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Contributions of Rural Women Farmers to Community Development in Ovia Northeast, Edo State, Nigeria

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Abstract. This study investigated the contributions of rural women farmers to community development in Ovia North-East Local Government Area of Edo State, Nigeria. A multi-stage sampling technique was employed to select 120 respondents from four active farming communities. Primary data were collected using structured questionnaires analyzed with descriptive statistics and regression models. Findings revealed that the mean age of respondents was 50 years and were active farmers and many possessed long farming experience (mean= 13 years). Majority (79.8%) were married and have large households of 6–10 persons (58.7%). They engaged in divers farming activities like: crop production, livestock rearing, fish farming marketing and few others which strengthen local food systems, stabilize household livelihoods, and stimulate grassroots development. Rural women contribution to community development are mainly in the areas of food production (96%), paying of taxes (76.0%) among others. Income was directed mainly toward household welfare with 98% spent on household needs, 75.96% on children's schooling, 36.54% reinvested into farms, and 11.54% used for community dues, showing how women convert limited income into long-term community and household well-being. Regression analysis further indicated that monthly income ($p = 0.001$) and household size ($p = 0.001$) significantly influenced women's contributions, explaining 40.8% of the variation in community development participation. The study therefore concludes that empowering rural women is essential for sustainable grassroots development. The study recommends that government and NGOs expand gender-responsive financial inclusion programmes targeting rural women farmers; extension services be redesigned to target rural women more; women's roles in community decision-making be strengthened; and access to land, inputs, and supportive infrastructure be improved to enhance productivity and enable women to contribute even more meaningfully to community development.

Keywords: Rural women, contribution, community development, constraints

1. Introduction

Women make up approximately half of the global population, play crucial and indispensable role in the social, economic, and political advancement of societies worldwide (United Nation, 2020). Historically, Nigerian women have actively participated in local development initiatives in their respective communities. Traditional roles such as running a household, raising children and maintaining social cohesion which provide women with an important basis for community participation. Women use their social networks, personal relationships and collective decision-making skills to meet the diverse needs of their communities and create positive changes (Okeke-Ihejirika & Salami, 2018). Rural women farmers are women who live in rural communities and are actively involved in farming and food production. They grow crops, raise animals, process food, and often sell their farm produces in local markets. These women play a vital role in feeding their families and communities, even though they usually have less access to land, money, training, and modern farming tools compared to men. Their work is essential for both household survival and the overall economy in rural areas.

Alemayehu (2014) regards community development as a process concerned with the improvement as well as the transformation of the social, mental, economic, institutional and environmental conditions of the rural dwellers through the mobilization and rational utilization of their human, material and institution resources so as to enhance their capacities to cope with the daily tasks and demands of modern time. It is about the quality of life of people, their capacity to improve the conditions of their existence to reach, control and utilize their resources for greater productivity and enjoyment. It is about the autonomy and self-respect of the individuals as a free member of his community. Community development objectives include to: increase employment; uplift the general health of the rural dwellers; provide technical works and knowledge to the rural dwellers; and maximize the productivity of the average person on and his family.

In Nigeria, and some other parts of the world, particularly in rural areas, women are generally the most neglected and they have consistently lost out in the course of development and in self-reliance. Sibanda (2012) had remarked that it was unfortunate that it was only African women farmers who have no voice in the society. Further asserted that women who enjoyed a space and platform in academics, science, economics and politics that were celebrated and yet in Africa, there was a deserving group of extraordinary women who are still pillars of African Agriculture. The role of women in many societies however, are bound by age-old traditions and beliefs, patriarchal practices motivated by culture, interpretations of religious sanctions which hinder women's freedom to play key roles and assert their right to social and economic and community development. They are in fact discriminated against by stereotypes which restricted them to a reproductive role, and denied them access to resources which could eventually enhance their social and economic contribution to the society (Waruru, 2020).

Research has shown that empowering women in agriculture can significantly boost food security, reduce poverty, and strengthen community development (FAO, 2021). Yet, in places like Ovia North-East, there is limited data and documentation on how exactly these women contribute to their communities and what challenges they face. Understanding their role more clearly is essential to creating inclusive and effective rural development strategies. This is why focusing on the contribution of rural women farmers to community Development is important in this study. The problem of this paper is thus situated on the rural women farmers' contributions and performance to the development of their communities and the gaps in previous development efforts aiming to provide actions for inclusive rural transformation.

Hence, the objectives of this study is to assess the contributions of rural women farmers to community development in Ovia North East Local government area of Edo State.

However, the specific objectives are to: examine the socio-economic characteristics of the rural women farmers in the study area; identify the type of farming practice the rural women farmers are engaged in; examine the areas of their contribution to community development in the study area; examine the factors that influence the contributions of the rural women farmers to community development; and identify the constraints to their contributing to the development of their community in the study area.

2. Research Methodology

The study was conducted in Ovia North-East Local government area, Edo State of Nigeria. Edo State is located in the South-South geopolitical zone of Nigeria and was officially created on August 27, 1991, following the division of the former Bendel State into Edo and Delta States (National Orientation Agency, 2022).

This study involved a purposive selection of 4 communities (Uhen, Ekiadolor, Ogbese, Ofunama) from the study area due to the presence of the active rural women farmers and their participation in the community development. Stage 2 involved a cluster sampling selection from each farming enterprise to ensure fair representation of each farming enterprise (crop, livestock, poultry) the rural women farmers are engaged in while Stage 3 involved a random sampling selection of a total of 120 women respondents from all the strata of farming enterprise due to the various farming enterprise the women are engaged in, however only104 respondents' data were found useful for analysis representing 86.7% response. Questionnaire was used for data collection.

Respondents were asked to indicate the farming type they are engaged in. This was measured with the options of Crop Farming (0), Livestock Farming (1), poultry (2), Fish Farming (3), Mixed Farming (4) and others (5). Respondents were asked to choose the Agricultural activities they perform. Crop production (1), Livestock rearing (2), Poultry farming (3), Fish farming (4), Agro-processing (e.g. grinding, packaging, drying) (5), Marketing or selling of farm produce (6), Storage and preservation of produce (7), and Others (8). Respondents were assessed on their various contributions to the development of their community. Respondents were assessed on the various factors that influence their contribution of the rural women farmers to the development of their community.

E. Constraints Faced by the rural women farmers in contributing to the community development. Frequency count and percentage were used for data analysis while multiple regression was used for hypothesis testing.

This objective was measured using descriptive statistics such as frequency count, mean, Standard Deviation and percentage. A Nominal Scale of Yes (1) and No (0) was used.

H_0: There is no significant relationship between socio-economic characteristics of rural women farmers and their contribution to community development.
This was measured using multiple linear regression analysis:
$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \ldots\ldots, +\beta_7 X_7 + \varepsilon$
Y = Contribution to community development (dependent variable)
(Contribution=1, No Contribution=0)
X_1, X_2, ..., X= Socio-economic characteristics (independent variables)
β_0 = Intercept
β_1 - β_7 = Coefficients of each independent variable
ε = Error term
Independent Variables (X's) — Socio-economic Characteristics:
Examples include:
X_1 = Age of respondent
X_2 = Level of education
X_3 = Household income
X_4 = Farm size
X_5 = Marital status
X_6 = Farming experience
X_7 = Household size
β_0 = Constant (intercept)
β_1 to β_7 = Coefficients that measure the effect of each independent variable
ε = Error term (random unexplained variation)
Each variable will be coded numerically:
Education level (No formal = 0, Primary = 1, Secondary = 2, Tertiary = 3)
Marital status (Single = 0, Married = 1, Widowed = 2, and others.).

3. Results and Discussion

3.1 Socio-Economic Characteristics of Women in Agricultural in Study Area

This survey shows a predominantly mature farming population (Table 4. 1). Worldwide, women in their 30s–50s are noted to be most active agriculturally. This result confirms this trend, 42.3% of surveyed women were over 51years old, an age bracket considered "able-bodied" for both subsistence and commercial production. While 27.9% of the women farmers where between the age bracket of 41-50 years. Also, 27.9% of the women farmers were between the age of 31-40 years. Only 1.9 % of the women farmers where less than 30 years of age. The findings show that the agricultural sector, often faces challenges in attracting younger individuals, leading to an aging farming population. This trend has implications for the sustainability and future growth of the sector, the economy and community wellbeing at large as younger women farmers are crucial for innovation, adoption of modern farming practices and high contribution and participation to the development of agriculture sector and community wellbeing. The average age of the respondents was 42 years' old which implies that many are in their peak productive years.

Majority (68.2%) of respondents had farmed for over 10 years. Such depth of experience is an asset. Experienced women typically accumulate deep local knowledge of crops and markets is likely to allows them to optimize limited resources and introduce improvements. For example, one Nigerian study noted that farmers with long experience were better placed to understand farming needs and challenges. However, age can also carry trade-offs: one study found that older women tend to spend fewer hours on farm work (possibly due to physical limits) even as younger wives take on more day-to-day labor. Thus, the oldest farmers in these communities may contribute more through leadership and knowledge-sharing, while middle-aged women supply the bulk of labor. Nearly 80% of these women farmers are married. Marriage often provides additional household labor (husbands, older children, or relatives) and a sense of shared responsibility. The significant presence of older, married women may imply a wealth of accumulated social capital and stability. Farming experience and marital status are often positive determinants of decision-making power and community leadership (Ibrahim & Umar, 2019). The longer a woman has been rooted in the community, the more she is trusted for resource pooling and collective action. This aligns with the argument that women use their social networks and collective decision-making skills to drive positive change (Okeke-Ihejirika & Salami, 2018). In Ovia North East, this experience translates into reliable leadership within cooperative societies, which are the bedrock of modern rural development initiatives. The result shows that, 49% of the women indicated that their husbands were the head of their household, 19.2 % indicated that their father was the head of their household, 17.3% indicated that their husband's brother was the head of their household, while only 14.4 % of the women in the survey were the household head. Female-headed households often face financial strain, but when women do control household income, families tend to benefit greatly: research highlights that women's direct management of family resources boosts economic, social, and nutritional outcomes for the whole household. In Ovia North- East, women living under a husband or other male relative as head likely have less autonomy over farming decisions. Still, even in those cases, married women often influence crop choices and market activities.

Education shapes how women farm and lead. In Ovia North -East, most women have at least primary or secondary schooling (only 15.4% had no formal education). Educated women are better positioned to adopt modern farming techniques, manage finances from non-farm income sources, and interact confidently with extension services (Akwiwu, 2025). A higher level of education empowers women not just in agricultural production but also in demanding and accessing resources like credit and extension training, which remain major constraints for their less-educated counterparts (Asogwa et al., 2020). When rural women are equipped with literacy and numeracy skills, their capacity for self-reliance and meaningful contribution to community projects from supervising boreholes to managing cooperative funds can be profoundly amplified. The findings that income level is a significant predictor of development contribution resonates with broader research across Nigeria. Recent studies emphasize that when women gain control over income, they disproportionately invest in their households and communities, channeling funds toward social goods (Okunnu, 2024; Adeyemo & Kehinde, 2021). This is often manifested in contributions to community-based organizations (CBOs) and local projects, which, as observed by a study on poverty eradication in rural households, remarkably reduces poverty status (Adeyemo & Kehinde, 2021). The income controlled by these women is not just a personal gain; it is a critical source of local financial capital. Economically, rural women farmers operate on modest means: 75% of these women earn less than ₦100,000 per month, 23.1% earn between ₦100,000 - ₦250,000 per month while 1.9% of these women earn over ₦40,000 per month. Such limited income constrains their ability to invest in farm inputs or community projects. Large families characterize Ovia North East farming households (Table 4.1). 58.7% of these women reported 6–10 persons living in their house, an additional 22.1% had 11 or more persons living in their house and 19.2% had less than 5 persons living in their house. Such extended households can supply ample family labor. As one Nigerian study notes, "farming households with many people tend to use more family labour rather than hired labour," reducing production costs. In practice, older daughters or sons often help with farm chores, enabling women to manage larger plots or multiple enterprises. These results align with patterns observed in other parts of Nigeria and beyond: women are heavily engaged in cropping and marketing but less so in higher-value value-chain activities, livestock intensification or agro-processing, often due to structural constraints. For example, a study from southeast Nigeria found that women's labour in staple crop value chains was constrained by lack of credit, poor road networks, and weak storage infrastructure (Opata, Ezeibe, Ume, Iwuchukwu & Onyenekwe, 2022).

Table 4.1: Socio-Economic Characteristics of respondents(n=104)

Age (years)	Freq.	%	Mean	Std. Dev.
< 30.00	2	1.9		
31.00 - 40.00	29	27.9		
41.00 - 50.00	29	27.9	50.0	13.6
51.00 and above	44	42.3		
Marital Status				
Single	21	20.2		
Married	83	79.8		
Educational background				

No formal education	16	15.4		
Primary education	26	25		
Secondary education	47	45.2		
Tertiary education	8	7.7		
Adult education	7	6.7		
Household size (Number of Persons living in a house)				
<= 5.00	20	19.2		
6.00 - 10.00	61	58.7	8.2	3.4
11.00+	23	22.1		
Monthly income earned (Naira)				
<= 100000.00	78	75		
100001.00 - 250000.00	24	23.1	93639.4	70780.3
400001.00+	2	1.9		
Years of experience in Farming practice (Number)				
<= 10.00	33	31.7		
11.00 - 20.00	28	26.9	20.7	13.0
21.00+	43	41.3		
Household head				
Self	15	14.4		
Husband	51	49.0		
Husband’s brother	18	17.3		
Father	20	19.2		

Source: *Field Survey, 2025*

3.2 Types of Farming Enterprise

3.2.1 Crop Production Dominance

Results in Table 2, the predominant farm activities is crop production, with 98.08% women farmers engaged in this enterprise. The near-universal involvement in crop production underscores the centrality of food-crop cultivation to rural women's livelihoods. Women farmers are the backbone of staple food production in Nigeria, participating across land preparation, planting, weeding, harvesting and post-harvest work (Udemezue & Odia, 2021). As Udemezue and Odia (2021) observe, women provide more than 60 percent of farm labour in Nigeria's staple-food subsector and are the key actors in short food-supply chains linking producers to rural markets.

According to the results (Table 2) obtained from the survey, a high share of women farmers 66.35 % engages in marketing or selling of farm produce and this is especially noteworthy. Women's participation in marketing acts as critical bridge between rural production and urban/rural markets, converting farm outputs into cash that funds education, health and community contributions. production to sale and cash income, thereby bolstering household livelihoods and enabling reinvestment into farm inputs or community development. When women are confined to subsistence and petty marketing, they have less surplus income for community projects or cooperative investment, perpetuating structural inequality (Obot *et al*., 2023).

According to the results, 11.54% of the respondents were engaged in livestock rearing, 5.77% of the women were involved in fish farming while 3.85% respondents were engaged in agro processing enterprises. This is an important signal. Women are producing crops and selling them, but few are engaged in local value-addition (milling, drying, packaging) that would capture more profit locally. Past projects (e.g., agro-technology and women's empowerment programs) demonstrate that targeted support to small-scale processors (equipment, training, grouping into women-led micro-enterprises) significantly increases returns and creates local employment. The comparatively low participation in livestock and fish farming suggests untapped potential in higher-value enterprises. Studies note that women's entry into value-adding processing or livestock intensification is often restricted by barriers such as inadequate credit, poor access to improved inputs and deficient infrastructure (Obot, Ngozi, Anunobi, Elizabeth & Udoh, 2023).

Findings from the field survey in Table 4.2, indicates that only 25% of rural women farmers in Ovia North East engage in storage and preservation of their agricultural produce (Field Survey, 2025). At first glance this may seem like a minor detail, yet it carries significant developmental weight. Storage and preservation represent the bridge between production and consumption; they determine whether a farmer merely survives from season to season or generates sustainable income and community value. In smallholder systems such as those of Ovia North East, limited storage capacity directly contributes to post-harvest losses and unstable household income. Nigeria loses an estimated 30–50 percent of perishable crops annually due to inadequate storage facilities and poor preservation practices (Audu & Udo, 2024).

Table 2: Farming Practices

FARMING PRACTICES	Freq	%
Crop Production e.g planting of maize, cassava, yam, cocoyam.	102	98.08
Livestock rearing eg rearing of goats, sheeps, pigs.	12	11.54
Poultry Farming. eg rearing of chicken, Turkey, Guinea fowl.	17	16.35
Fish farming	6	5.77
Agro processing (e.g grinding, packaging, drying)	4	3.85
Marketing or selling of farm produce	69	66.35
Storage and preservation of farm produce	26	25.00

Source: Field Survey, 2025; Multiple Responses given.

3.3 Rural Women Contribution to Community Development

In Table 3, the level of contribution is high. All 104 respondents (100 %) reported involvement in food production, and 103 (99.04 %) classified their contribution as high. Only one respondent (0.96 %) considered it low. This very strong level of engagement means that rural women in Ovia North East serve as the backbone of agricultural production and food provisioning within both their households and the wider community. They also make significant and multifaceted contribution to Community Development Many of these women engage heavily in agricultural production, post-harvest activities, marketing, and household food security roles. The women not only cultivate and attend to crops but also engage in processing, transportation, storage and sale thereby adding value and supporting both household and communal welfare. Their high involvement ensures supply of staple crops, contributes to local food security and supports market supply chains. Because this contribution is high, development interventions should capitalize on their role by providing targeted extension services, improved inputs, mechanization support and access to value-addition processes.

Level of use of farm income for children's education /household dependents is predominantly high, but with a meaningful minority reporting low contribution. Of 101 respondents who confirmed using farm income for children's education/household dependents (97.1 % of total), 68 respondents (65.38 %) rated their contribution as high, while 36 respondents (34.62 %) rated it as low. This indicates that while a majority of women are channeling farm income into human capital (education), a significant minority still face constraints that limit their ability to contribute strongly in this way. The 'low' portion suggests that despite participation in farming, some women may not be generating sufficient surplus income, or face competing demands (healthcare, daily consumption) that reduce the share available for education. In terms of community development, the high majority is positive: investment in children's schooling by women leads to stronger human capital and longer-term community benefits.

The level of contribution in (small business: food vendors, tailoring and craft) this category is low. While 27 respondents (26.0 %) reported engaging in small business activity, 78 respondents (75.0 %) rated their contribution in this domain as low, and only 26 (25.0 %) rated it as high. This suggests that although some rural women diversify into enterprises beyond crop farming, these ventures are often small, informal and limited in scale, thus their impact on community development (beyond the household) remains modest. For the wider community, small-business contributions by women are under-utilised: with improved access to markets, business training and credit, these enterprises could become stronger drivers of local economic development.

In this type, the level of contribution is mixed to low. While 55 respondents (52.9 %) reported belonging to some local group, only 41 respondents (39.42 %) rated their contribution via these groups as high, whereas 63 respondents (60.58 %) rated it as low. This shows that membership alone does not guarantee high impact. Many women belong to groups, but fewer report that these memberships translate into strong contributions toward community development (e.g., pooled investments, infrastructure projects). The relatively low level of high-impact group participation suggests that cooperatives/savings groups in the area may be performing more as social/financial safety nets rather than as development engines. For community development policy, this means there is latent capacity in these groups which could be better harnessed via linkages to formal finance, strengthening leadership, and orienting them toward community investment.

The level of contribution is low (particularly in community excursion: infrastructure, communal work). Only 4 respondents (3.8 %) were recorded as major contributors in this domain, and as many as 78 respondents (75.0 %) rated their contribution as low. This indicates that rural women in Ovia North East are largely absent or minimally visible as actors in community infrastructure and communal work contributions (such as building roads, water points, storage sheds). Obstacles likely include time constraints, lack of cash surplus, limited decision-making authority and cultural norms. From a community development perspective, this is a clear gap: women's labour, knowledge and engagement could boost communal asset formation, but at present their contribution in this domain remains modest.

Again, the level of contribution (payment of local levies and taxes to support community development) is low. 28 respondents (26.9 %) reported paying local levies; 80 respondents (76.92 %) rated their contribution through levies/taxes as low.

Although payment of community dues is one mechanism by which members support communal development, the data suggest that rural women farmers in the study area contribute little via this channel. The low level of contributions may reflect limited surplus income, informal economy status, or exclusion from formal levy systems. For community development, low levies by women mean the burden of funding community assets tends to fall elsewhere, reducing the inclusiveness of communal finance.

Table 3: Areas of contribution of rural women farmers to community development

	Status					
Types of contributions	Type Freq	%	High Freq	%	Low Freq.	%
Food Production, cultivation, harvesting, processing of crops. eg vegetables, maize, yam, rearing animals for sales.eg Goats, poultry. Snails. Cultivating a home garden for household food consumption	104	100.0	103	99.04	1	0.96
Using income generated from sales of crops and livestock produce to support the Education of their children/ house members	101	97.1	68	65.38	36	34.62
Running of small businesses (bead making, food vending, tailoring) or learning a skill to support the local economy.	27	26.0	26	25.00	78	75.00
Participation in local activities e.g. Membership of a cooperative society, association and savings groups for easy market access	55	52.9	41	39.42	63	60.58
Participate in community execution such as building roads, schools, health centres.	4	3.8	26	25.00	78	75.00
Paying local levies/taxies to ensure development of the community.	28	26.9	24	23.08	80	76.92

Source: *Field Survey, 2025; Multiple Responses given*

3.4 Factors Motivating Rural Women to Contribute to Community Development

High financial ability /power was high 77.9% as a motivating factor in Table 4 indicating that women with stable or higher incomes feel more capable of contributing materially and socially to communal projects. Financial independence enhances confidence and decision-making power, allowing women to fund community initiatives, pay levies, or support local infrastructure. This finding supports the work of Adewale and Adefalu (2020), who observed that higher household income significantly increases participation in rural development programme.

Results in Table 4, 64.4% of the respondents, ranked cultural expectations as the second most important motivator. In many rural Nigerian communities, collective participation in community work such as road maintenance, local dues, and festival contributions is considered a moral duty and a mark of social responsibility. As noted by Ajayi et al., (2019), cultural norms of reciprocity and communal labour act as informal institutions that sustain participation and reinforce social cohesion. For the women of Ovia North East, community contribution is thus not merely voluntary; it is an expected act of belonging and respectability that sustains family and social identity.
This result in Table 4 shows that, 50% of the respondents ranked personal satisfaction a major intrinsic driver. Many women derive emotional fulfilment and pride from seeing tangible improvements in their communities. According to Na et al. (2024), intrinsic satisfaction, self-worth, and a sense of social recognition enhance long-term participation in community initiatives. In this context, giving back becomes a personal achievement as well as a social obligation.

A higher proportion (46.2%) of women farmers further reinforce the moral and spiritual importance of community service. Faith-based values in Christianity, Islam, and traditional religions emphasize charity, care for others, and collective upliftment. Nwakaego (2013) argues that religion often serves as a moral compass for philanthropy and communal generosity, motivating women to contribute to shared welfare projects such as schools or water schemes.

According to the results in the Table 4, 25% of women farmers acknowledges the importance of local leaders influence as motivating factors of governance structures in mobilizing community participation. Traditional rulers, ward heads, and opinion leaders often encourage, sanction, or coordinate women’s involvement in collective projects. George (2025) notes that inclusive and participatory local leadership increases community compliance, trust, and volunteerism, particularly among women.

As Shown in the table 4, only 16.3% of women farmers responded that they receive support from women's group. Though ranked lowest, this remains an important enabling factor. Cooperatives and women’s associations provide access to pooled funds, micro-credit, and collective labour that ease individual financial constraints. Studies show that such groups transform women's motivation into action by lowering costs and enhancing solidarity (Adewale & Adefalu, 2020).

Overall, these findings highlight that women's motivation to contribute to community development in Ovia North East is multi-dimensional. It is sustained not only by material capacity but also by cultural values, religious conviction, and emotional fulfilment. Strengthening these motivations requires a holistic approach: enhancing women's financial access through cooperatives, promoting inclusive leadership, and leveraging cultural and religious networks to mobilize broader participation. As Eze et al. (2021) emphasize, empowering women through social and economic structures ultimately translates into stronger, more cohesive rural communities.

Table 4: Factors Motivating Rural Women Farmers to Contribute to Community Development

Factors that motivating factors to contribute to community development	Freq.*	%
Personal Satisfaction	52	50.0
Support from women's group	17	16.3
Religious beliefs	48	46.2
Influence of local leaders	26	25.0
Cultural expectations	67	64.4
High Financial ability / Power	81	77.9

Source: *Field Survey, 2025; Multiple Responses*

3.5 Constraints rural women face in contributing to community development

As shown in the Table 5, 100% of all respondents reported absence of external institutional support. This unanimous response signals systemic neglect: without public or NGO programmes to provide inputs, credit windows, or market linkages, women must rely on informal means to sustain production and community giving. Empirical analyses of Nigeria's agricultural sector show that where institutional support is scarce, smallholders especially women face persistent productivity and market constraints. Strengthening extension, input subsidies and targeted programmes for women raises adoption of improved practices and increases returns to labour. The absence of institutional and technical support reflects a broader policy gap that has long disadvantaged women farmers in Nigeria (Adewale & Adefalu, 2020).

According to the results in Table 4.8, majority of the women farmers, 89.4 % of them reported lacking mechanized tools and quality inputs. Mechanization and reliable input supply are well-established drivers of productivity; their absence entrenches labour-intensive, low-yield production systems. Studies in Nigeria document that limited access to mechanization and quality inputs constrains yields and discourages commercialization, particularly among women who also face credit barriers to acquiring such assets.

As shown in the Table 5, nearly all the respondents, 96.2 % of them reported Poor rural roads and transport infrastructure restrict timely market access, increase post-harvest losses, and depress prices as a major constraint. Numerous Nigerian case studies link inadequate rural transport to lower farm gate prices, higher transaction costs and constrained market participation effects that disproportionately harm women, who often trade in perishables and have limited bargaining power. Improved rural transport is thus a high-impact investment for strengthening women's incomes and community contributions. Poor roads and market access further limit their capacity to sell produce profitably, while insecure land tenure discourages investment in long-term soil or irrigation improvements (Alawode, Oladokun, & Awotunde, 2025).

A large majority (93.3%) of the women farmers reported insufficient extension contact and training. Agricultural extension is critical for disseminating improved agronomic practices, post-harvest methods and business skills. Evidence from Nigeria shows that where gender-sensitive extension reaches women, adoption of improved storage, processing and crop technologies increases markedly, reducing losses and improving incomes. The observed shortfall likely exacerbates the low uptake of higher-value enterprises in Ovia North East.

According to the results in Table 4.8, almost nine in ten women (89.4%) cited credit constraints. Access to affordable finance is essential for buying inputs, investing in storage or processing, and scaling enterprises. Nigerian research repeatedly finds that women receive a disproportionately small share of agricultural credit and face high collateral requirements; this credit gap limits their capacity to expand production or invest in community projects. Group-based lending and tailored micro-finance have been effective in similar contexts.

Two-thirds (66.3%) of the women farmers identified land ownership systems as a constraint. Although many women cultivate on family land, customary tenure regimes often do not confer secure, transferrable rights. Tenure insecurity undermines willingness to invest in durable improvements (irrigation, soil conservation, tree planting) and limits the use of land as collateral. Studies show that formalizing use rights or strengthening collective tenure arrangements increases investments and commercialization among women farmers.

Over half of respondents (59.6%) experience gendered barriers (norms, exclusion from decision-making, limited mobility). Gender discrimination intersects with other constraints (land, credit, extension), reducing women's agency to benefit from agricultural opportunities. The literature emphasizes that addressing gender norms through legal reform, gender-sensitive extension, and women's economic empowerment programmes is necessary to unlock women's full contribution to community development. Gender norms compound these limitations by excluding women from decision-making and leadership roles (Eze, Okoye, & Nwosu, 2021).

Table 5: Constraints to Women's Contributions

MAJOR CONSTRAINTS	Freq	%
Poor Land Ownership System	69	66.3
Poor access to Credit Opportunities	93	89.4
No Access to modern farming tools or inputs	101	97.1
Lack of Extension training	97	93.3
Gender discrimination	62	59.6
Poor Transportation/ Market access	100	96.2
No support from Government Agencies or NGOs	104	100.0

Source: *Field Survey, 2025; Multiple Responses*

The multiple regression analysis presented in Table 6 examines the relationship between respondents' socio-economic characteristics, age, household size, monthly income, and years of experience in farming, and their level of contribution to community development. The model yielded an R value of 0.639, indicating a moderately strong positive relationship between the independent variables and community development contributions. The R-square (R^2) value of 0.408 implies that approximately 40.8% of the variation in community development contributions is explained by the combined effect of the selected socio-economic characteristics, while the remaining 59.2% may be due to other factors not included in the model.

The coefficient for age (0.417) is positive, suggesting that as respondents grow older, their contributions to community development tend to increase. Although the variable is significant at the 0.05 level ($p = 0.052$), it closely approaches statistical significance, indicating a mild influence. This result aligns with findings by Adewuyi and Oyesola (2018), who observed that older farmers are more likely to participate in communal initiatives due to their established social networks and stronger sense of responsibility toward their communities. Similarly, Olaniyi et al. (2020) noted that age contributes positively to leadership and collective action in rural development programs, as older individuals often command respect and serve as decision-makers.

The coefficient for household size (1.593) is positive and statistically significant at the 1% level ($p = 0.001$), suggesting that larger households are more likely to contribute to community development. This may be because families with more members have a broader labor pool and can allocate time and resources to community projects such as rural road maintenance, sanitation, or cooperative farming. This finding corroborates Ibrahim and Umar (2019), who reported that household size positively influences participation in community-based agricultural projects in Nigeria. It also supports Eze et al. (2021), who emphasized that larger families tend to have greater social obligations and are more engaged in communal activities.

Monthly income exhibits a strong positive coefficient (4.159) and is statistically significant at the 1% level ($p = 0.001$). This indicates that individuals with higher income levels are more likely to contribute financially or materially to community development initiatives. This finding is consistent with the work of Adewale and Adefalu (2020), who argued that economic capacity significantly determines the level of community engagement and ability to sponsor developmental projects. Likewise, Akinbode and Adereti (2018) emphasized that income enables households to invest in collective infrastructure, education, and health-related activities, thereby fostering sustainable community progress.

The coefficient for years of farming experience (0.162) is positive but statistically insignificant ($p = 0.714$), indicating that farming experience has little or no effect on the level of contribution to community development among respondents. This could suggest that experience in farming does not necessarily translate to higher social involvement, possibly because experienced farmers may prioritize productivity and farm management over community projects. This aligns with findings by Omobowale and Adepoju (2020), who noted that experience influences technical efficiency but may not always correlate with social engagement.

The overall model demonstrates that household size and monthly income are the most significant predictors of community development participation. This suggests that socio-economic stability and available human resources are key enablers of communal progress. The implication is that development interventions aimed at enhancing rural community development should consider improving household economic welfare and creating incentives that harness family labor toward communal goals.

These findings reinforce the argument of Chukwuemeka and Udeh (2018) that socio-economic empowerment at the household level contributes directly to the success of participatory development initiatives. They further echo the Sustainable Livelihoods Framework, which posits that assets human, social, and financial collectively shape individuals' capacities to contribute to community well-being.

Table 9: Multiple Regression showing relationship between selected socio-economic characteristics and contributions to community development

Variable	Coeff.	Std. Err	t-stat	Sig,.
Age (years)	0.417	0.105	3.971*	0.052
Household size	1.593	0.218	7.307**	0.001
Monthly income earned (Naira)	4.159	0.884	4.705**	0.001
Years of experience in Farming practice (Number)	0.162	0.138	1.174	0.714

Source: Field Survey, 2025; *Sign at 0.05 and **Sign at 0.01 levels of significance.
$R = 0.639$; R-square value = 0.408.

4. Conclusion and Recommendations

The study confirms that rural women farmers are central to community development in Ovia North-East. Their farm work sustains household food security, supports local markets and generates the income used for children's education, healthcare and daily needs. Beyond economics, these women strengthen community cohesion through shared labor, cooperative activities and cultural responsibilities. Their contributions show that when women have the resources, skills and support they need, entire communities become more stable, food-secure and economically resilient. Rural development in Ovia North-East depends heavily on their continued participation and empowerment.

Based on the findings of this study, the following key actions are recommended:

- Strengthen agricultural training and extension services tailored specifically for women, focusing on improved farming practices, post-harvest management and basic financial skills.
- Increase women's access to credit and farming inputs, including small loans, improved seeds, tools and fertilizers, without stringent collateral requirements.
- Improve rural infrastructure especially feeder roads, market stalls, and community storage and processing centers to reduce losses and improve market access.
- Support the formation and strengthening of women's cooperatives to help them pool

resources, access markets, share knowledge and participate more actively in development programs.
- Promote gender-sensitive policies and land rights that enable women to own or lease land, participate in decision-making platforms and benefit from government agricultural programs.

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