Unpacking Performance and Empowerment in Female Farmers’ Groups

THE CASE OF THE FADAMA PROJECT IN NIGERIA

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November 2014

PERSPECTIVES ON SOCIAL DEVELOPMENT
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ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>ADP</td>
<td>Agriculture Development Program</td>
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<td>ATA</td>
<td>Agriculture Transformation Agenda</td>
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<td>CBT</td>
<td>Community-Based Targeting</td>
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<td>CDD</td>
<td>Community-Driven Development</td>
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<td>FCA</td>
<td>Fadama Community Association</td>
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<td>FUG</td>
<td>Fadama User Group</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>LFDC</td>
<td>Local Fadama Development Committee</td>
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<td>LGA</td>
<td>Local Government Area</td>
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<td>NBS</td>
<td>National Bureau of Statistics</td>
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<td>SFCO</td>
<td>State Fadama Coordination Office</td>
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Women play a significant role in producing, processing, and marketing staple and cash crops in Nigeria, but their ability to expand production is constrained by insecure rights to land, difficulties in securing labor and credit, and inequitable access to herbicides, fertilizers, and extension services. Given the challenges faced by female farmers, the inclusion of women has been a primary goal of the National Fadama Development Project. This project aims to reduce rural poverty and increase food security through the transfer of financial and technical resources to beneficiary Fadama User Groups (FUGs) under matching grant arrangements.

In an agricultural sector marked by entrenched gender inequalities, the Fadama project provides intriguing examples of economic achievements among female farmers. By the mid-term review of Fadama III in 2013, women represented 41 percent of registered participants in FUGs and the income of female heads of households participating in the program had increased by about 50 percent—the greatest increase in both absolute and percentage terms for any category of project participants.

Based on an in-depth qualitative study of successful female FUGs in the Fadama Project in Ogun State, South-West Nigeria, this paper aims to provide fresh insights on how an agriculture project can help boost production and income for female farmers, and how project results can affect women’s economic empowerment.

Section A presents the factors that help target women and support their improved performance in FUGs. The objective is to explain why and how—in the Nigerian context, which is generally characterized by poor outcomes for female farmers—some female farmers have successfully come together and performed under the project, managing to increase their production and income.

Section B discusses the impact of women’s increased income under the project on their economic
empowerment. The aim is to understand how the increased income reported by members of female FUGs is spent, depending on the structure and needs of the household, and how women’s role in household expenditure negotiations has evolved, or not, toward more economic security or economic autonomy.

A. Women’s Access to, and Participation in, Agricultural Groups

a1) Targeting and Selection of Women in the Fadama III Project

Consistent with community-driven development (CDD) approaches, the Fadama project employs community-based targeting and selection of beneficiaries. The targeting mechanisms are largely informal and flexible. Information on the project is delivered to communities through various channels, including traditional and religious leaders as well as unions and professional associations. Inclusion in the FUGs appears to be determined by interpersonal networks. In particular, women tend to depend on the support of men to enter the project. Men, whether as husbands or as local leaders and elites, facilitate the inclusion of women by channelling information on the project to them, encouraging them to join, registering the FUG, and/or providing financial assistance for the matching contribution required by the project to acquire assets. Men play an important role in supporting women’s access to the Fadama project for three main reasons: men tend to be more literate than women, have more income, and be more connected to social and power networks.

Why do men lift the barriers to women’s entry to Fadama? First, men and women are economically interdependent in the cassava and palm oil value chains, as men rely on wives and female relatives to process their crops. As such, Fadama support for mechanized processing methods presents economic advantages for men, providing them with more efficient and productive processing. Second, because the inclusion of women has been promoted heavily by Fadama facilitators, the existence of female FUGs gives the umbrella Fadama Community Associations (FCAs) a progressive image. Increased visibility within the Fadama project increases their chances to access assets and services in subsequent rounds of Fadama financing.

From a gender perspective, women’s dependence on men in accessing the project can be perceived as problematic, but from a functional perspective the share of women participating is substantially higher than in many other World Bank-supported government programs.
a2) What Makes a Group Perform?

Group performance varies considerably. For example, some groups showed greater capacity to meet their counterpart contributions for asset acquisition in a short time frame, or to show resilience in the face of delays and complications in obtaining assets. Three variables affected the performance of female FUGs:

(i) Social cohesion: The best-performing FUGs tended to be groups characterized by high levels of social cohesion. Social cohesion generally stems from preexisting geographic or community ties.

(ii) Economic needs and ties: The cash constraints of individual women have a direct impact on their FUG’s performance. The high opportunity cost of setting aside scarce cash to save for subsidized assets and waiting for their procurement poses a threat to group cohesion, as cash-constrained women are at risk of dropping out of the FUG. The nature of economic ties among members also affects the FUG’s performance. For example, FUGs that regularly perform joint economic activities appear to have more established systems of mutual economic support and to perform more effectively.

(iii) Men’s financial and technical support: Variations in group performance also arise in response to the level of financial and technical support that female groups receive from external actors, in particular male family and community members who are members of sister FUGs or apex FCAs. Men tend to provide administrative support and technical assistance with the operation and maintenance of machinery.

a3) What Affects Individual Performance?

The research found significant differences among individual female FUG members in terms of access to Fadama benefits and production increases. For example, though 90 percent of women reported some level of income increase over what they earned prior to joining the FUG, the amount of the increase varied substantially. Interviews indicated that, at least in the initial stage, access to and use of Fadama benefits depended on individuals’ initial capital endowments and how much
financial and technical support they received from their spouse or male relatives. Women with higher initial capital and/or external support tended to gain access to more benefits and to have more opportunities to expand production and increase income.

Such intragroup variation might raise concerns about inequities among group members. However, successful FUGs bring together women with varying levels of resources, which has spillover benefits in that better-educated women and those with greater initial financial endowments appear to play a critical role in running and sometimes financing female FUGs, allowing less educated and poorer women to expand their opportunities.

B. Creating Opportunities for Women Through Domestic, Social, and Productive Investments

b1) Framing Women’s Expenditure Choices

Increased income gained from accessing and using Fadama benefits was expended across three categories (which are not mutually exclusive):

(i) **Domestic expenditure**, including household food, schooling costs, rent, utility costs, and clothing. It is important to understand that, in Yoruba culture, men and women account for their income and expenditure separately and a husband “puts down” the primary contribution for domestic expenditure while a wife “tops it up” with her money.

(ii) **Social expenditure**, including donations to extended family “rite of passage” ceremonies (such as the naming ceremony after a baby’s birth) and general support to the extended family, especially aging parents. Such expenditure can be considered a form of safety net.

(iii) **Productive expenditure** aimed at expanding or diversifying one’s business. This spending includes buying or renting productive assets such as land, processing machines, and equipment.
The expenditure choices that women make within these three broad categories were found to be overlaid by three variables:

(i) *Household type*, including male-headed monogamous, male-headed polygamous, and female-headed households;

(ii) *Stage of the family life cycle*, such as whether school-age, young adult, or independent children are present, or the age of the woman; and

(iii) *Economic status*, including access to assets, social capital, and external financial support.

**b2) Women’s Options: From Safety Nets to Productive Investments**

These three variables provide insights into why women spend their additional income on domestic and social responsibilities and/or expand or diversify their business interests. For example, understanding the household type helps explain why women from polygamous and female-headed households—which may not have access to support from men—were found to spend a higher proportion of their income on domestic expenditures and less on social and productive expenditures than women in monogamous households.

Similarly, the household’s stage in the family life cycle plays a significant role in determining domestic expenditure for all household types; women whose households include school-age children and young adults tend to spend more in support of the educational or small business needs of their children, while older women may receive remittances from independent children.

Finally, women’s economic status helps explain their expenditure patterns. Women with higher additional income (generally based on better initial capital endowments) are able to meet domestic and social expenditures more readily from existing (pre-FUG) income, allowing them to spend more of their additional post-FUG income in productive areas.
b3) Empowerment at the Household and Community Level

Looking beyond additional income and expenditure patterns, this research investigated how women’s increased assets, income, and capabilities gained under the Fadama project affected their perceptions of their influence and autonomy in the household and community. The majority (71 percent) of female beneficiaries felt that they had been empowered by the project. In particular, 57 percent of women reported feeling empowered in the community. This may be explained by the fact that women who are able to meet their social obligations, and thereby support extended family and community rites of passage, are more likely to feel that their social capital in the community is higher.

Far fewer (7 percent) female FUG members reported feeling empowered within the household. Women who did report feeling empowered in their household were more likely to be investing in assets and in furthering their business interests, and to be receiving support from their spouse.

Spousal support plays an important role in obtaining assets, boosting production, and earning more income. Women who receive this type of support may enjoy an existing positive economic interdependence that is evolving into spousal co-production based on separate and independent incomes but jointly acquired economic assets. FUG executive members and older women in monogamous marriages and with independent children appear to be more likely to develop such co-productive arrangements.

C. Conclusions

c1) Key Findings

Targeting

The reliance on community-based targeting (CBT) mechanisms tends to privilege women with close relationships to male power holders. This risks excluding poorer, less-connected women.
Understanding a group’s social fabric is critical to explaining its performance. Groups that are socially cohesive and have close economic ties tend to perform better.

Individual performance within a group can vary substantially. The initial socioeconomic stratification of the group is reflected in differentiated access to decision making and benefits. These initial individual asymmetries lead to different outcomes in terms of increased production and additional income.

One key factor of individual and group success is access to loans and credits. The amount of cash needed to access and manage assets and to expand or diversify a business is difficult to obtain. More needs to be done to lift credit constraints.

Women spend additional income in the domestic, social, and productive spheres, but they make different expenditure choices depending on their household type and family needs. Women follow distinct expenditure patterns according to whether they live in a female- or male-headed household, and in the latter case whether they are in a polygamous or monogamous household.

The most successful women in female FUGs are those in co-productive arrangements with their husband or a male relative. What is important in co-production is that each party is economically autonomous and empowered to decide on spending and investments.

c2) Broader Policy Messages

Unpacking “Gender”

Overall, the key findings presented above show the need to unpack “gender.” The household structure, marital status, age, and socioeconomic status of female beneficiaries affect their performance. These differentiated outcomes need to be accounted for in project monitoring and evaluation systems and impact studies.
**Embeddedness of CDD Projects in Gender and Social Relations**

The findings highlight that, by nature, CDD projects are embedded in local social and political contexts that pose specific risks and opportunities. For example, men can play a critical role in facilitating women’s participation in development projects or they can use their social and political power to exclude them. Understanding men’s motivations for including or excluding women is important to providing opportunities for women to succeed.

**Gender Analysis of Value Chains**

The research findings support the need to better understand the social and economic interdependence of male and female farmers. No agriculture program can afford to dismiss the benefits of a gendered value chain analysis to improve this understanding. This analysis is of immediate importance for the commodities and zones receiving attention under the Nigerian Agricultural Transformation Agenda.
The agriculture sector has significant potential to transform Nigeria’s socioeconomic landscape. Agriculture is the country’s largest employer, with 60 percent of the labor force (Oseni et al. 2013), and it accounts for the largest share of gross domestic product (GDP) at 39.2 percent (NBS 2013). By comparison, the oil sector contributes 13.8 percent to GDP (NBS 2013).

Significant investments need to be made to tap the agriculture sector’s full potential to ensure food security and poverty reduction. For the most part, agriculture in Nigeria remains on a small scale and uses rudimentary production techniques. Smallholder farmers have on average less than one hectare of farmland, and less than one percent of farmers own large mechanized implements such as harvesters or planters. Farming remains essentially subsistence-based, with 56 percent of agricultural households reporting no crop sales (Oseni et al. 2013).

Women play an important role in rural economic activity but face severe constraints to productivity and socioeconomic security. Nigeria’s agriculture sector employs 35 percent of women and up to 44 percent of female heads of households. Women are engaged in the production, processing, and marketing of cash and staple crops (Oseni et al. 2013). Yet a number of factors constrain the expansion and diversification of their agricultural activities, including fewer rights to land than men, lower access to credit, and inequitable access to inputs, fertilizers, and extension services (Box 1). As a result, their agricultural productivity remains lower than that of men and their vulnerability to food insecurity and poverty higher.

How to help female farmers increase their agricultural productivity and expand their economic opportunities is thus a key policy question. This question is particularly relevant now, as the
Federal Government of Nigeria has embarked on a broad Transformation Agenda that includes, from 2011, the Agricultural Transformation Agenda (ATA). The government sees its ATA as a critical tool for driving rural income growth, accelerating the achievement of food and nutritional security, generating employment, and transforming the country into a leading player in global food markets. The strategy is to improve the value chains of a number of agricultural commodities by focusing on key aspects, including the availability and provision of improved inputs (seed and fertilizer), support for increased productivity and production, and the establishment of staple crop processing zones. Some of the value chains targeted by the ATA, such as cassava, are important for women as growers, processors, and marketers. Yet women's specific roles and support needs

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**Box 1: Gender Gaps in Nigerian Agriculture**

In “Gender Dimensions in Nigerian Agriculture,” Gbemisola Oseni, Markus Goldstein, and Amarachi Utah examined the situation of male and female farmers in Nigerian agriculture on the basis of data from the General Household Survey-Panel 2010/11. The data show several gender gaps that may contribute to the lower productivity of female farmers compared to male farmers:

- **Plot management**: 21 percent of women employed in the agriculture sector are plot managers, compared to 56 percent of men.
- **Land size**: Male managers harvest land areas that are on average 0.18 hectares larger than those of female managers.
- **Land rights**: 31 percent of female managers have the right to sell the plots under their management, compared to 67 percent of male managers. In the same vein, 38 percent of female managers have the ability to use land as collateral, compared to 72 percent of male managers.
- **Irrigation**: 3.5 percent of male managers’ plots are irrigated, compared to 0.5 percent of female managers’ plots.
- **Inputs**: Male plot managers are more likely than female plot managers to use inputs such as fertilizer, herbicides, pesticides, animal traction, and machinery (with the exception of purchased seed).
- **Extension services**: 15 percent of male-headed households receive extension services, compared to 8 percent of female-headed households.
- **Labor**: On average, female plot managers use 28 days of female family labor and 13 days of male family labor, compared to 20 days and 41 days respectively for male plot managers.
- **Credit and savings**: Only 3 percent of female farmers own a formal bank account, compared to 10 percent of men. Conversely, 25 percent of women use informal savings groups, compared to 18 percent of men.
throughout these value chains remain poorly understood. More information is required to design interventions that recognize and successfully address the constraints faced by both men and women farmers.

Women in Agriculture Projects in Nigeria: The Case of Fadama

With a view to informing the design of future agriculture policies and projects, this research investigated the experience of female farmers in an existing agriculture development project, the National Fadama Development Project (Fadama). Fadama is a community-driven development (CDD) project that aims to reduce rural poverty and increase food availability throughout all 36 states and the Federal Capital Territory in Nigeria. The original National Fadama Development Project (1992–1999) focused on developing small-scale irrigation and included a component to help farmers organize into beneficiary farmer groups, referred to as Fadama User Groups (FUGs), to support irrigation management, cost recovery, and access to credit, marketing, and other services. The Second National Fadama Development Project (2003–2009) aimed to strengthen the capacity of Fadama Community Associations (FCAs) and their constituent FUGs and to provide financing for small-scale infrastructure and asset acquisition.

The Third National Fadama Development Project (Fadama III), on which this research is based, began in July 2008 and will run until the end of 2017. Fadama III supports sustainable increases in the incomes of users of rural land and water resources in Nigeria. The project supports the financing and implementation of components designed to transfer financial and technical resources to FUGs (Box 2). At midterm, Fadama III had targeted 2.2 million farmers and registered 57,816 FUGs (13,673 with functional assets) and 4,971 FCAs (the apex organizations that are composed of six or more FUGs).

In a sector marked by entrenched gender inequalities, Fadama III provides intriguing examples of economic achievements among female farmers. The International Food Policy Research Institute (IFPRI) has completed a midterm review suggesting a comparatively positive impact on women and female groups. In particular, it appears that the income of female-headed households participating in the Fadama project increased by about 50 percent—the greatest increase in both absolute and percentage terms for any category of project participants.
### Box 2: Fadama III Project Components

The Third National Fadama Development Project is anchored in a CDD approach, through which community organizations are responsible for prioritizing objectives, allocating resources, and managing funds. Extensive facilitation, training, and technical assistance are provided to ensure that poor rural communities, including women and vulnerable groups, participate in collective decision making on local development planning. The project aims to promote transparency and accountability in planning and management of local public investments, as a means to reinforce trust between communities and local government administrations. The total project cost is US$ 425 million, of which the World Bank will finance US$ 250 million.

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<td>Component 1: Capacity Building, Communications, and Information Support</td>
<td>This component includes capacity building support for community organizations and local governments, and communications and information support.</td>
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<tr>
<td>Component 2: Small-Scale Community-Owned Infrastructure</td>
<td>With a view to improving low levels of infrastructure and services, resources are allocated annually to each participating FCA to implement demand-driven, community-owned productive infrastructure investments.</td>
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<td>Component 3: Advisory Services and Input Support</td>
<td>The project helps: (a) empower Fadama users to purchase advisory services from both public and private sources; and (b) improve farmers’ access to inputs, including the adoption of new technology to enhance their financial capacity to purchase seeds, fertilizers, and agro-chemicals and to build savings from incremental earnings to finance future purchases. The project will provide matching grants, as piloted under Fadama II.</td>
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<td>Component 4: Support to Agricultural Development Programs (ADPs), Sponsored Research, and On-Farm Demonstration</td>
<td>The project helps ADPs support advisory service providers, conduct quality assurance of advisory services, train facilitators, conduct sponsored research and on-farm demonstrations, and train extension staff.</td>
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<td>Component 5: Asset Acquisition for Individual FUGs and Economic Interest Groups</td>
<td>A matching grant is used as seed money to empower smallholder and poor farmers to acquire capital assets, to improve farmers’ access to markets, and to provide complementary support that adds value to farm produce.</td>
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<td>Component 6: Project Management, Monitoring, and Evaluation</td>
<td>This component includes technical assistance to national and state-level implementation coordination, project coordination, and project monitoring and evaluation.</td>
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Research Questions

This research has aimed to provide fresh insights on how an agriculture project can support production and income increases for female farmers, and how successful project outcomes can affect women’s economic empowerment. In particular, the research examines:

1. **Targeting of female farmers.**
   What are the factors that facilitate and shape women's access to the Fadama project? In other words, how and why do female farmers become beneficiaries of an agriculture project?

2. **Performance of female farmers.**
   What factors support positive performance by female groups and individuals in the Fadama project? Specifically, what variables affect women's capacity to access and use Fadama benefits to increase their agricultural productivity and income under the project?

3. **Empowerment of female farmers.**
   How do gains in production and income affect the decisions women make on domestic, social, or productive expenditures in their household—particularly on how additional income is expended?

These questions were investigated through an in-depth qualitative study of women's participation in selected locations of the Fadama project.

Approach and Methodology

The Fadama project was chosen for analysis because it offered greater potential for undertaking gender research than any other World Bank project in Nigeria. The Fadama project is a rich source of information for both quantitative and in-depth qualitative research methodologies. First, it provides a 15-year record of experience, allowing for some assessment of long-term impact on beneficiaries. Second, it has been unusually successful in meeting its targets, including a comparatively high percentage of women as beneficiaries, as reflected in monitoring and evaluation data. Third, the formation of female, male, and mixed FUGs provides an interesting comparative
basis for revealing women’s experience in improving and diversifying economic livelihoods and in economic and social empowerment.

**Purposive Sampling**

The sample of female farmers’ experiences analyzed under this research is limited to successful female-only groups in Ogun State in the South-West region of Nigeria. Further research will be needed to test the project’s results across regions (thus exploring social and ethnic differences) and across group types (women in mixed FUGs as compared to women in female-only FUGs).

The choice of the South-West zone was guided by preliminary indications that female farmers participating in the Fadama project have been particularly successful in this region. Despite high overall participation of female beneficiaries, at 41 percent (Nkonya et al. 2013), there is considerable variation between the different geopolitical zones, ranging from 27 percent in the North-West to over 50 percent in the South-East. The South-West zone, where women make up about 45 percent of project beneficiaries, is among the well-performing regions. In addition, though sex-disaggregated data on the project’s income effects are not fully available at the federal or state levels, there were preliminary indications, provided by the Fadama project, that female beneficiaries in the South-West region were performing particularly well in increasing their income through the project.

Within the South-West region, Ogun State was selected because it had long-term experience with the Fadama project, and therefore provided an opportunity to analyze the project’s impact on women’s economic achievements and empowerment over a relatively long period of time. Though Fadama I had focused mainly on improving irrigation of fadama lands in the northern states, a few southern states, including Ogun, joined the project toward the end of Fadama I. Ogun State was fully involved in Fadama II, which adopted the CDD approach. Ten of the state’s twenty Local Government Areas (LGAs) were targeted under Fadama II; the remaining ten LGAs were included under Fadama III, though with less funding per LGA. For the purposes of this research, FUGs were selected that had been funded under Fadama II in order to provide a reasonable length of time for the FUG to have been operational and its members to have experienced changes to productivity and income levels.

Female farmers are involved in both mixed and female FUGs under Fadama, but this study
purposely looks at female farmers in female-only FUGs. The study draws on the experiences of one male and two mixed FUGs for comparison, but the discussion centers on women’s experience in female groups. Though the majority of women beneficiaries in the Fadama project are in mixed FUGs (both in Ogun State and nationally), the choice to focus on female FUGs was motivated by the perception, based on monitoring and evaluation data and insights from the Fadama project team, that women in female FUGs fare better than women in mixed FUGs in gaining decision-making authority within the group, accessing benefits, and improving their incomes.4

Success was a critical criterion in selecting the female FUGs examined in this research. The sample selection of FUGs was based on indications, from monitoring and evaluation data and other information extracted by the State Fadama Coordinating Office (SFCO) in Ogun State, that these FUGs had performed particularly well in accessing Fadama benefits and using them to expand their economic activities. This purposive approach to including the best-performing FUGs was motivated by the specific opportunity these FUGs provide to investigate the factors that support female farmers’ access to and good performance in the project (which might not be evident in poorly performing FUGs) and the effects of increased income on women’s control over income and expenditure (which would be non-existent in poorly performing FUGs that recorded little or no increase in income).

This paper focuses predominantly on female FUGs involved in cassava and palm oil processing, as these are the main crops with which women work under Fadama in Ogun State. Of the 101 female FUGs registered in Ogun State, 41 (40 percent) have received grants or assets in agro-processing, including 17 in cassava processing and 2 in palm oil processing (Table 1). Annex 1 provides a more complete overview of the male, female, and mixed FUGs that have registered and/or received assets.

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Male FUGS</th>
<th>Female FUGs</th>
<th>Mixed FUGs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop production</td>
<td>0</td>
<td>0</td>
<td>145</td>
<td>145</td>
</tr>
<tr>
<td>Livestock</td>
<td>11</td>
<td>1</td>
<td>96</td>
<td>108</td>
</tr>
<tr>
<td>Agro-processing</td>
<td>3</td>
<td>40</td>
<td>57</td>
<td>100</td>
</tr>
<tr>
<td>Agro-forestry</td>
<td>7</td>
<td>0</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>Fishery</td>
<td>0</td>
<td>0</td>
<td>123</td>
<td>123</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
<td><strong>41</strong></td>
<td><strong>453</strong></td>
<td><strong>515</strong></td>
</tr>
</tbody>
</table>
Field Research

Qualitative and quantitative data and information were gathered through in-depth interviews and focus group discussions with a wide range of actors in 8 FUGs (5 female FUGs, 2 mixed FUGs, and 1 male FUG). In total, 105 in-depth interviews and 8 focus group discussions were conducted. Individual respondents included FUG members, their spouses, FCA members, community leaders, and local government desk officers (Table 2).

The methodology for in-depth interviewing coupled a storytelling approach and a semistructured questionnaire. The former provided the opportunity for the interviewee to identify what was important to her or him in the formation and operation of the FUG and with regard to changes in intrahousehold behavior. The latter included a checklist of topics to be covered during the interview, as well as tables on assets, income, and expenditure to reflect pre- and post-FUG changes in asset ownership, income, and expenditure. A question guide was designed for interviews with spouses of beneficiaries to capture more fully the household dynamics (including perceptions on the decision-making process for household resource allocation) and to provide an opportunity to double-check (as much as possible) information on assets, income, and expenditure. Selected question guides are available in Annex 2.

Interviews and focus group discussions were conducted in Yoruba with simultaneous translation to English. At each stage, interviews were written up according to a standardized format designed to facilitate the extraction and analysis of particular characteristics of the groups and individuals interviewed. Appropriate statistical methods were adopted as necessary to enable aggregated quantitative analysis of data.

Structure of the Report

The data gathered during this research provide critical insights on the targeting, performance, and empowerment of women who have participated in the Fadama project. Section A presents the factors that facilitate and shape women’s access to and performance in FUGs. The objective is to explain why and how—in the Nigerian context, which is generally characterized by poor outcomes for female farmers—some female farmers have come together and successfully increased their production and income. Section B discusses how women’s increased income under the project
affects their economic empowerment. The aim is to understand how female FUG members spend their increased income, how these decisions are related to the structure and needs of the household, and how women’s role in household expenditure negotiations evolves, or not, toward more economic security or autonomy. Section C draws conclusions on the basis of this research, laying out key findings and exploring their operational and policy implications.

<table>
<thead>
<tr>
<th>Type of FUG</th>
<th>Female beneficiaries</th>
<th>Male beneficiaries</th>
<th>Spouses</th>
<th>Community leaders, local government officers, and FCA members</th>
<th>Total interviews per FUG type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female FUGs</td>
<td>28</td>
<td>0</td>
<td>15</td>
<td>22</td>
<td>70</td>
</tr>
<tr>
<td>Mixed FUGs</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>Male FUGs</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>12</td>
<td>17</td>
<td>33</td>
<td>105</td>
</tr>
</tbody>
</table>
The experience of female farmers under the Fadama project poses two intriguing questions. First, the substantial percentage of women beneficiaries in the Fadama project raises the issue of targeting and selection: what are the factors that facilitate and shape women’s access to the Fadama project? Second, the positive trends in productivity and income recorded by female farmers in the Fadama project, at both the group level and the individual level, raises the question of performance: what factors support positive trends in female group and individual performance?

The research identified three critical factors that influence women’s targeting and individual and group performance: (i) gender relations in the community and its households, in particular the level of economic interdependence and support between male and female family and community members; (ii) the initial endowments of individual women and female groups; and (iii) the social characteristics of individual women and female groups. Such factors are both predetermined and dynamic, and this report examines how they condition women’s participation and how they evolve with this participation.

A.1) Targeting and Selection of Women in the Fadama III Project

A.1.a) Gender Implications of Community-Based Targeting: Men’s Bridging Role

The community-based targeting (CBT) mechanisms employed by the Fadama III project are largely informal and quite flexible. Information on the project is delivered to communities through diverse channels, including traditional and religious leaders as well as unions and professional associations, and inclusion in the FUGs appears to be determined to a large extent by interpersonal relations.
Some of the literature on CBT, including in CDD projects, questions the efficiency and pro-poor nature of such targeting methods, as well as their feasibility and cost. The differentiated impact of CBT on women, however, has been underresearched, if not ignored, and the effects of the local political economy and social dynamics on women’s entry into projects are largely neglected. Yet in projects such as Fadama, in which targeting and selection occur at the community level, local dynamics critically influence women’s access. Women’s position in the community, their relations to local power structures, and their sociodemographic profile play an important role in their access and participation.

This research posits that CBT has critical gender implications. While the use of CBT methods in Fadama seems to have been associated with a high proportion of female beneficiaries, it has also created space for local political economy and social dynamics to determine the characteristics of women’s inclusion. The 105 interviews and 8 focus group discussions conducted in Ogun State revealed that women depended heavily on men’s support to access the project.

i. Structural asymmetries in access to information and power structures

As a result of the local political economy and social dynamics, women face barriers to entry in the Fadama project, which men, including husbands and male local leaders, can help lift. Men have two structural advantages compared to women in accessing project information: they are relatively more connected to power structures, and they tend to be more literate.

Connection to power structures is critical to accessing information on the process, requirements, and benefits of projects such as Fadama. To reach out to rural communities, Fadama has relied on local political organizations and structures such as traditional and religious leaders (for example, pastors) and unions (for example, farmers’ cooperatives). Fadama project staff informed such organizations and structures of the project’s application process, requirements, and benefits and asked them to share information with their communities and to encourage individual male and female farmers to join. Given men’s predominant role in political organizations and structures (due to women’s more limited engagement in the public sphere), information about the project has tended to be channeled to women through men.

Gender gaps in education and literacy have the potential to deepen asymmetries in access to the project. Fadama requires reading, writing, and numerical skills to understand the project’s
structure and rules (including the group registration process, financial reporting, and meeting procedures) and to abide by them. Given generally lower levels of education, women tend to depend on men’s support to fulfill these requirements. These structural asymmetries explain why men’s support is critical to women’s inclusion—that is, because it lifts some barriers to entry—but a look at men’s economic and political incentives is needed to understand why they would provide this support.

ii. Interdependent gender roles in the value chain and men’s incentives

The interdependence of men and women’s activities in the cassava and palm oil value chains (the two main value chains examined in this research) generate economic incentives for men to redress the above-mentioned information asymmetries and facilitate the participation of their wives or female relatives in the project. While men engage mainly in crop planting and harvesting, women do most of the agro-processing, including processing their husbands’ and male relatives’ crops (for example, processing cassava into garri or processing palm nuts into palm oil). As such, Fadama support to female agro-processors also presents economic advantages for male farmers, as it provides them with processing options that increase efficiency (for example, by reducing crop wastage) and productivity (for example, through mechanized palm oil extraction, which extracts more oil than feet can).

The high level of co-dependence between men and women’s farming and processing activities in rural Ogun State holds true at the household and community levels. Women process their husbands’, sons’ or other male relatives’ crops, as well as other male community members’ crops. Though compensation arrangements may vary (for example, in the amount paid and whether payment is made in cash or in kind) depending on the strength of the relationship (husbands tend to pay less than extended family or community members), the availability of Fadama-subsidized processing equipment in a community creates opportunities for more effective and efficient crop processing for all male farmers growing that crop.

This condition holds true for both mixed and female FUGs. The acquisition and use of processing equipment follow similar patterns in both types of FUGs. In both cases, men contribute to the purchase of processing equipment. In female-only groups, men contribute at the individual and group level; at the individual level, a large proportion of women appear to depend on financial support from their husband and male relatives to acquire (through matching grants) the
processing equipment, while at the group level, equipment is often procured through FCAs, whose management is dominated by male relatives. The use of processing equipment reveals a similar pattern; in both female and mixed FUGs, women tend to process their male relatives’ inputs.

iii. Political imperatives

Male leaders have a political incentive to support women’s access to Fadama. By encouraging their wives and female relatives to participate, they increase their visibility within the Fadama project and their chances to access both assets and services in subsequent rounds of Fadama financing. Male Fadama executives repeatedly stressed that the participation of women, including the existence of a female FUG, promoted a positive and progressive image of the FCA vis-à-vis the SFCO. From a normative perspective, women’s dependence on men in accessing the project might be perceived as an illustration of women’s lack of autonomy. From a functional perspective, however, this research indicates that the bridging role played by men has been critical in allowing greater numbers of women to access the project. The share of women participating in the Fadama project is indeed substantially higher than in many other World Bank-supported government projects and contrasts sharply with the significant gender gaps in access to productive assets observed more broadly in Nigeria’s agriculture sector.

A.1.b) Accessing Executive Positions in Female Groups: The Weight of Initial Endowments

Women’s initial endowments in the social and economic sphere play an important role in how they participate in the Fadama project. Though this research found that men facilitate women’s inclusion in the project, it also revealed the importance of women’s own social and economic endowments in gaining selection for executive positions in the FUGs and FCAs.

i. Variations in initial endowments

Significant socioeconomic gaps are observed among female FUG members. Education levels vary widely. Some beneficiaries are illiterate, while others have up to secondary (rarely tertiary) education. In the same vein, there are considerable differences in women’s initial endowments in capital and assets. For example, within one FUG, land ownership among female members varied from half a plot to six plots. Significant variations are observed in terms of social capital as well. Some women have extended social networks and connections to (patriarchal) power holders such
as pastors or community leaders, who themselves play a role in their respective FUG or FCA. This connection can be based on family ties, such as a spouse, sibling, or children (Figure 1), or on religious or spiritual bonds (including through active membership in a local pastor’s church). Some women have built on their position and role in the community prior to Fadama, including, for example, as religious leaders.

**ii. Impact on women’s access to executive positions in the FUG**

Variations in social and economic capital have a significant impact on the positions that women access within their group. Women with greater social and economic endowments have more chances to secure an FUG executive position such as chairwoman, executive secretary, or treasurer (Figure 2). Their financial and writing skills send a positive signal about their capacity to adequately manage the groups' budget and administrative requirements. In addition, economic capital provides them with the capacity to contribute the matching grant needed to acquire Fadama assets, and in some cases to support other individual female members or the group itself in putting up the matching grant and acquiring assets. Social capital is critical from both an instrumental and a psychological perspective. First, networks and connections allow such women to have privileged

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**Figure 1: Share of Executive and Non-Executive FUG Members with At Least One Spouse or Male Relative in Fadama**

![Bar chart showing the percentage of executive and non-executive FUG members with at least one spouse or male relative in Fadama.](chart.png)

- **No spouse or relative in Fadama**
- **Spouse or relative in Fadama**
access to information on the project and its resources. Second, their position in the community, especially in the case of women in leadership positions (including religious), endows them with the trust of other community members, and has a legitimizing effect for their selection or acceptance as executive members of an FUG.

**iii. Local elite**

The selection of women with higher human, economic, and social capital for executive positions may indicate that the FUGs are controlled by local elites, thus raising concerns of elite capture. This research suggested, however, that in most cases the presence in FUGs of women with greater initial endowments had spillover benefits for other group members. First, given generally low financial literacy and writing ability, these women’s skills have proved necessary for the group to function effectively—registering at the Ministry of Local Development, preparing subproject proposals, managing funds, and conducting financial reporting. Second, this research observed that better-endowed individuals often provided those with fewer initial endowments with monetary support to meet their financial commitments, including their matching grant, thus allowing them to join or remain in the group and access Fadama benefits and services.

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**Figure 2: Education Levels of FUG Members**

![Education Levels of FUG Members](image)
A.2) What Makes a Group Perform?

A.2.a) Defining and Comparing Group Performance

There were considerable variations in group performance across the sample of female FUGs. As mentioned in the introduction, this research focused on the best-performing FUGs. Nevertheless, even among the sampled female FUGs, varying levels of group performance were observed. These variations reflected differences in group capacity to: (i) acquire assets and capacity building services under the Fadama project (Box 3); (ii) manage and replace the assets acquired under Fadama; and (iii) leverage the resources generated under Fadama to create new economic opportunities for its members (for example, through revolving loans).

Some groups had an easier time meeting project requirements than others. For example, some groups were able to put up their counterpart contribution for asset acquisition (30 percent) in a short time frame, whereas others encountered more challenges in gathering the necessary funds. Similarly, some groups responded effectively to the project’s administrative demands (such as holding regular meetings and conducting financial reporting), while others had trouble ensuring regular attendance to FUG meetings. The latter groups generally showed less resilience to potential delays and complications with asset acquisition. In some cases, slow delivery of assets (due to delays in the provision of matching contributions or difficulties in procurement) led some group members to opt out of the project.

Variations were also observed in groups’ capacity to manage their group assets efficiently. The management of assets requires group members to contribute a small fee on a weekly, biweekly, or monthly basis (generally during the group meetings), which goes toward group savings (kept in a Farmer Equity User Fund or savings account). These savings are used by the FUG’s executive members to maintain or replace group assets. The regularity and size of such contributions—and therefore the group’s capacity to manage and replace its assets—varied across FUGs.

FUGs also differed in their capacity to create new credit opportunities for their members. These opportunities include access to revolving loans (“thrift schemes”) or microcredit schemes. Some groups managed to put in place a revolving loan scheme that entailed regular (weekly, biweekly, or monthly) financial contributions by group members to a common pot, the funds in which could be lent on to members a rotating basis. The best-functioning FUGs also accessed microcredit schemes.
Box 3: The Fadama Subproject Cycle

**Development of subprojects:** FCAs, and their constituting FUGs, identify and prepare their subproject proposals, assisted by project facilitators and technical specialists. The subproject proposal details the assets (for example, processing equipment such as a cassava grinder or processing shed) and services (for example, capacity building on handling processing equipment) requested by the group. Once subprojects have been identified at the FUG level, the FCA prepares a Local Development Plan incorporating all subprojects and submits to the Local Fadama Development Committee (LFDC) for review and approval at the local government level.

**Assessment and approval of subprojects:** The LFDC prioritizes and approves the proposed subprojects, after determining that they are compatible with the local government development plan. The SFCO then technically evaluates the approved subprojects and confirms compliance with subproject technical, social, and environmental guidelines. After SFCO clearance, Subproject Agreements are signed between the SFCO and the FCA.

**Execution of subprojects:** Beneficiaries' associations are then responsible for contracting goods, works, and technical assistance for subproject execution. Specifically, for asset acquisition, beneficiaries are expected to put up a 30 percent matching contribution.

*Source: Fadama III Project Implementation Manual.*

for members, or for a subgroup of members, through a commercial bank.

**A.2.b) Variables Affecting Group Performance**

The research identified three factors that explain variations in performance across the female FUGs under study: (i) the level of social cohesion within the group; (ii) its economic needs and ties; and (iii) the support it gets from male relatives and community members.

**i. Social cohesion**

The best-performing FUGs tended to be groups with high levels of social cohesion. Social cohesion generally stems from preexisting geographic or community ties:

- FUGs that were embedded in small communities (such as settlements or hamlets) where extended family ties overlapped with FUG ties tended to be more cohesive than FUGs based in less geographically defined and structured communities (such as peri-urban suburbs).
• The physical closeness of FUG members’ businesses also played a role in sustaining a group’s cohesiveness. FUG members that shared a processing shed and equipment, for example, appeared to meet and perform joint economic activities more regularly, to value their grouping more, and to have more established systems of mutual support.

• Belonging to other social groups supported the cohesiveness of FUGs. Groups whose members belonged to the same church or to a preexisting social group (such as a thrift group) had deeper-rooted systems of social support, which could be relied upon by FUG members beyond Fadama.

The level of group cohesion is reflected, among other things, in the degree of mutual support that women provide to each other. This support includes assistance in funding and organizing life-marking social ceremonies such as naming ceremonies, weddings, or burials. Some FUGs have established systems of support and redistribution whereby all members contribute a predefined amount for selected ceremonies; others have more fluid and flexible systems whereby individual group members decide on an ad hoc basis the level of their contribution.

Groups with greater social cohesion were more resilient to shocks and challenges. These groups were better able to manage obstacles such as delays in the procurement of assets or a group’s members difficulty in repaying a loan or microcredit, arguably because of higher levels of trust among members and the preexistence of community-based structures to help manage conflicts and tensions and avoid the breakdown of the group.

The cash flow situation of individual female beneficiaries was found to affect their participation in and financial contributions to their FUG. Women who want to acquire subsidized productive assets through Fadama must put up capital for the matching component prior to receiving the nominated asset. That capital is “frozen,” in effect, as their cash is taken out of circulation during the approval and procurement process. In this context, delays in the delivery of Fadama assets—sometimes for up to a year or more—can be a significant burden for female beneficiaries who live under cash flow constraints, relying on credit to buy the inputs they process and/or running small-scale trading businesses with immediate cash needs. This burden puts groups with cash-constrained members at greater risk of seeing their members opt out of the FUG or decrease their financial contributions when asset delivery is delayed.

Conversely, FUGs that are able to provide their female beneficiaries with opportunities to
overcome cash flow constraints, for example through credit and loans, have higher membership retention and sustained contributions from their members. Given that credit is the main constraint to business growth reported by women, and that sampled Fadama beneficiaries relied relatively heavily on credit to buy processing inputs, the opportunity to access microcredit or group revolving loans through the FUG was identified by beneficiaries as a major incentive to engage and sustain participation in the group. This was often seen as more important than acquiring Fadama assets. In the study sample, all high-performing groups had a functioning revolving loan scheme and/or accessed microcredit schemes.

ii. Economic needs and ties

The nature of economic ties among members was found to affect group performance directly, including attendance at group meetings and contributions to the maintenance and replacement of assets. In some groups, women worked autonomously from each other; in others, a number of economic activities were conducted jointly, including growing and harvesting crops, buying inputs, and processing or marketing goods. Groups with closer economic ties tended to be more cohesive and to be managed more efficiently, as their members were more dependent on each other to operate their businesses. Three main factors appear to affect the strength of economic ties among group members:

- The nature of the assets procured through Fadama, whether individual assets (provided under Fadama II and, to a lesser extent, under Fadama III) or group assets (provided under Fadama III), affect the strength of ties between members and their level of interdependence and cohesion. Group-based assets create opportunities for FUG members to work jointly (for example, joint buying and processing), thus reinforcing economic ties and integration among group members.

- The rural or urban nature of the group affects the strength of their economic ties. Faced with higher transportation, communication, and information costs, women in rural areas have a greater incentive to work together and save costs in buying inputs and marketing products. Costs seem to be lower in urban areas, providing fewer incentives to work together to achieve economies of scale.

- The extent to which the market in which FUG members operate is structured and regulated affects the extent to which women find added value in being a FUG member. When market information and price setting for a processed item is regulated by a union or
producer organization, there is less incentive to develop group strategies to gather market information, buy inputs, and market products.

iii. Men’s financial and technical support

In addition to affecting the targeting and selection of female beneficiaries, as discussed above, men also appear to play a role in the performance of female FUGs. Across the sample of female FUGs, performance varied according to the level of financial and technical support female groups received from external actors, especially male family and community members who were themselves members of sister FUGs or apex FCAs.

Men provided support at both individual and group levels. At the individual level, financial support to female beneficiaries from husbands and male relatives (for example, assistance with required financial contributions for asset acquisition or for asset maintenance) was critical in easing cash flow constraints that threaten group performance. At the group level, male relatives and community members provided financial and technical support to the group as a whole. This assistance included, for example, topping up the group’s matching contribution for the acquisition of common assets or the payment of asset maintenance costs; providing technical support for operating and maintaining machinery; assisting with the purchase of additional processing inputs; and helping with administrative tasks such as budgeting or financial reporting. Such support was particularly critical for vulnerable female FUGs, including those that brought together elderly women with low literacy and limited financial capacity.

A.3) What Affects Individual Performance?

A.3.a) Defining and Comparing Individual Performance

Individual performance can be defined from two perspectives. First, it can refer to women’s access to Fadama benefits, including individual and group assets, capacity building, and microcredits or loans. Second, it can encompass increased production and income as a result of project participation.

Interviews revealed notable intragroup variations in access to individual assets. Though the majority of women benefitted from asset acquisition, women gained access to individual assets in varying numbers and values (Figure 3). For group assets, variations were observed in the intensity of use of the assets. For example, some women used the joint processing shed and equipment (such
Variations were observed in individual beneficiaries’ access to services. Some women participated more regularly in capacity building than others. In addition, female beneficiaries reported varying levels of access to microcredit, even more markedly, to revolving loans. For example, some women had regular access to revolving loans, which they used to expand or diversify their businesses (for example, by buying or farming more crops, or investing in petty trading), while others had no access to revolving loans or, on occasion, were unaware that such a scheme was available in their group. Women’s ability to access assets, capacity building, and microcredit or loans affects their opportunities to increase their production and income. Fadama’s impact on production and income occurs through multiple channels. The use of Fadama processing assets provides opportunities for women to process a larger quantity of inputs (such as cassava, palm nuts, or palm kernels) as grinding machines or frying pans) more frequently or for larger crop quantities than others.
than they did before joining the project. Access to capacity building services provides them with new knowledge and expertise on processing and other agricultural techniques, allowing them to increase their productivity. Access to microcredit or loans provides resources to buy or produce more inputs and therefore to increase the amount of inputs they process.

In this context, increases in production and income also varied across female respondents. When asked to report on the Fadama project’s impact on their production and income, 93 percent of women reported some level of increase over pre-FUG income. Yet their experiences varied substantially (Figure 4).

A.3.b) Factors Affecting Individual Performance

Interviews with female FUG members showed that their initial capital and input levels and the level of financial and technical support they received from their spouse or male relatives were the main factors affecting their access to and use of Fadama benefits. These factors in turn affected their overall production and income. Women with higher initial endowments and/or external support tended to access more Fadama benefits and have more opportunities to expand or diversify their businesses.

The support of men, which played an important part in group performance, was also found to be critical to women’s individual performance. In interviews, women explained the importance of external support from their husbands and, in some cases, male relatives by way of reference to the cash constraints under which they live (Section A.2 above). In the context of some women’s low cash flow and limited access to credit, husbands and male relatives were found to contribute
to various costs related to expanding women's processing capacity, including to obtain more Fadama assets, more land, more processing inputs, or more hired labor. The existence (or not) of this support appears to explain much of the variation in performance between individual female FUG members.

**Different categories of women experienced varying levels of performance.** For example, married monogamous women tended to receive more financial and practical support from their husbands than and polygamous women and were thus better able to expand assets and income-producing capacity. Women's socioeconomic status prior to Fadama was also an important variable. Women with higher initial economic endowments (who were also more likely to have obtained higher education and to be in an executive position in the FUG) were better able to contribute their matching grants, and thus tended to acquire more individual assets. They were also more likely to make more intensive use of assets, whether individual or joint, as they generally had greater access to inputs because they either farmed more land or had more cash to buy inputs.

**Access to revolving loans and microcredit also appeared to be highly contingent on a woman's status in the group and her initial capital and asset base.** Women with higher initial endowments and those with executive positions tended to have better access to revolving loans and microcredit (Figure 5). This had an obvious effect on opportunities, as women with access to loans and credit had more opportunities to reinvest in their business or diversify it, and thereby to increase their income.

Such intragroup variations might raise concerns about unequal opportunities among group members, but the fact that all groups pulled together women with varying levels of resources or inputs had positive spillover benefits. More educated women and those with higher initial endowments appeared to play a critical role in running—and sometimes financing—female FUGs, allowing less educated and poorer women, who would not otherwise be able to meet the project’s contribution requirements, to access Fadama benefits and expand their opportunities.
Figure 5: Access to Microcredit
Following from the above discussion of the factors that led to economic livelihood improvements for women in female FUGs, this section examines how additional income was spent and the variables that affected their expenditure decisions. The research identified three categories of expenditure that women juggled throughout their lives: (i) domestic expenditures; (ii) social expenditures; and (iii) productive expenditures. The spending choices that women made within these broad categories were found to be overlaid by: (i) their household type; (ii) their household’s stage in the family life cycle; and (iii) their economic status, including their activity type and level of income.

In analyzing women’s self-reported perceptions of empowerment in the community and the household, this research suggests that the visibility of FUGs and the assets provided by the project had an effect on perceptions of empowerment at the community level. However, female FUG members’ additional income has translated into limited perceived empowerment at the household level.

B.1) Framing Women’s Expenditure Choices

B.1.a) Where Do Women Choose to Spend Their Additional Income?

As mentioned above, female FUG members tend to spend their additional income—net of group contributions—in domestic, social, and productive areas (Table 3). These categories are not mutually exclusive. Rather, women may spend additional income in just one category, in two categories, or across all three.
<table>
<thead>
<tr>
<th>Type of expenditure</th>
<th>Description of expenditure type</th>
<th>Share of women who increased spending in this category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>• Household food</td>
<td>71%</td>
</tr>
<tr>
<td></td>
<td>• Schooling costs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Other items, such as house rent, utility costs and clothing</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>• Donations to extended family life-cycle events (such as naming ceremonies, weddings, and funerals)</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>• Attendance at such ceremonies (including travel and clothing)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• General support to the extended family, especially aging parents, for health reasons or to meet other non-routine costs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Contributions to nonfamily community members to assist with the expenses of ceremonies or medical care</td>
<td></td>
</tr>
<tr>
<td>Productive</td>
<td>• Buying or renting productive assets (including land, processing machines, and equipment)</td>
<td>71%</td>
</tr>
<tr>
<td></td>
<td>• Buying additional processing inputs (such as cassava, palm nuts, locust beans)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hiring labor in order to expand crop cultivation and harvesting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Starting up or expanding microtrading businesses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Investing in adult children’s businesses</td>
<td></td>
</tr>
</tbody>
</table>
B.1.b) Factors Affecting Women’s Expenditure Choices

i. Household type

The women in the sample of female FUGs fell into three household categories: male-headed monogamous, male-headed polygamous, and female-headed households (Table 4). Monogamously married women formed the clear majority of respondents.

A critical feature of monogamous or polygamous households in South-West Nigeria is that Yoruba men and women account for their income and expenditure separately. There is no common household pot or account into which household earnings are deposited and from which expenditures are made. This pattern was confirmed in this research, with men and women controlling their own incomes and expenditures. There are overlaps in expenditure by husbands and wives. In a male-headed household, the man is deemed to be the main breadwinner (“he is the one that puts down”), and his wife or wives “top up” his income. So while women (and men) may control their own incomes, they do have some expenditure responsibilities and obligations.

<table>
<thead>
<tr>
<th>Household type</th>
<th>% of female beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monogamous</td>
<td>61%</td>
</tr>
<tr>
<td>Polygamous</td>
<td>11%</td>
</tr>
<tr>
<td>Female-headed (widows)</td>
<td>28%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4: Household Type

ii. Stage in the family life cycle

The household’s stage in the family life cycle was found to affect expenditure patterns significantly. For example, the number and age of children in the household influenced the amount of money women spent on food or schooling fees, uniforms, and supplies (whether the woman’s contribution was in full or shared with her husband). Women with adult children had different obligations toward their children and received different benefits in turn. While they might assist their young adult children—especially those who have migrated to an urban area—with the costs of higher education or of opening a trade or small business, they eventually have access
to remittances from these adult children. Investment in adult children builds intergenerational solidarity and mutual support, but does not tend to support women’s economic independence.

The age of female FUG members also influenced their expenditure patterns. Women over the age of 50 tended to be relatively free of domestic expenditures such as food and education, thus having the option to support other types of expenditures. There were exceptions to this pattern, however, such as having grandchildren who lived in the household (either supported by payments from the child’s parents or entirely at the cost of the grandparents). With regard to productive expenditures, older women relied more heavily on hired labor to support their income, but would be less likely to engage in business expansion.

**iii. Economic status**

Women’s investments in domestic, social, or productive expenditures were affected by their economic security, including their ability to mobilize external resources to overcome business constraints. As such, the investment strategies of poorer women with few assets, lower social capital, and more limited access to external financial support (in particular, widows and women whose spouses earned similarly low income) differed substantially from the strategies of women who benefitted from outside support.

**B.2) Women’s Options: From Safety Nets to Productive Investments**

**B.2.a) Domestic Expenditures**

Domestic expenditures formed a significant part of women’s spending (Table 5). Those who reported no increase in domestic expenditure included households in which children had recently moved beyond school age (implying a reduction in school costs) and those in the “empty nest” stage of life.

Expenditure on food was reported most frequently by women, regardless of age or socioeconomic situation. However, food was considered the responsibility of the household head/main breadwinner, and additional expenditure by women was used to “top up” household spending by the spouse. Though the term “top up” implies a small contribution to expenditure, this is not necessarily the case in poor households where food expenditures consume the bulk of household
income. The “top up” supplied by a wife’s earnings could be a significant proportion of her and her husband’s incomes.

For women with young children, food was the most important expenditure, followed by school fees. As with food expenditure, it was the male household head’s responsibility to “put down” the school fees, but women often reported using their income for school fees and, even more frequently, for schooling needs such as exercise books, pencils, and school uniforms. Children’s education is viewed as a long-term investment in Nigeria, as young adults increasingly join the urban work force and are expected to provide remittances to help support their aging rural parents. In the past, children would have provided both farm and domestic labor; now they tend to be either at school or seeking off-farm income. This increases the family’s financial burden and workload until, as adults, younger members can provide cash transfers. Investing in children does not therefore provide the immediate financial returns that business expansion can achieve, but there are benefits to be gained over the longer term.

Women interviewed for this study did not report expenditure on house rent or utilities unless they were widows; these items seemed to fit fully into the domain of men’s expenditure. Men and women spent separately on clothing, and either one or both of them would buy clothing for their children. Very few women spent additional income on health care expenditures.

There were notable differences in spending among polygamous, monogamous, and female-headed households. In monogamous and polygamous households, men were considered to be the main breadwinners and thus responsible for domestic expenditures, whereas women were seen to “top up” this spending. Though men and women did appear to control their own incomes and make their own decisions on the extent to which they would “put down” or “top up” joint spending, the research indicated that the weight of domestic expenditures tends to be heavier.

<table>
<thead>
<tr>
<th>Change in domestic expenditure</th>
<th>% of female beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>No increase in domestic expenditure</td>
<td>18%</td>
</tr>
<tr>
<td>Unknown</td>
<td>11%</td>
</tr>
<tr>
<td>Increase in domestic expenditure</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 5: Expenditure of Additional Income in Domestic Category
for women in polygamous rather than monogamous marriages. Women in polygamous marriages tend to control their own “subfamily unit” within the bigger polygamous family structure and therefore have greater responsibility to “top up” the money shared out to all subfamily units by the husband. The wives in a polygamous marriage may have different responsibilities for domestic expenditures, as well as different opportunities for earning income depending on whether the household operates as a single unit or a number of relatively independent subfamily units.

In female-headed households, the responsibility for domestic expenditures tends to fall entirely on widows, though there are some exceptions. The research found that most widows do not receive financial support from male relatives, but they may receive assistance from adult children if they were widowed later in life. They may also have fewer domestic costs if they have access to the deceased husband’s home and have only themselves to feed.

As a result, women from polygamous and female-headed households tend to spend a higher
proportion of their additional income on domestic expenditures and have less income to invest in social and productive expenditures. By contrast, women in monogamous households tend to have more opportunities to allocate resources from their additional income to productive investments (Figure 6).

While this result was the general case, there were some notable exceptions. For example, one widow, an FUG chairperson, had acquired landholdings many times greater than other members of the FUG and was intent on improving her cassava seed stock, expanding her cassava cultivation, and improving her vegetable production and marketing. Another respondent, who was in a polygamous marriage, reported making a decision to buy a plot of land using her maiden name, against tradition, as a means of securing the property for her children.

Overall, it is difficult to quantify women’s financial contributions to domestic expenditures in male-headed households. In such households, the women’s spouses tend to be vague on the specifics and to emphasize that it is a man’s role as the main breadwinner to “put down” money for key expenditures. On the one hand, the use of the term “top up” may undervalue women’s contributions to domestic spending and maintain the appearance that men are the dominant breadwinners. On the other hand, it may give women more space to determine their own expenditure priorities because the male household head is held responsible for providing domestic staples.

B.2.b) Social Expenditures

Family, conjugal relationships to husband and in-laws, and community enlarge the social network through which a woman can gain support and economic endowments. Women are therefore obligated to do their part in providing material and emotional support at the time of important rites of passage such as naming ceremonies, apprenticeship “freedom” ceremonies, marriages, and funerals. The social expenditures that support these ceremonies are central to social cohesion, both within the extended family and in the broader community, and act as a type of informal social safety net. They are an investment in women’s social security, as the level of support that can be expected from the extended family and community for one’s own life cycle ceremonies, health events, and possible economic shocks, is relative to the effort made to provide support to others.

Contributions to these ceremonies are contingent on an individual’s financial capacity, but significant effort appears to be made to meet these obligations. In the research sample, women’s
additional income was used to increase social expenditures in almost 40 percent of cases (Table 6). It is possible that this percentage is higher, as the early stages of field research did not investigate this type of expenditure. As such, the high number of “unknown” responses could be hiding a higher percentage of increased social spending.

The type of household type, its stage in the family life cycle, and its economic status all affect the level of social expenditures. The 22 percent of women who reported no increase in social expenditure tended to fit into three categories: (i) older women who were no longer expected by the extended family or community to contribute toward social costs, having already “paid their lifetime of dues;” (ii) women with a high base level of income and/or economic resources, whose social expenditure obligations were already covered by existing (pre-FUG) income; and (iii) vulnerable, poorer women with dependent children who had no resources to expend beyond their domestic obligations.

### Table 6: Expenditure of Additional Income in Social Category

<table>
<thead>
<tr>
<th>Change in social expenditure</th>
<th>% of female beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>No increase in social expenditure</td>
<td>22%</td>
</tr>
<tr>
<td>Unknown</td>
<td>39%</td>
</tr>
<tr>
<td>Increase in social expenditure</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**B.2.c) Productive Expenditures**

Productive expenditures are those that are undertaken to expand income-earning opportunities. They include buying or renting of productive assets (such as land, processing machines, and equipment); buying additional processing inputs (such as cassava, palm oil nuts, and locust beans); hiring labor to expand cultivation and harvest processing crops; starting up or expanding microtrading businesses; and investing in adult children’s businesses.

Nearly three-quarters of female FUG respondents chose to direct at least some proportion of their additional income into productive expenditures (Table 7). Though the proportion of additional income they directed toward productive expenditures varied significantly across the population of respondents, it was a significant finding that such a high percentage aimed to expand
and/or diversify their businesses.

The pattern of productive expenditure was found to vary along two main lines: (i) investments in business expansion (Box 4); and (ii) investments in business diversification (Box 5).

i. Productive investments in business expansion

Business expansion requires that substantial income is saved to facilitate business transactions such as buying inputs or renting land, that there is access to credit or loan facilities that can be repaid after processing and sale, or that a spouse or male relative provides financial or labor support (Box 4). Women who were able to overcome these constraints and increase the quantity of cassava inputs they processed tended to be women in monogamous households who had no children living at home and who received financial support from their husbands or a male relative. Executive members of female FUGs were also more likely to overcome cash and credit constraints, as they tended to have more education and an ability to mobilize external support. Executive members often, but not always, had support from their husbands or male relatives in other FUGs or the apex FCA.

Because female palm oil processors with mechanized processing equipment were able to process palm nuts with greater efficiency, extracting more oil in less time taken, the men who owned the palm trees derived greater financial benefit than the women processors. In one female FUG that processed palm nut oil, it was the adult “sons” of the women FUG members who had initiated the formation and registration of the FUG. They also maintained the processing shed and equipment. It was to the sons’ advantage to support their “mothers” to procure the equipment, but the mothers also benefitted from increased production of residue products (to varying degrees) and from intergenerational mutual mutual support. In this regard, the women were benefitting from being

<table>
<thead>
<tr>
<th>Change in productive expenditure</th>
<th>% of female beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>No increase in productive expenditure</td>
<td>11%</td>
</tr>
<tr>
<td>Unknown</td>
<td>18%</td>
</tr>
<tr>
<td>Increase in productive expenditure</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 6: Use of Additional Income for Productive Expenditures
in the stage of the family life cycle in which adult children could assist them financially and in turn receive assistance to increase their own incomes to a greater or lesser degree.

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Box 4: Business Expansion Strategies of Female Agro-processors

Women chose different paths to expanding their productivity, depending on whether the business was related to the core activity of their Fadama support or to a separate and independent business. The majority of female FUG respondents were involved in agro-processing; with Fadama asset assistance and mechanization, they were able to process their crop (cassava, palm oil, or locust beans) more efficiently and with less physical labor. To expand their income opportunities within the FUG-related business, they looked to increase their inputs either by buying or renting more land to grow more of the crop (typically cassava) or by purchasing more of the crop from other farmers. The first option often required hiring labor to assist with clearing and harvesting. This labor cost could constrain business growth or reduce the modest profits that cassava processing fetched. The second option, which involved direct purchase of the crop either while still in the ground or already harvested, required cash up front, both for the transaction and for transport to carry the cassava tubers to the processing area.

Even when conditions favor expansion of agro-processing by increasing cassava inputs, overall cassava production is limited by the small scale and seasonal nature of noncommercial cassava production. Higher-yielding cassava varieties are available, but these require additional inputs such as fertilizer that are beyond the income or credit capacities of most women.

Women also expanded their business opportunities at the processing end of the cassava cycle. For example, cassava can be processed into a number of different food items according to local demand. The product requiring the smallest amount of processing is laafu, followed by garri and then fufu (which can be sold as wet fufu or further processed in a flash dryer and sold as dry and odorless fufu). Women in FUGs with access to a processing shed, clean water, and the full range of processing equipment were able to hygienically produce, bag, and market a high-quality fufu and/or garri to a larger market and at higher prices than those FUG members with more basic processing assets (for example, cassava soaking drums) that produced laafu for home and local consumption.

Women involved in processing palm oil expanded their businesses by processing more of the palm nuts from neighboring palm tree owners who lacked mechanized processing equipment. Once processed, the palm nut oil belonged to the palm tree owner (who had shared arrangements with the harvester of the nuts). The residue products of palm nut oil extraction, particularly palm kernel oil, provided an important source of income for women in this business. Processing more palm nut oil therefore provided more residue products that women used for domestic purposes or, in the case of palm kernel oil, sold at market.
Women can also choose to expand their income-earning opportunities by engaging in other agriculture activities or by diversifying into other sectors, such as retail and petty trading (Box 5). Within the research sample, women were less likely to enter into entirely new areas of business activity; rather, they tended to use their additional income to increase existing small business activities—for example, by purchasing more of a product for market sales or expanding the range of goods sold in a small, informal store. Even then, it was often access to group savings schemes or microcredit that enabled the expansion. This underscores the importance of group savings schemes or group-supported access to microcredit facilities in expanding business opportunities; in some cases (such as iru processors), such schemes were more significant than the Fadama project’s asset assistance.

There were exceptions to this generalization where there was significant support from a spouse or other male family member, which varied according to household type. Women in monogamous marriages reported receiving substantial cash or in-kind support from their spouse to invest in business expansion. For example, two women respondents in one FUG received financial support (through loans) from their husbands to purchase land on which to grow cassava for processing into garri. Another monogamously married woman reported that her husband had paid for the hired labor she needed to grow additional cassava. In each of these cases, the women were able to diversify their businesses from purely cassava processing into cassava crop production and, in so doing, to reduce their dependence on cassava suppliers. This type of spousal support for productive investments may have been motivated by a desire to gain greater control over the productive

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**Box 5: Business Diversification Strategies Among Female Agro-processors**

Business diversification strategies were prevalent even before the Fadama intervention, as agro-processing at a noncommercial scale is by nature seasonal and women tend to participate in a number of farm and off-farm livelihood activities.

Growing vegetables and selling kolanut and fruit are examples of business diversification strategies employed by women in rural areas, whereas petty trading (of domestic provisions and appliances, plastic bags, firewood, or byproducts of palm oil processing, for example) are more prevalent in areas with greater access to sizeable markets.
assets and income of the wives, or may be an example of increased co-production based on joint asset acquisition. Women in polygamous households did not report receiving such support from their spouses, and widows were only likely to receive support from adult children in the form of cash for domestic purposes.

**Women's productive expenditures were also influenced by their stage in the family life cycle.** A number of older couples—who no longer had significant domestic or social expenditures to absorb their income—were found to be directing their additional income away from agriculture and into buying land and building houses in urban areas.

### B.3) Empowerment at the Household and Community Levels

**Strengthening women's incentives and capacity to pursue opportunities can empower them economically.** Looking beyond additional income and expenditure patterns, this research asked women whether they felt empowered in their household and/or community. The purpose was to gain an understanding of how the increased assets, income, and capabilities that women gained under the Fadama project affected their perceptions of their influence and autonomy in the household and the community.

**Most women respondents (71 percent) reported that they felt empowered, more so within the community than in the household (Figure 7).** This result may be explained by the fact that the women belong to a group, the FUG, that is visible in the community by virtue of having successfully gained economic assets (either communally, as in processing sheds and equipment, or individually, as in soaking barrels and cooking pots) and improved their outputs (through new processing techniques and packaging of goods for sale). These assets and outputs can be observed by other community members, who accredit the owners—the FUG members—with innovation and success. The female FUG members often process the cassava or palm oil nuts of other villagers and villages in addition to those of their husbands or other male relatives, thus bringing wider community acclaim for their enterprise.

**Interviews revealed several examples of community empowerment through success in Fadama.** The members of one FUG (Orisun Ayo) reported that, through their Fadama enterprise, they had gained more respect and were seen as enterprising women. People often called the members
“Iya Fadama” (Mother of Fadama). Other women had received appointments in their respective churches for transferring agricultural knowledge to other members of the community. Women in another FUG (Itesiwaju Obinrin) felt that they were more highly regarded as a result of their increased post-FUG incomes and that they were now associated with the name “Fadama,” as were the cassava-soaking drums that were instrumental to their livelihoods.

Moreover, women who had more money for social expenditures as a result of the Fadama project also felt empowered in the community. Their ability to support their extended family and the community in rite of passage ceremonies led to community acknowledgement of success. As a result, they were more likely to feel that their social capital in the community had increased.

Far fewer respondents (7 percent) reported feeling empowered in the household since becoming a FUG member. Important to consider in this respect is that the income women earn is separate from that of their husbands and that women choose, within the constraints discussed in Section B, how to spend their income. For example, a spouse in a polygamous marriage where wives manage their own subhousehold units or where additional income earned is low, may not be aware of his wife’s increased “topping up” of domestic spending on food and school costs. Even when a spouse is aware that his wife has increased the amount by which she is “topping up” for food and school costs, it may not be significant enough to change the perception that the wife’s earnings are of lesser consequence to the household. In these circumstances, women may not feel empowered within the spousal relationship even if they feel that their assets, income, and economic security have increased. By contrast, widows tended to feel empowered both in their household and in the community because they were independent of male support and managing their own economic affairs.

Women that did report feeling empowered in their household were more likely to have increased their additional income and to be able to invest in furthering their business interests. As discussed above, spousal support plays an important role in obtaining more assets, increasing production, and earning more income. This support may underscore an existing relationship of economic interdependence (for example, a grower and processor relationship) that is evolving into something closer to spousal co-production of separate and independent incomes using joint economic assets. FUG executive members were likely to be found in this group given their higher literacy rates and strong bonds with men (husbands and relations) in other FUGs and the apex FCAs. Older women in monogamous marriages and with independent children (often overlapping
with executive members) had also expanded their business interests and were making decisions with their spouses about future joint economic assets.
This research investigated the targeting, performance, and empowerment of women in female farmers groups under Fadama III. The research findings have operational implications, both for the Fadama project and more generally for Nigeria’s ATA and other agricultural development programs.

C.1) Key Findings on Targeting, Performance, and Empowerment

Targeting

Reliance on CBT mechanisms has significant implications for female farmers’ access to the program. While the use of CBT methods in the Fadama project has yielded a high proportion of female beneficiaries, it has also created space for local political economy and social dynamics to determine the characteristics of women’s inclusion. With the use of CBT methods, women’s relations to local (male) power holders, their position in the community, and their sociodemographic profile become key variables affecting their access to and role in the project.

CBT mechanisms tend to privilege women with strong relationships to male power holders. Men, as husbands and community leaders, play a “bridging” role in women’s access to the project. They do this by lifting constraints (providing access to project information, financial support, and administrative assistance with program requirements) that would otherwise put women at a disadvantage compared to men with regard to participation in Fadama. Men’s intermediation has downsides, however, as women with weak or nonexistent relationships to male power holders are at risk of being excluded. In this regard, the development of strategies that specifically target women with project information and facilitation services could be tested by CDD agriculture projects to mitigate the risk of exclusion of segments of the female farmer population.
Performance

Understanding the social fabric of the FUG is critical to explaining group performance. Socially cohesive groups tend to be those that are embedded in communities where extended family ties overlap with FUG ties and those whose members belong to a preexisting social or religious group. These groups have deep-rooted systems of trust and conflict management that support their performance, allowing them to be more resilient in the face of difficulties such as delays in the procurement of assets. Groups with close economic ties, for example because members share group assets and perform joint economic activities, also appear to perform better.

Individual performance within a group can vary substantially, and the socioeconomic status of individuals in the group tends to be reflected in differentiated access to decision making and project benefits. Women with higher social (specifically, education) and economic endowments appear to secure executive positions in their FUG more readily. In addition, poor women face a higher opportunity cost of participation (with scarce money taken out of circulation for FUG registration, savings for asset acquisition, or contributions to revolving loans) than wealthier women. The latter are better able to provide the matching contribution required for asset acquisition and, as a consequence, acquire more assets. These initial asymmetries in access to assets result in different levels of production and income increases among FUG members. Though the majority of women in female FUGs reported higher earnings as compared to their pre-FUG income, significant variation in additional income was observed.

Access to loans and credits is a key factor in individual and group success. The cash required to access and manage assets, and to expand or diversify businesses, is difficult to amass from individual savings alone. Group savings, revolving loan, and microcredit schemes are important in increasing group members’ access to capital. More needs to be done to lift credit constraints, for example through supporting enhanced linkages between FUGs and credit facilities. Financial literacy is an important element of success in microcredit schemes and needs to be tied to any expansion of credit facilities.
Empowerment

Women spend additional income differently depending on their household needs and obligations. These vary with their marital status and the characteristics of their household (for example, the number and age of children). In particular, women face different opportunities and constraints when choosing to invest in domestic, social, or productive expenditures (that is, when choosing between sustaining or enhancing their family’s security and developing their business) in female-headed versus male-headed households and, in the latter case, between polygamous and monogamous households.

The most successful women in female FUGs are those who benefit from co-productive arrangements (generally monogamously married women). This may include, for example, mutual assistance with business expansion, diversification, or asset acquisition. Some risks may be associated with co-production; as women’s businesses expand, their autonomy could be curtailed by spouses keen to maintain overall control as heads of household. What is important for successful co-production is that each party is economically autonomous and empowered to decide whether or not to spend or invest.

C.2) Broader Policy Messages and Further Research

The research findings on targeting, performance, and empowerment have further implications for how gender and gender relations are understood, assessed, and supported in agriculture projects and policies. In particular:

Unpacking “Gender”

Overall, the findings presented above show the need to unpack “gender” and account for the diversity of women’s experiences in the agriculture sector. The research has shown how household structure, marital status, age, socioeconomic status, and other attributes of female beneficiaries affect their performance in FUGs and their capacity to leverage additional income to increase their economic security and autonomy.

The differentiated impacts of agriculture programs on women’s economic security and autonomy need to be accounted for in monitoring and evaluation. While Fadama’s monitoring and evaluation data capture more sex-disaggregated data than many other programs, this information remains
limited. The project collects only data on the percentage of female beneficiaries (41 percent), and the number of male, female, and mixed FUGs across enterprises. Variations in income growth across age, marital status, and other demographic and socioeconomic characteristics need to be captured and understood in program data. Equally important to understand is how women reinvest the income earned through agriculture programs. In this context, more innovative ways of measuring the program’s impact on women—beyond productivity—need to be explored.

Embeddedness of Projects in Gender and Social Relations

The findings underscore the local social and political embeddedness of CDD projects, a situation that poses both risks and opportunities. The findings support analysis of gender relations beyond normative approaches to understand how gender relations actually operate in rural businesses, households, and communities, and how this affects women’s economic performance and empowerment. They illustrate the critical role that men can play in the selection and participation of women in female FUGs and, in some cases, in the expansion of their business. This research also sheds light on the strong interdependence of men and women in the agriculture sector, including in the cassava and palm oil value chains. Moreover, the findings indicate that, while socioeconomic stratification in FUGs poses risks of elite capture or inequity, it also provides positive opportunities for solidarity, as better-off women support the participation of poorer ones. In several cases, better-off members mobilized their resources to help poorer members meet their financial commitments, thus enabling the poorer members to remain in the group and access Fadama benefits and services.

Gender Analysis of Value Chains

The findings suggest that no agriculture program can afford to dismiss the benefits of a gendered value chain analysis. A variety of co-dependency relationships exist between men and women in the growing, processing, and marketing of crops and value-added products. These relationships between men and women, as producers and processors (both men and women may be both producers and processors) in value chains must be better understood, with a view to supporting complementarities and opening up opportunities for women to move into other parts of the value chain. Conducting gendered value chain analysis for the commodities and zones receiving focused attention under the ATA is particularly important.
Comparisons across regions and group types

The findings of this research, which are based on a sample of female-only groups in Ogun State in the South-West region, need to be tested in other sociopolitical regions and with other group types. Further research would be useful to compare the costs and benefits for female farmers’ performance and empowerment in female-only groups versus mixed groups in the Fadama project. Among other things, such research could compare women’s access to services and decision making as well as their control over benefits. Furthermore, cross-regional analysis of female farmers’ performance and empowerment would provide insights into patterns of women’s targeting, performance, and empowerment across the culturally diverse regions of Nigeria.
NOTES

1 Fadama is a Hausa term meaning “irrigable land.”

2 All female-headed households in the research sample were those of widows.

3 The World Bank supports the Federal Government of Nigeria and its ATA through additional financing of investment lending operations and through budget support to augment federal resources for the sector. Within the Bank’s project portfolio, Fadama III, the Commercial Agriculture Development Project, the Rural Access and Mobility Project II, and the Growth and Employment in States Program will focus their support on selected segments of the prioritized value chains.

4 Support for this perception was gathered during the field research in comparing the role and achievements of women in mixed and female-only groups in the sample. However, the sample of mixed FUGs studied is too small to derive firm conclusions, and further research is required to compare women’s economic achievements and empowerment in mixed vs. female-only groups.

5 In the South-West region, 71 percent of female household heads in the agriculture sector have no formal education, compared to 36 percent of male household heads. See Oseni et al. 2013.

6 Orisun Ayo FUG.

7 Here, social capital is used as defined by Bourdieu in “The Forms of Capital” (1986): “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.”

8 Arguably, the differences are even greater among Fadama FUGs more broadly, as there would be more cases of failure or group disruption than this study’s sample, which looked purposively for indications of success.

9 It should be noted that the relationship between group performance and cohesion goes both ways; the cohesiveness of a group supports, and is reinforced by, its performance.

10 This came out clearly in interviews and has been explained and analyzed extensively in the literature on cooperatives and microfinance. See, for example, Majurin 2012.

11 It should be noted that expenditure as discussed in this section is related specifically to the additional income earned by an individual FUG member net of contributions made to sustain the FUG. FUG contributions may include: savings for asset replacement, a nominal fee for the administration of the FUG and/or FCA, and compulsory or voluntary contributions to savings schemes that support either revolving loans to members or counterpart funds for another potential round of Fadama subsidized asset acquisition. These are all important investments made by FUG members to sustain their FUG and its income base, in particular where the FUG holds common processing assets. For some FUG members who earn lower incomes, these FUG-sustaining expenditures may ensure that they have access to an ongoing FUG-related agro-processing income, but they may have minimal additional income for increasing other
discretionary expenditures.

12 This research did not investigate whether the rank of a wife in a polygamous marriage affected her expenditure patterns.
Annex 1

Distribution of Fadama Registration and Benefits among Male, Female, and Mixed FUGs in Ogun State

There are 1,188 FUGs registered in Ogun State, 101 (8.5 percent) of which are female-only FUGs (Table A-1). The majority of FUGs (85 percent) are mixed, with both male and female members. Of the registered FUGs, the main enterprise category for female FUGs is agro-processing, followed by marketing and crop production.

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Male FUGS</th>
<th>Female FUGs</th>
<th>Mixed FUGs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop production</td>
<td>35</td>
<td>11</td>
<td>293</td>
<td>339</td>
</tr>
<tr>
<td>Livestock</td>
<td>16</td>
<td>2</td>
<td>246</td>
<td>264</td>
</tr>
<tr>
<td>Agro-processing</td>
<td>4</td>
<td>45</td>
<td>131</td>
<td>180</td>
</tr>
<tr>
<td>Agro-forestry</td>
<td>13</td>
<td>1</td>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td>Fishery</td>
<td>10</td>
<td>5</td>
<td>197</td>
<td>212</td>
</tr>
<tr>
<td>Marketing</td>
<td>2</td>
<td>24</td>
<td>72</td>
<td>98</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>13</td>
<td>27</td>
<td>41</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>81</strong></td>
<td><strong>101</strong></td>
<td><strong>1,006</strong></td>
<td><strong>1,188</strong></td>
</tr>
</tbody>
</table>

Only 515 of the registered FUGs have received grants for asset acquisition (Table A-2). Of the 101 female FUGs registered, 41 (40%) have received grants or assets and nearly all of them in agro-processing.
In the agro-processing category, 100 FUGs received grants for assets (Table A-3). Of these, 69 received grants for cassava processing assets (2 male, 17 female, and 50 mixed). In palm oil processing, 7 FUGs received asset grants (1 male, 2 female, and 4 mixed).

Table A-3: Female FUGs as a Percentage of all FUGs in Agro-processing

<table>
<thead>
<tr>
<th></th>
<th>All FUGs</th>
<th>Number</th>
<th>% of Total</th>
<th>Female FUGs</th>
<th>Number</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered FUGs</td>
<td>1,188</td>
<td>100</td>
<td></td>
<td>Registered female FUGs</td>
<td>101</td>
<td>8.5</td>
</tr>
<tr>
<td>FUGs to receive grants</td>
<td>515</td>
<td>43</td>
<td></td>
<td>Female FUGs to receive grants</td>
<td>41</td>
<td>3.4</td>
</tr>
<tr>
<td>FUGs in agro-processing to receive grants</td>
<td>100</td>
<td>8.4</td>
<td></td>
<td>Female FUGs in agro-processing to receive grants</td>
<td>40</td>
<td>3.4</td>
</tr>
<tr>
<td>Agro-processing FUGs in cassava</td>
<td>69</td>
<td>5.8</td>
<td></td>
<td>Agro-processing female FUGs in cassava</td>
<td>17</td>
<td>1.4</td>
</tr>
<tr>
<td>Agro-processing FUGs in palm oil</td>
<td>7</td>
<td>0.6</td>
<td></td>
<td>Agro-processing female FUGs in palm oil</td>
<td>2</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Given the predominance of Fadama-funded female FUGs in agro-processing and the importance of cassava agro-processing within this enterprise category, it is not surprising that high-performing female FUGs were identified in this area and consequently form the majority of the female FUGs included in this research. Surprisingly, there were no female FUGs funded under crop production despite cassava being the second-most favored crop for women in the southern region. Women
farmers growing cassava may be members of mixed FUGs, however; if so, they were not identified in the sample of high-performing FUGs selected for this research.
Annex 2

Selected Question Guides

This annex provides some examples of the question guides used in conducting in-depth interviews of Fadama respondents. It includes the question guide for both individual FUG members and that used for their spouses.

Question Guide 1: Individual Member of FUG (Male or Female)

*General indications:*

- Where a question is not answered put in the reason for the non-response.
- Explain that you want to capture his/her personal details before hearing his/her story of Fadama. Explain that these details will not be used to identify him/her personally in any reporting.
- Before starting, inform the respondent that the interview will last about an hour and a half.

1. FUG Details

<table>
<thead>
<tr>
<th>FUG name</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FUG Type <em>(tick as appropriate)</em></th>
<th>Male</th>
<th>Female</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUG Location</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUG Enterprise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUG Activity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Personal Details

<table>
<thead>
<tr>
<th>First Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong> <em>(tick as appropriate)</em></td>
<td>Male</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Education completed</strong> <em>(tick as appropriate)</em></td>
<td>Never attended</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong> <em>(tick as appropriate)</em></td>
<td>Married</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>P</td>
</tr>
<tr>
<td>• If polygamous household, no. of wives</td>
<td></td>
</tr>
<tr>
<td><strong>Age at marriage</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Household size (total)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Adults</strong></td>
<td>Total</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>Total</td>
</tr>
</tbody>
</table>
3. Storytelling on FUG Formation, Functioning, and Cohesion

The story telling section should inform the interviewer on how the FUG was set up and how it functions. The objective is to understand the dynamics of selection, participation/voice and cohesion. By the end of the section, the interviewer should have a good understanding of (i) how individuals get selected/targeted to participate in the program, and what is the profile of individuals targeted (ii) what is the role and influence of individuals members in decision-making and what are the main characteristics of participation in the group, (iii) how and under what circumstances do groups access (or not) services, (iv) what is the level of social cohesion in the group, and (v) how members perceive the impact of the project on their group’s welfare and the reasons for their success (or lack thereof).

You may start by asking for the individual member’s story of how he/she became a FUG member and how the FUG developed – listening and recording – what points has he/she chosen to tell? After he/she has told his story make sure the following are covered (if not told in the story):

**Selection/targeting**

- **Number of years in FUG**
- **Why did he/she become a FUG member?**
- **What were there criteria he/she had to meet to become a FUG member?**
- **How did he/she become a FUG member? (process)**
- **Did the FUG come from a pre-existing group or formed in response to Fadama being introduced in the community?**
- **How long had the pre-existing group been together and for what purpose did they form?**
- **Have some applicants been rejected?**

**Group formation**

- **What Fadama eligibility criteria did the group have to meet?**
- **How was the money raised to register the group?**
- **How was money raised to meet matching component?**
- **What was the role of facilitators/community leaders/FCA/LG/state PIU in supporting the set-up of the group?**
- **Was there any major conflict during the group set-up?**
Do you belong to any other non-Fadama economic group or project? If yes, does it have any influence on your FUG activity?

Decision-making

- How was the decision made regarding the FUG activity – did all members of the group decide?
- Did any external actor (LF, Fadama staff, community leader) facilitate the decision of the choice of activity?
- How often does FUG meet and what is discussed?
- How are decision taken? Who makes decision in the FUG? Is there any rule for decision-taking (e.g. consensus? Majority-based? Leaders decide?)
- Are there key decision makers in the FUG, if so who and why are they dominant in decision-making?
- What has been the most difficult decision the group has taken?
- What role and responsibilities do women vs. men have in the FUG?
- Group cohesion (Is the FUG a cohesive group?)
- Do all the members participate in FUG activities?
- Do members work together outside of Fadama activity? If so, how/on what?
- Do they support each other outside of Fadama activity?
- e.g. if someone is sick/loses a family members/needs income support, what kind of support do other FUG members provide?
- Has there been any conflict in the group? Over what? How was it solved?
- Are other members of your household involved in the activities of the FUG on a financial or voluntary basis?

Access to services

- What kind of support has the group received under Fadama?
- Has the FUG used extensions and/or advisory services?
- If yes, get explanation of type, etc.
- If no, why not?
- What was the role of FCA in assisting group access services?
• How did Fadama staff help the group in accessing services?
• Was there any difficulty in accessing services? If yes, what were they and how were they overcome?
• Has the group solicited or received any support in cash or kind from individuals or groups not related to Fadama? If yes, what impact has the support had on the group’s operational capacity and income? How does this compare with the impact of official inputs?
• Group achievements
• Have expectations of improvement in income been achieved? Why or why not?
• Is the FUG meeting its savings plan?
• If no, why not?
• If yes, what rate of savings has been achieved?
• Has there been any discussion or action on reinvesting the savings?
• Has any individual in the group got access to the revolving loan scheme? Has the respondent had access?
• What does the respondent consider to be the reasons for success of the FUG?
BIBLIOGRAPHY


