



WOMEN IN AGRARIAN SCIENCES

ORIGINAL ARTICLE

Women's participation in coffee cooperatives and associations in Brazil

Danielle Pereira Baliza¹ , Helena Maria Ramos Alves^{2*} , Cristina Arzabe³ , Vera Lúcia de Oliveira⁴ 

Abstract – This article presents information on women's participation in coffee cooperatives and associations in Brazil and offers suggestions to strengthen women's participation and achieve equity and sustainability in the sector. Data for the period 2000-2021 was obtained through forms sent to cooperatives and associations and were presented at two events held in 2017 and 2022. The research is descriptive-exploratory, with analysis based on direct counting and percentage comparison. The results indicate that women remain a minority in cooperatives, but there is consistent growth in their participation over time. At the first event (2017), 30 % of the participating institutions had up to 5 % female members/associates. By the second event (2022), 52 % of the institutions had between 11 % and 20 % of female members/associates. Between 2016 and 2021, five cooperatives showed growth of 1.2 to 1.5 times in the number of women members. Four cooperatives presented data showing increases ranging from 3.1 to 21.7 times. An increase in the number of female members, greater involvement in women's associations, and increased productive participation were observed, although structural inequalities related to market access, governance, and public policies persist.

Keywords: Coffee farming. Female coffee farmers. Social participation. Associativism. Gender. Female participation.

Participação das mulheres em cooperativas e associações de café no Brasil

Resumo – Este artigo apresenta informações sobre a participação das mulheres nas cooperativas e associações de café no Brasil, bem como sugestões para o fortalecimento da articulação feminina visando à equidade e à sustentabilidade do setor. Os dados, referentes ao período compreendido entre os anos de 2000 e 2021, foram obtidos por meio de formulários enviados às cooperativas e associações e apresentados em dois eventos realizados nos anos de 2017 e 2022. A pesquisa apresentou caráter descritivo-exploratório, com análise baseada em contagem direta e comparação percentual. Os resultados indicam que as mulheres ainda são minoria nas cooperativas, porém há crescimento consistente de sua participação ao longo do tempo. No primeiro evento (2017), 30 % das instituições presentes tinham até 5 % de mulheres cooperadas/associadas. No segundo evento (2022), 52 % das instituições apresentaram entre 11 e 20 % de cooperadas/associadas. No período entre 2016 e 2021, cinco cooperativas apresentaram crescimento no quantitativo de mulheres entre 1,2 a 1,5 vezes. Quatro cooperativas apresentaram dados referentes ao período de 2000 a 2021, mostrando incrementos entre 3,1 e 21,7 vezes. Observou-se ampliação do número de cooperadas, maior inserção em associações femininas e aumento da participação produtiva, embora persistam desigualdades estruturais relacionadas ao acesso a mercados, governança e políticas públicas.

Palavras-chave: Cafeicultura. Cafeicultoras. Participação social. Associativismo. Gênero. Participação feminina.

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Introduction

Data from the latest Agricultural Census conducted by IBGE in 2017 show that women ran more than 40,000 Brazilian agricultural establishments engaged in coffee production. Still, they represent only 13.2 % of the existing 304.500 establishments. Most of these establishments run by women (72 % of the total) are in the Southeast region, where there are 29,000 properties, mainly in the states of Minas Gerais and Espírito Santo. The Northeast region ranks second, with almost 6,000 establishments that produce coffee under women's management, representing 14 % of the total, and located primarily in the state of Bahia. In third place is the North region, with about 3,000 establishments run by women, representing 8 % of the total. Most are in the state of Rondônia, with others in Tocantins and Pará. The South and Midwest regions have the lowest numbers of women-managed coffee establishments, accounting for only 4 % and 2 % of the total, respectively (IBGE, 2017; Alves *et al.*, 2020; Silva; Alves, 2023).

In addition to those who manage the property, a significant contingent of women in coffee farming (48,100) serves as co-managers of rural establishments. Co-management is defined as when at least part of the activities performed in the establishment are decided by both spouses, who determine what to do, when to do it, and how to do it. Thus, in total, there were 88,700 women acting as managers or co-managers of coffee properties in the country in 2017 (IBGE, 2017; Alves *et al.*, 2020).

Another important piece of data from the Agricultural Census of 2017 is that only 7 % of coffee farmers associated with cooperatives are women (IBGE, 2017; Alves *et al.*, 2020). According to FAO (2023), women play a central role in agri-food systems but still face significant inequalities in access to resources and

opportunities, such as land, credit, services, technology, markets, and decision-making spaces. They also tend to receive lower wages and are more vulnerable to food insecurity. These inequalities compromise women's productivity, income, and well-being, generating direct impacts on their families and communities. Therefore, reducing gender gaps can significantly reduce hunger among millions of people and generate meaningful economic gains. In this context, women's participation in cooperatives and associations is an important mechanism for productive and social inclusion, expanding access to credit, technical assistance, information, technologies, and marketing channels. These collective organizations strengthen women's economic autonomy and help mitigate gender inequalities, thereby promoting a more equitable and sustainable insertion into agri-food systems, as highlighted by the FAO.

Souza *et al.* (2021) demonstrate that cooperativism, in general, contributes significantly to agricultural economic performance. Municipalities with more producers associated with cooperatives show an increase in the added value of agricultural production and in net income, reflecting the greater productive efficiency provided by the collective organization. Factors such as higher education and smaller properties are associated with more intense participation in cooperatives, indicating that these organizations function as instruments of economic and productive inclusion. Thus, promoting women's participation in cooperatives not only strengthens their autonomy and reduces gender inequalities, but also enhances the positive economic effects of cooperativism on agriculture and rural communities.

In international terms, the articulation of women in the global coffee sector began in 2003, when the International Women's Coffee Alliance (IWCA)





launched several initiatives worldwide, with the work of six co-founders from Costa Rica, Nicaragua, and the United States as a starting point. Currently, this non-profit organization has 36 chapters worldwide, forming a network that connects thousands of individuals, communities, and partners in coffee-producing and consuming countries (IWCA, [2025]).

In Brazil, the International Women's Coffee Alliance (IWCA Brazil) was officially created in 2012, during the 7^o *Espaço Café Brasil*, in São Paulo, after almost two years of volunteer work and intense mobilization of women from different producing regions of the country (Macieira, 2018). IWCA Brazil's performance is shaped by the regional diversity of the coffee chain in the country, which is based on a network model involving regional nuclei, or subchapters. This model allows women to organize locally while respecting the specificities of their territories, cultures, and modes of production. Currently, IWCA Brazil comprises 10 subchapters located in the main coffee-producing regions: Alta Mogiana, Campo das Vertentes, Chapada Diamantina, Cerrado Mineiro, Mantiqueira de Minas, Matas de Minas, Montanhas do Espírito Santo, Norte Pioneiro do Paraná, Sul de Minas, and Rondônia. There are approximately 1,224 women associated with IWCA Brazil, 98 % of whom are coffee farmers. However, considering the 48,100 coffee-producing establishments in Brazil run by women, IWCA Brazil's performance represents only 2.5 % of this total, demonstrating significant potential for expanding this network articulation (IWCA Brasil, [2025]).

Based on a letter of intent between IWCA Brazil and Embrapa Café, these institutions collaborated to organize an event titled *Cooperativas e Gênero* (Arzabe; Alves, 2017) and to publish a book on the performance of women in Brazilian coffee farming (Arzabe *et al.*, 2018). This was the first research

conducted in the country on women's performance in the coffee value chain. The publication showed that women coffee farmers and entrepreneurs are involved in the entire coffee production process, from seed to cup, playing a crucial role in promoting sustainable development, whether in ecologically and inclusively based production, the adoption of sustainable agricultural techniques, or more equitable forms of trade. Nevertheless, women continue to face many obstacles, such as limited access to training programs and to leadership and decision-making positions in cooperatives, as well as a disproportionate burden of unpaid and domestic work.

In 2022, IWCA Brazil, *Embrapa Café*, *Instituto Federal Sudeste – IF Campus Bom Sucesso*, the FAEMG/SENAR System, and the *Conselho Nacional do Café* (CNC) prepared the second version of the *Cooperativas e Gênero* event.

Based on data provided by cooperatives at events held in 2017 and 2022, this study aims to analyze the dynamics of women's participation in coffee cooperatives from 2000 to 2021, highlighting distribution patterns and temporal evolution. It also aims to present the main actions taken by cooperatives to promote women's participation, along with some suggestions for the future.

Materials and Methods

The first *Cooperativas e Gênero* event was held on October 24-25, 2017, in Belo Horizonte, Minas Gerais, during the International Coffee Week. The event brought together 11 cooperatives and one association, in a joint initiative involving the International Women's Coffee Alliance – IWCA Brazil, *Embrapa Café*, and the Ministry of Agriculture and Livestock - MAPA. The cooperatives and associations which participated were:

- *Cooperativa Agropecuária de Carmo do*





Paranaíba - CARPEC;

- *Cooperativa dos Cafeicultores da Zona de Três*

Pontas - COCATREL;

- *Cooperativa dos Cafeicultores do Cerrado de*

Araguari - COOCACER Araguari;

- *Cooperativa dos Cafeicultores da Região de*

Lajinha - COOCAFÉ;

- *Cooperativa Regional de Indústria e Comércio*

de Produtos Agrícolas Artesanais - COOLABORE-MG;

- *Cooperativa Regional de Cafeicultores em*

Guaxupé - COOXUPÉ;

- *Cooperativa dos Cafeicultores do Sul do Estado*

do Espírito Santo - CAFESUL;

- *Cooperativa dos Produtores Orgânicos e*

Biodinâmicos da Chapada Diamantina - COOPERBIO;

- *COCAMAR Cooperativa Agroindustrial*;

- *Cooperativa dos Pequenos Cafeicultores de*

Poço Fundo e Região - COOCAMINAS;

- *Cooperativa Agrária dos Cafeicultores de São*

Gabriel - COOABRIEL;

- *Associação das Mulheres Empreendedoras do*

Café da Serra da Mantiqueira - AMECAFÉ.

Each cooperative and association presented data based on a previously submitted standardized form, which allowed the event's coordination to systematize the information beforehand.

The instrument included the following guiding questions:

a) How many women members were there in 2000, 2008, and 2016?

b) What is the percentage of women in the total number of members?

c) What actions have been taken in favor of women?

d) What future actions could be implemented?

The second event took place on November 17,

2022, also in Belo Horizonte, during the International Coffee Week, bringing together 27 cooperatives and associations in an initiative involving IWCA Brazil, *Embrapa Café*, IF Sudeste MG – *Campus Bom Sucesso*, the FAEMG/SENAR System, and the *Conselho Nacional do Café* (CNC, National Coffee Council).

The institutions participating in the second *Cooperativas e Gênero* event were identified with the support of the CNC, the main forum for political representation of the national coffee sector and the operational arm of the *Organização das Cooperativas Brasileiras* (OCB, Brazilian Cooperatives Organization) for coffee. The CNC organizes the demands of the cooperative sector to develop policies, actions, and projects with nationwide reach, benefiting more than 330,000 Brazilian coffee producers.

Of the participants, eight had already attended the first event, while 19 participated for the first time. The cooperatives that participated in both events were CARPEC, COCATREL, COOCACER Araguari, COOCAFÉ, COOLABORE-MG, COOXUPÉ, CAFESUL, and COOPERBIO. The institutions that participated only in the second event were:

- *Cooperativa Agroindustrial de Varginha* - MINASUL;

- *Cooperativa Mista Agropecuária de Paraguaçu* - COOMAP;

- *Cooperativa dos Produtores de Café Especial de Boa Esperança* - COSTAS;

- *Cooperativa dos Cafeicultores do Cerrado* - EXPOCACCER;

- *Cooperativa Agropecuária do Alto Paranaíba* - COOPADAP;

- *Cooperativa de Produção da Agricultura Familiar Solidária de Espera Feliz* - COOFELIZ;

- *Cooperativa de Cafés Especiais de Minas Gerais* - SANCOFFEE;





- *Cooperativa da Agricultura Familiar de Poços de Caldas e Região* - AGRIPOÇOS;

- *Cooperativa dos Produtores Rurais de Ibicoara e Chapada* - COOPRIC;

- *Cooperativa Mista dos Pequenos Cafeicultores de Barra do Choça e Região* - COOPERBAC;

- *Cooperativa de Cafeicultores e Agropecuaristas* - COCAPEC;

- *Cooperativa de produtores familiares* - COOPERCUESTA;

- *Cooperativa dos Produtores de Frutas e Olerícolas do Norte Pioneiro* - COFRUNORPI;

- *Associação das Mulheres do Café das Matas de Minas e Caparaó* - AMUC;

- *Associação das Mulheres Agricultoras de Perdões* - AMAGRI;

- *Associação dos Cafeicultores do Bairro Gabirolal* - ACAFEG;

- *Associação de Pequenos Agricultores Familiares de Palmeiral* - ASSOFÉ;

- *Associação das Mulheres do Café do Norte Pioneiro do Paraná* - AMUCAFÉ;

- *Associação ILUMINARTE.*

These organizations agreed to provide the requested data and completed a form including the following information:

a) Number of women members in 2000, 2008, 2016, and 2021;

b) Total number of members in the same years;

c) Percentage of women;

d) Actions taken on behalf of women.

In the study, a woman rural producer formally associated with the cooperative was considered a member, with participation rights, access to services, and the possibility of influencing collective decisions, according to the IBGE Agricultural Census (2017)

parameters and the literature on agricultural cooperativism (Souza *et al.*, 2021).

For certain variables, some cooperatives and associations were excluded due to missing data. It should be noted that data segmentation by gender is a recent practice, including in the IBGE Agricultural Census itself (IBGE, 2017). Historically, many cooperatives and associations did not conduct such control. Still, the growing movement of women seeking greater visibility and representation has prompted changes in the policies of coffee cooperatives in Brazil.

The research is descriptive-exploratory, and the data were analyzed by direct counting and percentage comparisons following tabulation and organization, verification of possible errors in form completion, and standardization of responses to facilitate result interpretation. Based on this analysis, figures and analytical tables were elaborated.

Results and Discussion

Women's participation in coffee cooperatives

Two groups were formed for data analysis; both composed of cooperatives with more than 400 female members in 2021. Group 1 comprised cooperatives that provided data only for 2016 and 2021 (Fig. 1), consisting of five cooperatives: Cooxupé, Cocatrel, Minasul, Coocafé, and Cocapec. Over the five-year period, all cooperatives in this group showed growth in the number of women members. The observed increases were 1.2 (Coocafé), 1.3 (Cocapec), 1.4 (Minasul), and 1.5 (Cooxupe and Cocatrel).

These data show a consistent trend of increasing female insertion in the cooperatives analyzed in recent years, reflecting a greater search by women for formal spaces of productive organization, access to cooperative services, and integration into structured markets.

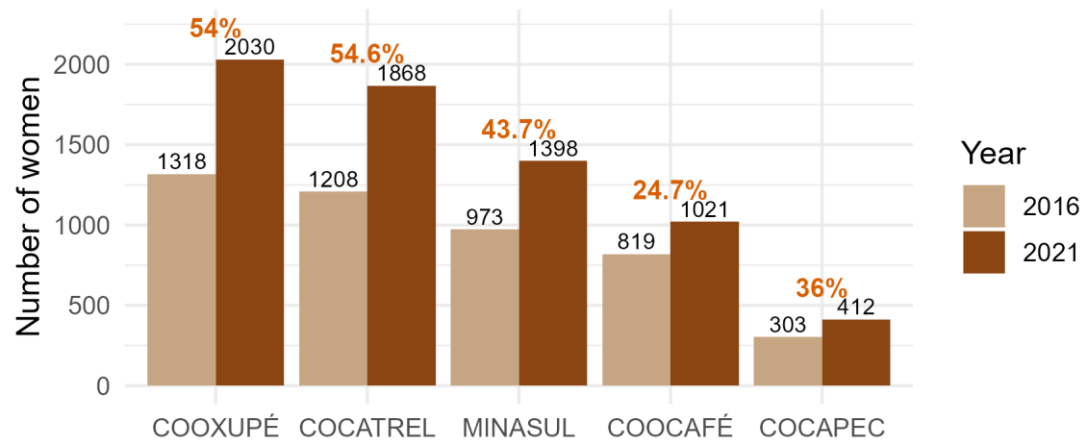


Figure 1. Growth in the number of women members in five coffee cooperatives (Group 1), between 2016 and 2021.

Group 2 consisted of the cooperatives that provided historical data for four periods: 2000, 2008, 2016, and 2021 (Fig. 2), comprising four cooperatives: Cocatrel, Minasul, Coocafé, and Cocapec. Over this approximately two-decade period, growth in the number of women members was even more pronounced, with

cumulative increases of 3.1 (Cocatrel), 4.4 (Cocapec), 5.6 (Minasul), and 21.7 (Coocafé).

Particularly noteworthy is the case of Coocafé, which increased from 47 women members in 2000 to 1,021 in 2021, evidencing an accelerated process of female inclusion throughout the period analyzed.

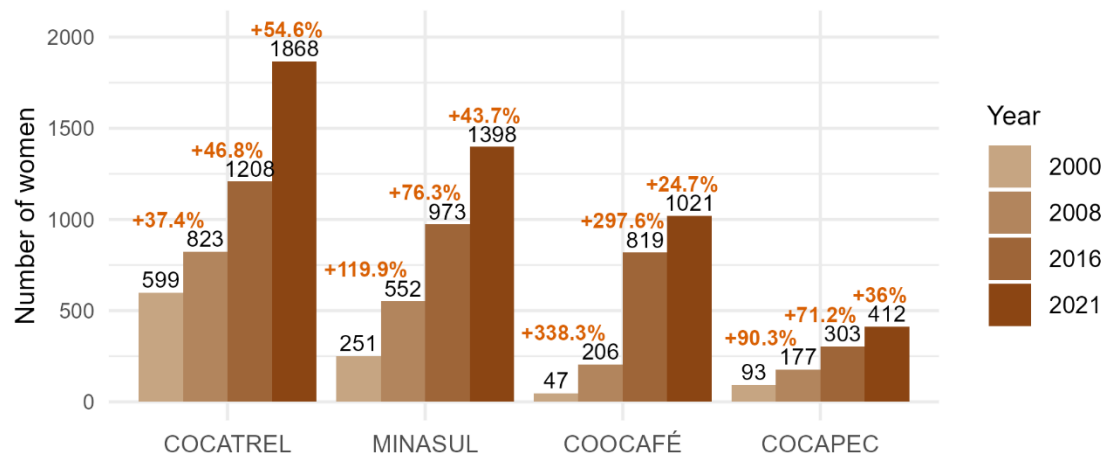


Figure 2. Growth in the number of women members in four coffee cooperatives between 2000 and 2021 (Group 2).





The data indicate a significant increase in the absolute number of women members in coffee cooperatives in the period analyzed. Although women's participation remains lower than the total number of members, these proportions have been increasing over time.

This trend suggests that women coffee farmers have increasingly sought out cooperatives, expanding their participation in collective structures of production, marketing, and access to support policies. This movement strengthens collaboration networks among producers, facilitates the exchange of technical and managerial knowledge, and supports the development of their rural enterprises.

When comparing data from the first *Cooperativas e Gênero* event, held in 2017, with those of the second event, held five years later, in 2022, a relevant evolution

is observed in the percentage of women members or associated in the participating institutions (Fig. 3):

- In 2017, 30 % of the participating institutions had up to 5 % of women member or associates. In 2022, there were no institutions with female participation in this first range;

- In 2017, 24 % of institutions had between 6 % and 10 % women member/associates. This proportion declined to 12 % in 2022;

-There was an increase in the top 3 ranges between the first and second event, with 52 % of institutions registering female participation between 11 % and 20 %;

Data from both events indicate a progressive increase in women's participation in the cooperatives and associations analyzed, although at varying levels between institutions.

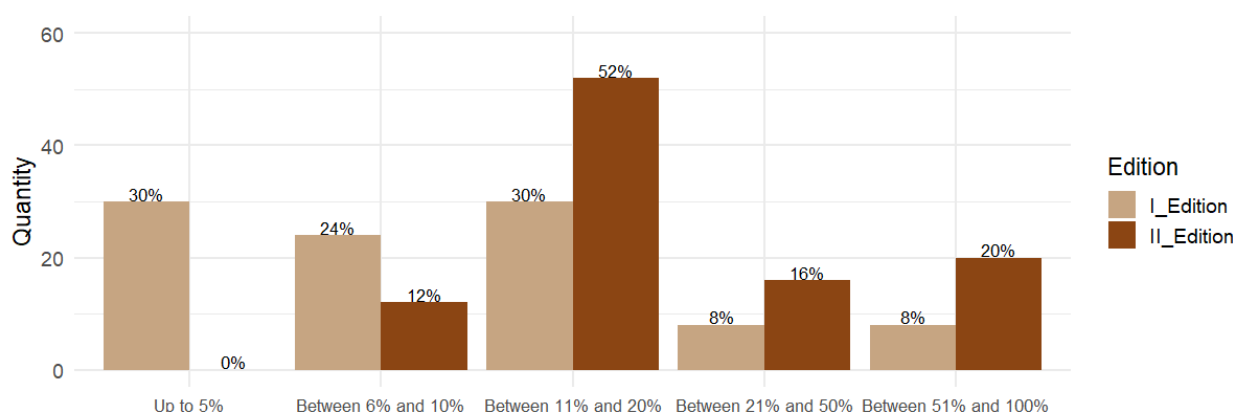


Figure 3. Percentage of women members or associates in relation to the total number of members/associates according to information from the cooperatives and associations participating in the first and second editions of the *Cooperativas e Gênero* event in 2017 and 2022, respectively.

The results are consistent with the international literature on gender in agri-food systems. According to FAO (2023, [2025]), women's participation has increased globally but remains conditioned by structural

inequalities related to equitable access to land, credit, technology, technical assistance, and decision-making spaces. These limitations restrict women's participation; that is, their ability to equally influence strategic



decisions and access the economic benefits generated by collective organizations. Although quantitative advances are relevant, there is a need for continuous policies focused on technical and managerial training, the formation of female leaders, increased participation in decision-making bodies, and the promotion of institutional gender equity. Such measures are fundamental for ensuring that numerical gains translate into effective participation, economic autonomy, and organizational strengthening in Brazilian coffee cooperatives.

In 2024, the World Economic Forum's Global Gender Gap Report (Pal, 2024) reported a gender inequality index score of 0.716 for Brazil, indicating an average gender gap of approximately 28 %. This means that women are 28 % less likely than men to have the same opportunities in the country. Brazil ranked 70th globally and had one of the worst indices of gender inequality among Latin American countries, behind Costa Rica (index 0.785; 19th place), Chile (index 0.781; 21st place), and Argentina (index 0.772; 32nd place). Improving this position remains a significant challenge. Efforts are needed in all sectors, especially in agricultural cooperatives, to become more inclusive environments for women.

Women farmer associations

Recently, a growing trend toward the formation of associations composed exclusively of women farmers has been observed. At the first *Cooperativas e Gênero* event, held in 2017, only one association of women farmers in Minas Gerais participated: the *Associação das Mulheres Empreendedoras do Café da Serra da Mantiqueira* (AMECAFÉ). At the second event, held in 2022, there was an increase in this participation, with the presence of four associations composed exclusively of women: three from Minas Gerais and one from

Paraná:

- *Associação das Mulheres do Café das Matas de Minas e Caparaó* – AMUC;
- *Associação das Mulheres Agricultoras de Perdões* – AMAGRI;
- *Associação Iluminarte* – MG;
- *Associação das Mulheres do Café do Norte Pioneiro do Paraná* – AMUCAFÉ.

This growth demonstrates a process of organizational strengthening among women in rural areas, indicating that they have sought their own forms of collective organization, whether for marketing, training, knowledge exchange, or access to public policies. Some project funding public calls and government programs have prioritized these associations, supporting women in the agricultural sector and helping address gender inequalities. Law No. 14,660 of August 23, 2023, for example, amends Article 14 of Law No. 11,947 of June 16, 2009, establishing priority for formal and informal groups of women in family farming in the purchase of foodstuffs under the *Programa Nacional de Alimentação Escolar* (PNAE, National School Feeding Program), in addition to requiring that at least 50 % of sales be carried out in the woman's name (Embrapa, 2022). The specialized literature suggests that initiatives such as these are fundamental for the effective inclusion of women in agri-food systems, as they expand access to productive resources, markets, and decision-making spaces that have historically been concentrated in male hands (FAO, 2023, [2025]).

In addition to the analysis of the collective organization of women farmers, women's access to public policies for institutional marketing remains limited in Brazil. Based on a database of the *Programa de Aquisição de Alimentos* (PAA, School Food Acquisition Program), implemented by the *Companhia*





Nacional de Abastecimento (CONAB, National Supply Company), Oliveira (2021, unpublished) investigated the participation of rural associations across the five Brazilian regions, considering information such as the origin of resources, purchasing modality, geographic distribution (regions, states, and municipalities), number of supplier beneficiaries, receiving units, consumer beneficiaries, volume supplied, and value of proposals (Table 1). The survey found that, among 1,350

associations participating in the Purchase with Simultaneous Donation (CDS) modality in 2020, only 78 were composed of women, representing 5.8 % of the total. The funds allocated to institutional purchases in this period came from Provisional Measure No. 957/2020 (COVID-19) and from parliamentary amendments aimed at acquiring food from family farming.

Table 1. Participation of women's associations in the “Programa de Aquisição de Alimentos” (2020).

Indicator	Grand total	Women's associations	Female participation (%)
No. of associations	1350	78	5.8
Supplier beneficiaries	22,033	1,264	5.7
Receiving units	1,799	107	6.0
Consumer beneficiaries	10,337,691	376,323	3.6
Value supplied (kg)	54,611,923	2,579,244	4.7
Value sold (R\$)	155,406,574.83	8,574,856.87	5.5

Source: Adapted from Oliveira (2021, unpublished).

The data show that female participation in the CDS modality of the PAA is reduced across all variables analyzed. The presence of only 5.8 % of women's associations indicates a low level of women's organizational insertion into the institutional mechanisms of public food marketing. A similar situation is observed concerning the number of supplier beneficiaries (5.7 %), total volume marketed (4.7 %), and financial value of proposals (5.5 %).

These results reveal asymmetries in access to public policies, suggesting that although women play a significant role in food production, their institutional participation remains on a smaller scale. Although the data refers to all family farming associations, not exclusively to coffee farming, they provide important analytical insights into women's participation in collective organizations in the coffee sector. The low participation of women's associations in institutional

purchasing shows structural limitations like those observed in coffee cooperatives, especially in access to structured markets, productive scale, organizational formalization, and management and marketing capacity. In this sense, the results align with the findings of this study, indicating that although female participation in coffee cooperatives is expanding, their economic integration into institutional and differentiated markets remains proportionally limited. This convergence suggests that the challenges faced by women coffee farmers are not isolated but are embedded in a broader framework of gender inequalities present in Brazilian rural production systems. Public policies aimed at strengthening women's associations and cooperatives, including technical assistance, access to credit, managerial training, and improved access to institutional markets, have strategic potential to boost women's economic autonomy and expand their





participation in the coffee value chain.

Women's coffee production (bags and financial values) in selected cooperatives (2000 - 2021)

Regarding the number of coffee bags delivered by women, four cooperatives that participated in the second event (Minasul, Coocapec, Carpec, and Coopadap) provided data for 2000, 2008, 2016, and 2021 (Figs. 4 and 5).

The temporal dynamics analyzed show a progressive increase in the number of coffee bags delivered by women over the periods considered, demonstrating greater female participation in the production marketed through cooperatives. However, the volume delivered in 2021 was lower than in 2016 across all cooperatives analyzed. This decline follows the trend of national coffee production in the same period. According to Conab, the 2021 Brazilian harvest was approximately 46.85 million 60 kg bags,

representing a decrease of about 25.7 % compared to 2020, the historical harvest year with more than 63 million bags (Conab, 2021). This reduction is associated with structural factors of coffee cultivation, including the negative biennial cycle of the crop, prolonged droughts, severe frosts, and climatic impacts on Arabica coffee. By contrast, 2016 corresponded to a positive production cycle, characterized by higher harvested volume, which explains the higher volumes delivered in that period (Conab, 2016). This evidence shows the influence of the production cycle and climatic conditions on the temporal variation in coffee production, both nationally and in women's participation in deliveries to cooperatives.

Regarding the financial values generated by the coffee bags delivered by women, three cooperatives (Minasul, Coocapec, and Carpec) provided monetary data for the same years analyzed (Fig. 6).

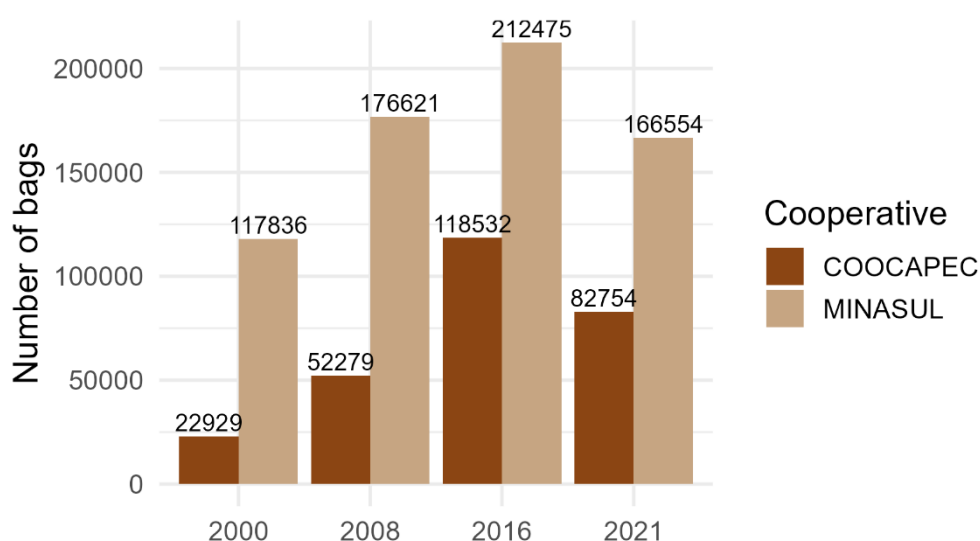


Figure 4. Number of coffee bags delivered by women in the Minasul and Coocapec cooperatives in 2000, 2008, 2016, and 2021.



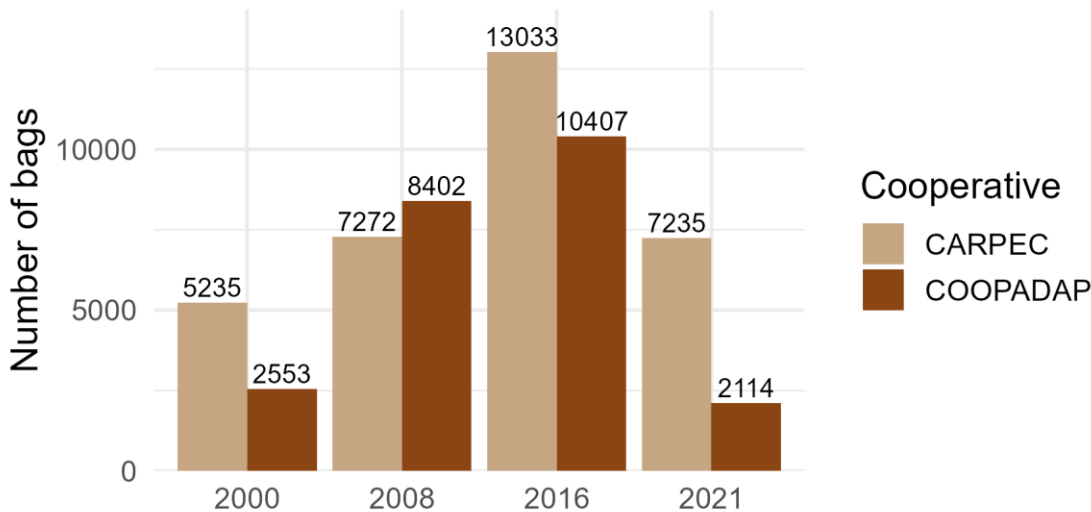


Figure 5. Number of coffee bags delivered by women in the Carpec and Coopadap cooperatives in 2000, 2008, 2016, and 2021.

The results show a continuous growth in the values generated by women over the period analyzed, although with occasional variations. Even in 2021, when physical production decreased, revenues were maintained and, in some cases, increased. This can be explained by the appreciation of coffee prices in both domestic and international markets, driven by the reduction in global supply, increased demand, exchange rate appreciation, and logistical and climatic pressures. This indicates that the economic value of coffee depends not only on the production volume, but also on market conditions and the commercialization price of the product (Conab, 2021; Gomes, 2022).

Despite this growth, female participation did not exceed 20 % of the total delivered in 75 % of the institutions analyzed when comparing the number of bags delivered by women with the total volume received

by cooperatives in 2021 (Fig. 7). This result directly reflects the lower number of women as formal members of cooperatives, indicating that increased institutional participation in cooperatives is a key condition for the expansion of women's production.

Actions carried out by cooperatives and associations in favor of women coffee farmers and suggestions for the future

To expand and strengthen women's participation, cooperatives and associations have developed several structured initiatives in different areas and have proposed future actions. The list of actions already carried out and suggestions for new actions provided by participating cooperatives and associations at both *Cooperativas e Gênero* events, was summarized by the authors and is presented in Table 2.



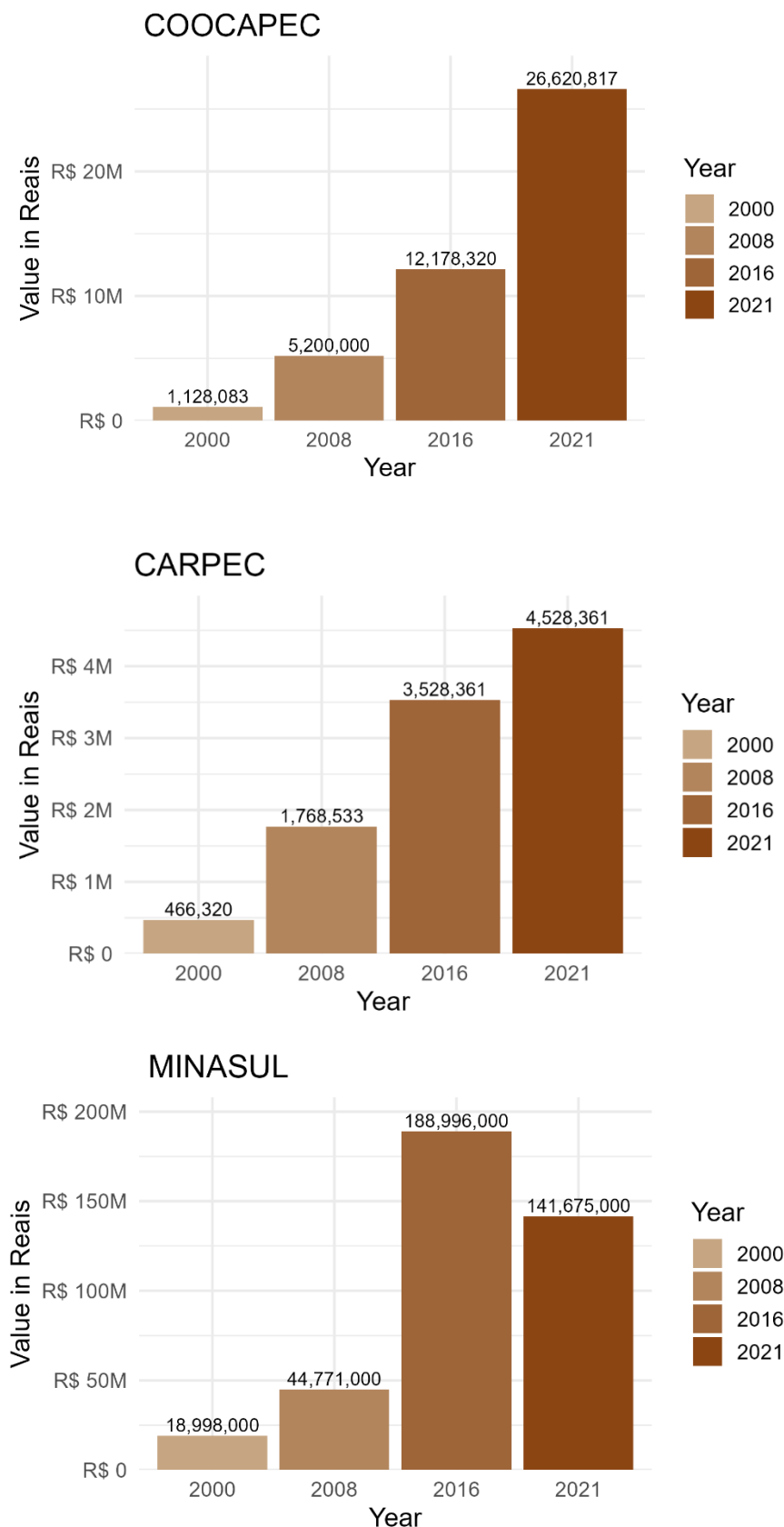


Figure 6. Financial values referring to coffee bags handled by women in the cooperatives Coocapec, Carpec, and Minasul in 2000, 2008, 2016, and 2021 (in reais).



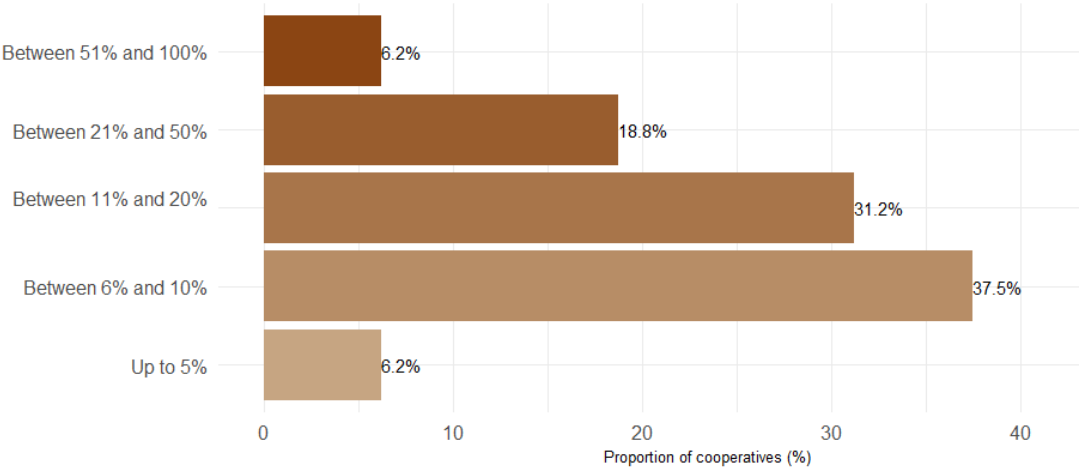


Figure 7. Classification by percentage ranges of coffee bags produced and delivered by member/associated women in relation to the total volume received in 2021.

Table 2. Actions taken by cooperatives and associations to increase and strengthen the participation of women and suggestions for the future, according to the data provided by cooperatives and associations and presented at the two *Cooperativas e Gênero* events (2017 and 2022).

Actions Taken	Prospects
Qualification and Development	
Specific technical and managerial training for women.	Continuous and participatory training programs.
Specialized technical assistance.	Training in leadership and empowerment.
Participation and Social Organization	
Insertion in technical events.	Expansion of women's groups.
Creation of a Female Core.	Intercooperative articulation and strengthening of
Associations formed exclusively by women.	networks.
Income Generation and Productive Valuation	
Marketing of differentiated coffees.	Consolidation of collective marketing strategies and
Adding value and diversifying income.	strengthening of productive identity.
Access to Markets and Public Policies	
Participation in institutional programs (PNAE, PAA).	Expansion of access to public notices, public policies,
Encouraging the marketing of coffees produced by women with the creation of their own brand.	and new markets.
Governance, Gender Equity, and Institutional Environment	
Actions of recognition and female visibility.	Institutionalization of equity policies. Increased female
	participation in decision-making positions.
	Promotion of inclusive environments.





It is expected that the implementation of actions such as those outlined in Table 2 will create an environment conducive to continued growth in the participation of women coffee farmers as members or associates. It should be noted, however, that quantitative advances in women's participation in coffee cooperatives have not been translated into proportional representation in governance and decision-making spaces. Studies on agricultural cooperatives indicate that women remain underrepresented in management positions, administrative boards, and strategic committees, reflecting structural barriers to women's participation in land ownership, cultural norms, and the sexual division of labor.

The international literature calls this phenomenon the dissociation between numerical and substantive participation; that is, an increase in the number of women associated with a decision does not automatically result in greater decision-making power. Another relevant element is the so-called time poverty, a condition in which the overload of domestic and care work limits women's availability to participate in meetings, assemblies, and training processes, thereby restricting their political performance within organizations.

In this context, initiatives aimed at developing female leadership, providing mentors, offering managerial training, and creating women's committees have proven effective strategies to increase the qualitative participation of women coffee farmers. These spaces contribute to strengthening self-confidence, developing management skills, expanding capitals stock, and gaining access to decision-making bodies (Lyon, 2017; ICO, 2018; Lemos; Vale, 2020; Vedana *et al.*, 2023).

Beyond organizational and governance dimensions, women's insertion in coffee cooperatives

has also been influenced by market strategies aimed at adding value to production (Lemos; Vale, 2020). In recent years, the creation of specific commercial lines of coffee produced by women has been observed, often marketed with a distinguished origin, traceability, and quality attributes. These initiatives include women's collective brands, microlots produced by women coffee farmers, specialty coffees with territorial identity, and exclusive quality contests for women. Such strategies have increased the visibility of women's work in coffee farming and enabled better remuneration and greater professional recognition for producers.

Socio-environmental and fair-trade certifications also play an important role in this process. Labels such as Fair Trade, organic, and sustainability certifications often incorporate gender equity criteria, encouraging cooperatives to develop inclusive policies and to promote women's participation in their productive and decision-making structures. In addition, adding value through processing, roasting, and direct marketing has expanded women's economic autonomy, allowing their participation in more profitable segments of the coffee value chain.

At the institutional level, the promotion of gender equity in coffee farming is directly aligned with the United Nations 2030 Agenda, especially Sustainable Development Goal 5 (SDG 5), which aims to achieve gender equality and empower all women and girls. Target 5.4 of SDG 5 calls for eliminating inequality in the sexual division of paid and unpaid work, including in domestic and care work, by promoting greater autonomy for women. The sexual division of labor, a structuring aspect of the country's gender inequality, assigns the tasks of caring and other domestic unpaid work to the female universe (Vedana *et al.*, 2023). In Brazil, in 2016, women devoted about 73 % more time than men to caring for people and/or household chores





(18.1 hours versus 10.5 hours) (IBGE, 2018). This reality highlights the need to promote a new division of domestic tasks and to expand male participation in activities to care for children and other dependents. It also underscores the importance to provide families with social facilities that reduce the burden of care work, such as daycare centers, community restaurants, collective laundries, full-time schools, and reception equipment for the elderly, among others, so that women can have more time to dedicate to paid and productive activities and participate in the public sphere (IPEA, 2019).

Public institutional marketing programs, such as the *Programa Nacional de Alimentação Escolar* (PNAE, National School Feeding Program) and the *Programa de Aquisição de Alimentos* (PAA, National Food Acquisition Program), serve as strategic instruments for women's productive inclusion, as they guarantee access to markets, income, and formalization of organizations. However, as evidenced by the data of women's associations presented earlier, inequalities persist in effective access to these programs, indicating the need to improve promotion policies. Structural measures, such as expanding access to credit, specialized technical assistance, managerial training, and care infrastructure (daycare centers, full-time schools), are fundamental to increasing women's economic participation in coffee cooperatives.

The overall analysis of the results presented in this study shows that women's participation in coffee cooperatives and associations in Brazil is expanding, both quantitatively and organizationally. There has been expansion in the number of cooperatives, the growth of women's associations, increased commercialized production, and greater insertion in differentiated markets. However, structural challenges remain related to unequal access to productive resources,

underrepresentation in decision-making positions, time constraints resulting from the sexual division of labor, and institutional barriers to access to public policies. These factors indicate that, although progress is evident, sustained institutional, political, and organizational actions are required to consolidate a more equitable environment in the coffee sector. The 2030 Agenda and its Sustainable Development Goals, particularly SDG 5 (Gender Equality), create a favorable context for increasing women's participation in coffee cooperatives and leadership positions. To this end, concrete actions that overcome social, economic, and political challenges are needed to increase women's participation.

Conclusion

The International Coffee Week serves as a relevant and mobilizing forum that promotes meetings among representatives of cooperatives, associations, and other institutions, such as universities and research institutes. This environment has proven especially conducive to analyzing the situation of women coffee farmers, promoting debate, and collectively building alternatives and actions to strengthen women's full and effective participation in the coffee value chain.

The data analyzed indicate growth in the number of women members across the five cooperatives studied between 2016 and 2021, with increases ranging from 1.2 to 1.5 times. This growth was even more expressive from 2000 to 2021, reaching 21.7 times in one of the cooperatives analyzed. At the first *Cooperativas e Gênero* event, held during the International Coffee Week in 2017, 30 % of the participating institutions had up to 5 % of women members or associates. At the second event, held in 2022, 52 % of the participating institutions reported that women accounted for between 11 % and 20 % of their members or associates.

This advance is manifested in the increase in the





number of cooperatives and the formation of women's associations, as well as in the expansion of commercialized production. There is a growing trend towards the establishment of associations composed exclusively of women farmers. Only one women's association participated in the first event in 2017, whereas four associations were present at the second event in 2022, indicating increased organizational participation by women in the coffee sector.

Despite this, women's relative participation remains lower than the total number of cooperatives. Structural inequalities related to access to markets and economic opportunities, the sexual division of labor, governance, and public policies persist, indicating the need for continuous training, institutional inclusion, and the promotion of gender equity in coffee cooperatives.

Strategies such as differentiated coffees, women-led brands, and certifications have contributed to increasing women's economic autonomy. Brazilian experiences demonstrate that targeted marketing initiatives increase the visibility, income, and professional recognition of coffee farmers, while also stimulating more inclusive organizational practices.

The 2030 Agenda, especially SDG 5, creates an institutional environment conducive to gender equity. Programs such as PNAE and PAA serve as instruments of productive inclusion, although they still exhibit access asymmetries, as evidenced by data from women's associations.

It is also important to expand and systematize cooperative databases, with segregation by gender, so that we may have more accurate information about women in coffee cooperatives over time and across regions. To this end, we suggest that cooperatives maintain databases on the number of female members, clearly separating women and men, to enable tracking of the evolution of women's roles within each

organization over the years.

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Conflict of Interest

The authors declare that the research was conducted in the absence of any potential conflicts of interest.

Ethical Statements

The authors confirm that the ethical guidelines adopted by the journal were followed by this work, and all authors agree with the submission, content and transfer of the publication rights of the article to the journal. They also declare that the work has not been previously published nor is it being considered for publication in another journal.

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