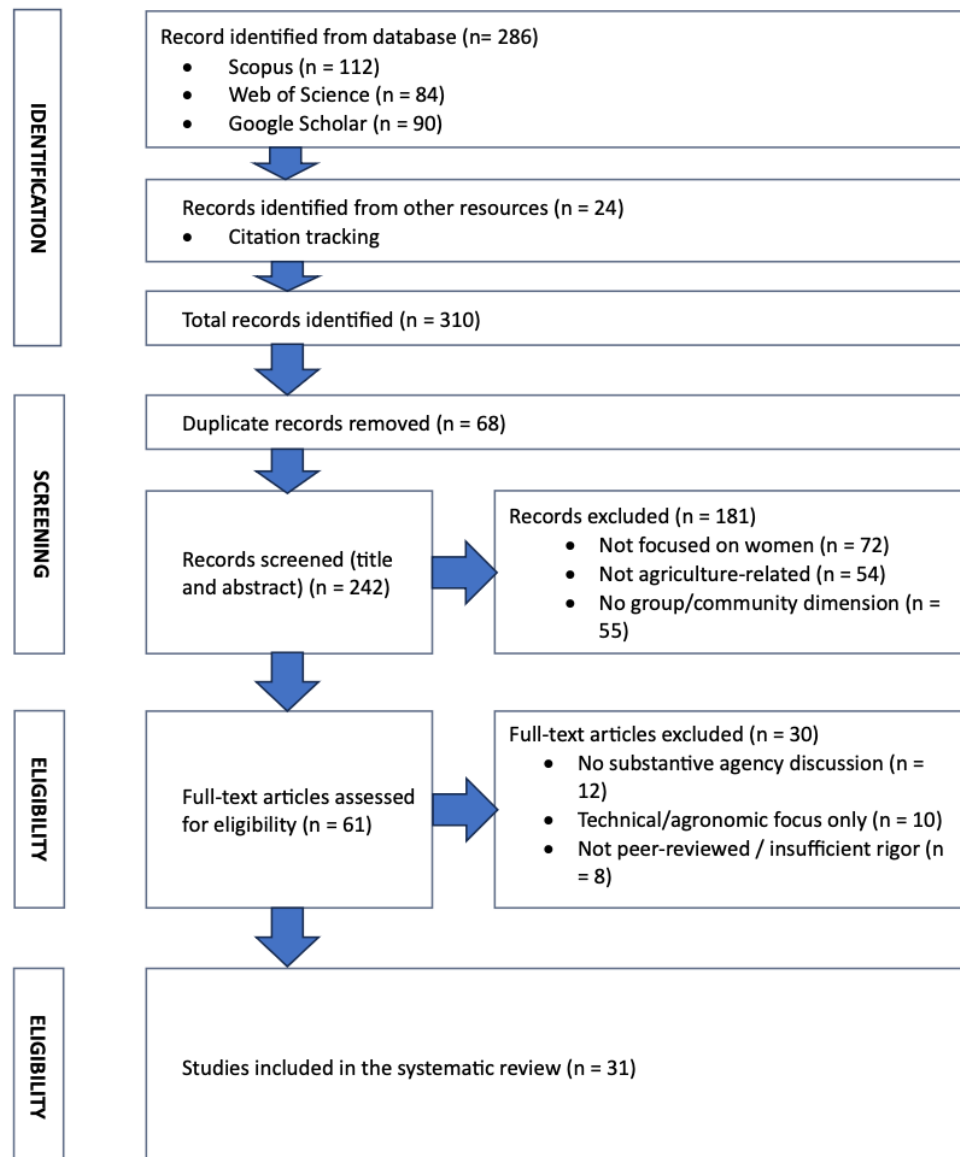
Exclusion criteria were:

- a. Studies focused solely on technical or agronomic outcomes without gender analysis.
- b. Articles treating women only as labour inputs without reference to agency, decision-making, or empowerment.
- c. Non-peer-reviewed sources such as reports, policy briefs, or opinion pieces.

4. Study Selection Process

The study selection followed a structured, multi-stage procedure consistent with PRISMA guidelines (Page et al., 2021). Titles and abstracts were first screened for relevance based on the inclusion criteria. Articles meeting these criteria were then subjected to full-text review to assess their substantive contribution to understanding women's agency in community-based agriculture.

Following this process, 31 peer-reviewed studies were identified as eligible and included in the final review corpus. All included studies contributed meaningfully to at least one analytical dimension of the review.



Source: Research Results
Figure 1. Study Selection Process

5. Data Extraction

The study selection followed a structured, multi-stage procedure consistent with PRISMA guidelines (Page et al., 2021). Titles and abstracts were first screened for relevance based on the inclusion criteria. Articles meeting these criteria were then subjected to full-text review to assess their substantive contribution to understanding women’s agency in community-based agriculture.

Data were extracted using a structured review matrix to ensure consistency across studies with diverse designs (Snyder, 2019). For each article, the following information was recorded:

- a. Author(s) and year of publication
- b. Geographic and institutional context
- c. Type of women farmers’ group or collective arrangement
- d. Methodological approach
- e. Conceptualisation of women’s agency

- f. Mechanisms enabling women's agency
- g. Constraints limiting women's agency
- h. Role of institutions or external support
- i. Key findings and reported limitations

This systematic extraction facilitated cross-study comparison and thematic synthesis.

6. Data Analysis and Synthesis

- a. The extracted data were analysed using qualitative thematic synthesis, suitable for integrating mixed-method evidence bases (Lorenc et al., 2024). Analysis proceeded through three iterative stages (Braun & Clarke, 2021b).
- b. First, open coding was conducted to identify concepts related to women's agency, including decision-making power, control over resources, leadership participation, collective action, autonomy, and time burden.
- c. Second, axial coding grouped related codes into broader analytical categories, such as forms of agency, enabling mechanisms, institutional influences, and structural constraints. Relationships between categories were examined to identify patterns and variations across contexts.
- d. Finally, selective coding refined these categories into overarching themes that directly addressed the research questions. Through cross-study comparison, four core themes were identified: conceptualisations of women's agency; mechanisms enabling agency within women farmers' groups; institutional and external influences on agency; and persistent constraints and research gaps.
- e. Data were extracted using a structured review matrix to ensure consistency across studies with diverse designs (Snyder, 2019). For each article, the following information was recorded:

7. Analytical Rigor and Limitations

Analytical rigor was ensured through iterative comparison across studies and continuous refinement of themes. The synthesis prioritised conceptual coherence and explanatory depth rather than frequency counts, recognising the diversity of methodological approaches within the reviewed literature (Braun & Clarke, 2021a).

As a systematic literature review, this study is limited by the scope and quality of existing published research. While the review does not include primary empirical data, synthesising evidence from 31 peer-reviewed studies provides a robust and theoretically grounded understanding of women's agency in community-based agriculture.

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RESULTS AND DISCUSSION

Result

This section presents the findings of the systematic literature review based on the thematic synthesis of 31 peer-reviewed studies on women's agency in community-based agriculture and women farmers' groups. The analysis yielded four interrelated themes: (1) conceptualisations of women's agency, (2) mechanisms enabling agency within women farmers' groups, (3) institutional and external influences on agency, and (4) persistent constraints and research gaps.

A total of 31 studies were included in this systematic review after the screening and eligibility assessment process. The included studies represent diverse geographical contexts

and methodological approaches, including qualitative, quantitative, mixed-method, and experimental designs. Table 1 summarises the characteristics of the included studies, including authors, publication year, country, research method, and research focus.

Table 1. Characteristics of the Included Studies (n = 31)

No	Author	Year	Country	Method	Focus
1	Gupta	2024	Rural India	Systematic Literature Review	Women’s participation in agriculture increases income and dietary diversity but also raises time burden for women.
2	Arbian & Wardani	2025	Wonosobo, Indonesia	Qualitative case study	KWT strengthens women’s skills, marketing networks, income, and participation in village development.
3	Prajuliyanto	2025	Blitar, Indonesia	Qualitative descriptive	KWT participation improves household income and women’s leadership despite limited access to capital and markets.
4	Setiawan et al.	2025	Kuningan, Indonesia	Community empowerment program	Product innovation and digital marketing training enhance women’s entrepreneurship and family income.
5	Alfiyani et al.	2024	Jember, Indonesia	Survey & Path analysis	Motivation and agricultural extension significantly influence the empowerment of women farmers groups.
6	Rahmawati et al.	2023	Tasikmalaya, Indonesia	Qualitative	Empowerment of KWT remains limited due to inadequate training and institutional support.
7	Luthfifah et al.	2023	Sukoharjo, Indonesia	Qualitative	The ACTORS empowerment model improves women’s economic welfare, social networks, and self-confidence.
8	Prajuliyanto	2025	Blitar villages	Qualitative	KWT functions as a collective platform that enhances agricultural skills and women’s social participation.
9	Setiawan et al.	2025	Cipedes Village	Community empowerment program	Food product innovation and digital marketing improve local product competitiveness and household economy.
10	Alfiyani et al.	2024	Jember Regency	Survey	Processing local agricultural products and extension activities strengthen KWT empowerment.
11	Arintyas, A. P. R. D. A.	2024	Indonesia (Merangin & Yogyakarta)	Literature review, best practices, narratives	Focuses on the empowerment process of women farmers for wellbeing. Findings: Barriers include lack of resources (land, credit) and gender norms that limit women's agency.
12	Njuki, J., et al.	2022	Global (LMICs)	Scoping review	Assesses pathways between gender equality and food systems. Findings: Women's empowerment is strongly linked to improved family nutrition and dietary diversity.
13	Galiè, A., et al. (ILRI & Emory)	2020	Tanzania & Honduras	Index development & testing (WELI)	Evolution of measurement tools from WEAI to the <i>Women’s Empowerment in Livestock Index</i> (WELI). Findings: Importance of sector-specific tools to

No	Author	Year	Country	Method	Focus
					understand women's decision-making in livestock.
14	Dabkienė, V.	2025	Lithuania / Europe	Systematic Literature Review (PRISMA)	Gender barriers and agricultural innovation. Findings: Women play a pivotal role in implementing sustainable agricultural practices to achieve SDGs.
15	Quisumbing, A., et al.	2023	Global (11 projects)	Review & impact evaluation (WEAI)	Innovations in measuring empowerment. Findings: Reviews "what works" to empower women based on a portfolio of agricultural development projects using standardized measures.
16	Santosa, I. A., et al.	2024	Kamojang, Indonesia	Qualitative (Social mapping to Systemic change)	Empowerment of the Rengganis Women Farmers Group (KWT) through CSR. Findings: Social innovation effectively enhances group capacity and strengthens local food security.
17	Purwanto, E., et al.	2025	Indonesia	Qualitative / Literature study (Diffusion of Innovation)	Role of digital communication in KWT empowerment through <i>smart farming</i> . Findings: Technology adoption follows 5 stages; digital communication is crucial for education and evaluation.
18	Setiawan, I., et al.	2025	Kuningan, West Java	Training, mentoring, & evaluation	Entrepreneurial empowerment of KWT through "sagon" food product innovation. Findings: Product innovation (taste & packaging) improves entrepreneurial skills and economic value.
19	Sinaga, R., et al.	2024	Gunungkidul, Yogyakarta	Qualitative descriptive (Observation & Interview)	Women's empowerment through KWT in Semoyo Village. Findings: Empowerment efforts include awareness raising, technical training, and group cooperation to support local economy.
20	Sari, Y. A., et al.	2023	Indonesia	Qualitative / Library research	Agrarian innovation through yard land utilization and social capital. Findings: Crop diversification and the use of social capital are vital for agricultural efficiency and community welfare.
21	Tazkiyatunnufus, M., et al.	2024	Cilegon, Indonesia	Qualitative Descriptive (Observation, Interview)	Focuses on KWT (Women Farmers Groups) to improve food security. Findings: Active involvement in home-lot farming significantly increases household food availability.
22	Singh, S., et al.	2022	Low- and Middle-Income Countries (LMICs)	Protocol for Systematic Review	A protocol to assess the effectiveness of Gender Transformative Approaches (GTA) in agriculture and the mechanisms through which they improve empowerment.
23	Gartaula, H. N., et al.	2025	Global (Review)	Systematic Review	Evaluates the pro-WEAI index in impact studies. Findings: Projects involving men and providing asset

No	Author	Year	Country	Method	Focus
			of 626 articles)	(PRISMA framework)	transfers are more successful, but some projects inadvertently increased women's workload.
24	APO (Adikaram, A. S., ed.)	2025	Selected APO Members (Asia-Pacific)	Field Study / Expert Review	"Voices from the Fields": Explores systemic barriers (land, finance, technology) and productivity tools for women farmers across 21 member countries.
25	Ragsdale, K., et al.	2018	Northern Region, Ghana	Quantitative (Baseline WEAI+ Survey)	Explores gender equity in soybean farming. Found that women are often less empowered than men in terms of leadership and access to credit, despite high labor contribution.
26	Shams, R. A., et al.	2022	Bangladesh	Empirical Study (Survey of 193 farmers)	Investigates end-user values in agricultural mobile app development. Findings: Fairness, social recognition, and honesty are key values for marginalized female farmers.
27	Lecoutere, E., et al.	2023	Eastern Uganda	Field Experiment (Randomized Trial)	Tested information targeting via videos. Findings: Targeting women directly or using female role models in videos increases technical knowledge and challenges traditional gender norms.
28	Nur, H. & Atoloye, A. T.	2025	Global	Perspective / Review	Discusses the "International Year of the Woman Farmer 2026." Findings: Giving women equal access to resources can increase their productivity by 20–30%, boosting global food security.
29	Doss, C. & Rubin, D.	2025	Various (Mali, Ghana, Nepal, etc.)	Mixed Methods (Long-term Collaboration)	Reflects on 15 years of studying empowerment. Findings: Mixed methods reveal that "joint" decision-making isn't always empowering and highlights the importance of agency over time.
30	McGuire, E., et al.	2022	Global (Developing Countries)	Literature Review	Analyzes gender impacts when "scaling up" agricultural innovations. Findings: Innovations often fail to reach women if they do not account for restrictive local social norms.
31	Setiyaningsih, E. W.	2025	Pejagoan Village, Kebumen, Indonesia	Qualitative Descriptive (Case Study)	Empowering Women Farmers through Public Services and HR: Analyzes how HR development and public service quality affect Women Farmers Group (KWT) performance. Findings: Training and synergy between the village government and agricultural office are key to successful yard-based food production.

Table 2. Thematic Synthesis of Women’s Agency in Community-Based Agriculture

Theme	Description	Evidence from the Reviewed Studies
Conceptualisations of Women’s Agency	Women’s agency is conceptualised as a multidimensional and process-oriented construct involving decision-making power, control over productive resources and income, leadership, and autonomy within agricultural systems.	Most studies conceptualise agency as women’s capacity to participate in decision-making and influence agricultural practices. Several studies emphasise leadership roles and voice within women farmers’ groups as key indicators of agency. A smaller number of studies adopt a relational perspective, describing agency as negotiated within household, community, and institutional contexts.
Mechanisms Enabling Women’s Agency	Women farmers’ groups can enable agency through collective action, participatory governance, knowledge sharing, and capacity-building processes.	Many studies report that collective organisation strengthens women’s confidence, social capital, and bargaining power. Several studies highlight the importance of inclusive governance structures and leadership opportunities within groups. Training programmes, peer learning, and knowledge exchange are also identified as mechanisms supporting women’s agency.
Institutional and External Influences on Agency	Institutional actors such as public services, agricultural extension systems, NGOs, and development programmes shape women’s opportunities to exercise agency.	Several studies show that institutional support improves women’s access to resources, information, and markets. Some studies indicate that formal recognition of women farmers’ groups increases women’s visibility and bargaining power in local governance structures. However, a number of studies caution that externally driven programmes may create program-dependent empowerment if women are not involved in decision-making processes.
Persistent Constraints and Research Gaps	Structural barriers continue to limit women’s agency despite participation in collective agricultural initiatives.	Many studies highlight gender norms and unequal control over resources as persistent constraints. Several studies identify time poverty and unpaid care responsibilities as barriers to women’s participation and leadership. A small number of studies note that existing research

		often focuses on short-term outcomes rather than examining how women’s agency evolves over time.
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1. Conceptualisations of Women’s Agency

Across the reviewed literature, most studies conceptualise women’s agency as a multidimensional and process-oriented construct rather than a static outcome. Agency is commonly associated with women’s capacity to participate in decision-making, exercise control over productive resources and income, and influence outcomes at household, group, or community levels. Several studies emphasise leadership roles and voice within women farmers’ groups as key expressions of agency.

However, conceptual clarity varies substantially. While some studies explicitly distinguish agency from participation and empowerment outcomes, others implicitly equate agency with observable indicators such as increased productivity, income, or adoption of agricultural practices. This variation reflects an underlying tension between process-based and outcome-based interpretations of empowerment within the literature.

A smaller number of studies adopt a relational understanding of agency, framing it as negotiated and context-dependent, shaped by interactions between women, household members, community norms, and institutional actors. Within this perspective, agency is not treated as an individual attribute alone, but as emerging through collective arrangements and social recognition. Overall, the findings indicate broad agreement that women’s agency in community-based agriculture is dynamic and context-specific, though its operationalisation remains inconsistent across studies.

2. Mechanisms Enabling Women’s Agency within Women Farmers’ Groups

The literature identifies several mechanisms through which women farmers’ groups may enable women’s agency. Collective action emerges as a central mechanism, providing women with opportunities to pool resources, share knowledge, and engage collectively with external actors. Group participation is frequently associated with increased confidence, social capital, and bargaining power, particularly in contexts where women face social or mobility constraints.

Participatory governance and leadership opportunities within women farmers’ groups also play a significant role. Studies indicate that groups characterised by inclusive decision-making processes and rotating or shared leadership structures are more likely to support women’s agency. In contrast, groups with rigid hierarchies or externally controlled governance arrangements tend to limit women’s influence, even when women are actively involved in group activities.

Knowledge acquisition and capacity-building processes, including training, peer learning, and collective experimentation, are further identified as enabling mechanisms. These processes enhance women’s technical skills and confidence, contributing to greater involvement in decision-making. However, the extent to which these mechanisms translate into sustained agency varies across contexts and depends on women’s ability to exercise control over the application of acquired knowledge.

Importantly, the findings indicate that group membership alone does not guarantee agency. Agency gains are uneven and contingent on organisational design, access to resources, and broader social conditions.

3. Institutional and External Influences on Women's Agency

Institutional and external actors play a critical role in shaping women's agency in community-based agriculture. Public services, agricultural extension systems, non-governmental organisations, and development programmes frequently provide training, inputs, and organisational support to women farmers' groups. Such support can enhance women's access to resources, institutional recognition, and opportunities for engagement beyond the household.

Several studies highlight the importance of institutional legitimacy, noting that formal recognition of women farmers' groups can strengthen women's visibility and bargaining position within local governance structures. External support can also facilitate access to markets, credit, and information that may otherwise remain inaccessible.

At the same time, the literature documents ambivalent effects of external interventions. In some cases, programme-driven initiatives prioritise predefined targets or technology adoption over women's participation in decision-making processes. This can result in forms of program-dependent empowerment, where women benefit from resources and activities without gaining long-term autonomy or control. These findings suggest that institutional support is most effective when it reinforces, rather than substitutes for, women's collective agency.

4. Persistent Constraints and Research Gaps

Despite evidence of positive outcomes associated with women farmers' groups, persistent constraints on women's agency are consistently reported across the literature. Gender norms and power relations remain a dominant barrier, shaping women's access to land, assets, and decision-making authority within households and communities. Even where women participate actively in groups, these norms often limit their ability to control income or make strategic choices.

Time poverty and unpaid care responsibilities further constrain women's capacity to exercise agency. Several studies note that participation in group activities and innovation-related practices may increase women's workloads without reducing domestic responsibilities, thereby limiting the transformative potential of empowerment initiatives.

The review also identifies key research gaps. Many studies focus on short-term outcomes rather than examining agency as a longitudinal process. Limited attention is paid to internal governance dynamics within women farmers' groups or to how agency evolves in response to resistance, conflict, or institutional change. These gaps point to the need for future research that more explicitly examines the conditions under which collective arrangements lead to sustained and transformative forms of women's agency.

Discussion

This systematic literature review set out to examine how women's agency is conceptualised, enabled, and constrained within women farmers' groups in community-based agriculture. By synthesising findings from 31 peer-reviewed studies, the review moves beyond outcome-oriented assessments of empowerment to foreground agency as a process shaped by organisational, institutional, and structural dynamics. The discussion interprets the findings in relation to existing scholarship and highlights the theoretical, practical, and research implications of adopting an agency-centred perspective.

Previous literature reviews on women's empowerment in agriculture have largely focused on measurement frameworks, agricultural productivity, and the impact of development interventions. Many of these reviews examine empowerment through quantitative indicators such as decision-making authority, access to resources, and economic participation, often using frameworks such as the Women's Empowerment in Agriculture Index (WEAI). While these reviews provide important insights into the outcomes of empowerment initiatives, they tend to

place less emphasis on the organisational and relational processes through which women's agency develops. In contrast, the present review focuses specifically on women farmers' groups as collective organisational settings where agency is negotiated and enacted. By examining the organisational dynamics, institutional influences, and innovation-related processes shaping agency, this review offers a process-oriented perspective that complements and extends existing literature on women's empowerment in agriculture.

1. Reframing Empowerment: From Participation to Agency

A central insight emerging from this review is the persistent conflation of women's participation with women's agency in community-based agricultural initiatives. While participation in women farmers' groups is frequently associated with positive outcomes—such as increased income, improved skills, or enhanced food security—the findings demonstrate that participation alone does not guarantee agency. Women may engage actively in group activities while remaining excluded from strategic decision-making and control over resources.

This distinction is critical for both theory and practice. Treating participation or observable outcomes as proxies for empowerment risks overstating the transformative potential of women farmers' groups. By contrast, an agency-centred approach emphasises women's ability to exercise choice, influence decisions, and shape agricultural practices. The review therefore supports recent calls to shift analytical attention from “what women do” to “what women can decide and control” within collective agricultural settings.

2. Women Farmers' Groups as Organisational Spaces of Agency

The findings underscore that women farmers' groups function not merely as delivery mechanisms for agricultural interventions, but as organisational spaces in which agency is negotiated and enacted. Collective action, participatory governance, and leadership opportunities emerge as key mechanisms through which agency can be strengthened. Groups that enable inclusive decision-making and shared leadership are more likely to support women's agency than those characterised by rigid hierarchies or external control.

However, the review also reveals that organisational design alone is insufficient. Agency gains are uneven and contingent upon women's access to resources, recognition, and institutional support. This suggests that women farmers' groups should be understood as enabling structures whose empowerment potential depends on how internal governance arrangements interact with broader social and institutional contexts.

3. Institutional Support and the Risk of Program-Dependent Empowerment

Institutional and external actors—including public services, extension systems, and development programmes—play a dual role in shaping women's agency. On the one hand, institutional support can enhance women's access to knowledge, markets, and legitimacy, thereby strengthening their capacity to act collectively. Formal recognition of women farmers' groups often increases women's visibility and bargaining power within local governance structures.

On the other hand, the review highlights the risk of program-dependent empowerment. When externally driven interventions prioritise predefined targets, technology adoption, or short-term outputs, women may benefit materially without gaining sustained agency or autonomy. In such cases, empowerment remains contingent on continued programme support rather than rooted in women's collective decision-making capacity. This finding underscores the importance of institutional arrangements that reinforce, rather than substitute for, women's agency.

4. Innovation as a Conditional Enabler of Agency

Innovation-related practices are frequently embedded within community-based agricultural initiatives, yet their relationship with women's agency is complex. The review shows that innovation—whether in farming techniques, organisational routines, or digital tools—does not automatically enhance agency. In some contexts, innovation adoption increases women's workloads or reinforces existing power hierarchies when women lack control over innovation decisions.

From an organisational and social perspective, innovation contributes to agency only when women are meaningfully involved in learning, experimentation, and adaptation processes. When women exercise influence over how innovations are selected and implemented, innovation can strengthen confidence, skills, and decision-making capacity. These findings caution against equating innovation adoption with empowerment and highlight the need to situate innovation within broader analyses of power and agency.

5. Persistent Constraints and the Limits of Collective Action

Despite the potential of women farmers' groups, persistent structural constraints continue to limit women's agency. Gender norms, unequal access to assets, and time poverty remain dominant barriers across contexts. Even within collective settings, women's ability to exercise agency is shaped by household dynamics and broader social expectations regarding gender roles.

These findings suggest that collective action alone cannot overcome deeply embedded structural inequalities. While women farmers' groups can create spaces for agency, their transformative potential depends on complementary efforts to address gender norms, redistribute resources, and recognise women's leadership beyond the group level.

6. Implications for Research and Practice

This review has several implications. For researchers, the findings highlight the need for greater conceptual clarity and consistency in the use of agency as an analytical lens. Future studies would benefit from examining agency as a longitudinal process, rather than relying on short-term outcome measures. Greater attention to internal governance dynamics and women's control over decision-making processes would also deepen understanding of how agency develops within collective agricultural settings.

For policymakers and practitioners, the findings suggest that supporting women farmers' groups requires more than facilitating participation or innovation adoption. Interventions should prioritise organisational arrangements and institutional support that enable women's meaningful involvement in decision-making and control over resources. Designing programmes that strengthen women's collective agency, rather than creating dependency, is essential for achieving transformative empowerment.

CONCLUSION

This study set out to examine how women's agency is conceptualised, enabled, and constrained within women farmers' groups in community-based agriculture. By synthesising evidence from 31 peer-reviewed studies published since 2010, the review moves beyond outcome-oriented assessments of empowerment to foreground agency as a central analytical lens. The findings demonstrate that while women farmers' groups are widely promoted as vehicles for empowerment, their capacity to support transformative change depends on how organisational, institutional, and structural conditions shape women's ability to exercise choice, influence decisions, and control resources.

The review highlights that participation in women farmers' groups does not automatically translate into agency. Although collective arrangements can facilitate access to

resources, knowledge, and social networks, women's agency is strengthened only when these arrangements enable meaningful involvement in decision-making and leadership. Organisational design, particularly inclusive governance and participatory leadership structures, plays a critical role in shaping whether women farmers' groups function as empowering spaces or as mechanisms that mobilise women's labour without altering power relations.

Institutional and external support further conditions the development of women's agency. Public services, extension systems, and development programmes can enhance women's visibility, legitimacy, and access to opportunities. However, the findings also reveal the risk of program-dependent empowerment, whereby women benefit from externally driven interventions without gaining sustained autonomy or control. This underscores the importance of institutional arrangements that reinforce women's collective agency rather than substituting for it.

The review also demonstrates that innovation-related practices, while commonly embedded in community-based agricultural initiatives, do not inherently enhance women's agency. Innovation contributes to empowerment only when women are actively involved in learning, experimentation, and decision-making processes. Without such involvement, innovation may increase workloads or reinforce existing inequalities. These findings caution against equating innovation adoption with empowerment and highlight the need to situate innovation within broader analyses of power and agency.

Taken together, this review contributes to the literature by clarifying the conceptual boundaries between participation, empowerment outcomes, and women's agency in community-based agriculture. By adopting a process-oriented perspective, the study provides a more nuanced understanding of how women's agency is formed and negotiated within collective agricultural settings. For researchers, the findings point to the need for greater conceptual consistency and longitudinal analysis of agency. For policymakers and practitioners, the results suggest that supporting women farmers' groups requires attention not only to participation and innovation, but also to organisational governance, institutional support, and the structural conditions that enable women's meaningful agency.

Despite these contributions, this review has several limitations. The analysis relies on studies retrieved from major academic databases, including Scopus, Web of Science, and Google Scholar, which may not capture relevant research published in regional databases or local-language sources. The findings may also be influenced by publication bias, as studies reporting positive outcomes or successful empowerment initiatives are more likely to be published than those documenting limited or unsuccessful interventions. In addition, the geographical distribution of the reviewed studies is uneven, with a concentration of research in particular regions, which may limit the generalisability of the findings across different agricultural contexts. Future research would benefit from longitudinal approaches that examine how women's agency evolves over time within women farmers' groups. Greater attention to internal group governance, including leadership dynamics, decision-making processes, and power relations within collective organisations, would further deepen understanding of how women's agency develops in community-based agricultural settings

REFERENCE

- Booth, A. (2016). Searching for qualitative research for inclusion in systematic reviews: A structured methodological review. *Systematic Reviews*, 5(1), 1–23. <https://doi.org/10.1186/s13643-016-0249-x>
- Braun, V., & Clarke, V. (2021a). Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. *Counselling and Psychotherapy Research*, 21(1), 37–47.

- <https://doi.org/10.1002/capr.12360>
- Braun, V., & Clarke, V. (2021b). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, 18(3), 328–352. <https://doi.org/10.1080/14780887.2020.1769238>
- Bryan, E., Ringler, C., & Meinzen-dick, R. (2017). *Gender , Resilience , and Food Systems*. Springer International Publishing. <https://doi.org/10.1007/978-3-031-23535-1>
- Carnahan, S., Agarwal, R., & Campbell, B. (2010). The Effect of Firm Compensation Structures on the Mobility and Entrepreneurship of Extreme Performers. *Business*, 920(October), 1–43. <https://doi.org/10.1002/smj>
- Doss, C., Meinzen-Dick, R., Quisumbing, A., & Theis, S. (2018). Women in agriculture: Four myths. *Global Food Security*, 16(July), 69–74. <https://doi.org/10.1016/j.gfs.2017.10.001>
- Farnworth, C. R., Bharati, P., Krishna, V. V., Roeven, L., & Badstue, L. (2022). Caste-gender intersectionalities in wheat-growing communities in Madhya Pradesh, India. *Gender, Technology and Development*, 26(1), 28–57. <https://doi.org/10.1080/09718524.2022.2034096>
- Farnworth, C. R., Jafry, T., Bharati, P., Badstue, L., & Yadav, A. (2021). From Working in the Fields to Taking Control. Towards a Typology of Women’s Decision-Making in Wheat in India. *European Journal of Development Research*, 33(3), 526–552. <https://doi.org/10.1057/s41287-020-00281-0>
- Farnworth, C. R., Jafry, T., Lama, K., Nepali, S. C., & Badstue, L. B. (2019). From Working in the Wheat Field to Managing Wheat: Women Innovators in Nepal. *European Journal of Development Research*, 31(2), 293–313. <https://doi.org/10.1057/s41287-018-0153-4>
- Gonzalez Parrao, C., Shisler, S., Moratti, M., Yavuz, C., Acharya, A., Eyers, J., & Snilstveit, B. (2021). Aquaculture for improving productivity, income, nutrition and women’s empowerment in low- and middle-income countries: A systematic review and meta-analysis. *Campbell Systematic Reviews*, 17(4). <https://doi.org/10.1002/cl2.1195>
- Kivimaa, P., Boon, W., Hyysalo, S., & Klerkx, L. (2019). Towards a typology of intermediaries in sustainability transitions: A systematic review and a research agenda. *Research Policy*, 48(4), 1062–1075. <https://doi.org/10.1016/j.respol.2018.10.006>
- Klerkx, L., Jakku, E., & Labarthe, P. (2019). A review of social science on digital agriculture, smart farming and agriculture 4.0: New contributions and a future research agenda. *NJAS - Wageningen Journal of Life Sciences*, 90–91, 100315. <https://doi.org/10.1016/j.njas.2019.100315>
- Lorenc, T., Khouja, C., Harden, M., Fulbright, H., & Thomas, J. (2024). Defensive healthcare practice: Systematic review of qualitative evidence. *BMJ Open*, 14(7), 1–10. <https://doi.org/10.1136/bmjopen-2024-085673>
- Lumpkin, G. T., Steier, L., & Wright, M. (2011). in Family Business Business and Strategic. *Strategic Entrepreneurship Journal*, 306, 285–306. <https://doi.org/10.1002/sej>
- Malapit, H. J. (2017). *The Abbreviated Women’s Empowerment in Agriculture Index (A-WEAI)*. May, 1–56.
- Meinzen-Dick, R., Quisumbing, A., Doss, C., & Theis, S. (2019). Women’s land rights as a pathway to poverty reduction: Framework and review of available evidence. *Agricultural Systems*, 172(June), 72–82. <https://doi.org/10.1016/j.agsy.2017.10.009>
- Opola, F. O., Klerkx, L., Leeuwis, C., & W. Kilelu, C. (2021). The Hybridity of Inclusive Innovation Narratives Between Theory and Practice: A Framing Analysis. *European Journal of Development Research*, 33(3), 626–648. <https://doi.org/10.1057/s41287-020-00290-z>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J.,

- Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Bmj*, 372. <https://doi.org/10.1136/bmj.n71>
- Petes, P., & Prain, G. (2018). *The GENNOVATE Methodology*.
- Rai, P., Swartz, H. J., Soni, N., Benson, J. C., Agarwal, A., Messina, S. A., Farnsworth, P. J., Carr, C. M., & Bathla, G. (2025). Neuroimaging Spectrum of Erdheim-Chester Disease: An Image-Based Review. *American Journal of Neuroradiology*, 46(7), 1300–1308. <https://doi.org/10.3174/ajnr.A8599>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(July), 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Surma, N. (2023). *Are international agriculture projects empowering rural female farmers in sub-Saharan Africa? A case study of North Central Nigeria*. February, 1–350.
- Wagle, U., Vollmer, F., UN DESA, Thorbecke, E., Sen, A., Santos, M. E., Lugo, M. A., Lopez-calva, L. F., Cruces, G., Battiston, D., Ravallion, M., Pisani, F., Weber, M., Paper, W., Mowafi, M., Measurement, B. P., Lanjouw, J. O., Laderchi, C. R., Ruhi, S., ... Foster. (2010). OPHI WORKING PAPER NO. 32 Counting and Multidimensional Poverty Measurement. In *Journal of Economic Inequality* (Vol. 9, Issue 2). www.topics.developmentgateway.org/poverty
- Wohlin, C., Kalinowski, M., Romero Felizardo, K., & Mendes, E. (2022). Successful combination of database search and snowballing for identification of primary studies in systematic literature studies. *Information and Software Technology*, 147(February), 106908. <https://doi.org/10.1016/j.infsof.2022.106908>
- Yang, H., Klerkx, L., & Leeuwis, C. (2014). Functions and limitations of farmer cooperatives as innovation intermediaries: Findings from China. *Agricultural Systems*, 127, 115–125. <https://doi.org/10.1016/j.agsy.2014.02.005>