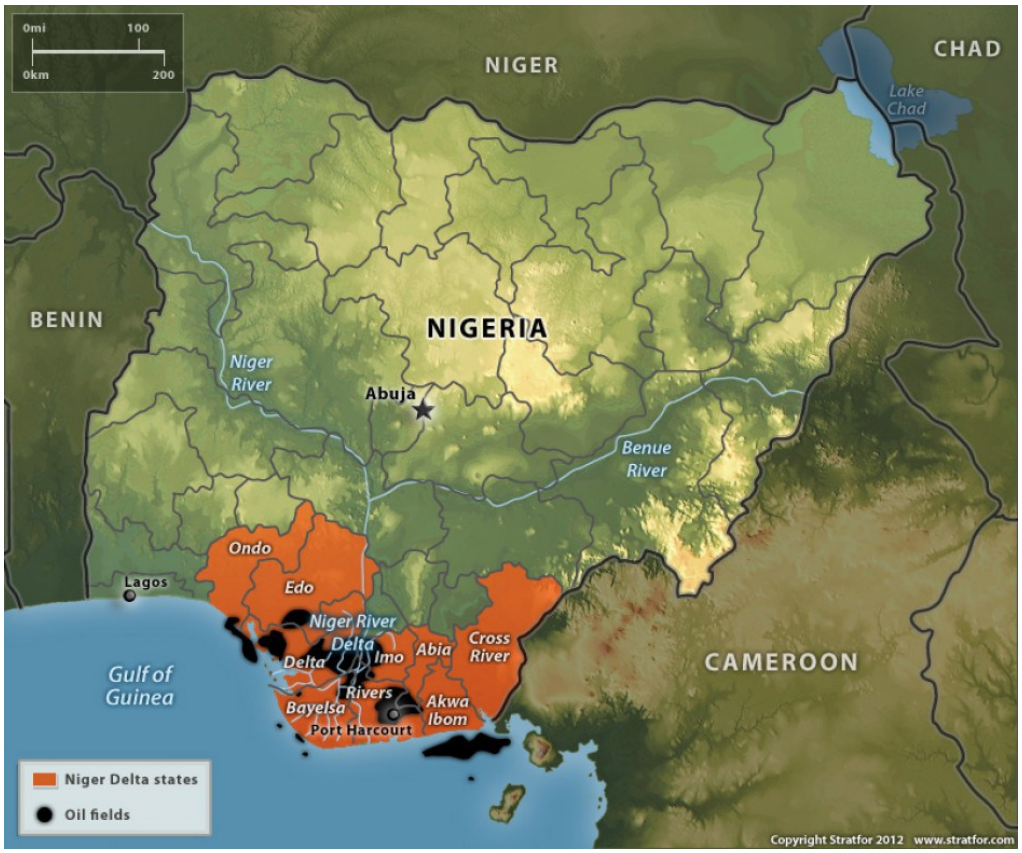
POVERTY ASSESSMENT OF THE NIGER DELTA



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Executive Summary

Market Development (MADE) in the Niger Delta Programme and the Partnership Initiatives in the Niger Delta (PIND) are both programmes using similar approaches to address poverty in the Niger Delta. Both programmes adopt a market development approach to support growth in the region's non-oil economy by (a) stimulating sustainable, pro-poor growth in selected agricultural and agricultural input markets, and (b) improving the position of economically active poor and women in these markets by making them more inclusive.

A poverty assessment of MADE and PIND was initiated in May 2018 to establish a deeper understanding of the characteristics of poverty in the Niger Delta, taking samples from the seven value chains. Analysis were carried out on MADE and PIND interventions in Cassava, Fisheries, and Palm Oil and specifically for MADE in Agricultural Inputs, Leather and Poultry and for PIND in Business Linkages. The assessment also provided an opportunity to develop relevant classifications of programme participants to distinguish different levels of poverty.

Primary research was conducted in the seven value chains across nine states (Ondo, Edo, Delta, Bayelsa, Rivers, Imo, Abia, Akwa Ibom and Cross River) of the Niger Delta region in July and August 2018. A range of semi-structured tools was used to collect information from respondents, including focus group discussions, key informant interviews and household questionnaires. This primary research was supported by secondary research on poverty assessment, and the poverty likelihood of the programmes' beneficiaries was ascertained using the Poverty Probability Index (PPI).

The findings show that MADE beneficiaries have a poverty likelihood of 47% based on $1.90/day, 86% based on $3.10/day, and 67% based on the National Poverty lines of N226.14/day[1]. Similarly, the poverty rate for PIND beneficiaries across the intervention areas is 48% for $1.90/day, 86% based on $3.10/day and 67% based on the National Poverty lines. The poverty status of the non-beneficiaries was not different from those reached by both programmes implying that MADE and PIND are not dissimilar to other farmers and entrepreneurs in the different value chains. Specific characteristics of poor beneficiaries have also been highlighted for each intervention using the $3.10/day poverty line[2]:

- Based on land size, the very poor MADE beneficiaries involved in cassava have 0.3ha, while the poor have 0.7ha. For PIND, the very poor have 0.6ha while poor have 1.1ha.
- Using average oil palm stands cultivated in a year, the very poor MADE beneficiaries did not have any stands, while the poor have 165 stands. In PIND, the very poor have 6 stands, while the poor have 7.
- In fisheries, the poor beneficiaries involved in MADE's interventions have an average stock of 530 fish per year, while the very poor have 742. In PIND, the very poor have stock of 390 fish, while the poor have 632.
- The very poor beneficiaries in poultry have 201 - 400 birds monthly, while the poor have 51 - 200 birds.
- For agri-inputs, the average landholding for 28% of beneficiaries is less than 1.1 hectares, 37% have 1.1 to 2 hectares, 23% have 2.1 – 3hectares, 7% have 3.1 – 4 hectares, and 4% have more than 4 hectares.
- For the very poor beneficiaries involved in leather, 75% of what they make are shoes and the remaining 25% are accessories. The poor produce 88% shoes, 8% decorative items and 4% accessories.
- In business linkages, the very poor are involved in selling of products (43%); manufacturing of products (29%); agricultural production (23%); and provision of services (6%). The poor split their business between agricultural production (63%), selling of products (23%), manufacturing of products (10%), and provision of services (3%)

1 The national line is derived from the Nigeria PPI 2012 design document. It has been calculated as "the food line, plus a non-food component that is defined as the average observed non-food consumption of the 100 households whose food consumption is just below the food line and of the 100 households whose food consumption is just above the food line."

2 For this study, the World Bank poverty lines have been selected for use as benchmark because they are internationally comparable. Since the $1.90/day line is ideal for measuring extreme poverty, the study uses the $3.10/day line as the MADE and PIND beneficiaries are economically active poor.

The qualitative research reveals that poverty persists due to several reasons, including limited access to finance, affordable inputs, new markets and distribution channels, as well as modern agricultural equipment.

Based on the findings, the following recommendations are being made to the programmes for consideration in intervention design in order to support beneficiaries to progress out of poverty:

- Review classification and targeting of the poor to align with the findings of this study which are based on the poverty likelihood of $3.10/day
- MADE and PIND interventions are already focusing on most of the critical problems. The programmes could continue to address these through:

    - Supporting the development of appropriate financial products and disbursement mechanisms to better support farmers across the value chains.
    - investigating the development of appropriate insurance products to ease the potential effect of environmental hazards and theft.
    - Connecting farmers to businesses/markets looking to procure quality produce and willing to pay higher prices.
    - Working with agri-input sellers to develop distribution channels to reach farmers in rural and semi-urban locations.
    - Facilitating access to modern equipment for farmers.
    - Supporting farmers to improve their knowledge and skills on storage and preservation.
    - Creating access to information and services to maximize productivity.

Introduction to the Study

Poverty and the Niger Delta

Nigeria is the most populous country in Africa, with its population of 193 million[3] people accounting for 47% of West Africa's population and nearly a fifth of sub-Saharan Africa's population. Nigeria has a diverse population made up of around 200 ethnic groups speaking 500 indigenous languages. The country has abundant resources and is placed as Africa's biggest exporter of oil (World Bank, 2017).

Nigeria has recorded mixed economic development progress in recent years as oil prices continue to dominate growth patterns. Between 2006 and 2016, the country's GDP grew at an average rate of 5.7 percent per year, as volatile oil prices drove growth to a high of 8 percent in 2006 and to a low of -1.5 percent in 2016. After contracting for five consecutive quarters, the economy returned to growth in the second quarter of 2017, driven by recovering oil production, some recovery in non-oil industries, and modest growth in agriculture (World Bank, 2017).

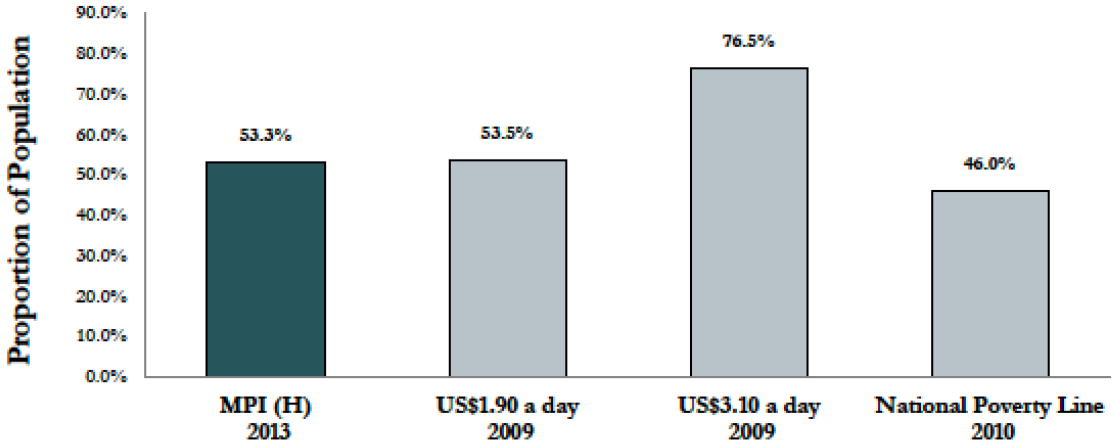
Nigeria has also made recognizable political progress in recent years. The country has successfully made the transition to democracy following five consecutive democratic elections. The 2015 elections marked the first time in Nigeria's history that it saw a peaceful transfer of power between two political parties. The democratic transitions have also strengthened Nigeria's international profile and it is now a leading nation in the African Union, Commonwealth, in the New Partnership for Africa's Development (NEPAD), and in the Economic Community of West African States (ECOWAS).

Nigeria has recorded considerable improvement in socio-economic conditions, with the Human Development Index increasing by 13.1 per cent between 2005 and 2015. However, the HDI value of 0.527 remains in the low human development category, resulting in a ranking of 152 out of 188 countries (UNDP, 2016). Furthermore, the country continues to face serious development challenges, including high poverty levels. At least half of the population (i.e. 53.5%) of the population live below the international poverty line of $1.90 per day (World Bank). According to the Brookings Institute[4], Nigeria overtook India as the country with the largest number of extreme poor in early 2018. Disaggregated figures underscore the various dimensions of poverty: life expectancy at birth is 53.1 years; infant mortality rate is 69.4%; and one in four children is engaged in child labour (UNDP, 2016).

Different measures show high levels of poverty for Nigeria. Using Nigeria's National Poverty Line (which is N226.14), 46 per cent of people are poor. The percentages of poor people are similar for the Global Multidimensional Poverty Index[5] (MPI) and World Bank's $1.90 a day income poverty line (53.3% and 53.5% respectively). At the $3.10 a day income poverty line, the percentage of poor increases to 76.5%.

[3] National Bureau of Statistics
[4] https://www.brookings.edu/blog/future-development/2018/06/19/the-start-of-a-new-poverty-narrative/
[5] The Multidimensional Poverty Index (MPI) is an international measure of acute poverty covering over 100 developing countries. It complements traditional income-based poverty measures by capturing the severe deprivations that each person faces at the same time with respect to education, health and living standards

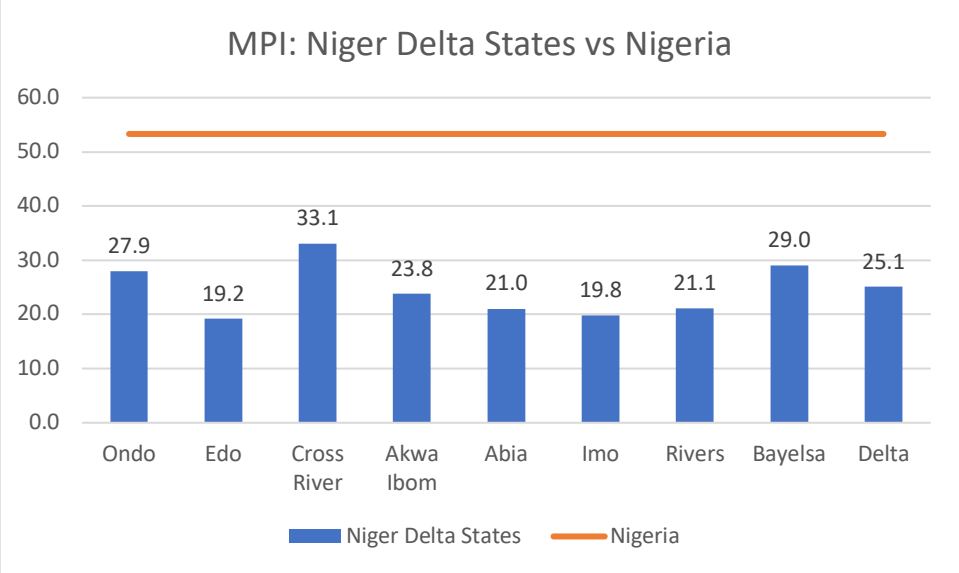
Figure 1: Comparative Poverty Measures



Source: Oxford Poverty and Human Development Initiative (OPHI), 2017

The Niger Delta region consists of nine states (Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers), with an estimated population of 43 million people in 2016[6]. Oil wealth from the region is largely responsible for sustaining the nation and driving the economy. In spite of this, the region is somewhat marginalized from national development, with a disconnect between the wealth generated from the region and its human development progress.

Figure 2: MPI Niger Delta States vs Nigeria



Source: Oxford Poverty and Human Development Initiative (OPHI), 2017

The poverty head count for most of the Niger Delta states range from 19.2% to 33.1% (see Figure 1). Although all the states have lower poverty headcounts than the national average of 53.3%, the proportions of the poor are high.

[6] https://nigerianstat.gov.ng/elibrary?queries[search]=population

Rationale for the Study

The poverty study was undertaken to support the work of two sister programmes - Market Development (MADE) in the Niger Delta Programme and the Partnership Initiatives in the Niger Delta (PIND). Both programmes are collaborating in addressing poverty in the Niger Delta using similar approaches.

MADE is a DFID-funded rural and agricultural programme aimed at addressing the causes of poverty in the nine states of the Niger Delta and increasing the incomes of at least 150,000 poor people, of which 50% will be women, in the area. MADE adopts a market development approach to support growth in the region's non-oil economy by (a) stimulating sustainable, pro-poor growth in selected agricultural and agricultural input markets, and (b) improving the position of economically active poor and women in these markets by making them more inclusive.

Building on the success of MADE I, DFID approved a costed extension for additional two years (March 2018 – February 2020) and has an additional target of 155,000 smallholder farmers and entrepreneurs with increased incomes. It is expected that 30,000 of those with increased incomes will be from Edo State and these will be poor low-skilled youths and women that are susceptible to human trafficking.

MADE focuses on value chains in which planned interventions are most likely to have the maximum impact on wealth creation and employment, particularly among women. The first phase of MADE programme (September 2013 – February 2018) started with Palm Oil, Household Poultry, Fisheries, Cassava and Agricultural Inputs value chains. In Year 2 (April 2015- March 2016), the programme added finished leather goods sector and a cross-cutting Access to Finance sector. Annex 1 provides a list of MADE interventions in each of the value chains to date. The interventions listed in the annex are supported by three cross cutting initiatives namely; access to finance, gender and advocacy and communications.

In each of the value chains, MADE applies the 'Making Markets Work for the Poor' (M4P) approach by identifying the underlying systemic constraints which prevents the poor from benefitting effectively. The programme thereafter facilitates change to the behaviour, capabilities, incentives and relationships of market actors in order to improve the market systems to better serve the poor and other actors. These changes also create conditions for markets to be continuously strengthened, even beyond the lifetime of the programme.

PIND is a non-profit Foundation established in 2010 with initial funding by Chevron Corporation to support a portfolio of socio-economic development programs for the Niger Delta aimed at improving the standards of living of communities in the region. PIND supports projects in collaboration with a diverse range of donor partners including bilateral and multi-lateral aid agencies, federal and state government agencies in Nigeria, private companies and foundations. With an overarching goal of increasing income and employment in the region, the Foundation has four distinct, but interrelated program areas. These are:

- An economic development program focused on generating opportunities for pro-poor market development and employment generation.
- A capacity building program that builds the service delivery and engagement capacity of government, civil society and communities.
- A peace-building program that strengthens conflict resolution mechanisms for enabling integrated peace and economic growth.
- An analysis & advocacy program that improves analysis and understanding of systemic constraints to growth in the Niger Delta region.

Findings from the poverty assessment are intended to aid the delivery of the two programmes through better characterization of poverty in the Niger Delta, improved targeting of the poor and delivery of appropriate poverty reduction strategies. The poverty assessment is also an opportunity for the two programmes to deepen their understanding of the poverty situation of the Niger Delta and the socio-cultural context within which the programmes operate. It was also expected that the assessment will assist the programmes identify the challenges and opportunities that need to be taken into consideration to promote pro-poor inclusive development and enhance sustainability and effectiveness of programme delivery.

Purpose and Objectives of the Study

The purpose of the assessment is two-fold: to establish a deeper understanding of the characteristics of poverty in each of the seven value chains; and to develop relevant classifications to distinguish levels of poverty and the proportion of programme clients within each category.

More specifically, the assessment was intended to enable the programmes:

- Define more coherently who is "very poor" and "poor"[7] as well as their characteristics in the different value chains of the two programmes.
- Determine through quantitative and qualitative evidence the levels of well-being of programme clients and which categories of the poor the programmes are reaching.
- Analyse gender inequality and how this shapes poverty in the Niger Delta.
- Provide critical analysis of other key contributing and mitigating factors to progress out of poverty particularly in the states.
- Support measurement of poverty levels i.e. the proportion of beneficiary groups disaggregated by gender who live below the poverty line or are on the verge of falling below the poverty line; and
  Improve the metrics for measuring who is benefitting from the programmes, which will then inform how the programmes collects information and monitor/assess the impact on the poor. This will in turn inform improvement in targeting the poor in the different value chains.

Research Design and Methodology

The study was contextualized by the market development approach which is used by both programmes. Under this approach, constraints in markets are addressed to improve efficiencies and thereby increase opportunities for the poor to increase incomes and create jobs.

The study employed a mixed methods approach, involving secondary research and extensive field-based primary research. The secondary research was undertaken to identify the most suitable approach to assessing poverty in the programmes' context, and to get an understanding of poverty dynamics in the Niger Delta region. The primary research was both qualitative and quantitative in nature. The qualitative research was used to contextualize, expand upon and triangulate findings from the quantitative research. The quantitative research was representative in nature, providing reliable statistical evidence. Overall, the combined use of both quantitative and qualitative elements, as well as primary and secondary research allowed for one approach to address the limitations and enrich the findings of the others.

This section describes the research process in greater detail, including the sampling strategy, research tools used, and the limitations.

[7] Previously the poor were largely defined in relation to land owned and cultivated but as the programme has moved to support a wider range of value chains, these metrics need to be revisited.

Conceptual Framework and Related Literature

Defining Poverty

In Economics, income poverty is experienced when a household's income fails to meet a threshold that differs across countries. Typically, poverty is measured with respect to households and not the individual, and is adjusted for the number of persons in a family. Economists often seek to identify households whose economic positions (defined as command over resources) falls below some minimally acceptable level.[8]

Box 1: UN Definition of Poverty

Fundamentally, poverty is the inability of having choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to, not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living in marginal or fragile environments, without access to clean water or sanitation.

(UN Statement, June 1998 – signed by the heads of all UN agencies)

Poverty is often defined in either relative or absolute terms. Absolute poverty measures poverty in relation to the amount of money necessary to meet basic needs such as food, clothing, and shelter[9]. The concept of absolute poverty is not concerned with broader quality of life issues or with the overall level of inequality in society. The concept therefore fails to recognise that individuals have important social and cultural needs. This, and similar criticisms, led to the development of the concept of relative poverty. Relative poverty defines poverty in relation to the economic status of other members of the society: people are poor if they fall below prevailing standards of living in a given societal context. An important criticism of both concepts is that they are largely concerned with income and consumption.

In reality, poverty is multifaceted and thus multidimensional. The dimensions of poverty go far beyond inadequate income. It includes poor health and nutrition, low education and skills, inadequate livelihoods, bad housing conditions, social exclusion and lack of participation. Today it is widely held that one cannot consider only the economic part of poverty. Poverty is also social, political and cultural. Moreover, it is considered to undermine human rights - economic (the right to work and have an adequate income), social (access to health care and education), political (freedom of thought, expression and association) and cultural (the right to maintain one's cultural identity and be involved in a community's cultural life).[10] These other dimensions of poverty are consistent with the work of MADE and PIND in the Niger Delta region. Both programmes are providing support to communities by creating opportunities that have sustainable impact on livelihoods, security, human rights, among others.

Poverty Measurement Approaches

Several tools are available for assessing the poverty levels of groups or individuals. These tools allow researchers (or programmes or financial institutions or others) to estimate the rate of poverty incidence in a population without having to measure income or consumptions directly through time consuming household budget surveys (World Bank 2013). The tools include short, country-specific surveys with indicators that have been identified as the best predictors of whether a given set of households is very poor, according to the legislative definitions of extreme poverty applicable to the country in question. The construction of tools relies on indicators that are correlated strongly with poverty in nationally representative expenditure surveys.

[8] Smelser, N. J. and Baltes, P. B. (eds.) 2001. International Encyclopaedia of the Social and Behavioural Sciences. Elsevier. Oxford Science Ltd.
[9] The Nigeria Poverty Profile 2010, Nigeria Bureau of Statistics
[10] Pierre Sané, in MOST-Newsletter, n° 10, 2001.

Absolute poverty measures classify people as poor or non-poor in relation to a defined poverty line (national or international, like purchasing power parity of $1.90 a day). On the other hand, relative measures classify people in relation to other people of the same community or geographic area. Absolute measures allow comparisons across providers, countries, and so forth and are useful for impact assessment (Zeller 2004). In general, tools that measure absolute poverty perform better at the aggregate level— that is, they are more accurate when they measure the rate of poverty in a group of people and not the poverty status of an individual.

Table 1 presents an overview of commonly used poverty assessment tools among programmes and microfinance institutions to measure absolute and relative poverty.

Table 1: Main Poverty Assessment Tools

Tool	Purpose	Description	Implementation	Pros	Cons
Grameen Foundation Progress out of Poverty Index (PPI)	Estimates the % of poor clients, based on one or two poverty lines and the probability of an individual falling below the poverty line; measures absolute poverty	Country-specific poverty scorecard with 10 questions (socioeconomic indicators that correlate with poverty); indicators are derived from large-scale nationally representative surveys	Scorecard can be applied to a sample of clients or to the entire client base; implemented by field staff and can be used before, during, or after service delivery	Good balance of ease of use and accuracy; can be used for targeting and for assessing changes in poverty levels; a results can be compared across regions	Makes no urban-rural distinction; not available for all countries; validity of indicators changes over time
USAID poverty assessment tool (USAID PAT)	Estimates the % of poor clients, based on one or two poverty lines; provides an absolute measure of poverty	Country-specific poverty scorecard of 16–33 questions (socioeconomic indicators that correlate with poverty); indicators are derived from large nationally representative surveys	Scorecard can be applied to a sample of clients or to the entire clientele; implemented preferably after clients join the program	Good balance of accuracy and ease of use; results can be compared across countries and regions	Data cannot be disaggregated and are not available for all countries; validity of indicators changes over time
FINCA client assessment tool (FCAT)	Broad client assessment; allows classification of the population according to different poverty lines, based on expenditure data; provides an absolute measure of poverty	A 130-question survey divided in sections: demographic and loan information, household characteristics, expenditures, assets, access to facilities (water, electricity, health care), business types, and client satisfaction and exit	Surveys a sample of clients, interviewed at periodic intervals	Provides a comprehensive assessment of clients' well-being and a fair amount of information that can be used for management	Relies on clients' recall of past expenditures to measure poverty levels, which is prone to measurement errors
CGAP poverty assessment tool (CGAP PAT)	Assesses the poverty levels of MFI clients compared to nonclients within the operational area of an MFI, based on a multidimensional index; provides a	Questionnaire includes a range of indicators (adapted to local context): demographic characteristics; housing quality; assets (type, number, and value);	Surveys a sample of 200 clients and 300 nonclients; implemented by external consultants	Uses multidimensional definition of poverty	Lengthy survey; demanding of technical input (highly qualified staff) that does not build internal capacity for future in-house replication

	relative measure of poverty; can use secondary data to put relative measures into a regional, national, or even international context	educational level and occupation of family members; food security and vulnerability; household expenditures on clothing and footwear (poverty benchmark)			
Housing index	Identifies poor households in relation to the community where they live, based on the structure and conditions of their dwelling; provides a relative measure of poverty	Uses a simple index that is adapted to the local conditions, in terms of housing conditions	MFI staff visit the communities and apply the index to identify potential clients; applied before or after service delivery	Easy to verify; can be used for targeting, monitoring, and assessment	Limited definition of poverty; accuracy depends on the actual link between poverty status and housing conditions
Means test	Assesses the level of poverty of households based on a composite index; provides a relative measure of poverty	Uses household surveys with a small number of easily verifiable indicators; includes asset ownership (land, livestock, radio, television), sociodemographic characteristics, and others	Short interviews conducted by field staff with all potential clients; applied before or after service delivery	Combines simple indicators with short survey and standard scoring system, simplifying implementation; good for targeting, monitoring, and assessing	Indicators may or may not be closely linked to poverty; accuracy is unknown
Participatory wealth ranking	Identifies the poor in a community, based on community perceptions of wealth (measures relative poverty)	Involves mapping the community, ranking individuals by level of wealth, triangulating results, and classifying individuals	Participatory appraisal carried out in the community; facilitated by experts and MFI staff before or after the program; 100–500 households	Provides a rich picture of livelihood strategies, nature, and causes of poverty; can be highly correlated with national poverty lines	Requires staff with strong participatory facilitation skills; accuracy is unknown

Source: World Bank. The New Microfinance Handbook: A Financial Market System Perspective, 2013

Selected Poverty Measurement Approach

The PPI was selected as the poverty measurement approach for this study. An assessment conducted in 2014 on the validity of the PPI concluded that for such a relatively simple and easy-to-use indicator, the PPI is remarkable in estimating poverty levels and can be considered a SMART (Specific, Measurable, Available cost effectively, Relevant for describing project participants and Timely available) indicator11.

Although, the PPI measures absolute poverty, it can also be used for gathering evidence to improve poverty targeting because of the methodology used to derive the indicators (World Bank 2013). In this regard, it is a more appropriate tool than the USAID PAT and FCAT which only measure absolute poverty. In addition, one of the reasons the PPI was developed was to evaluate project impact. Consequently, care was taken to include items in the scorecard that were likely to change with improved income over time. This makes it suitable for MADE and PIND to assess improvements among target beneficiaries over time in terms of households progressing out of poverty.

Three main limitations of this tool are highlighted in Table 1. The first relates to a lack of distinction in the PPI between rural and urban poverty. The study attempts to account for this by collecting additional information on respondents' locations. This then enables some insights into the correlation between PPI scores and location. The second relates to country-specific availability (country-specific adaptation) but is not a problem for this study as PPI is available for Nigeria. The third relates to validity of indicators. This applies to most poverty assessment tools - as the underlying relationship between the set of indicators and poverty changes, the accuracy of the tool reduces. Consequently, tools need to be updated with more recent data to improve validity. In the case of PPI for Nigeria, the version used was updated in 2015, which is fairly recent and can be considered valid. A fourth limitation, but not included in Table 1, is the geographic differences between the north and south of Nigeria. Both regions have very different descriptors of poverty (just like urban and rural locations), which are not reflected in the PPI computations.

Thus, the tool was considered to be easy-to-use, quick-to-implement, suitable for targeting and more cost-effective compared to other tools.

[11] Desiere, Vellema, and D'Haese (2014) "A validity assessment of the Progress out of Poverty Index (PPI) for Rwanda", A paper presented at the EAAE Congress 'Agri-Food and Rural Innovations for Healthier Societies", Ljubljana, Slovenia.

Box 2: Poverty Probability Index

The Progress out of Poverty Index (PPI), now known as the Poverty Probability Index PPI®, is a poverty measurement tool that most organizations that work with the global poor employ as an inexpensive and easy-to-use scorecard (with only 10 questions) system to assess a set of non-financial indicators. This approach was developed by the Grameen Foundation, in collaboration with CGAP, the Ford Foundation, and other donors, commissioned Microfinance Risk Management.

The PPI provides information that enables users to better understand their clients' needs and evaluate the effectiveness of their programs and products. The PPI uses a survey and scoring system to estimate the likelihood that a household is living below national and international poverty lines, and through basic computation, a researcher or an institution can determine the rate of poverty among a group of households. With the PPI, organizations can integrate objective poverty data into their assessments and strategic decision-making.

Households, being the smallest unit of analysis, are usually assigned a percentage likelihood of being below the poverty line and this can improve a programme's targeting of the poor. Through this approach, it is easy to determine the proportion of programme participants that are below the poverty line. It can also be used to create a comprehensive picture of people living in poverty, and this permits comparisons across countries and regions of the world. Within specific countries or sub-regions like the Niger Delta, the approach allows comparisons by ethnic group, urban/rural location, as well as other key household and community characteristics.

The primary purpose of the PPI is to look at clients in aggregate and track progress over time to see if the clients are becoming better off and moving out of poverty. Since the PPI can be used to calculate the percentage of very poor households in a given area, it enables a programme to tailor its services appropriately.

Primary Research – Field Based Data Collection

Survey

A household survey was conducted with 2,139 respondents, consisting of 1,718 beneficiaries of both programmes and 421 non-beneficiaries. To explore poverty among households, questionnaires were administered face-to-face to respondents across the nine states. Data collection was carried out by Practical Sampling International from July to August 2018 using mobile devices and the SurveyToGo platform. Interviews were mostly conducted in the local languages and dialects of the states, although the responses were recorded in English.

Prior to start of data collection, the field team was trained on the survey questionnaires and discussion guides for Focus Group Discussions and Key Informant Interviews. After the training, the questionnaires were tested and adjusted to the field situation. During fieldwork, the quality of data collection was monitored through spot-checks and backchecks of interviews. Supervisors also accompanied enumerators to ensure interviews were properly administered.

Sampling Strategy

The sample size for the study was determined based on the cumulative reach of the two programmes by the end of March 2018. The size was calculated with the aim of achieving statistical accuracy level of 95% confidence interval and +/-3% margin of error.

Table 2: Sample Distribution

State	Ag. Inputs	Cassava	Fisheries	Palm Oil	Poultry	Leather	Business Linkages	Total
Abia	18	53	0	61	0	166	4	302
Akwa Ibom	31	76	75	124	40	0	11	357
Bayelsa	13	46	55	1	44	0	20	179
Cross River	37	32	110	70	16	0	17	282
Delta	46	50	49	58	35	0	16	254
Edo	14	25	7	61	30	0	2	139
Imo	13	49	6	64	0	0	89	221
Ondo	27	87	78	0	72	0	1	265
Rivers	20	21	70	0	1	0	29	141
Total	219	439	450	439	238	166	188	2139

Table 3: Sample Distribution by Beneficiaries and Non-Beneficiaries

State	Ag. Inputs	Cassava	Fisheries	Palm Oil	Poultry	Leather	Business Linkages	Total
Beneficiaries	182	354	350	357	188	136	151	1718
Non-Beneficiaries	37	85	100	82	50	30	37	421
Total	**219**	**439**	**450**	**439**	**238**	**166**	**188**	**2139**

A stratified random sampling approach was adopted for the study to achieve a representative sample across the portfolio of the two programmes. The sampling frame for beneficiaries was the list of participants for both programmes. The lists contained information on participants such as names, gender, telephone number, location, and value chain/intervention. First, the lists were organised by value chains. Then quotas were assigned to value chains, gender and states in proportion to the total number of beneficiaries. Finally, the required samples were drawn from the lists using the random number generator function on Excel. The research team agreed to oversample by 20% to account for potential non-responses due to inactive telephone numbers, changes in geographic location of participants, unavailability, and other reasons. Enumerators contacted the selected participants by telephone to schedule appointments ahead of interviews.

Focus Group Discussions (FGDs)

FGDs were used alongside the survey questionnaires to provide additional information on poverty, as well as to validate and explore the information provided through in the household surveys. A total of nine FGDs were conducted, one in each state with male and female beneficiaries. The value chains of focus in each state was determined by the size of the outreach within each value chain in the respective states. For instance, Ondo State was selected for the FGD on Cassava Value Chain because it had the highest proportion of Cassava beneficiaries across the two programmes. The FGDs consisted of an average of 10 participants, purposively selected from the list of beneficiaries.

Table 5: FGD Participants Distribution

			Number of Participants		
Value Chain	**State**	**Number of FGDs**	**MADE**	**PIND**	**Total**
Cassava	Ondo	1	5	5	10
Oil Palm	Edo	1	0	10	10
Ag. Inputs	Delta	1	10	0	10
Poultry	Bayelsa	1	10	0	10
Fisheries	Rivers	1	5	5	10
Business Linkages	Imo	1	0	10	10
Leather	Abia	1	10	0	10
Oil Palm	Akwa Ibom	1	5	5	10
Fisheries	Cross River	1	5	5	10
TOTAL		9	50	40	90

Key Informant Interviews (KIIs)

KIIs were held with key partners of the programmes to triangulate information gathered with the survey and FGDs. These KIIs provided broader information on the programmes' interventions, beneficiaries and poverty. The partners for interview were recommended by the programmes. KIIs were also done with non-beneficiaries of the programmes in each state.

Table 6: KII Participants Distribution

			Key Partners		
Value Chain	**State**	**Non-beneficiaries**	**MADE**	**PIND**	**Total**
Cassava	Ondo	2	1	1	4
Oil Palm	Edo	2	2	0	4
Ag. Inputs	Delta	2	2	0	4
Poultry	Bayelsa	2	2	0	4
Fisheries	Rivers	2	1	1	4
Business Linkages	Imo	2	0	2	4
Leather	Abia	2	2	0	4
Oil Palm	Akwa Ibom	2	1	1	4
Fisheries	Cross River	2	1	1	4

Tools Used for Primary Research

The tools used for this study can be found in Annex 2. These include household questionnaires, key informant interview and focus group discussion guides. Separate questionnaires were developed for each value chain. The questionnaires were divided into the following sections: Poverty Scoring; Nature of Business and Practices; Challenges with Business and Practices; Access to Finance; Access to Market; Access to Formal and Informal Mechanisms; Household Expenditure and Assets; Gender

Roles, Controls and Access; and Demographics. The KII and FGD guides were designed to provide additional information and explore information collected from the surveys.

Approach to Calculating Poverty Status

As noted earlier, the poverty status of beneficiaries was assessed using the Poverty Probability Index (PPI) developed by the Grameen Foundation (inspired by Muhammud Yunus's work, the founder of Grameen Bank). The PPI uses answers to 10 country-specific questions about a household's characteristics and asset ownership to predict the likelihood of a household living below the poverty line[12]. The PPI is therefore an indirect approach to assessing poverty in a household or group of households.

Each of the 10 indicators is given a score for the different responses. To get the poverty score for each respondent, the scores for responses are summed up resulting in a total between 0 (most likely poor) and 100 (least likely poor). Each poverty score is then used to determine the likelihood (or probability) of poverty for each respondent and then the entire sample. A poverty likelihood percentage was calculated for the sample based on the international 2011 Purchasing Power Parity (PPP) poverty line of $1.90/day, $3.10/day and the National Poverty line at 100%.

Table 7: Poverty Likelihood Table

If a HH's score is…	Then the likelihood (%) of being the HH below the poverty line is…		
	$1.90/day	**$3.10/day**	**100% National**
0-4	96.3	100	100
5-9	96.3	100	100
10-14	75.7	95.4	87.9
15-19	71.4	95.3	82.1
20-24	62.5	92	75.9
25-29	48	87.5	69.6
30-34	36.8	76.4	53.4
35-39	25.9	65.8	40.1
40-44	15.4	50.7	30.6
45-49	10.6	42.5	20.9
50-54	7.9	32	13.4
55-59	2.9	20.4	5.0
60-64	0.5	15.4	3.8
65-69	0.5	7.8	2.7
70-74	0.5	4.8	2.6
75-79	0	1.8	0.0
80-84	0	0	0.0
85-89	0	0	0.0
90-94	0	0	0.0
95-100	0	0	0.0

The poverty likelihood for each respondent was estimated using the poverty likelihood table above. To determine the poverty rate for different groups, the poverty likelihoods of households within groups are averaged[13]. As no respondent had a lower poverty likelihood than 36.8%, all the respondents are considered poor. For this study, respondents with the least likelihood of poverty are considered the poor, while those with the highest likelihood of poverty are considered the poorest (very poor).

[12] The PPI used for this study was developed by Mark Schreiner of Microfinance Risk Management, L.L.C. The indicators are based on the data from Nigeria's 2012/2013 General Household Panel Survey conducted by Nigeria's National Bureau of Statistics.

[13] https://www.povertyindex.org/blog/poverty-rates-vs-poverty-likelihoods

Limitations of the Study

As one would expect, the study was not without limitations, which are described below. Nevertheless, the research team was able to collect a significant quantity and quality of information that has been useful in understanding the nature of poverty and gender in the targeted value chains.

Record keeping – In rural sectors, crop yields and farm production are important factors in understanding why rural households are poor and vulnerable. However, reliable and consistent information on production or yields can be difficult to collect. There are several reasons for this. Households do not keep records of such information and rely on memory. Yields fluctuate from year to year, and people harvest and consume many crops and livestock as needed in the homes, and sometimes partial payment for on-farm labour is employed. Additionally, people may harvest crops and livestock at less regular intervals for sales, making it difficult to estimate a crop's total seasonal yield.

Recall bias – Although as much detailed information on income, expenditure and assets was gathered, the research team recognized the risk of bias as respondents relied on memory to answer questions. For instance, farm expenses and income could be complicated as respondents tried to remember costs associated with a specific crop that may be only grown for part of the year.

Translation bias – Due to limited time available to the team, the tools for the study were not translated into the different local languages of the Niger Delta states. As a result, the enumerators individually translated the tools during interviews. Consequently, there is potential bias as translations may have varied from one enumerator to the other.

Refusals – Some beneficiaries contacted for interview refused to participate in the study due to fear and distrust. With the coming elections and other security concerns, these people were unwilling to make appointments for interview with strangers calling them on the phone. Fortunately, this was anticipated by the research team and compensated by oversampling.

Findings Across Programmes

Poverty Status

Poverty Status of Beneficiaries - MADE

The estimated overall poverty rate for MADE beneficiaries across the intervention areas is 47% based on $1.90/day, 86% based on $3.10/day and 67% based on the National Poverty Line. Thus, approximately 5 out of 10 people reached are living below $1.90/day, 9 out of 10 below $3.10/day and 7 out of 10 below the national poverty line. The table below shows disaggregated rates for the intervention areas.

Table 8: Poverty Likelihood for MADE Beneficiaries

	Poverty Rates at $1.90/DAY 2011 PPP			Poverty Rates at $3.10/DAY 2011 PPP			Poverty Rates at National Poverty Line		
MADE - Intervention Areas	*All*	*Male-headed Households*	*Female Headed Households*	*All*	*Male-headed Households*	*Female Headed Households*	*All*	*Male-headed Households*	*Female Headed Households*
Agric Inputs	48%	47%	49%	86%	86%	86%	68%	67%	68%
Fisheries	46%	45%	46%	86%	86%	86%	68%	66%	69%
Cassava	50%	49%	50%	87%	87%	87%	69%	68%	69%
Poultry	45%	45%	46%	84%	84%	85%	64%	63%	64%
Oil Palm	48%	47%	48%	86%	86%	86%	67%	66%	67%
Leather Goods	45%	45%	45%	84%	84%	84%	67%	67%	67%
Average	**47%**	**46%**	**47%**	**86%**	**86%**	**86%**	**67%**	**66%**	**67%**

Poverty rates across the sectors are marginally different. Beneficiaries of the Cassava intervention have a marginally higher rate of poverty than the other intervention areas, while poultry and leather goods beneficiaries have the lowest poverty rates.

Poverty Status of Beneficiaries - PIND

Similarly, the overall poverty rate for PIND beneficiaries across the sectors was 48% for $1.90/day poverty line, 86% based on $3.10/day and 67% based on the National Poverty Line. This implies that approximately 5 out of 10 beneficiaries reached are living below $1.90/day, 9 out of 10 below $3.10/day and 7 out of 10 below the national poverty line. There is no difference between poverty rates of PIND beneficiaries across the intervention groups at the $1.90/day poverty line, but there are some marginal differences at the other two poverty lines.

Table 9: Poverty Likelihood for PIND Beneficiaries

	Poverty Rates at $1.90/DAY 2011 PPP			Poverty Rates at $3.10/DAY 2011 PPP			Poverty Rates at National Poverty Line		
PIND - Intervention Areas	*All*	*Male-headed Households*	*Female Headed Households*	*All*	*Male-headed Households*	*Female Headed Households*	*All*	*Male-headed Households*	*Female Headed Households*
Fisheries	48%	47%	48%	84%	83%	85%	65%	64%	65%
Cassava	48%	48%	48%	86%	86%	86%	68%	68%	68%
Business Linkages	48%	48%	49%	86%	85%	**87%**	67%	66%	*68%*
Oil Palm	48%	48%	48%	86%	86%	86%	67%	67%	67%
Average	**48%**	**48%**	**48%**	**86%**	**85%**	**86%**	**67%**	**66%**	**67%**

Poverty Status of Non-beneficiaries

The rate of poverty for non- beneficiaries across the intervention areas is 48% based on $1.90/day, 86% based on $3.10/day and 67% based on the National Poverty Line. In which case, the poverty status of the non-beneficiaries was not different from those reached by both programmes. Similarly, across interventions, poverty rates ranged from 45% to 50% on the $1.90/day poverty line, with non-beneficiaries in leather goods slightly better off than those in cassava and oil palm. This is similar across the $3.10/day and National Poverty lines.

Table 10: Poverty Likelihood for Non-Beneficiaries

	Poverty Rates at $1.90/DAY 2011 PPP			Poverty Rates at $3.10/DAY 2011 PPP			Poverty Rates at National Poverty Line		
Non-Beneficiary Groups - Intervention Area	All	Male-headed Households	Female Headed Households	All	Male-headed Households	Female Headed Households	All	Male-headed Households	Female Headed Households
Agric Inputs	46%	46%	46%	85%	83%	86%	65%	64%	66%
Fisheries	47%	47%	47%	85%	85%	85%	66%	65%	67%
Cassava	50%	50%	49%	87%	87%	87%	68%	69%	67%
Business Linkages	49%	49%	49%	86%	86%	86%	68%	67%	68%
Poultry	46%	45%	47%	85%	85%	85%	65%	65%	65%
Oil Palm	50%	49%	50%	87%	88%	87%	69%	68%	69%
Leather Goods	45%	45%	45%	85%	85%	85%	65%	64%	65%
Average	**48%**	**48%**	**48%**	**86%**	**86%**	**86%**	**67%**	**66%**	**67%**

Findings from Cassava

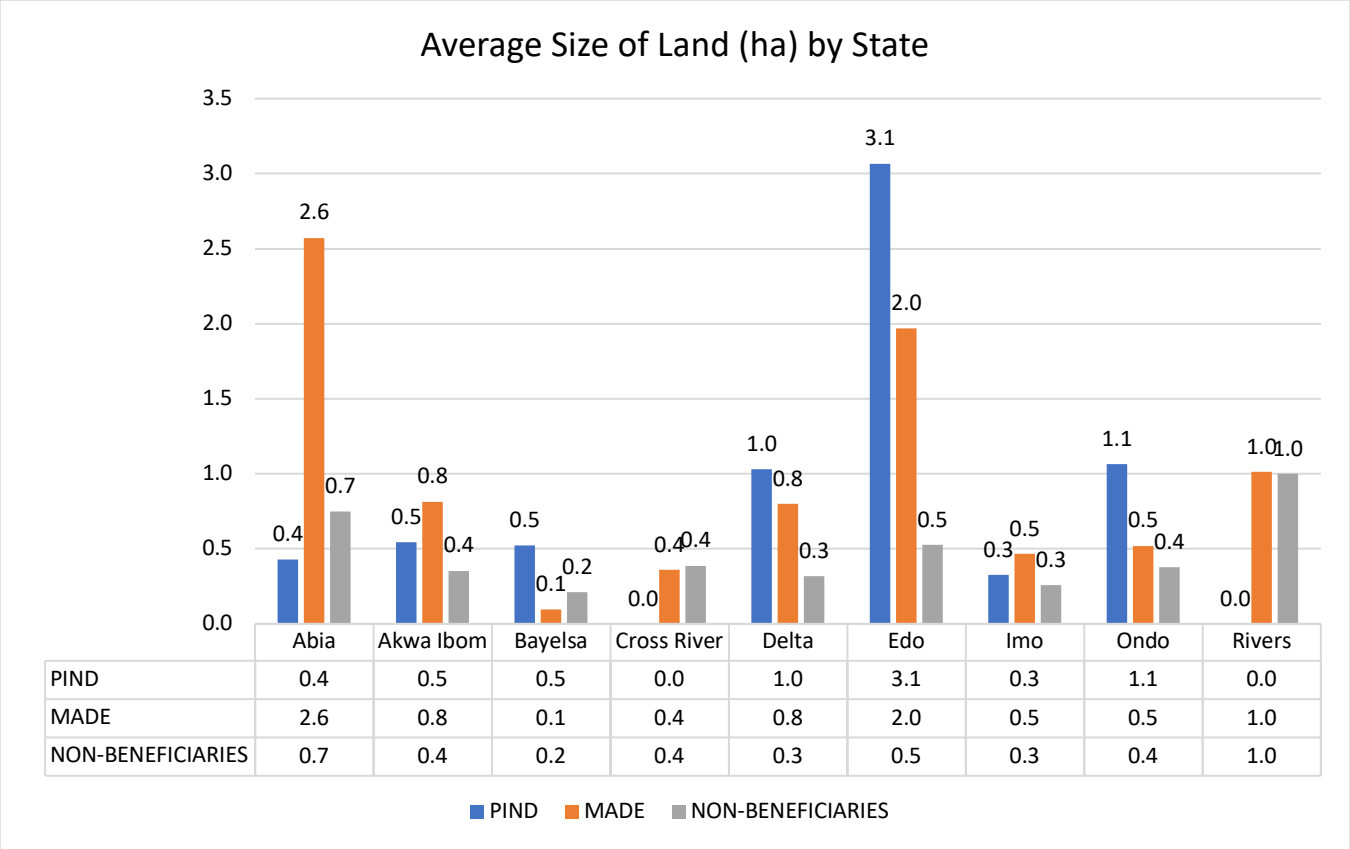
Characteristics of the Poor

The study shows that cassava farmers are mainly aged between 31 and 55 years, and married. The average size of each cassava farmer's household is 6, with 5 dependants. This means that each farmer has 5 individuals depending on his/her individual income. For the household sizes, respondents seem to have adequate living accommodation for their household members as 73% of farmers live in houses with 3 or more rooms.

Respondents are generally educated as 49% of cassava farmers have secondary education while 36% have tertiary education. A further 12% have primary education, with only 4% without formal education.

The findings show that respondents have access to small landholdings averaging 0.9 hectares across both the MADE and PIND programmes. Specifically, MADE cassava farmers have access to 1 hectare of farmland, while PIND have 0.8 hectares. However, non-beneficiaries of the programmes have access to average of 0.4 hectares. On average, women have smaller farm sizes than their male counterparts – i.e. 0.7 hectares compared to 1.3 hectares. Very poor farmers also have smaller farm sizes (0.5 hectares) compared to the poor (0.9 hectares) based on $1.90/day and $3.10/day. Using the national poverty line as the benchmark, poorer farmers have more land on average than less poor farmers. Land owned by respondents are typically self-owned (40%) or family-owned (40%). In other cases, they are leased (15%), owned by the government (2%) or crop shared (1%).

Figure 3: Average Size of Land (ha) by state



	Abia	Akwa Ibom	Bayelsa	Cross River	Delta	Edo	Imo	Ondo	Rivers
PIND	0.4	0.5	0.5	0.0	1.0	3.1	0.3	1.1	0.0
MADE	2.6	0.8	0.1	0.4	0.8	2.0	0.5	0.5	1.0
NON-BENEFICIARIES	0.7	0.4	0.2	0.4	0.3	0.5	0.3	0.4	1.0

Table 11: Average Land Size (ha) by Poverty Likelihood - $1.90/day

Poverty Likelihood	PIND	MADE	NON BENEFICIARIES	Avg. PIND/MADE
36.80 (poor)	1.1	0.7	0.4	0.9
48.00	0.8	1.1	0.4	1.0
62.50	0.7	0.5	0.5	0.6
71.40 (very poor)	0.6	0.3	0.2	0.5

Table 12: Average Land Size (ha) by Poverty Likelihood - $3.10/day

Poverty Likelihood	PIND	MADE	NON BENEFICIARIES	Avg. PIND/MADE
76.40 (poor)	1.1	0.7	0.4	0.9
87.50	0.8	1.1	0.4	1.0
92.00	0.7	0.5	0.5	0.6
95.30 (very poor)	0.6	0.3	0.2	0.5

Table 13: Average Land Size (ha) by Poverty Likelihood – National Poverty Line

Poverty Likelihood	PIND	MADE	NON BENEFICIARIES	Avg. PIND/MADE
53.40 (poor)		0.1		0.1
69.60	1.1	0.7	0.4	0.7
75.90	0.8	1.1	0.4	0.8
82.10 (very poor)	0.7	0.5	0.5	0.5

When asked about access to markets for their crops, 88% of farmers said they sell their crops directly to consumers and not through intermediaries. This approach was the same for both male and female farmer respondents. In fact, female farmers were even more likely to go to markets than their male counterparts. Only 16% of respondents mentioned having access to loans for farming business. This is similar with the non-beneficiaries of whom 17% have accessed loans. Of those beneficiaries who mentioned having access to loans, 26% of them got loans from traditional schemes such as Thrift, Esusu, Ajao and Akawo, 24% from cooperatives, 20% from agricultural banks and 17% from microfinance banks. The remaining 14% was split evenly between commercial banks and friends and family.

According to the survey, some cassava farmers have access to hybrid/crossbreed varieties as about half of them (48%) plant the improved varieties whereas 40% of non-beneficiaries plant these varieties. Specifically, for MADE, 46% of beneficiaries plant hybrid/crossbreed cassava stems while 49% of PIND beneficiaries plant the varieties. Stems for planting are mainly sourced from local open markets (39%), and from friends and family (36%), with a small proportion (2%) sourced from NGOs or Development Institutes. Depending on the state, farmers plant cassava for one or two seasons in a year.

Respondents were asked about their access to agricultural inputs and markets. Access in this study was defined as the availability of these inputs or markets within their localities. Based on the responses, beneficiaries have access to wheelbarrows, hand hoes, chemicals (herbicides, fertilizers, etc.), labour, and markets where produce can be sold. But access is limited for water tanks, water pumps, water hose/pipes, watering cans, knapsack sprayers, processing machines and storage facilities. This is probably because the tools were not needed or too expensive. Access to chemicals (herbicides, fertilizers, etc) is 69% for beneficiaries and 59% for non-beneficiaries. Access to adequate markets where crops can be sold is slightly similar for both beneficiaries and non-beneficiaries at 76% and 73% respectively. In general, beneficiaries reported better access to inputs and markets then non-beneficiaries.

Figure 4: Access (Beneficiaries in comparison to Non-Beneficiaries)

	Beneficiaries		Non-Beneficiaries	
Do you have access to the following agricultural inputs and markets?	***Yes***	***No***	***Yes***	***No***
Water pump	48%	52%	32%	68%
Watering can	49%	51%	38%	62%
Wheelbarrow	85%	15%	85%	15%
Knapsack sprayer	48%	52%	40%	60%
Hand hoes	92%	8%	91%	9%
Water tank	44%	56%	41%	59%
Hose/pipe	56%	44%	44%	56%
Chemicals like pesticides, fertilizers	69%	31%	59%	41%
Processing machine	46%	54%	34%	66%
Storage facilities	49%	51%	39%	61%
Fertilizers	71%	29%	53%	47%
Adequate labour	82%	18%	79%	21%
Good quality and affordable inputs	68%	32%	64%	36%
Adequate markets where crops can be sold	76%	24%	73%	27%

Reasons for Poverty

A group discussion was carried out with cassava farmers involved in MADE and PIND interventions to understand the reasons why poverty exists in their households and communities. Several reasons were given by the group. One of the major reasons was the inadequate funds to invest in farm inputs to improve productivity and incomes. Respondents explained that although they had received training from MADE and PIND, they are unable to put the new knowledge to use. Many respondents mentioned that this was because they lacked the capital requirements to implement the new knowledge gained.

We hope we will be able to get grant or loan fast so that we will be able to practice what we've learnt. - FGD with Cassava Farmer

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In the focus group discussions, farmers stated that the costs of inputs such as stems, fertilizers, weed control chemicals and labour wages were prohibitive. One participant noted that the cost of production per hectare in Ondo State is N300,000, and this was too high for poor farmers. Loans are inaccessible to farmers because of the high interest rates and collateral requirements of financial institutions. Though some farmers have been linked to the CBN's Anchor Borrower's Programme (APB) which aims to provide farmers with access to inputs such as agrochemicals, fertilizers and cassava stems at subsidized costs, farmers have found it difficult to meet the APB's requirements.

The cost of inputs, tools and machines is high and prices are fluctuating, so it does affect our business. Some of us cannot afford these machines and equipment so we use/rent the public machines and pay for the service after use. – FGD with Cassava Farmer

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Participants also explained that poverty persists because of the limited availability of quality farm inputs in the rural and semi-urban areas where farmers are located. Farm inputs, such as pre-emergence, post-emergence agrochemicals and fertilizers are not readily available. Where available, the prices are high, reflecting the cost of transportation to the locations. Consequently, farmers find it difficult to access quality inputs which could be used to improve productivity and quality of their produce and fetch higher prices for their produce in the market.

Poor infrastructure, particularly road networks, was also cited as one of the reasons why farmers' incomes are low. Most farmlands are in the hinterlands, and the road networks to their locations are bad. The cost of transporting farm produce becomes high, thus limiting the profitability of farmers. Farmers said they particularly found it difficult to transport produce out of the farms during the rainy seasons.

Another reason for low incomes given by farmers is poor access to market. According to respondents, access is their ability to reach consumers interested in buying cassava at higher prices. Although farmers have access to local markets, the high cost of transportation limits them from taking produce to larger market centers where more buyers exist, and higher prices are available.

I am not satisfied because I am selling my product in my local market the same way to the local people, so if am able to go out of my local community, I will be able to sell more at a higher price than what am selling. – FGD with Cassava Farmers

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Lack of year-round access to water was also given as a factor affecting farmers' incomes. Cassava farmers say that they depend on rainfall and have limited access to irrigation, water tanks, water pumps

and pipes/hoses. This constraint affects productivity by negatively impacting yield and reducing the number of farming cycles in a year.

Insecurity also affects the cost of production as farmers have had to invest in setting up structures such as fences to protect their farmlands from herdsmen and their cattle. Although this is not prevalent, when this has happened in the past, it reduced the profitability of farmers because crops have been eaten or damaged by the herdsmen or cattle. This occurrence has also affected the number of youths willing to become farmers in the area as they are put off by the issues created by the herdsmen.

Constraints to Women's Participation in the Value Chain

Interviews and focus group discussions conducted during the study reveal that women play a key role in the cassava value chain. Women own land for cassava farming and are involved in all aspects of primary production. Women are largely involved in cassava farming, so it was unsurprising to learn that women have access to various opportunities including training, market information, market access, finance, tools and equipment, inputs, land and labour.

The study found that women's husbands often consulted them, and they were likely to make joint decisions over farm items and equipment, livestock purchase, seeking loans, household items (furniture, clothes, etc.), food purchases, health/medicine purchases, school fees, land purchases, and other key household decisions. Women either had control over their incomes or made joint decisions on them. Husbands also consulted with their wives on spending men's incomes.

Despite their high level of involvement in the value chain, women are constrained in their ability to improve outcomes in cassava farming. Although joint decisions are made on household and farming issues, there are nuances in the household reality. For instance, the FGD conducted revealed that although women consulted their husbands on farming decisions, they were bound to accept the husbands' opinions because the man is seen as the family head.

In addition, women's mobility is somewhat limited as both married and unmarried women mostly require men's approval for going to any place, including markets.

How could implementation of MADE and PIND's interventions be improved to support more inclusive growth?

Partners and farmers are of the view that MADE and PIND's interventions are inclusive of all farmers - male and female, old and youth, educated and uneducated and poor and non-poor. Women are even believed to benefit more as they are more involved in cassava production than men. This could mean that men are under-represented in programmes' interventions. Nevertheless, the general view was that interventions have been designed and implemented in such a way that farmers have only benefitted positively from participation with no negative effects.

Partners pointed out some external factors which have been instrumental to the successes of MADE and PIND in their focal states. Associations such as the All Farmers Association of Nigeria (AFAN), the Ondo Organized Graduates of Agriculture (OOGA), the World Health Organization (WHO) and some churches were mentioned as having supported MADE and PIND's interventions by helping them access farmers and providing farmers with access to inputs and finance. For example, through OOGA's advocacy activities, the King of Ondo town was influenced to give cassava farmers 300 hectares of land for farming. They also mentioned that a growth in the demand for cassava has also led to increased cassava farming in the area and thereby positively affecting the programmes' activities.

Provision of training was mentioned as a beneficial aspect of the PIND and MADE programmes. Farmers were exposed to training on modern farming practices including agro-chemical application, propagative production and modern stem usage. It is believed that by using these concepts, some farmers have improved their farm yields through increased yield and lower production losses.

While the trainings were useful to farmers, the fact that the training manuals were only provided in English excluded farmers who were not literate in English. Farmers, however, pointed out that there were practical demonstrations during the trainings which were useful for illiterate farmers. Nonetheless, partners suggested that future training sessions could be improved by producing documents in local languages to serve as reference materials for farmers. Demonstrations were also only carried out on

small plots of land and did not allow for practical exposure to mechanized farming. They suggest that in the future, trainings should be adapted to incorporate practical demonstration of mechanized farming on large farms.

Findings from Oil Palm

Characteristics of the Poor

The survey findings reveal oil palm farmers involved in MADE and PIND interventions are educated, with 50%, 30% and 16% having secondary, tertiary and primary education, respectively. Only 3% have no formal education. Majority of farmers (83%) are between 31 and 55 years old, and have an average household size of 6, and 5 dependants. On average, oil palm farmers have adequate housing for their family sizes as they live in two to five room houses in rural and semi-urban locations. About 74% of the sample are self-employed, while 13% and 4% in full- and part-time employment, respectively.

One-third of oil palm farmers surveyed who are involved in PIND interventions process oil palm, 25% deal in buying and selling of palm oil 23% farm oil palm and 19% specialize in harvesting oil palm. For MADE beneficiaries, 41% of those surveyed are involved in processing oil palm, about a quarter in buying and selling of oil palm, 20% have oil palm farms – 9% are owned by women, while 15% specialize in harvesting oil palm. Women are mostly involved in the processing, buying and selling of oil palm. Less than 20% of them are involved in oil palm farming, and even less involved in the harvesting (6% and 14% respectively for female PIND and MADE beneficiaries, respectively).

The poorer the actors are, the less involved they are in activities in the value chain that seem to be more capital intensive. For example, for MADE, fewer farmers with poverty likelihood of 62.5% own an oil palm farm or specialize in harvesting of oil palm than farmers who have lower poverty likelihoods. This could be because of the lower capital requirements to participate in those activities. The analysis also reveals that all of the beneficiaries specializing in the harvesting of oil palm have poverty likelihoods of less than 71.4%. Most non-beneficiaries have a poverty likelihood of 48% and very few have a likelihood of 36.8%.

Figure 5: Activities in Palm Oil Value Chain by Poverty Likelihood - PIND

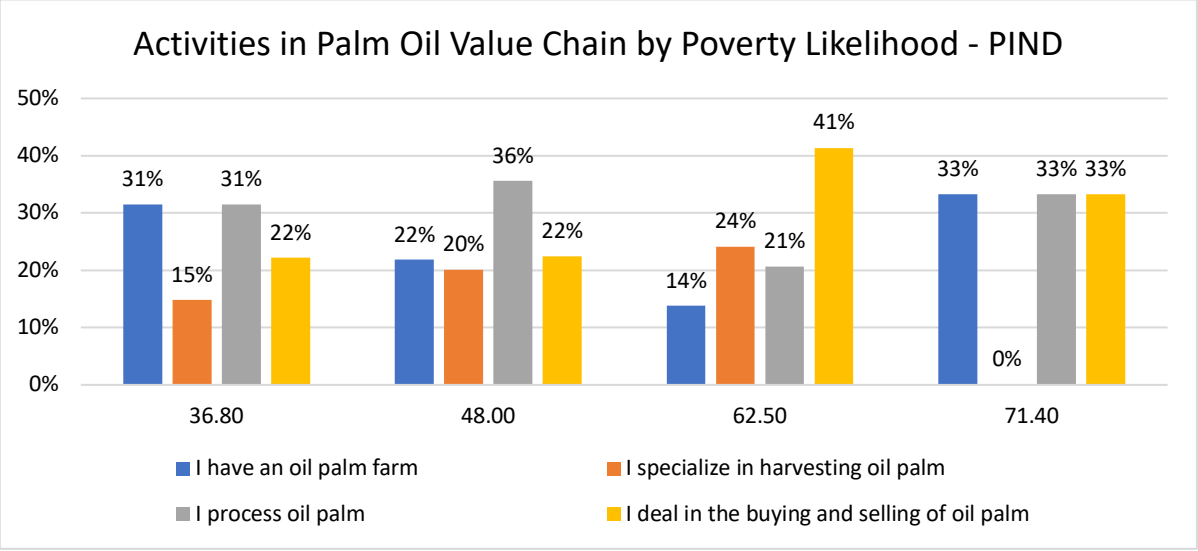


Figure 6: Activities in Palm Oil Value Chain by Poverty Likelihood - MADE

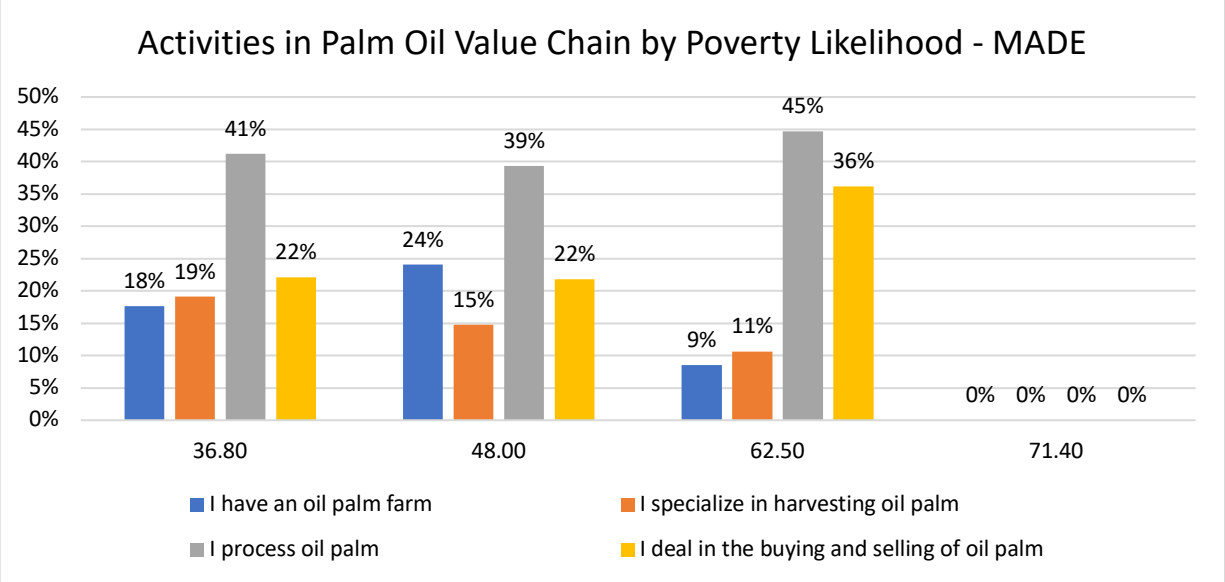
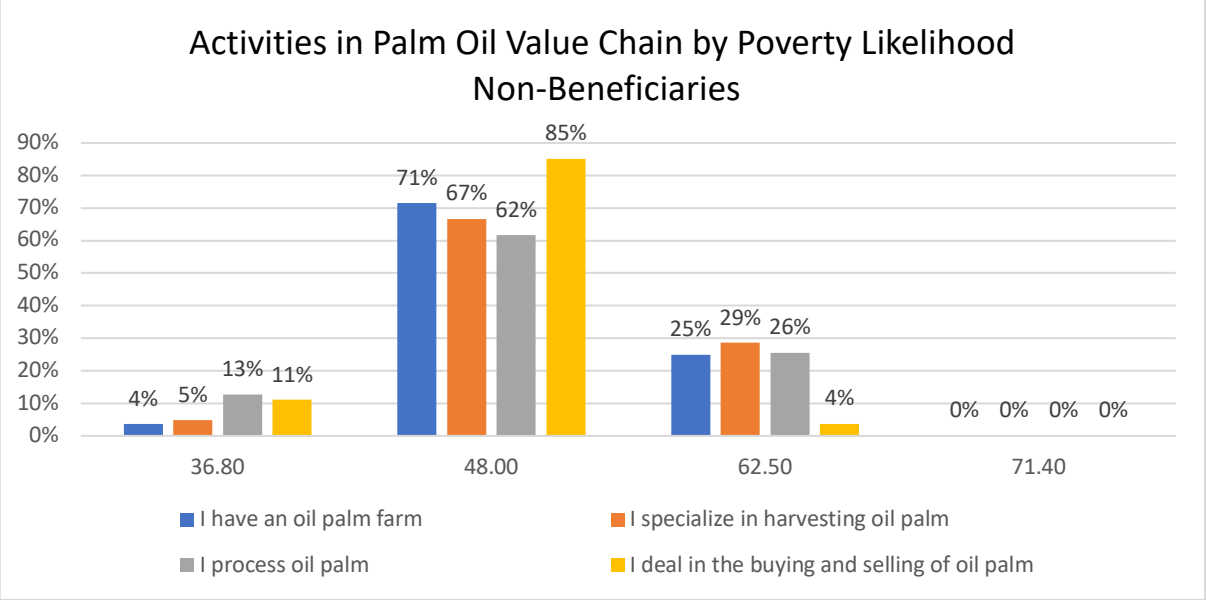


Figure 7: Activities in Palm Oil Value Chain by Poverty Likelihood – Non-Beneficiaries



From the survey, oil palm farmers participating in PIND's interventions had average landholdings of 7.6 hectares. Women have access to less land than men (5.8 hectares compared to 8 hectares). On average, the farmers cultivated 6.9 hectares, with the women cultivating less than men (5.2 hectares compared to 7.2 hectares). MADE beneficiaries have landholdings of 3.8 hectares with women having access to less land than men (2 hectares compared to 4.7 hectares). The farmers cultivated an average of 3.2 hectares, again with the women cultivating less than the men (1.3 hectares compared to 4.3 hectares). The size of land cultivated across states varied from 3 hectares in Akwa Ibom to 10 hectares in Edo for PIND farmers. 56% of respondent farmers own the land, while 27% use land that is family-owned. 11% use land that is leased, while 3% use land that is owned by the government. There were no significant differences in the ownership across gender.

Table 14: Number of stands of oil palm typically cultivated in a year by State and Programme Type

State	PIND	MADE	Non-Beneficiary	Average MADE/PIND
Abia	40	43	0	42
Akwa Ibom	43	62	97	52
Bayelsa		300		300
Cross River	304	235	46	270
Edo	693	567	590	630
Imo	125	117	310	121

The tables below shows that across the three poverty lines $1.90/day, $3.10 per day and the National Poverty line, the very poor farmers cultivate fewer oil palm stands than poor farmers.

Table 15: Number of stands of oil palm typically cultivated by $1.90 Poverty Likelihood

Poverty Likelihood Based on $1.90/day	PIND	MADE	Non-Beneficiaries
36.80 (poor)	550	225	0
48.00	152	187	169
62.50	73	27	194
71.40 (very poor)	298	0	0

Table 16: Number of stands of oil palm typically cultivated by $3.10 Poverty Likelihood

Poverty Likelihood $3.10/day	PIND	MADE	Non-Beneficiaries
76.40 (poor	550	225	0
87.50	152	187	169
92.00	73	27	194
95.30 (very poor)	298	0	0

Table 17: Number of stands of oil palm typically cultivated by National Poverty Line Poverty Likelihood

National poverty line	PIND	MADE	Non-Beneficiaries
53.40 (poor)	550	225	0
69.60	152	187	169
75.90	73	27	194
82.10 (very poor)	298	0	0

According to the findings, 90% of farmers involved in oil palm production in both MADE and PIND programmes have access to improved varieties. It was established that 3 in 10 farmers surveyed across both programmes plant hybrid/crossbreed varieties, while 70% plant local varieties only. Similarly, 30% of the non-beneficiaries plant hybrid/crossbreed varieties. Similar proportions of men and women plant both varieties.

According to farmers surveyed, seedlings are mostly sourced from government agencies such as Agricultural Development Programmes (ADPs), Nigerian Institute for Oil Palm Research (NIFOR), and the Ministry of Agriculture. Other sources are the local markets, as well as friends and families.

Poor farmers have access to some basic tools and equipment for their farms such as hoes and wheelbarrows but limited access to watering cans, water pumps, water tanks and water hose. There was some access to Malaysian knife, knapsack sprayer and small-scale processing equipment, but not to mechanical adjustable harvesters and jab planters. Farmers also had access to chemicals (herbicides, pesticides, etc.), fertilizers, storage facilities and labour.

When asked about what happens to oil palm after harvest, 35% of PIND farmers and 43% of MADE farmers said they deliver their palm fruit to processors to convert to oil; 33% of PIND farmers and 27% of MADE farmers sell the fruit to farmgate traders, while 28% of PIND farmers and 29% of MADE farmers sell directly to traders in markets. Most male PIND beneficiaries sell directly to farm gate traders/processors or buyers and processors (35% each). In MADE, male farmers sell directly to buyers and processors mostly. Women farmers involved in the PIND programme, on the other hand, sell directly to consumers or buyers and processors mostly (35% each). Women in MADE mostly sell directly to consumers (51%).

Reasons for Poverty

The main causes of poverty can be explained by the high cost of engaging in oil palm farming, duration of time it takes to break even, as well as poor access to modern tools and equipment.

Oil palm farming is capital intensive and requires a substantial amount of investment from farmers. This includes money spent on acquiring land, labour, inputs (seedlings, fertilizers, chemicals) and equipment hire. Loans from financial institutions are typically difficult to access. Although some may be able to access loans from friend and family, the amounts are usually inadequate to meet needs. When able to get loans from the banks, farmers commit most of the earnings from the sales of the produce to repay high interests, thereby leaving little profit for them to re-invest in farming. Most farmers say they are unable to fully utilize farmland available to them for these reasons.

One of the assets required is land and machinery and anyone that is processing palm oil will need both, which is why we need loans – FGD with Oil Palm Farmer

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The life cycle of oil palm production is quite long compared to much other agricultural produce. It takes 4-6 years from planting for oil palm to become mature for harvesting. This determines when farmers can begin to recoup their investments; and when poor farmers begin to harvest oil palm, only a small proportion of the earnings are reinvested into farming because of household and personal needs.

... these local seedlings we are using, they take six years to get to maturity and get fruits but the other ones (those that have just been introduced by the programme) you can plant and reap the fruit in the next two to three years. [FGD, Male, Akwa Ibom]

Farmers mainly have access to basic farm tools which limit efficiency and productivity. Few farmers have access to modern tools like the mechanical harvesters. Likewise, only a few own milling machines with which they can process oil palm and earn more from value addition. To address this, both MADE and PIND have promoted access to commercial milling machines which beneficiaries can use.

Yes, we have access to market to sell our palm oil but we will make more money if we have money to produce in large quantity and sell outside Akwa Ibom State. [FGD, Male, Akwa Ibom]

Constraints to Women's Participation in the Value Chain

Partners interviewed explain that the oil palm production is mainly dominated by men. This may be because oil palm farming is capital intensive and requires large expanse of land which women do not

always have in all the states where the programmes are being implemented. The interviews with farmers support this as several farmers mentioned that women have limited access to land for farming, largely due to land ownership customs and lack of capital to buy land when available. There are no restrictions for women owning land if they have the means to.

I think men are involved more in the planting and harvesting of oil palm, but women are more involved in processing and selling oil. [Partner, Male, Akwa Ibom]

Although women believe they can participate in most aspects of the value chain (including farming, processing, buying and selling and farm labour), they feel they are constrained in participating in harvesting which usually involves climbing trees to cut down bunches. However, women are involved in collecting bunches cut down from tree which they sell for income.

Both men and women farmers believe that the decision about how income from oil palm farming is spent does not differ based on gender. However, in some cases, women seek advice from their husbands about decision regarding their businesses

How could implementation of MADE and PIND's interventions be improved to support more inclusive growth?

MADE

From discussions with partners and farmers, MADE interventions have been beneficial to farmers by improving knowledge, access to finance, as well as to tools and equipment. However, partners interviewed believe that mostly farmers who are members of cooperatives or farmers groups have been reached. For a facilitative programme, this is not unusual for piloting of interventions, however, steps should be taken to scale-up benefits beyond farmers who may be excluded from associations. It was also suggested that male farmers have benefitted more from the intervention than female farmers. This is because oil palm farming is laborious and therefore women are unable to cope with the level of work involved. Oil palm farming also requires large proportions of farmland to cultivate and since men have more access to land than women in the region, more male farmers are engaged in oil palm farming than women. To be more inclusive, MADE needs to target the parts of the value chain where women are more active.

PIND

PIND supported farmers by facilitating training sessions on agricultural best practices and practicing cost-effectiveness in farming. The programme also provided financial literacy training and information on assessing loans from financial institutions, including the Anchor Borrowers' programme. In addition, PIND supported farmers by subsidizing the cost of equipment such as mechanical harvester for a few pilot purchasers. These activities have helped farmers improve their skills and increase productivity, while building markets for those services.

Some farmers have been able to get loans from the cooperative societies, and some others from a microfinance bank (LAPO Micro Finance Bank). The loans gotten are used to finance farm needs such as purchase of mechanical harvester, as well as domestic needs like payment of children's school fees.

Findings from Fisheries

Characteristics of the Poor

From the analysis, fish farmers have an average household size of 5 people and 4 income dependants. Male fish farmers have a higher income dependency ratio of 4, than female farmers who have 3. 73% of the respondent farmers live in 1 to 3-room houses in urban, semi-urban and rural locations. 60% of actors are self-employed, with 12% and 10% in full-time and part-time employment, respectively. Among the PIND beneficiaries interviewed, a higher proportion of females (20%) are in full-time employment than the males (7%). For the MADE beneficiaries interviewed, a lower proportion of females are self-employed (58%) compared to males (66%). 43% of the fish farmers have secondary education in MADE and PIND, while 48% have tertiary education in MADE and 51% in PIND. Only a

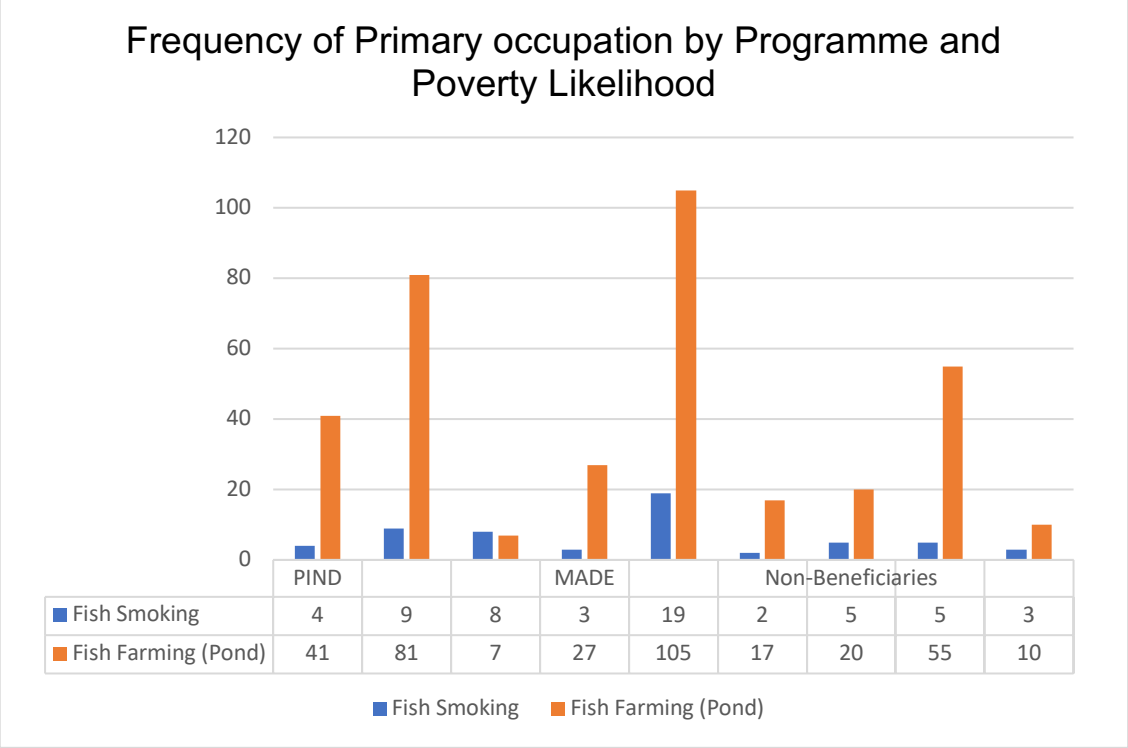
small proportion have no formal education in MADE (6%) and PIND (0.6%). The majority are aged between 26 and 50 years.

About 8 out of 10 of the PIND beneficiaries interviewed are involved in fish farming (pond), while 12% practice fish smoking. Likewise, 87% of the MADE beneficiaries interviewed are fish farmers while 14% are fish smokers. Non-beneficiaries surveyed were similarly involved in fish farming and smoking. Among the PIND beneficiaries, the poorer actors were involved in fish smoking and farming. However, in MADE, poorer actors were much more involved in fish farming than smoking – 89% were involved in farming compared to 10% in smoking. This is also similar for non-beneficiaries where 77% of the poor are involved in fish smoking compared to 23% who are involved in fish smoking.

Table 18: Primary occupation by Programme and Gender

Occupation	PIND			MADE			Non-Beneficiary		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Fish farming (pond)	92	47	139	88	61	149	62	23	85
Fish smoking	10	11	21	15	9	24	7	6	13
Other	8	8	16	0	1	1	0	2	2
Total	110	66	176	103	71	174	69	31	100

Figure 8: Frequency of Primary occupation by Programme and Poverty Likelihood



On average, fish farmers in MADE and PIND have three ponds each and stock approximately 787 fish per pond. (985 for PIND and 589 for MADE). Male farmers involved in the PIND programme stock more fish per pond than female farmers (1104 compared to 751). Comparatively, MADE female farmers stock more fish on average per pond than male farmers (839 compared to 610).

Figure 9: Average No. of Fish Ponds Owned

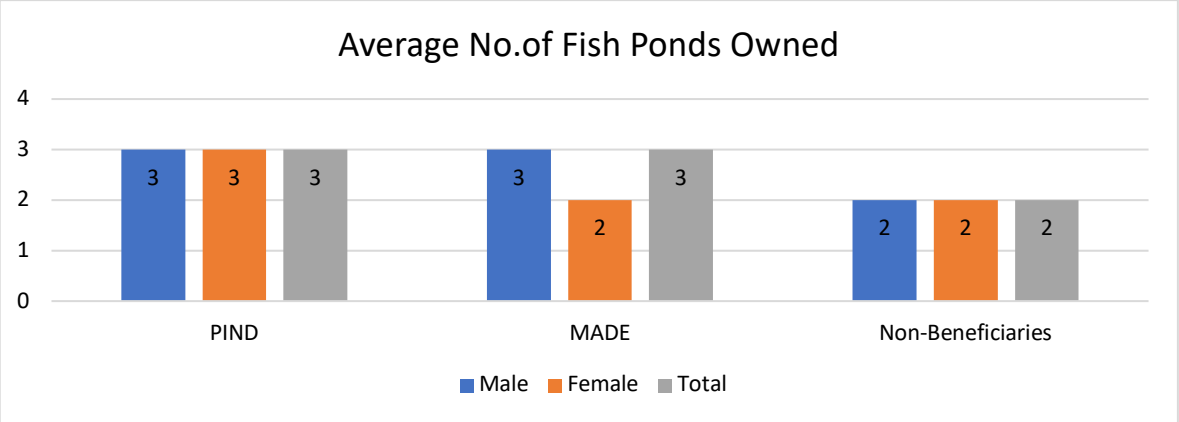


Figure 10: Average Fish Stock per Pond

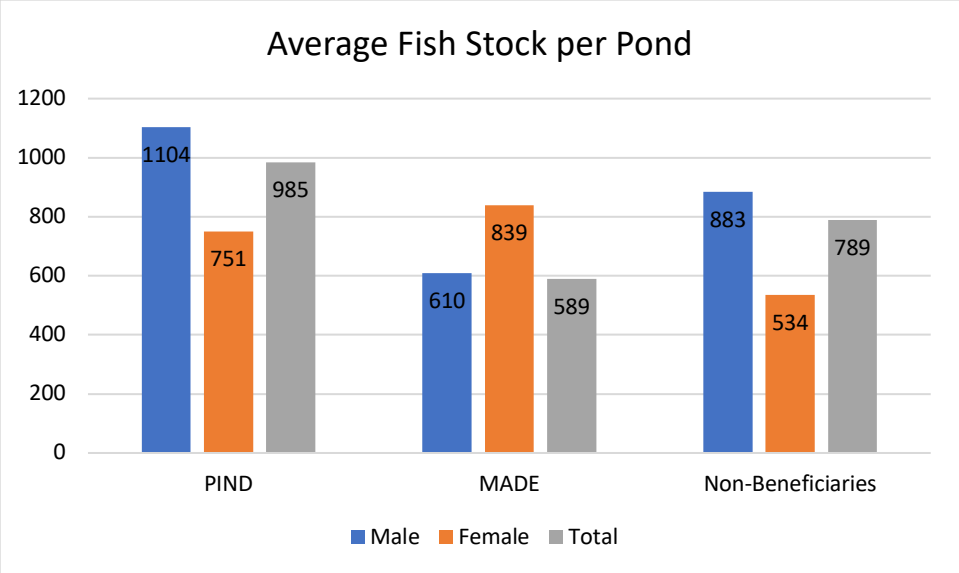


Table 19: Average number of ponds owned cross-tabulated with poverty likelihood

Poverty Line	$1.90/day			$3.10/day			National Poverty Line		
Poverty likelihood	36.80 (poor)	48.00	62.50 (very poor)	76.40 (poor)	87.50	92.00 (very poor)	53.40 (poor)	69.60	75.90 (very poor)
PIND	3	3	2	3	3	2	3	3	2
MADE	2	3	3	2	3	3	2	3	3
Non-Beneficiaries	3	2	2	3	2	2	3	2	2

Across the different poverty lines, PIND farmers with lower poverty likelihoods had more fish (3 ponds/farmer) than farmers with higher likelihoods (2 ponds/farmer). However, in MADE, farmers with lower poverty likelihoods had fewer fish ponds than the poor farmers (2 ponds per farmer compared to 3)

On average, the poor MADE and PIND fish farmers had more fish stock per pond than the very poor farmers. However, this is different with non-beneficiaries where poor farmers had fewer fish stock per pond than very poor farmers.

Table 20: Average fish stock per pond cross-tabulated with poverty likelihood

Poverty Line	**$1.90/day**			**$3.10/day**			**National Poverty Line**		
Poverty likelihood	36.80 (poor)	48.00	62.50 (very poor)	76.40 (poor)	87.50	92.00 (very poor)	53.40 (poor)	69.60	75.90 (very poor)
PIND	742	1083	530	742	1083	530	742	1083	530
MADE	632	614	390	632	614	390	632	614	390
Non-Beneficiaries	668	655	1049	668	655	1049	668	655	1049

Across both MADE and PIND programmes, fish farmers surveyed have access to fish seeds, fish feed, fishing nets and protective nets in their communities. However, fewer farmers have access to mobile ponds, service providers, hatching machines, and fish dryers. Amongst these, farmers have the least access to hatching machines with 81% and 73% of PIND and MADE farmers responding "No" when asked if they have access to this equipment in their communities. The pattern of access is similar across non-beneficiaries. Access to assets does not differ by gender as women have as much access as men.

Figure 11: Frequency of Access to Equipment/Facilities at Community Level (PIND)

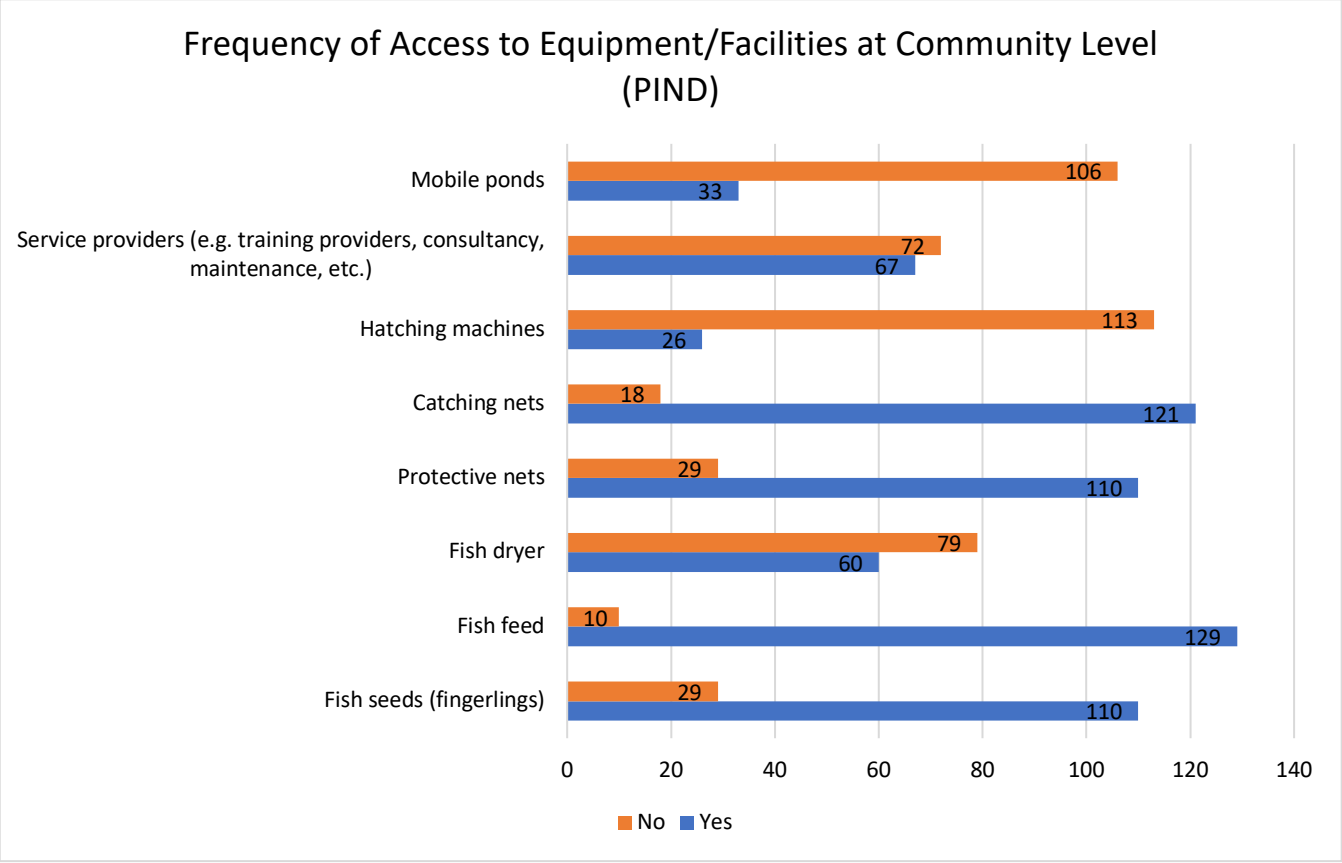


Figure 12: Frequency of Access to Equipment/Facilities at Community Level (MADE)

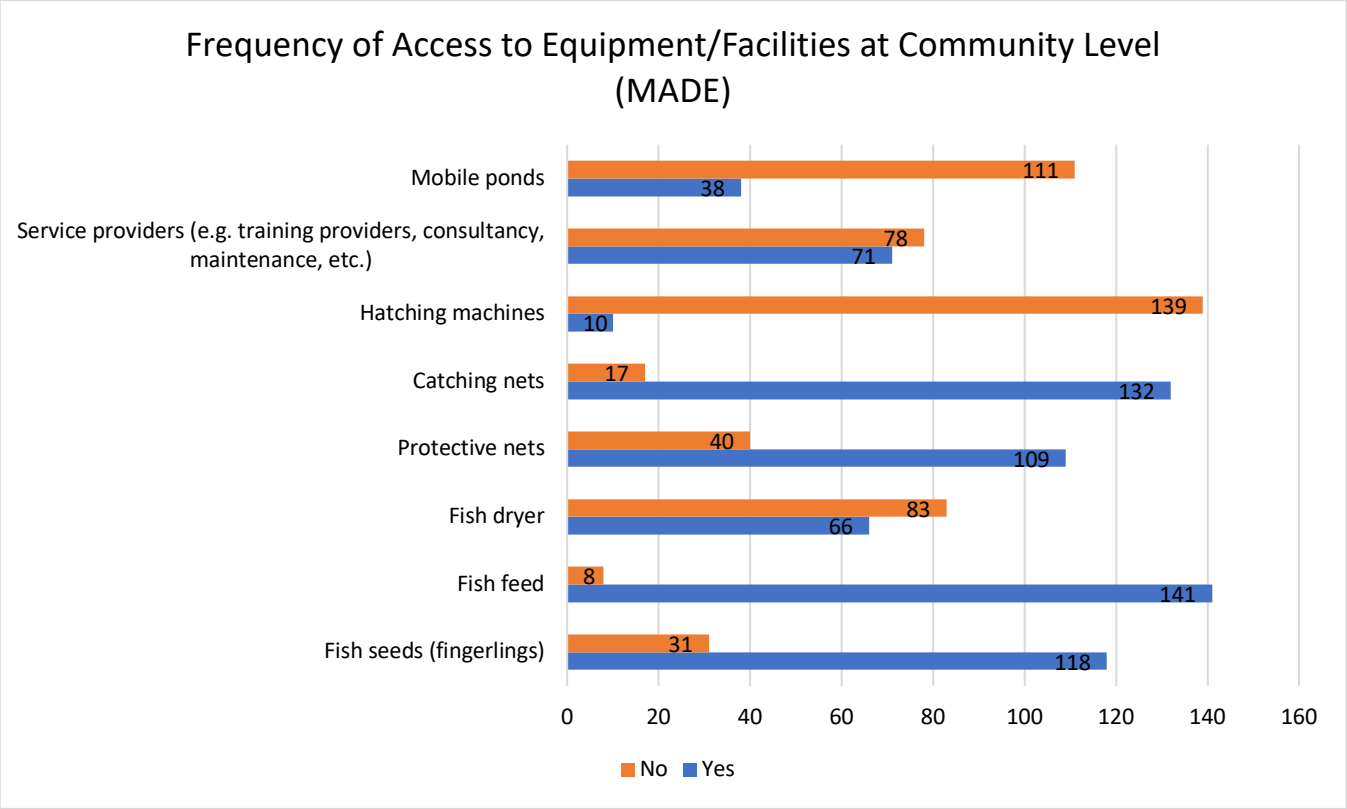
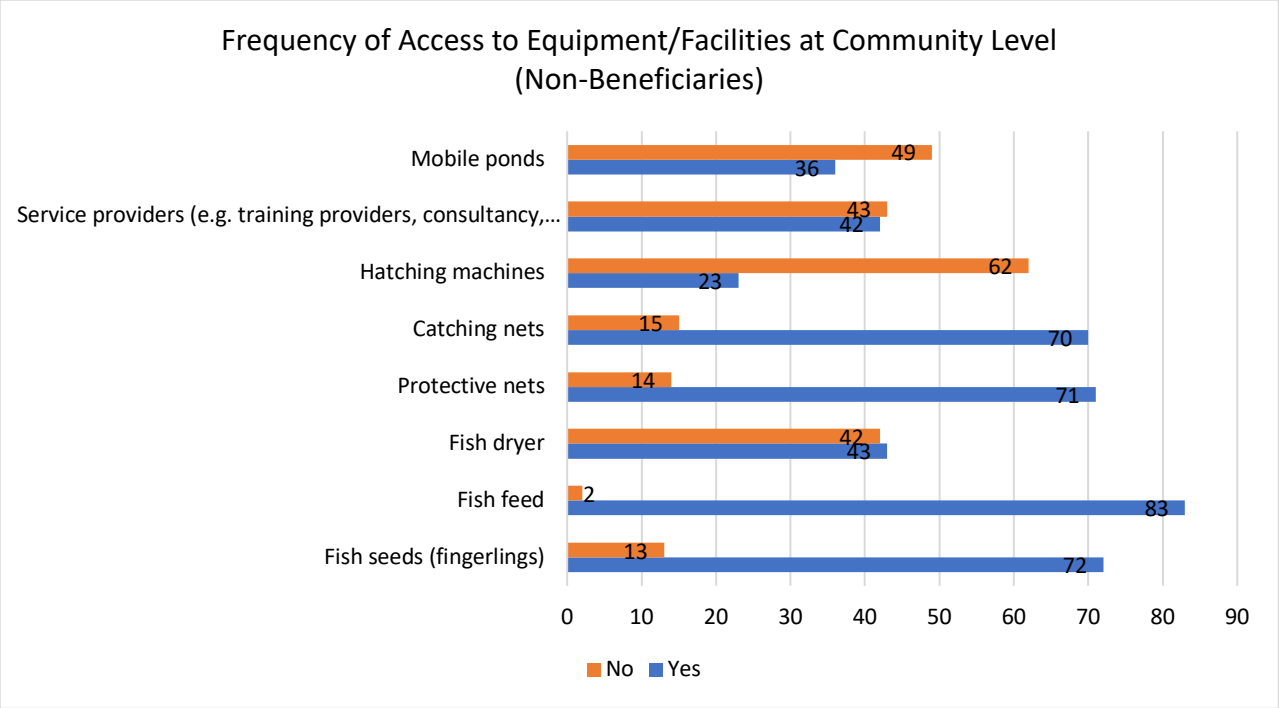


Figure 13: Frequency of Access to Equipment/Facilities at Community Level (Non-Beneficiaries)



The most common source of inputs for MADE and PIND farmers interviewed are the market, fabricators and aquaculture service providers (in that order). The least common source of inputs is NGOs.

Figure 14: Source of Inputs (PIND)

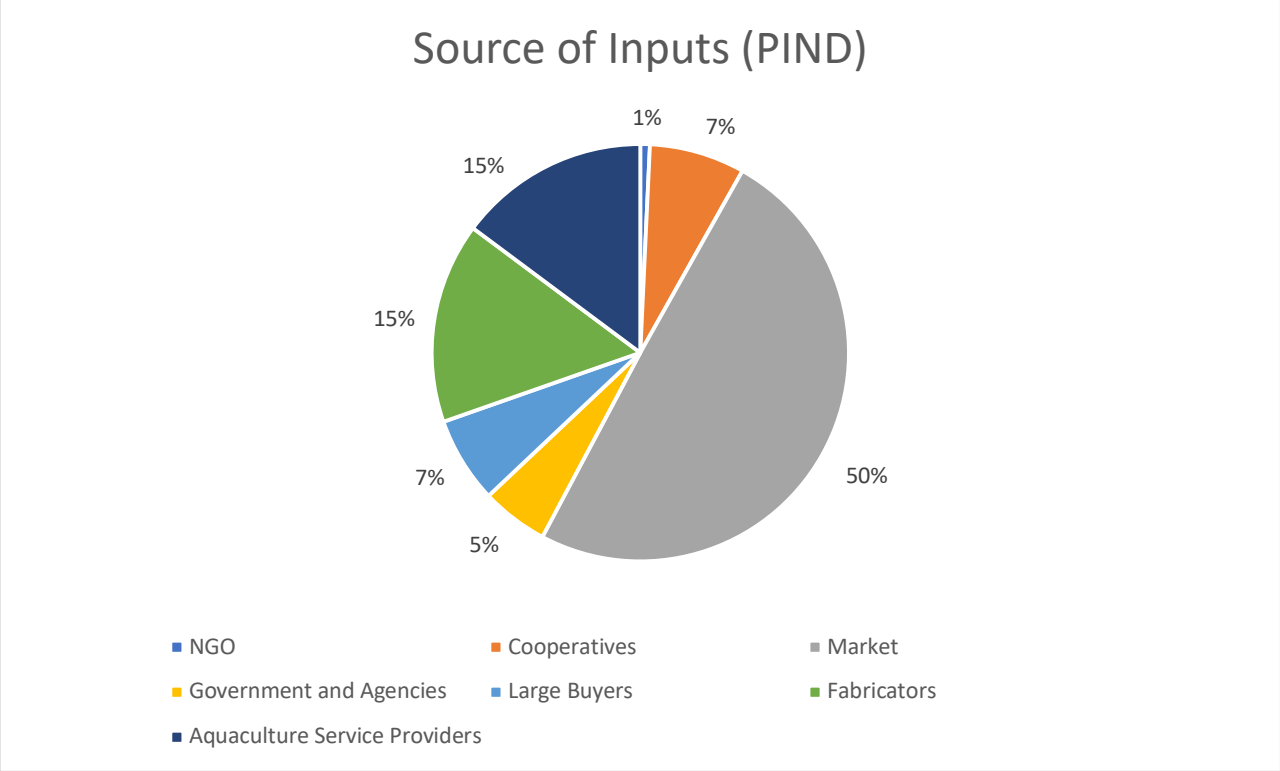


Figure 15: Source of Inputs (MADE)

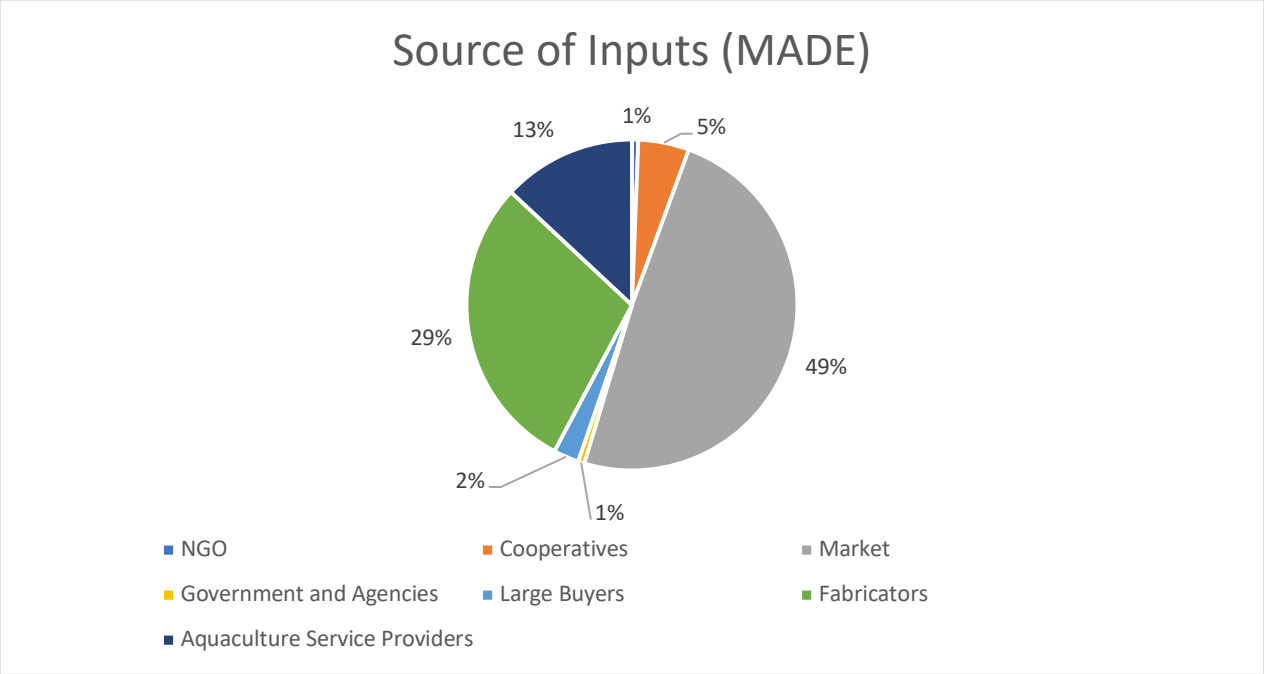
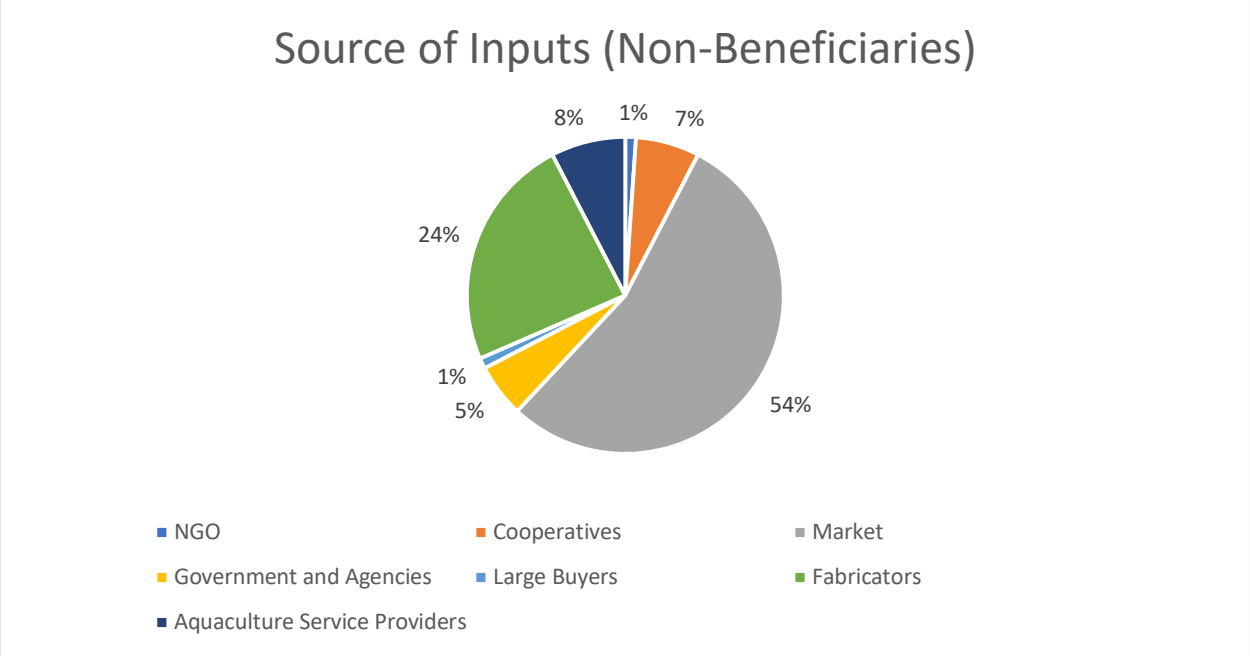
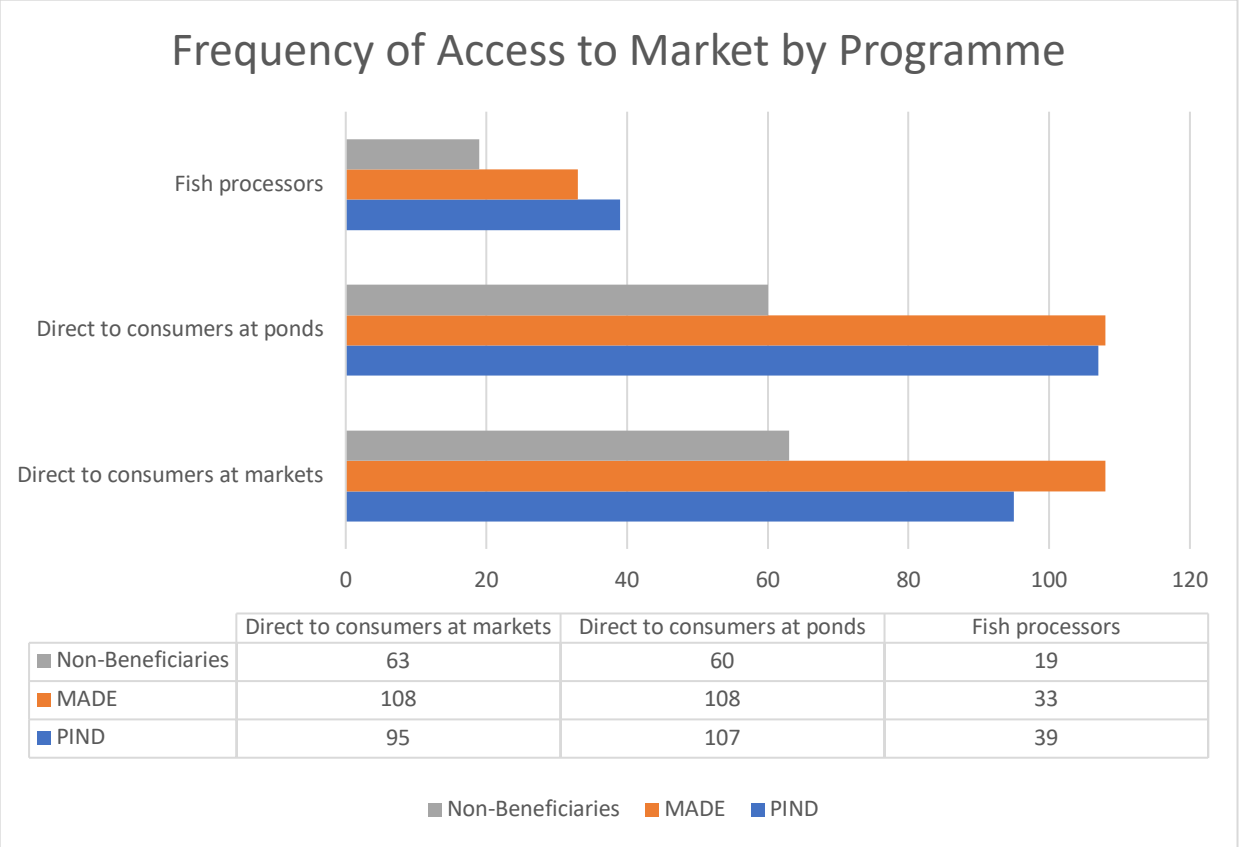


Figure 16: Source of Inputs (Non-Beneficiaries)



Most fish farmers involved in MADE and PIND interventions sell their fish directly to consumers at the pond or at markets (42% and 44% respectively), while only 16% of PIND farmers and 13% of MADE farmers sell to fish processors. The pattern is similar with non-beneficiaries as well.

Figure 17: Frequency of Access to Market by Programme



	Direct to consumers at markets	Direct to consumers at ponds	Fish processors
Non-Beneficiaries	63	60	19
MADE	108	108	33
PIND	95	107	39

According to respondents, market information (such as prices, availability of inputs, etc.) is commonly gotten through word of mouth from other farmers, family and friends, and market associations. Less common sources include radio, TV, newspaper, and town crier/messenger.

Reasons for Poverty

Fish farmers and partners interviewed during the study identified several reasons for low incomes amongst farmers in the value chain. These include:

Limited Access to Assets
Fish farmers believe that limited access to assets is one of the reasons why farmers have low incomes. Whilst there is access to ponds (especially concrete and earth ponds), boreholes and local fish dryers, there is limited access to improved technology for drying, scales to determine weight of fish and freezers to store fish. Power supply is also erratic and poor farmers do not have generator sets for alternative power required for pumping water and preserving fish. Lack of these assets constrain actors from improving productivity and incomes.

> The inability of the fish farmers to afford the smoking kilns and inability to dry fishes in larger quantities are reasons for poverty. [Partner, Bayelsa]

Limited Access to Markets
Although most farmers and smokers are able to sell their fish, they often have to do so at unfavourable prices. For instance, wholesalers and intermediaries tend to determine the prices at which they buy, knowing that farmers who cannot continue to bear the cost of keeping mature fish would be forced to sell at their offers. Farmers are constrained to sell to these types of buyers who come to purchase from their farms, and to individuals who buy small quantities at a time. They are also restricted in access to some local markets, where farmers can only sell their produce if they are members of the market association.

… if you train farmers and you improve their capacity and they produce the fish, they should be able to sell the fish, they should be able to start with this. If there are no markets, there is no way to increase their sales. [Partner, Male, Rivers]

Limited Access to Finance

Many farmers do not have access to credit facilities to invest in their businesses. Where these are available, they are deterred by the conditions and processes required to access them. Farmers mentioned the limitations to accessing loans from banks which include lack of collateral (e.g. certificate of ownership), high interest rates and unacceptance of conveyances. During the group discussions, farmers mentioned that the certificates they received from MADE's training was supposed to make bank loans more accessible to them but that has not been the case.

The barriers like I said, …the second one is funding, [MADE] came up with a programme that after the training [MADE] will be able to fund the participants with some loans, [MADE was] able to give to the first phase of the farmers in training, but after that nothing came up again. [Partner, Male, Rivers]

In addition, when it comes to managing economic risks to their businesses, most fish farmers have turned to their support network which includes family, friends and church groups to support them with soft loans. Very few farmers say that they turned to the banks for financial support. These loans were mainly used for business related needs such as purchasing fingerlings, feed, water pump, generator, pond construction and some personal expenses such as school fees. Farmers were able to easily repay their loans because fish farming has a short production cycle so they were able to resell quickly.

When you want to have ponds, you know that there are many things that would come with it. You must have land or you rent land. You must have borehole there. You must have generator that can pump water that would be used in the pond. You must have the money to buy the fish and the fingerlings to start your work. But in these cases, the people that are poor do not have that money to buy land or rent a pond or get a generator or get overhead tank for water or get the money to buy the fishes and start the rearing. [Partner, Female, Cross River]

Theft

Farmers lose a high proportion of stock to theft. This comes not only from people in the communities where the farms are located but also from staff. Poor farmers cannot afford to put adequate security in place to safeguard their ponds from the different sources of theft.

High cost of Inputs

Poor farmers also face challenges over the high cost of inputs, particularly feed for fingerlings. Feed constitutes the major cost for fish farming, and the price increases steadily. To manage costs, farmers need alternatives to the feed options currently in the market such as local feed. Many are keen to learn how to produce feed themselves to have more control over that cost component.

Environmental Hazards

Environmental hazard is also a key challenge for fish farmers. Excessive rains during the rainy seasons cause fish ponds to overflow resulting in loss of stock. This reduces the scale of production and in some case, forces farmers to shut down production. At times like this, farmers with loans run into difficulties repaying them.

When flood happens, we evacuate and in doing that we lose our stock. So many fish will die due to shock. I have not harvested my earthen pond 2 years running now because of flooding. (Beneficiary, Female, Cross River)

How could implementation of PIND and MADE's interventions be improved to support more inclusive growth?

PIND

Partners and beneficiaries believe the fisheries intervention has targeted the poor and women. Beneficiaries report improved knowledge of fishing practices, and increased access to information and fishing inputs. From the intervention, they are able to produce fingerlings for themselves and for sale to other actors. Income generated is being used for their families' wellbeing, education and medical expenses, etc.

MADE

Partners opine that MADE has successfully targeted fish farmers across the Niger Delta states irrespective of gender. They also believe that the programme design and implementation have allowed for participation of poor and vulnerable farmers. From the training received, farmers say they have been able to reduce feed cost, leading to higher profits. They are also able to better manage their fishes and increase their productivity.

Partners noted that sustainability of intervention activities have been negatively affected by constant staff changes and relocations as well as poorly designed exit strategies. The partners suggest that MADE and other programmes need to provide adequate support to farmers which will enable them function on their own. This will involve developing proper exit strategies at the beginning of intervention design to encourage continuity.

Findings from Poultry

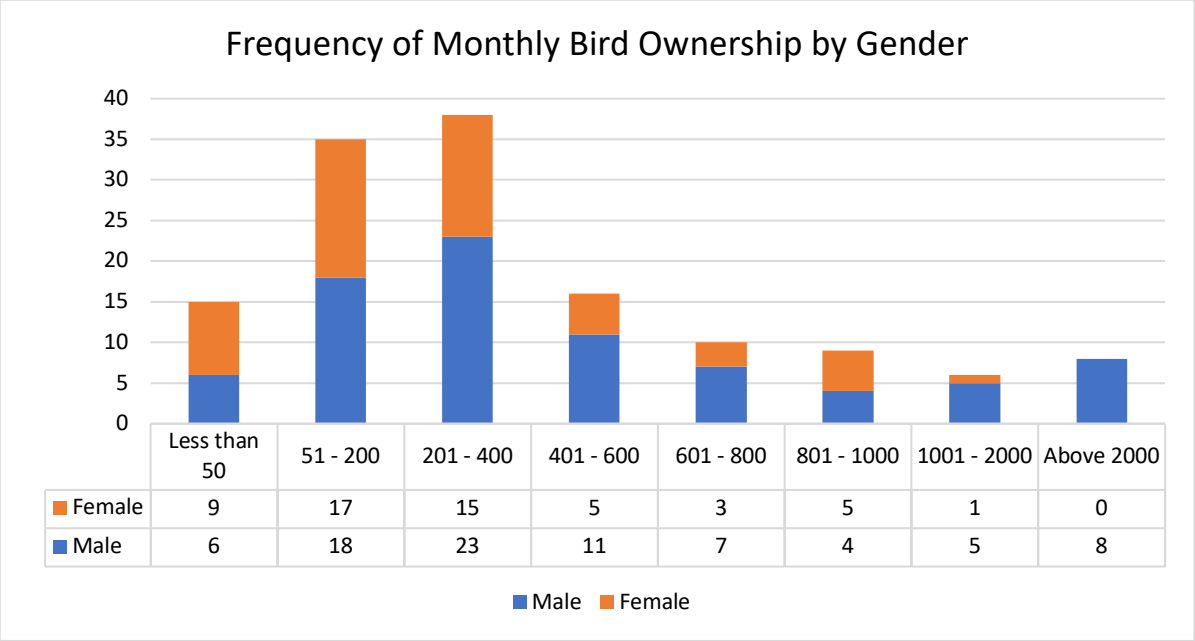
Characteristics of the Poor

On average, poultry farmers have a household size of 5 members, with 4 dependants. The average household size is the same regardless of gender of the household head. The findings show that farmers have adequate housing averaging 2 – 5 rooms per home. On average, poultry farmers are between 36 and 45 years, and have 39% that are educated to secondary level, while 54% have tertiary level education. Only 3% have no formal education.

The study shows that 82% of poultry farmers conduct their business on land which they do not pay rent for – 62% own the land while 20% use family-owned land. 15% of farmers use land that is leased. Ownership of land is skewed towards male farmers as 70% own the land they use. Women poultry farmers are twice more likely to lease land as 22% of them lease compared to 11% of men. The very poor farmers are least likely to self-own the land than the poor farmers.

The vast majority of farmers (64%) have less than 400 birds (valued at about $800) in their farms monthly, hence are very poor. The remaining 36% have more than 400 birds monthly. The analysis shows that on average 11% of farmers have less than 50 birds, 26% have 51-200, while 28% have 201 – 400 birds on their farmers monthly. Only 10% have above 1000 birds on their farms monthly. Across the flock size ranges, women have on average fewer birds than men. For example, within the 201-400 flocks range where most beneficiaries fall under, women represent 40% while men represent 60%.

Figure 18: Frequency of Monthly Bird Ownership by Gender



	Less than 50	51 - 200	201 - 400	401 - 600	601 - 800	801 - 1000	1001 - 2000	Above 2000
Female	9	17	15	5	3	5	1	0
Male	6	18	23	11	7	4	5	8

The findings show that the very poor farmers have higher quantities of birds on their farms monthly than poor farmers. While no farmer with a poverty likelihood of 62.5% has more than 1000 birds, there are farmers with poverty likelihoods of 48% and 36.8% that have more than 1000 birds in a month on their farm. Of the farmers with poverty likelihood of 48%, most (31%) have 201-400 birds in a month. Very few (4%) have 801-1000 birds.

Figure 19: Frequency of Monthly Bird Ownership by Poverty Likelihood $1.90/day - MADE

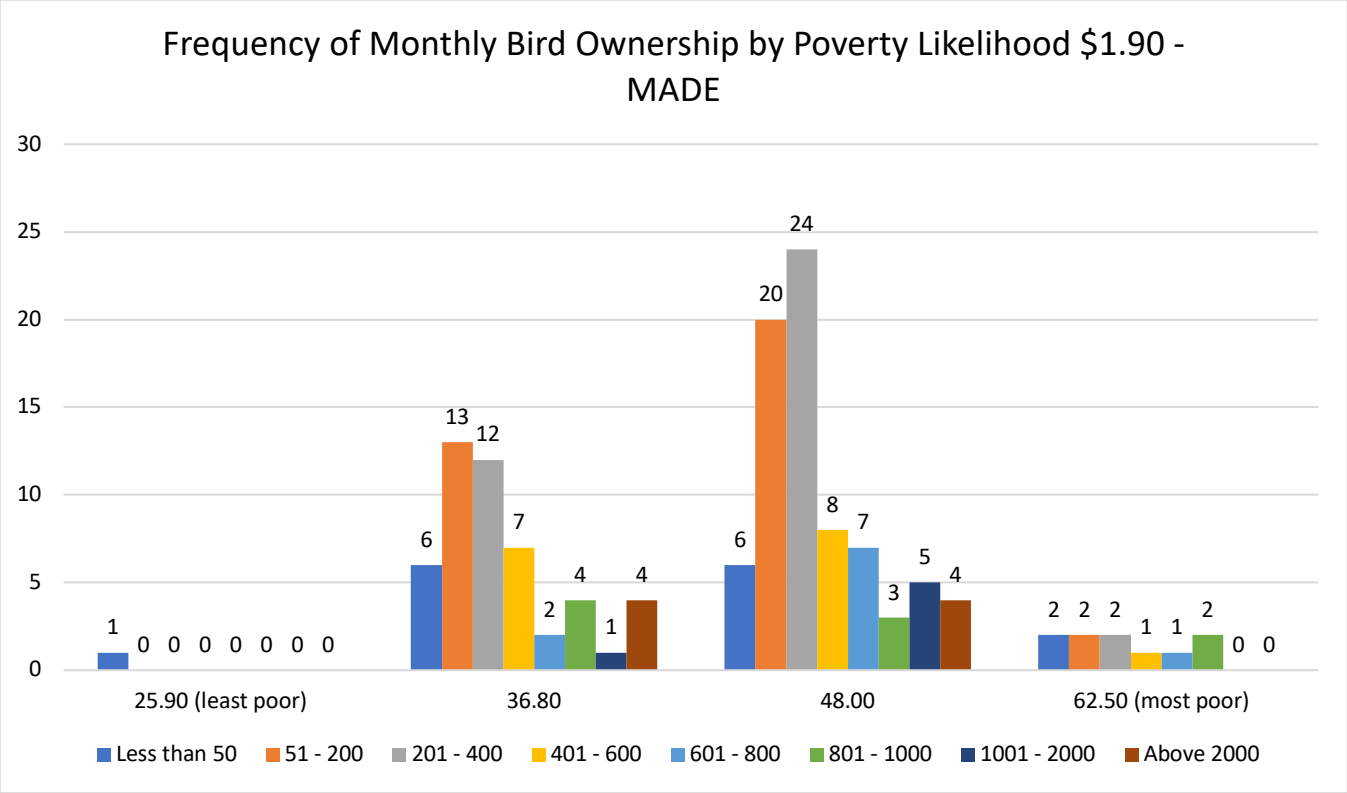
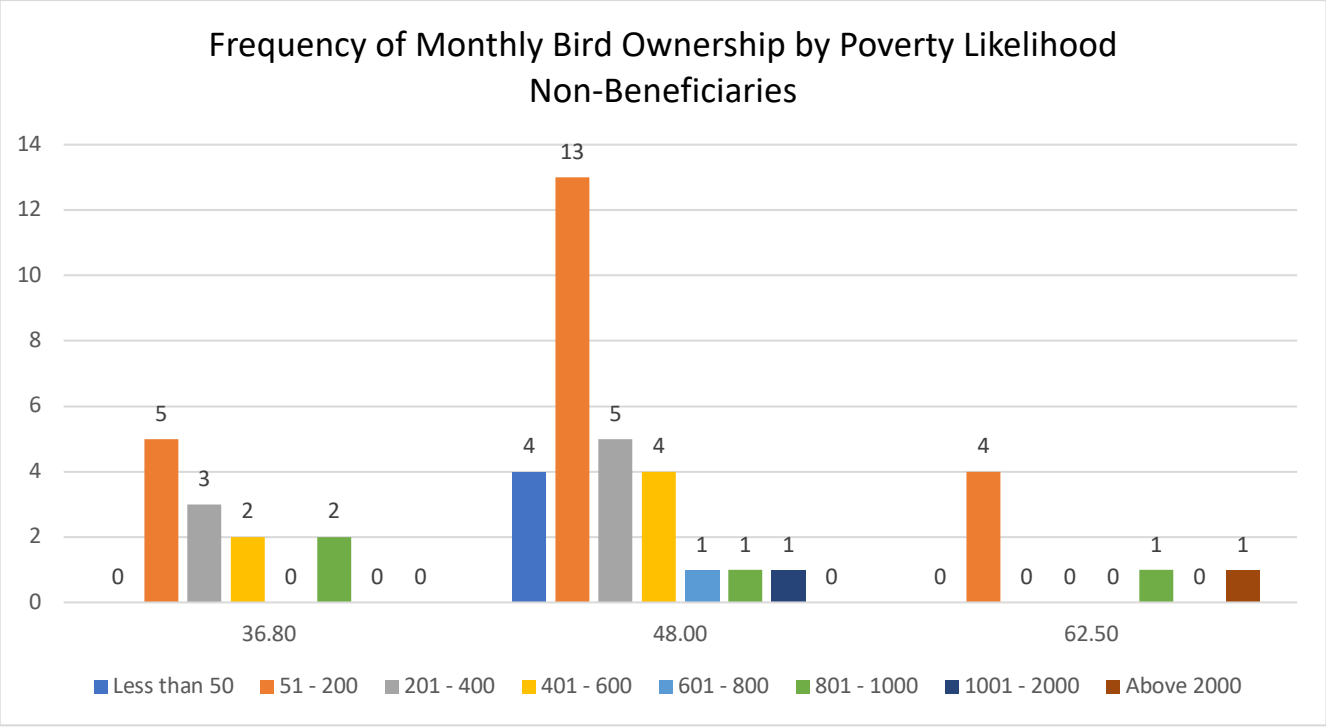


Figure 20: Frequency of Monthly Bird Ownership by Poverty Likelihood $1.90/day – Non-Beneficiaries



Half of the poultry farmers interviewed rear broilers, 30% rear layers, 16% rear cockerels and only 1% rear noiler birds. There is no significant difference between the types of birds reared by men and women. 62% of the poor rear broilers, while only 8% rear cockerels.

Figure 19: Frequency of Land Ownership by Poverty Likelihood (MADE)

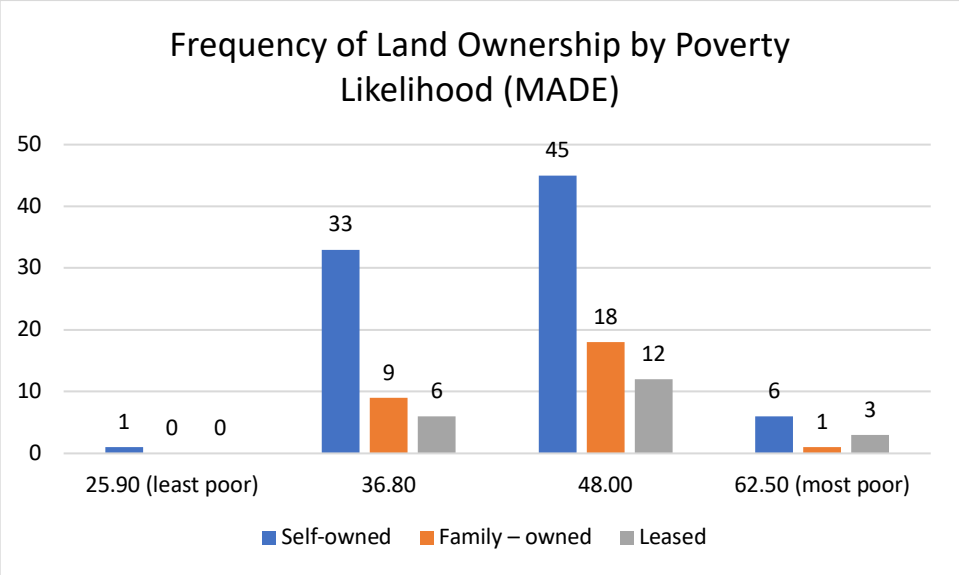


Figure 20: Frequency of Land Ownership by Poverty Likelihood (Non-Beneficiaries)

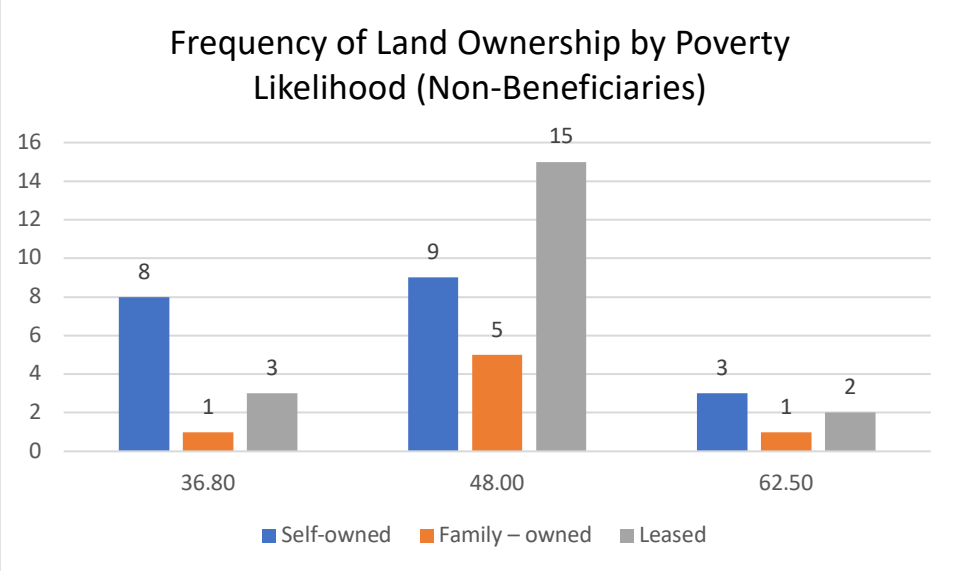


Figure 21: Frequency of Type of Birds Reared by Poverty likelihood - MADE

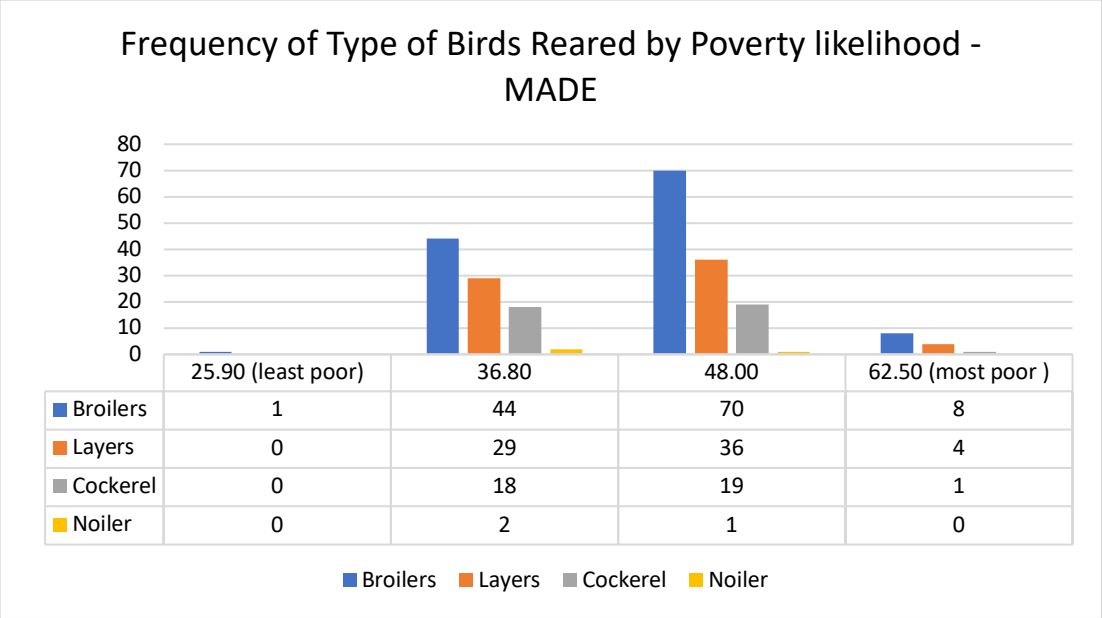
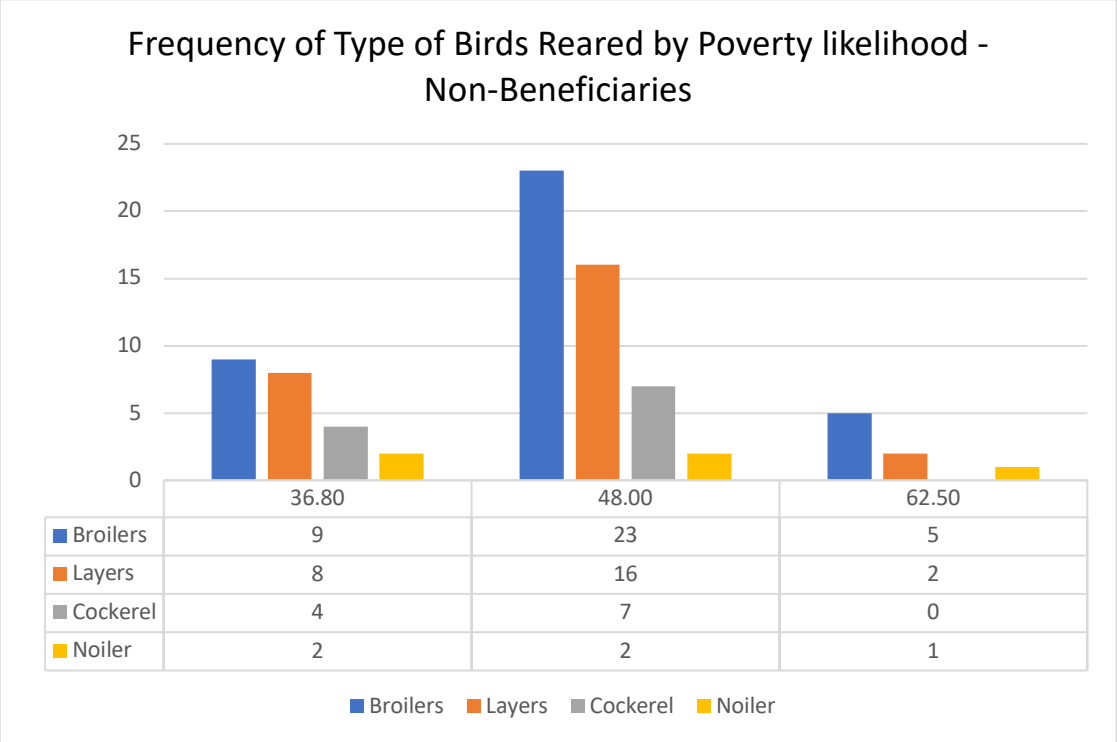


Figure 22: Frequency of Type of Birds Reared by Poverty likelihood – Non-Beneficiaries



The main inputs and cost components for production are feed, day old chicks, cages, drugs, feeding equipment, nets, transportation, electricity, labour and maintenance. To sell their produce, farmers incur costs for transportation, packaging (including crates), labour, phone calls and market levies.

According to respondents, their access to productive equipment is limited. Analysing access to productive assets based on gender, there is no significant difference between access to equipment. About one third (32%) of all respondents responded “yes” to having access to the different types of equipment. By state, Ondo had the highest number of respondents stating that they had access to equipment for poultry production (40%) while Delta had the least with 15%. 13% of the poor have access to equipment, while 38% of the very poor have access.

Farmers claim to have easy access to assets (ownership and usage) such as cages and feeding equipment. However, most farmers (61% - 93%) do not have access to hatcheries, incubators, automatic waterers, nipple drinkers, infra-red bulbs and reflectors.

Figure 23: Frequency of Access to Productive Equipment - MADE

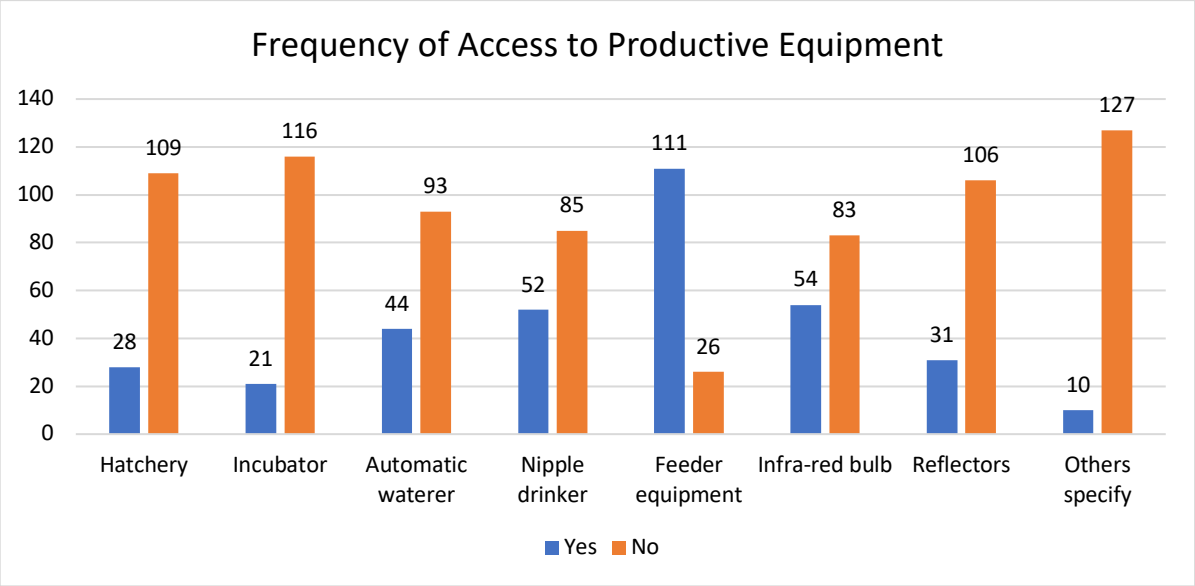


Figure 24: Frequency of Access to Productive Equipment – Non-Beneficiaries

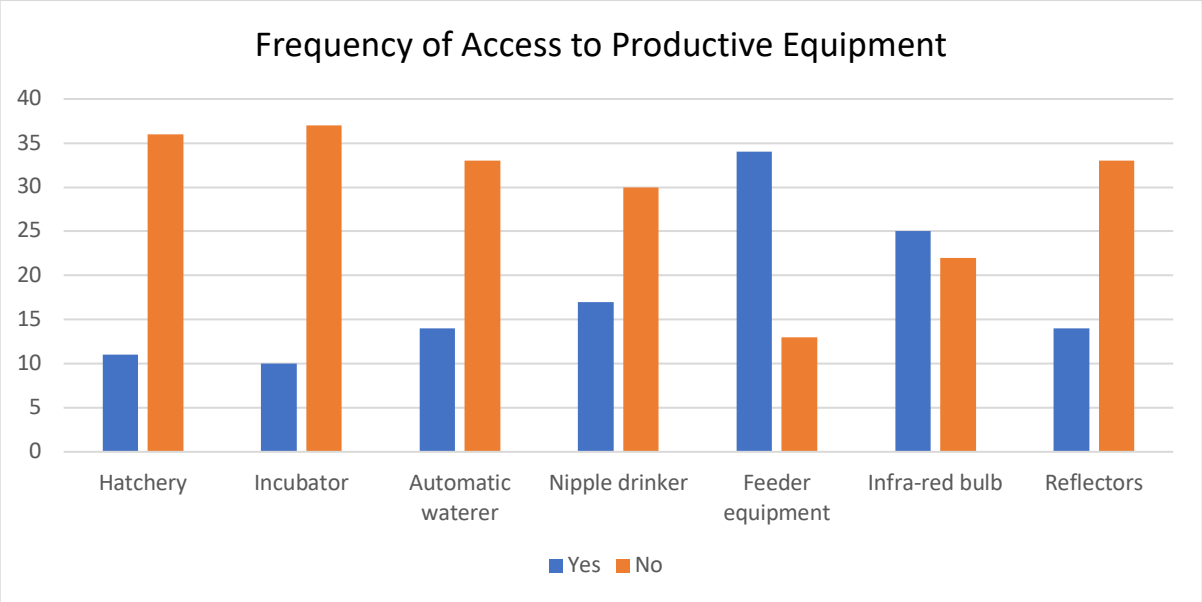


Figure 25: Frequency of Access to Productive Equipment by Gender

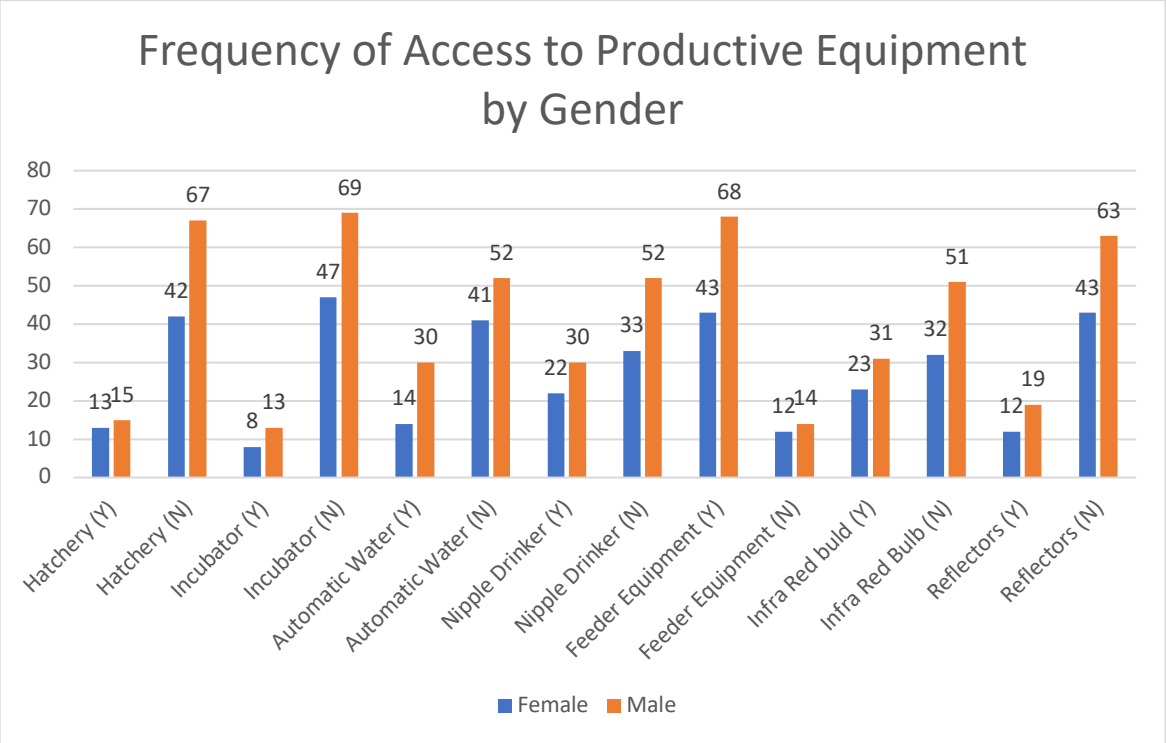


Figure 26: Percentage of Poultry Farmers with Access to Equipment by State

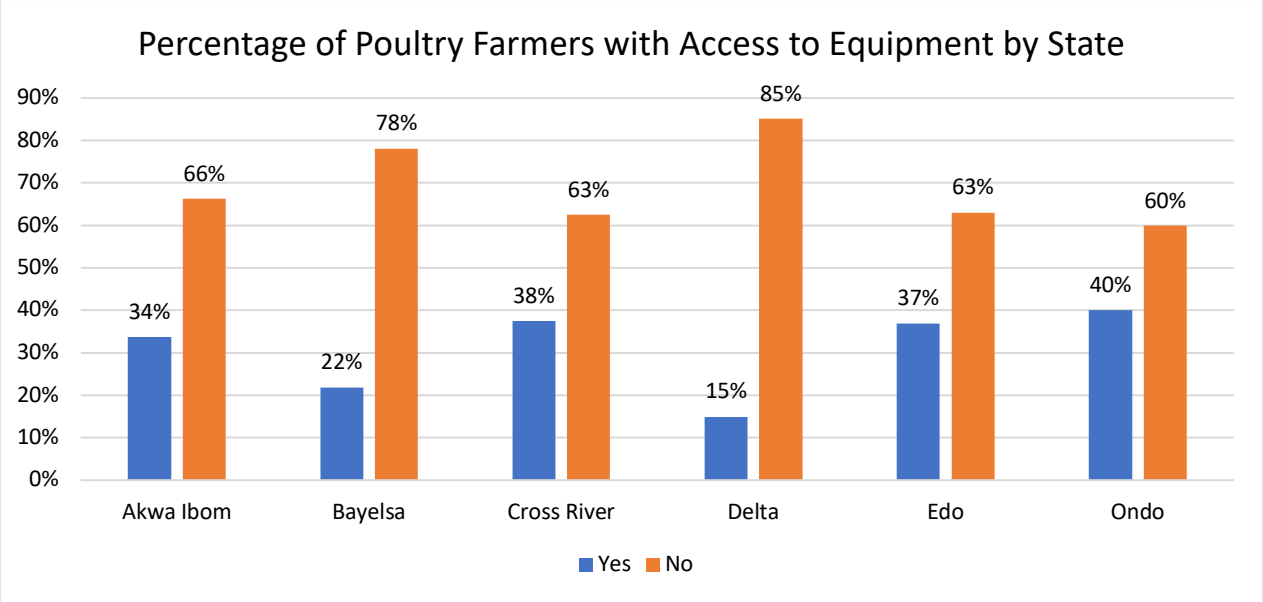


Figure 27: Percentage of Poultry Farmers with Access to Equipment by Poverty Likelihood($1.90/day)

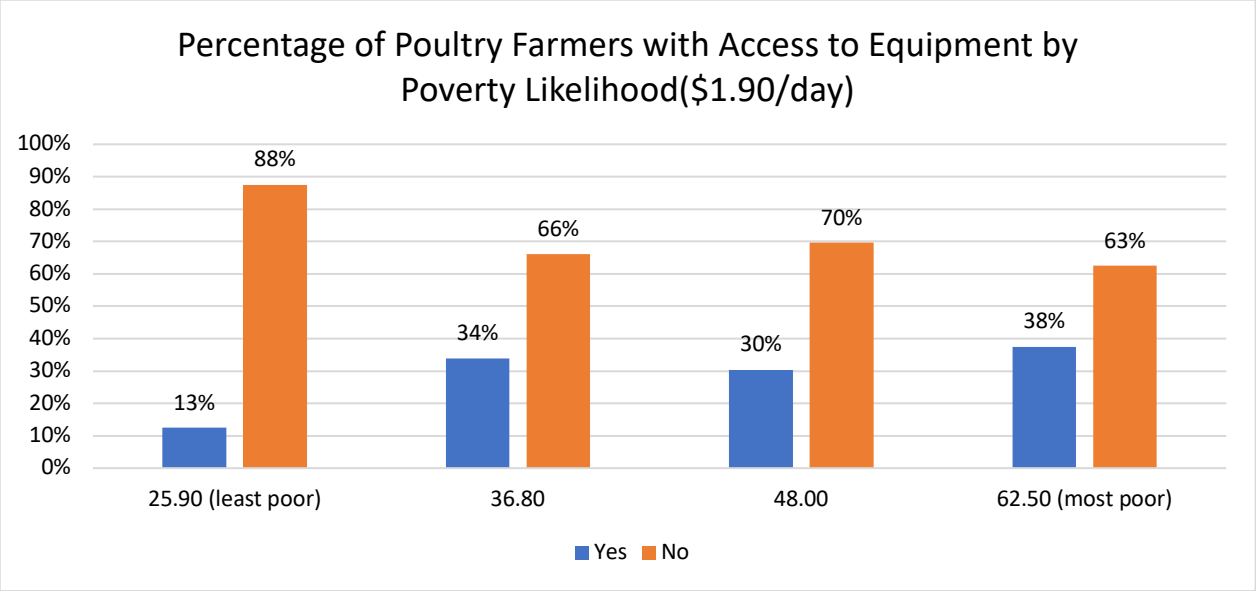
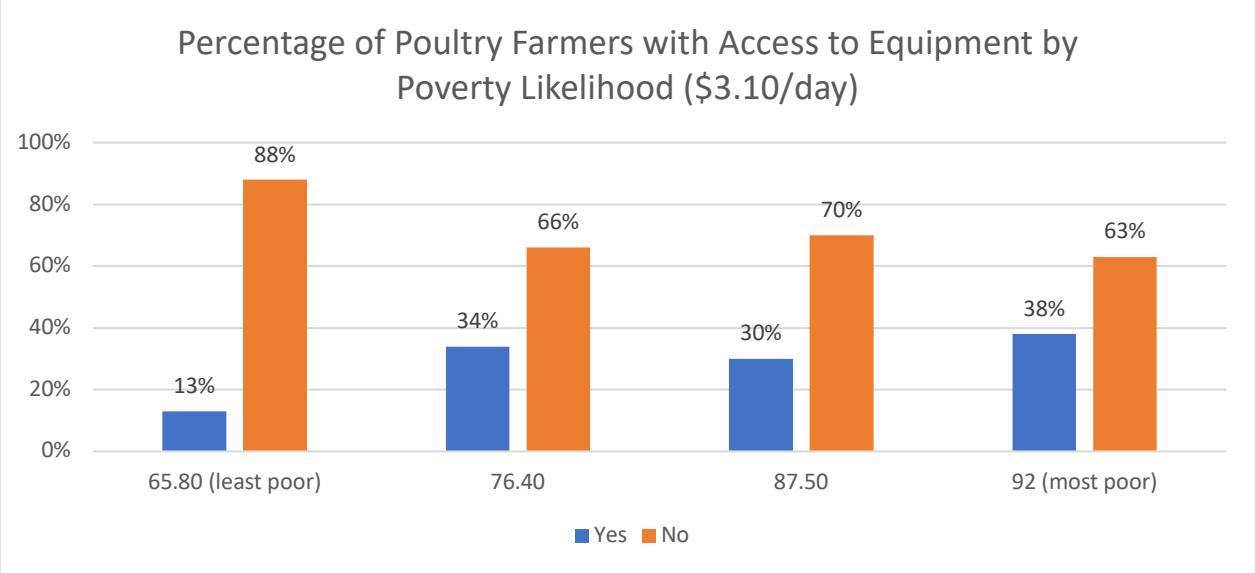


Figure 28: Percentage of Poultry Farmers with Access to Equipment by Poverty Likelihood($3.10/day)



Poultry farmers sell their produce (birds and eggs) either directly to consumers (30%), retailers (26%), wholesalers (14%), distributors (14%) or farmgate traders (10%). Women farmers are more likely to sell directly to consumers and retailers than their male counterparts.

65% of the poultry farmers have other income earning activities, while 35% do not. The top five alternative activities are trading, working in the civil service, crop farming, clergy, tailoring and motor mechanic. Women are more involved in the civil service, trading and farming than men. However, male farmers men did nothing else but poultry farming.

Reasons for Poverty

Limited Access to Market

Although farmers say they are usually able to sell their birds and eggs, prices can be quite competitive because farmers have types of markets which they can access. Farmers mostly sell to farmgate buyers,

and local markets, though some markets require farmers to be members of associations or cooperatives to sell. Only few have access to sell to institutional buyers like restaurants. This limitation means that farmers are mainly unable to set prices for their birds and often have to take what the market offers. This is evidenced by respondents who say that prices are usually set by the buyers, especially wholesale buyers who have a good knowledge of the market and know that farmers would rather sell than bear the cost of maintaining mature birds. There is also the issue of competition from important chicken and eggs which negatively affects the price of locally reared birds.

Limited Access to Inputs
Key farm inputs such as feed, drugs and day-old chicks are sometimes difficult to source. In some locations, especially rural ones, these inputs have to be brought in from other locations at higher costs. The quality of inputs available also affects productivity. For instance, unavailability of particular feed force farmers to switch mid-way through cycles. This in turn affects the performance of flocks as the birds take time to adjust to changes in feed. Also, unavailability of feed of the right quality affects the egg laying capacity of birds. Feed constitutes the highest cost component for farmers, and ability to manage this cost is critical to profitability. Unfortunately, the price of feed, especially the imported ones, tends to be high and fluctuating. Farmers often resort to making feed themselves, but with mixed results.

Limited Access to Assets
Key assets that farmers use for poultry include land, cages, drinkers, feeders, water supply and storage space. Most poor farmers have access to varying sizes and quality of these assets. Farmers who are better-off usually have access to motor vehicles for transporting birds and eggs, as well as shops for selling. Access to land in the rural areas can sometimes be challenging as ownership is usually for indigenes and hereditary. But in most cases, farmers who need land are able to rent.

Limited Access to Finance
Finally, farmers have difficulties accessing finance to invest in their farming businesses. Commercial sources of funding are usually inaccessible to farmers because of high interest rates, documentation and collateral requirements. Farmers primarily resort to borrowing from friends, family and cooperatives but the amounts available are not sufficient to grow their businesses.

Constraints to Women's Participation in the Value Chain
Many women in the region are involved in poultry farming. However, they face some constraints to their participation. First, although the land size required for poultry farming is less compared to crop farming, women have less access to land than men. Access to self-owned land is usually hereditary or outrightly purchased. Since women are not able to inherit land in some places, their access is limited.

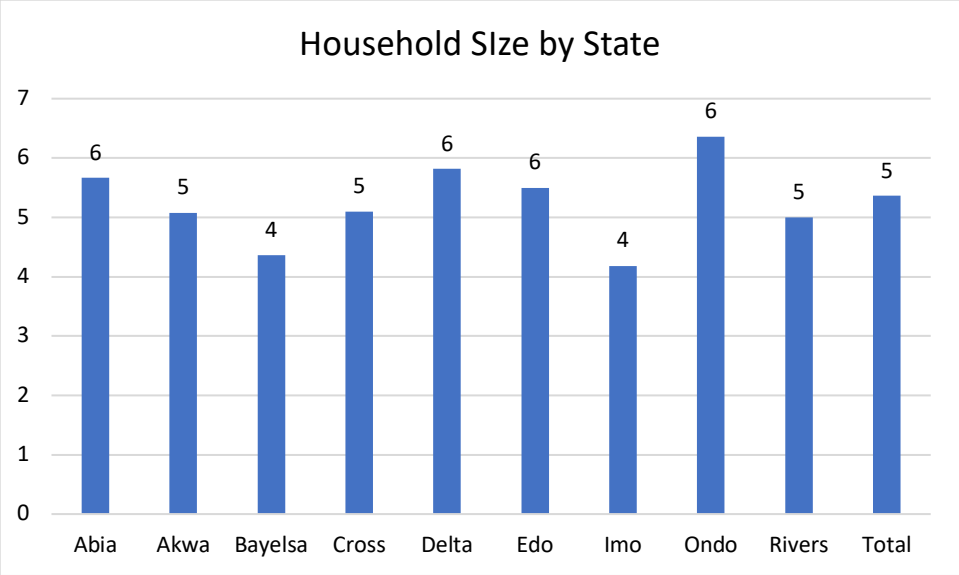
Secondly, poultry farming is labour intensive, both in tending birds and in cleaning the waste produced. For this reason, many women are only able to farm on a small scale, as the work must be combined with domestic responsibilities.

How could implementation of MADE's interventions be improved to support more inclusive growth?
Farmers who attended training provided by MADE have acquired knowledge on best practices in poultry farming. However, a lack of finance and quality inputs have constrained the poor farmers from taking up these practices. Helping farmers access finance and inputs would improve their ability to take up practices and benefit from the intervention.

Findings from Agricultural Inputs

Characteristics of the Poor
The beneficiaries have average household size of 5, with 4 dependants. The household size does not vary by gender of the household head, but varies by state. Ondo, Delta, Edo and Abia have the highest household sizes of 6, while Bayelsa and Imo have the lowest of 4.

Figure 29: Household Size by State



30% of beneficiaries live in houses with 3 rooms in rural or semi-urban locations. Spouses are typically self-employed or employed full-time, with some in part-time employment. The farmers have secondary and tertiary school education, with a small proportion having only primary school education. The majority are aged between 46 and 50 years (25%), and are married. The biggest household expenditures are on food, housing, clothing, education and transportation.

The finding shows that 37% of farmers have landholdings of 1.1 to 2 hectares, while a small proportion have land holdings of more than 4 hectares (4%). Only 7% have landholdings of 3.1- 4 hectares. Most male beneficiaries have more land than women. Male beneficiaries (41%) have land holdings of 1.1 – 2 hectares while most female farmers have land holdings of less than 1 hectare. Across states, Akwa Ibom is the state with the highest number of beneficiaries with less than 1 hectare of land, while Ondo is the state with the highest number of beneficiaries with more than 4 hectares of land.

Figure 30: Proportion of Beneficiaries by Size of Farmland

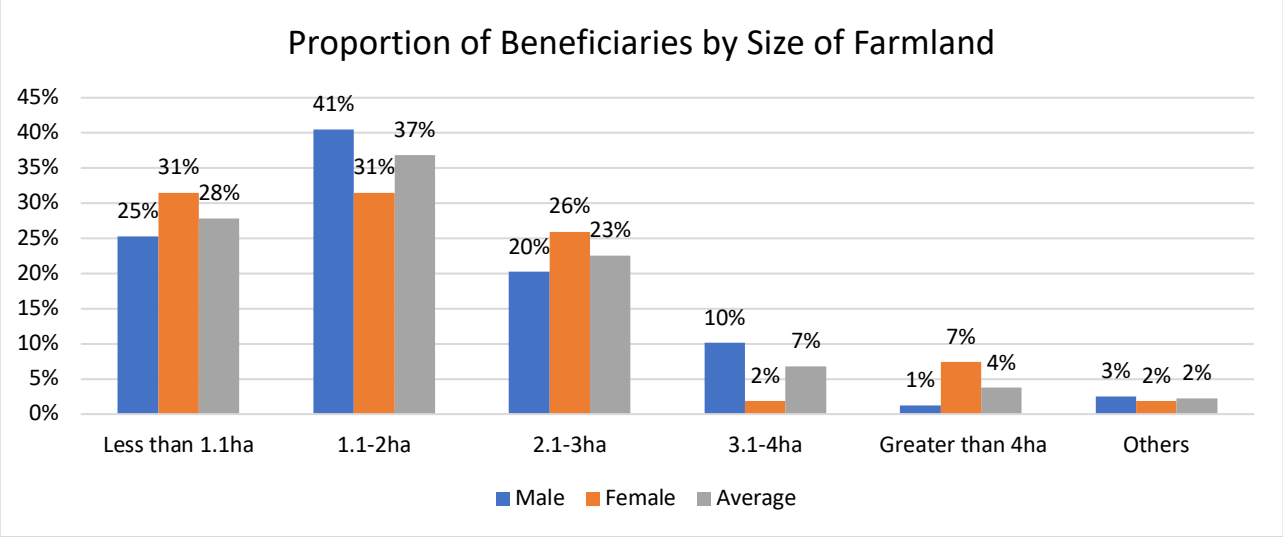
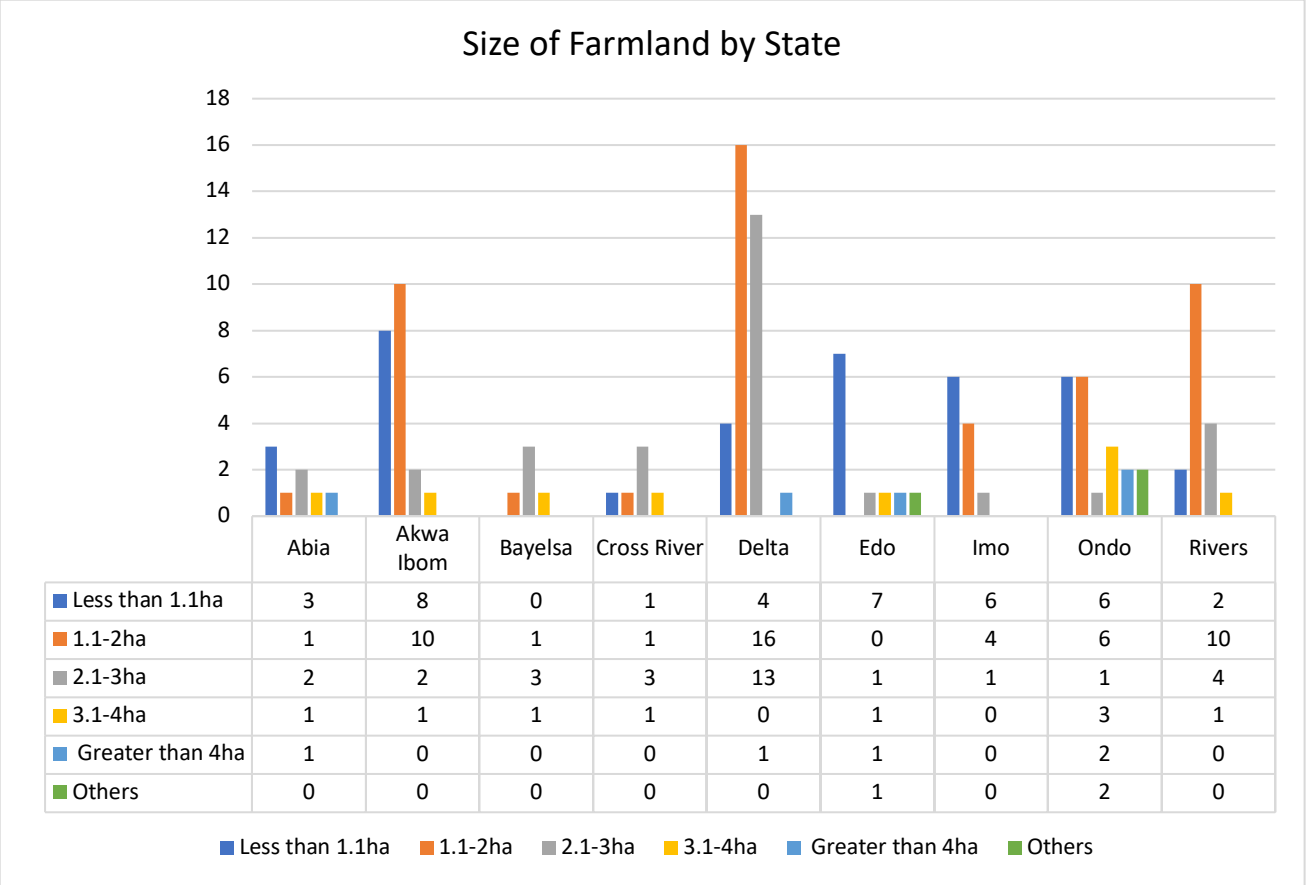


Figure 31: Size of Farmland by State



	Abia	Akwa Ibom	Bayelsa	Cross River	Delta	Edo	Imo	Ondo	Rivers
Less than 1.1ha	3	8	0	1	4	7	6	6	2
1.1-2ha	1	10	1	1	16	0	4	6	10
2.1-3ha	2	2	3	3	13	1	1	1	4
3.1-4ha	1	1	1	1	0	1	0	3	1
Greater than 4ha	1	0	0	0	1	1	0	2	0
Others	0	0	0	0	0	1	0	2	0

Most farmers with less than 4 hectares of land have a poverty likelihood of 87.5%. Likewise, most people with greater than 4 hectares of land also have a poverty likelihood of 87.5%. This implies that there is no correlation between poverty and the size of farmland owned. This may be because land is mostly inherited from family and not rented or bought. This is justified by the fact that most land is self-owned (41%) or family-owned (40%). Few beneficiaries lease (18%) or use government-owned land (2%).

Table 21: Size of farmland by Poverty Likelihood of $1.90/day

Poverty Likelihood Based on $1.90/day	**38.80 (poor)**	**48.00**	**62.50**	**71.40 (very poor)**
Less than 1.1ha	7	23	7	0
1.1-2ha	7	35	5	2
2.1 - 3ha	3	21	5	1
3.1 - 4ha	0	9	0	0
Greater than 4ha	2	3	0	0

Table 21: Size of farmland by Poverty Likelihood of $3.10/day

Poverty Likelihood Based on $3.10/day	**76.40 (poor)**	**87.50**	**92.00**	**95.30 (very poor)**
Less than 1.1ha	7	23	7	0
1.1-2ha	7	35	5	2

2.1 - 3ha	3	21	5	1
3.1 - 4ha	0	9	0	0
Greater than 4ha	2	3	0	0

Table 23: Size of farmland by Poverty Likelihood of National Poverty Line

Poverty Likelihood Based on National Poverty Line	53.40 (poor)	69.60	75.90	82.10 (very poor)
Less than 1.1ha	7	23	7	0
1.1-2ha	7	35	5	2
2.1 - 3ha	3	21	5	1
3.1 - 4ha	0	9	0	0
Greater than 4ha	2	3	0	0

Figure 32: Size of Farmland (ha) by Poverty Likelihood - MADE

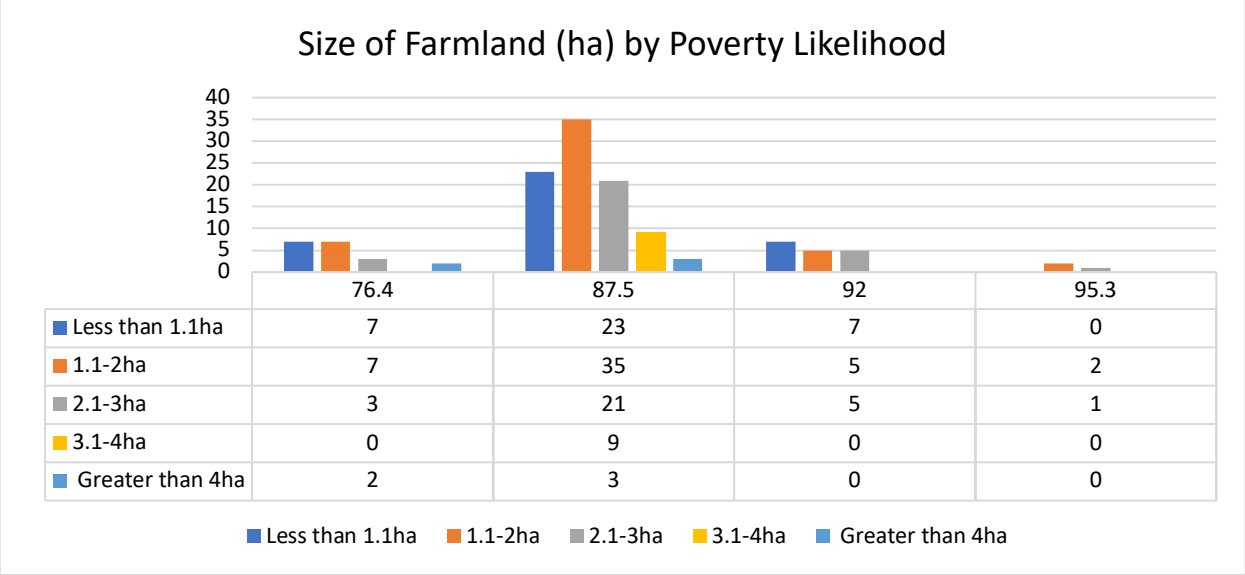
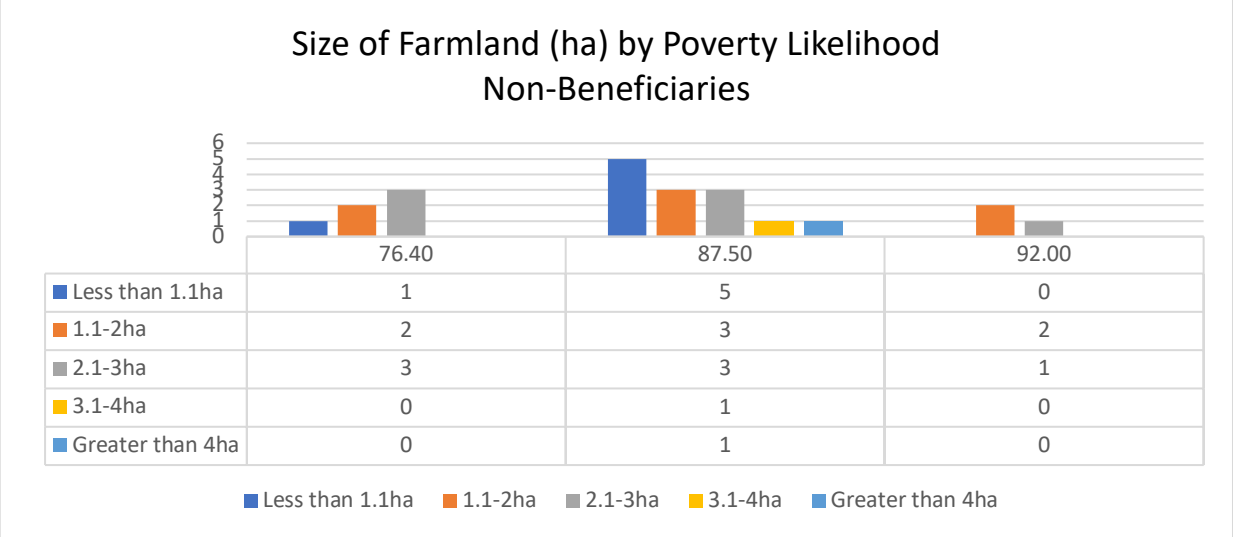
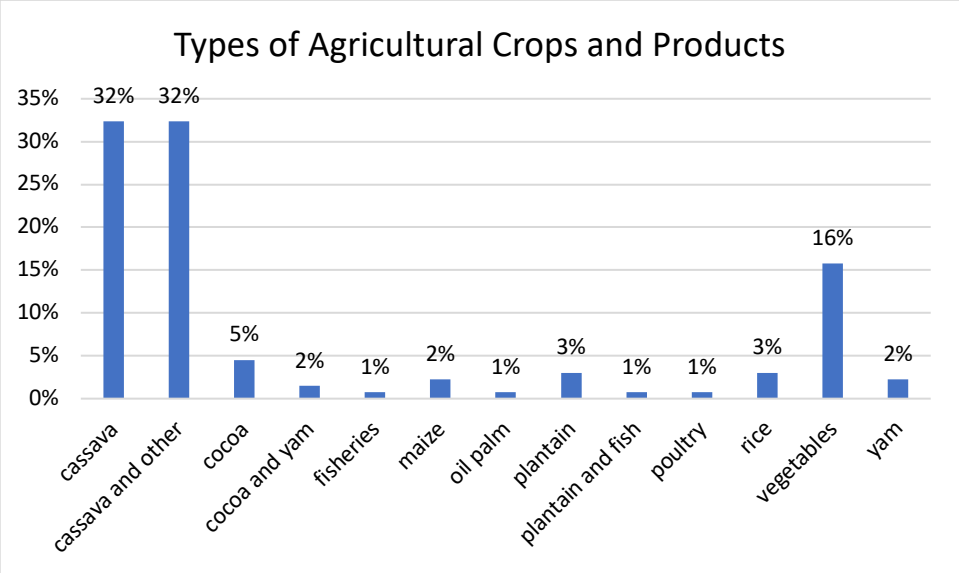


Figure 33: Size of Farmland (ha) by Poverty Likelihood – Non-Beneficiaries



Beneficiaries are involved in the production of cross-cutting varieties of agricultural crops and products. The main crops grown by the farmers are cassava and vegetables. Others include cocoa, plantain, rice, maize, yam and oil palm. Very few are involved in fisheries, oil palm, plantain and fish and poultry. Most of the farming is for commercial purposes, although some farm for subsistence. Farmers in Imo, Bayelsa and Delta are more likely to be farming for subsistence than in other states. 48% of the farmers have been engaged in farming for between one and 5 years. Only 7% of farmers have experience of farming over 20 years.

Figure 34: Types of Agricultural Crops and Products

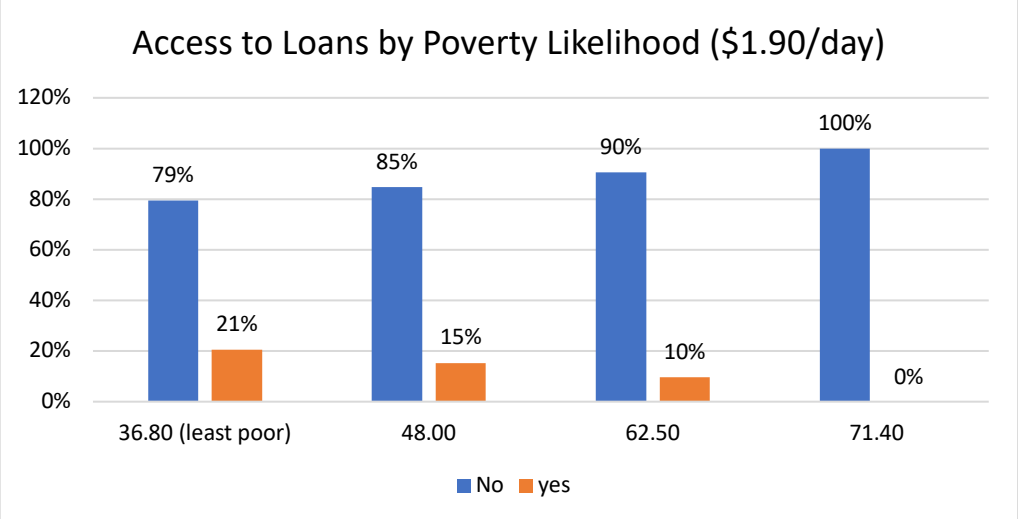


Farmers sell their produce directly to consumers in markets or through farmgate traders. Access to either market is not restricted by gender, as male and female farmers are equally likely to use each option. Markets are also fairly easily accessible with travel time of about 30 minutes.

About half the number of farmers have other sources of income, mainly small businesses (trading, food vending, carpentry, hair dressing, etc.) and civil service. The other half are dependent on farming for their livelihoods. The farmers with tertiary education were more likely to have other sources of income than those with secondary and primary education.

Farmers do not receive information or support from extension agents. The main sources of market information (on prices, availability of inputs, etc.) are other farmers, and family and friends. Other sources include associations, radio, TV, customers and newspapers.

Figure 35: Access to Loans by Poverty Likelihood ($1.90/day)



Few farmers (15%) have access to loans for farming. Generally, farmers with lower poverty likelihoods of 36.8% and 48% based on $1.90/day were more likely to access loans for their farming. These loans were mainly from cooperative societies, thrifts, and family and friends with a few from commercial and microfinance banks. Criteria to access loans include providing guarantors, joining cooperative societies, providing collateral, and having a business plan. Half of the farmers who had obtained loans in the last two years considered it to be easy to access, but for the others, the process was deemed too cumbersome. The loans which were mostly in cash, were used for agricultural production and for other incomes generating activities.

Most farmers (78%) have access to local seeds, but less than half (43%) have access to hybrid seeds. For both seed types, men have slightly more access (22%) than women (19%). Likewise, less than half of the farmers (42%) have access to subsidized inputs, again with men (54%) having more access than women (44%).

About half of the farmers (47%) belong to agricultural associations or groups. Benefits from membership include knowledge sharing, support in times of need, marketing of farm produce, provision of subsidized inputs, loans to members, and provision of machineries.

Reasons for Poverty

Poor farmers lack adequate funds to invest in farm inputs to improve their productivity and incomes. Although they have received training from MADE on improved farming techniques and use of quality inputs, some farmers say they do not have the capital to invest in these areas. Loans are not easily accessible to the farmers because of the requirements including collateral (land, buildings and documentary proof of ownership), business plans and guarantors. The high interest rates are as deterrent from taking loans from commercial and microfinance banks. With microfinance banks, in addition to the rates, farmers are required to open accounts with minimum balance of about N5,000 and repay loans within three to four months.

It is only the [association] and only those that are inside that can get money easily. If you are outside, it is difficult to get money from them because it is self-help. And if you apply as a member, sometimes you will wait for more than 3 months before getting money – Respondent, FGD, Delta State

And for micro finance banks, for you to get a loan you must open an account with about N30,000, and if you estimate the money that you need to pay laborers, you will discover N30,000 is not adequate. - Respondent, FGD, Delta State

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Poor farmers have low capacity for production. Consequently, they are unable to cultivate at large-scale for sales outside the community. This in turn limits their ability to sell to large central markets and obtain better prices. Furthermore, farming households consume a high proportion of their produce, leaving little for sale. A significant amount of the incomes earned from sales are used for household expenses like payment of school fees, rent, feeding and clothing thus leaving small amounts for reinvestment in agricultural production.

Farmers have ample access to farmland and labour, but farming is predominantly undertaken using basic tools such as cutlasses and hoes. As a result, farming practices are at rudimentary levels and yields not being optimised. Lack of access to finance constrains farmers from acquiring modern tools and equipment such as sprayers and tractors, as well as other productivity enhancing inputs.

Farmers generally have limited information on cultivation practices. Although agro-dealers run demons and deliver extension services in collaboration with input companies, they do not always reach all farmers. Therefore, some farmers have to get their information from other farmer and family and friends. These sources do not provide sufficient quality of information to improve productivity.

Although MADE is working to improve availability of quality farm inputs in some locations, these are still not easily accessible to all farmers. Even when they are willing to pay the additional cost of hybrid over local seeds, they are not always easily found. Nonetheless, the quantitative findings show that some farmers have access to hybrid seeds provided by MADE.

Additionally, environmental pollution resulting from oil spillage and gas flaring negatively affects their farm produce. When pollution occurs, farmers experience low yield and are unable to feed their families or reinvest in their farms.

> In the years 1999, 2000, 2002, 2014 and 2015 we had oil spillages. Gas flaring is another problem. It makes the leaves of our crops to start folding – Respondent, FGD, Delta State

Farmers also face challenges with storage facilities for their produce. A substantial proportion of harvest is lost to rodents and improper preservation.

Constraints to Women' Participation in the Value Chain

Women farmers are beneficiaries of this intervention. They own land for farming and are involved in growing cassava and vegetables, which are the major crops the beneficiary farmers grow. For these, women have fairly equal access with men for training, market information, market access, finance, tools and equipment, inputs and labour. However, men have more access to land than women do.

Decisions on household and farming matters are predominantly taken jointly. Husbands usually consult wives in deciding over farm items and equipment, livestock purchase, seeking loans, household items (furniture, clothes, etc.), food purchases, health/medicine purchases, school fees, land purchases, and other key household decisions. Women either have control over their incomes or make joint decisions on them. Husbands also consult with their wives on spending men's incomes.

> It is both the husband and wife; they will sit down in unity and discuss which one to sell and which one to eat – Respondent, FGD, Delta State

Decision making is on both side, the man makes policies and when it comes to critical decision both the man and woman come together to make the decision - – Respondent, FGD, Delta State
However, women's mobility is somewhat limited as both married and unmarried women mostly require men's approval for going places including to markets. Also, female farmers have less access to land than their male counterparts.

How could implementation of MADE and PIND's interventions be improved to support more inclusive growth?

The agri-inputs intervention has been designed to target the economically active poor male and female farmers. This has been done through training sessions with farmers to increase their productivity, and access to inputs and modern farming techniques. Farmers have also been linked to financial institutions to access loans.

The intervention can reach more poor and vulnerable farmers by disseminating information on inputs and modern farming techniques through radio programmes. Radios have the potential to reach a wide variety of audiences, and given the limited time MADE has left, may be the fastest way to increase outreach on this intervention.

Findings from Leather

Characteristics of the Poor

Beneficiaries of the leather intervention are households typically living in 2 to 4 rooms in poorer urban areas. The average household size for beneficiaries was 6, compared to 5 for non-beneficiaries. The average number of dependants on the incomes of beneficiaries is 5.

Beneficiaries are either employed full-time (55%) or self-employed (45%). 76% are involved in the production of leather goods (footwears, bags, belts, etc.), 15% in the sale of leather goods, and 8% in the supply of inputs for leather goods. Females are more involved in the sale of leather goods (42%) and inputs (37%), than in the production (21%). In addition to working in the leather sector, 35% of the beneficiaries are also involved in farming. 75% of beneficiaries have secondary school education, 18% have tertiary, 7% have primary and only 0.7% having no formal education. The majority (35%) are aged between 41-45. Only 1.5% are above 61 and 0.7% are between 26-30.

The market stall or space used for the business was mostly rented (84%) or self-owned (15%) and the remaining 1% is family owned. Raw materials account for the bulk of the costs in the business (79%). Other costs include labour (18%), transportation (2%) and rent (1%). The main raw material for production, leather, is procured from processed leather retailers (92%), with only 3% obtained from tanneries.

The predominant output produced or sold by beneficiaries was shoes (89%), followed by accessories – belts, bags, wallets, etc. (12%), and decorative items (8%). Men (88%) are more likely to be producing and selling shoes than women (40%). Women are more likely to be producing or selling accessories (23%) and decorative items (37%).

Figure 36: Type of Output produced by Gender, State and Poverty Likelihood - MADE

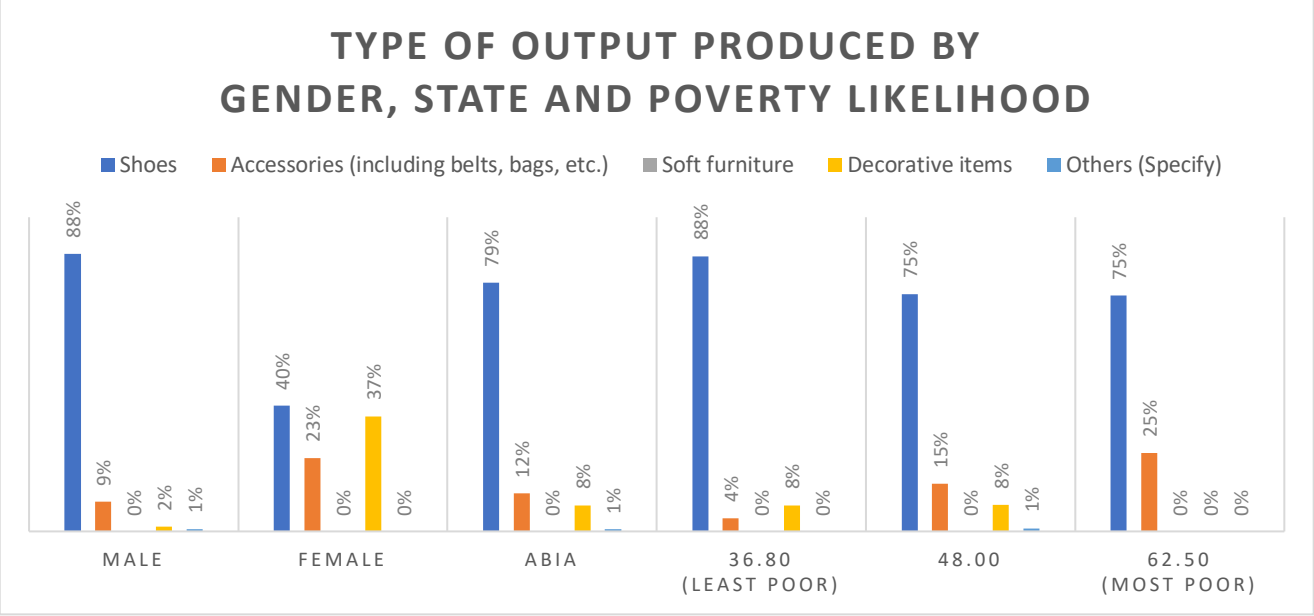
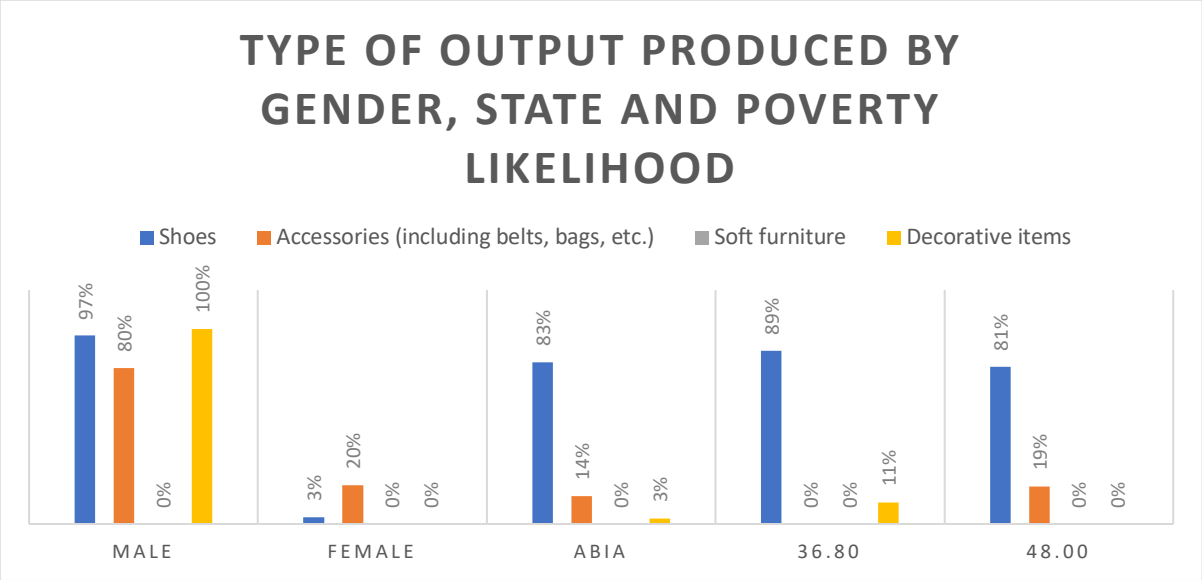


Figure 37: Type of Output produced by Gender, State and Poverty Likelihood – Non-Beneficiary



Across the different poverty likelihoods, beneficiaries are well involved in the production of shoes, but the very poor (62.5% likelihood) are more involved in the production of accessories (25%). This may be because the unit costs of these items are lower and thus less capital intensive.

38% of products are sold to retailers, 33% to wholesalers and 25% directly to consumers. Only 3% is sold to institutional buyers like schools. There was no difference in the access of men and women to the different markets. However, men have generally more access than women across economic opportunities in the business such as training, market information, job opportunities, finance, and labour. This may be because men are more involved in the production of items such as shoes which require more technique and therefore more training, finance, etc. The main sources of market information (e.g. prices, availability of inputs, etc) for beneficiaries are associations (40%), and family and friends (29%). Others include the radio, TV, newspapers, and other market actors.

Reasons for Poverty

Limited Access to Markets

Leather good producers are limited by the market channels for selling products. The majority of producers sell from their stores to buyers who come to them. These are mainly bulk buyers who determine the prices at which they buy. These prices often do not reflect the cost of production, and leave the producers with little margins. There are only few opportunities to sell outside of these buyers, such as locally organized trade fairs. Producers complain of insufficient patronage and slow sales.

Limited Access to Finance

Like other value chains discussed, poor artisans in the finished leather sector lack financial resources to invest in their businesses. Although MADE has provided support for accessing loans from Bank of Industry (BOI), artisans have not been able to borrow from the bank due to inability to meet the bank's requirements. In addition, the loan amount of N150,000 received was considered inadequate to meet their needs. The short repayment period of six months for the loan also made it a challenge to repay. It was noted that women did not have equal access to the loans from BOI, as men seemed to be preferred.

There are a lot of factors, the interest rate here [for loans] is high, and that will hamper the speed movement of the people responding to the programme – MADE Partner, Abia State

Limited Access to Assets
High and fluctuating costs of inputs, tools and machines affect leather businesses. Prices of inputs such as leather, accessories, and glue are constantly fluctuating, which in turn affect product prices and profitability. Likewise, critical equipment like sewing machines, smoothing machines, sole pressers are imported and associated with price fluctuations, expensive and require storage space. Producers try to manage the lack of assets by renting or using service providers available in market locations, however the queues and waiting time to use the services slow down operations.

Constraints to Women's Participation in the Value Chain

Although men are more dominant in the leather sector, women engage in the same roles as men. For instance, women are engaged throughout the value chain from the supply of inputs to manufacturing and selling. However, women say that they do not have the same opportunities as men to own stalls/shops and to access loans (e.g. the Bank of Industry). The quantitative findings shows that women's involvement in the leather business is on a smaller scale than men which could have implications on collateral requirements for accessing loans.

How could implementation of MADE's interventions be improved to support more inclusive growth?

MADE's work on leather was in partnership with Leather Products Manufacturers Association (LEPMAS). The programme was well publicized through circulars, the zonal leaders and head office of LEPMAS. Participation was open to all members, without bias to gender or ethnic group. However, although there is no bias in their favour, men have participated more actively and benefitted more. Partners and beneficiaries remark that the programme has reached both gender, and especially the poor among them. They illustrate by noting that while the loan amount offered by Bank of Industry (BOI) was not attractive to the well-off, it was very useful for the poor beneficiaries.

MADE has linked producers to the Anchor Borrower's programme and fostered a relationship between the association and the BOI. This has led to the establishment of a secretariat in close proximity to the association's office. By working with the BOI, producers have been able to access credit.

From the interviews and discussions, it appears the programme has mostly benefitted leather goods manufacturers and service providers, but not the input dealers. Unless this is deliberate, the programme should consider increasing its reach of this group, particularly because it is one of the points in the value chain where women are more active.

The programme has helped increase the productivity of beneficiaries by providing knowledge of record keeping, increasing access to information and building capacity on how to manage their businesses, as well as accessing loans.

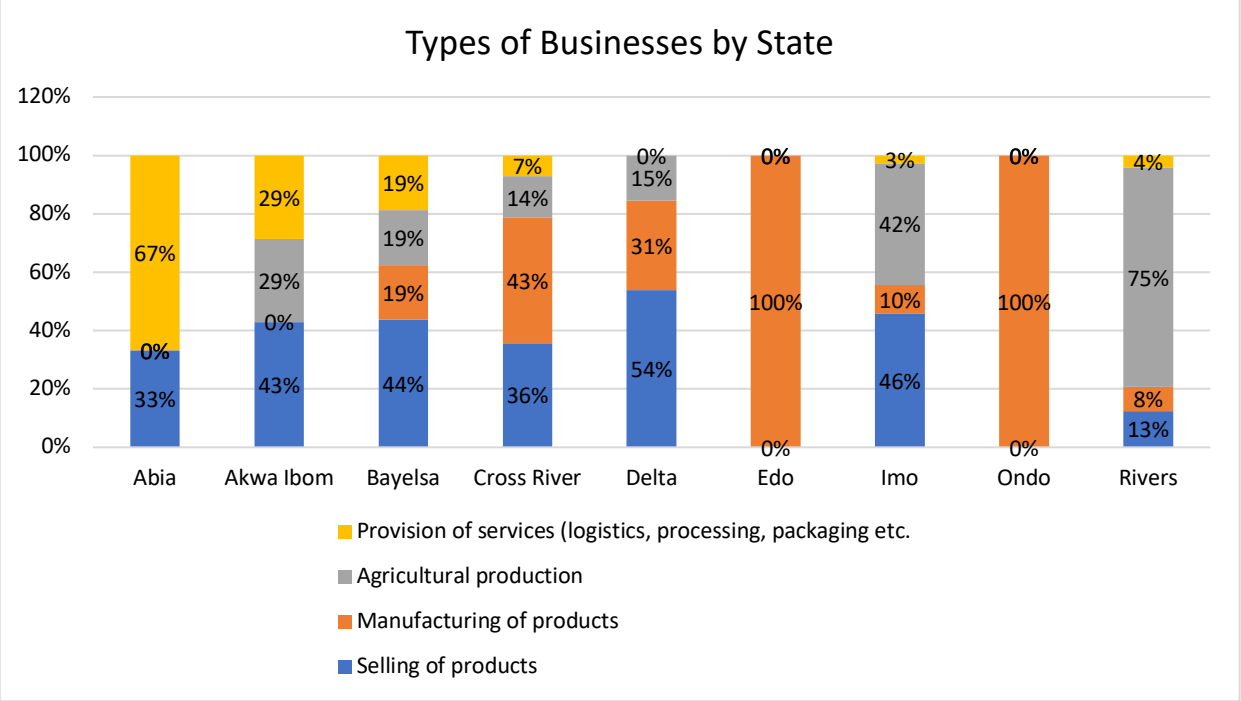
Findings from Business Linkages

Characteristics of the Poor

Beneficiaries of the agribusiness intervention have an average household size of 5, with 4 dependants. The household size does not vary by gender of the household head, but the dependency ratio does. Households headed by women have lower dependency ratio of 3, compared to 4 for households headed by men. The beneficiaries have secondary (43%) and tertiary (52%) education, with a small proportion having only primary school education (5%). The majority (76%) are aged between 36 and 50 years.

Beneficiaries of the business linkages intervention are involved in selling of products (39%), agricultural production (38%), manufacturing (16%), and service provision (logistics, processing, packaging, etc.) (7%). Across states, beneficiaries in Edo and Ondo only engage in the manufacturing of products. The highest number of beneficiaries selling products is in Delta State (54%), while the least is in Rivers State (13%). Rivers also has the highest number of beneficiaries in agricultural production (73%). Abia has the highest number of beneficiaries providing services (67%), while Imo has the least (3%).

Figure 38: Types of Businesses by State



The very poor beneficiaries are mainly involved in agricultural production. The poor on the other hand almost equally engage in the selling of products and manufacturing of products. The analysis shows that the poorer the beneficiaries, the less likely they are to be involved in manufacturing and more likely to be involved in agricultural production. This could be explained by the fact that manufacturing is capital intensive and poor beneficiaries may not have access to the required amount of money to engage in this type of business.

Figure 39: Types of Businesses by Poverty Likelihood($3.10/day) - MADE

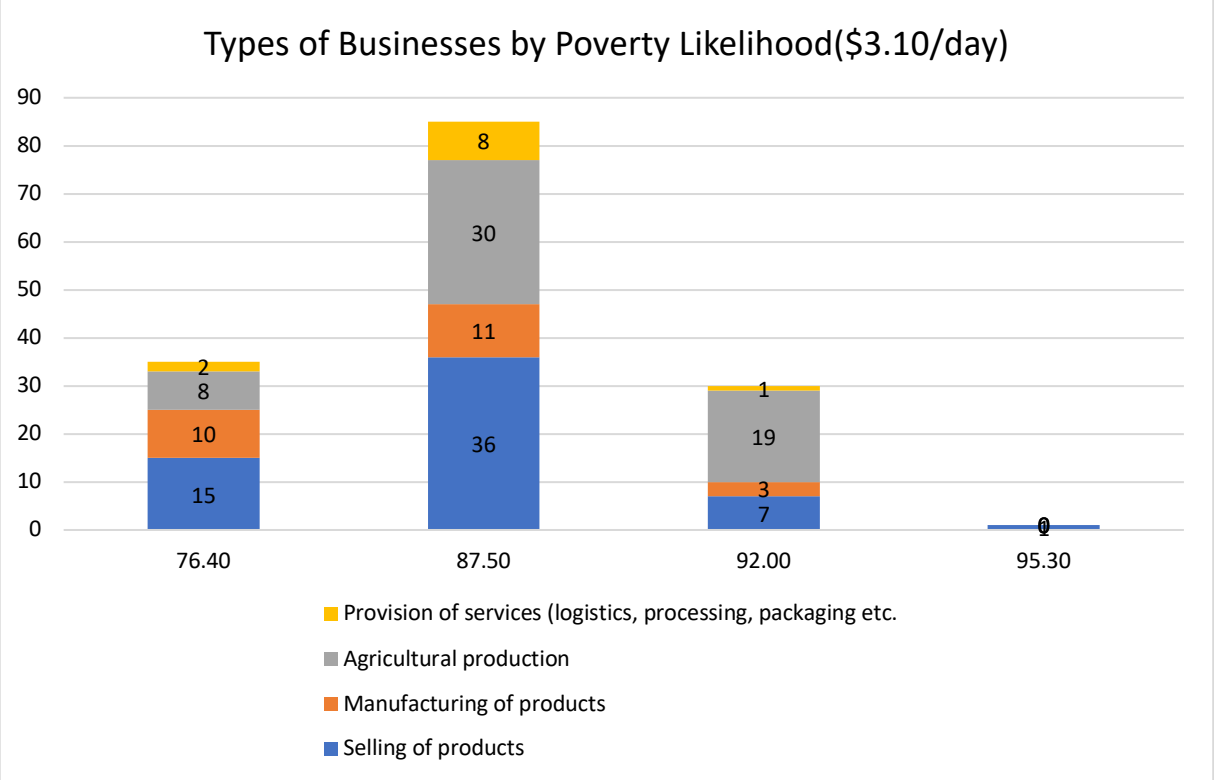
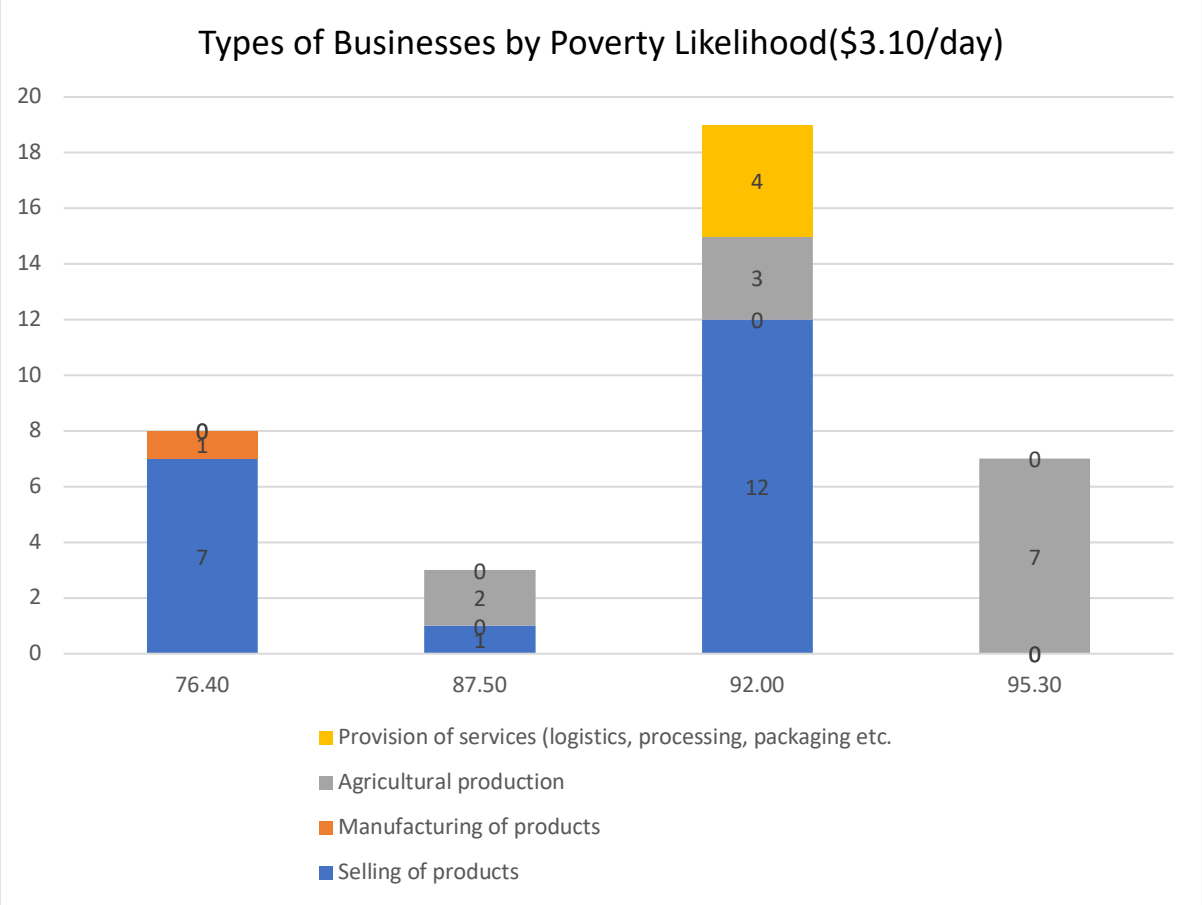


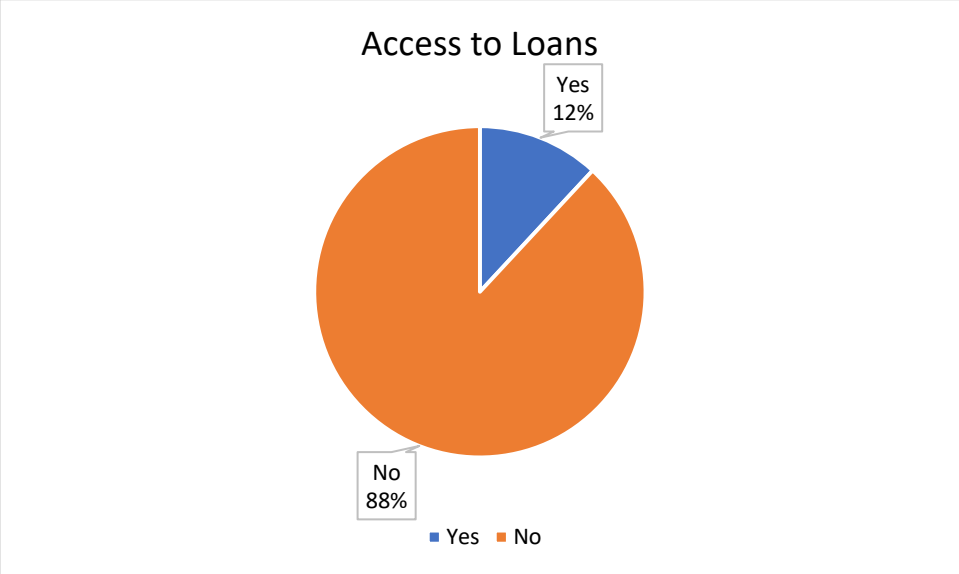
Figure 40: Types of Businesses by Poverty Likelihood($3.10/day) – Non-Beneficiaries



85% of the businesses are at micro level (less than 10 employees), 13% are small businesses (with 10 – 49 employees), and only 2% are medium-sized (50 – 100 employees). Properties used for business are mostly self-owned (66%) and family-owned (17%), with some leased (15%) or government owned. More men (42%) own the business properties than women (23%). The five top sources of inputs for beneficiaries are open markets (46%), own-farms (17%), friends and family (10%), and other farmers (7%).

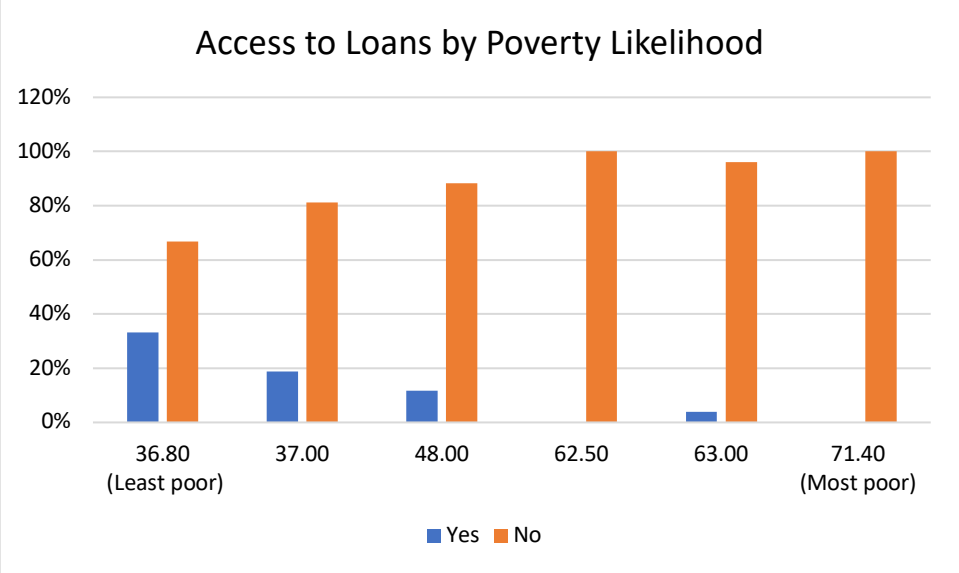
Few beneficiaries (12%) have access to loans for their businesses, of which only 1.3% have taken loans in the last the two years. Slightly higher proportion of males (15%) have access to loans than females (11%).

Figure 41: Access to Loans



Although few beneficiaries have had access to loans, the poor have had more access than the very poor beneficiaries as shown in the chart below. This could be because poorer beneficiaries have less collateral and are less likely to meet the requirements of lenders. It could also be because poorer beneficiaries are less involved in activities that require loans e.g. selling of finished products as opposed to manufacturing.

Figure 42: Access to Loans by Poverty Likelihood - MADE



About 35% of the beneficiaries face challenges with selling their products or services, compared to 40% of non-beneficiaries. A slightly higher proportion of women (38%) face challenges in this regard than men (33%). Among the non-beneficiaries, 44% of women faced challenges, compared to the 35% of men. The predominant approach to selling is taking produce/products to the market (62%). About a quarter of beneficiaries sell through advertising and referrals, while 10% supply directly to customers.

With regards to economic opportunities in their businesses, most respondents (ranging from 72% to 89%) say men and women have equal access to training, market information, market access, job opportunities, agricultural inputs, agricultural tools/equipment, and finance. However, for land, only 48% say men and women have equal access, while 50% say men have more access. 65% say men and

women have equal access to labour, but 29% say men have more access. One in five of the households have business centers or microfinance institutions in their communities, but only about 2% use the services of the organizations.

About half (48%) of the beneficiaries have at least one member of the household belonging to an association. Benefits from membership in order of priority are knowledge sharing, support in times of need, marketing of farm produce, provision of farm inputs, access to loans, and provision of processing machinery.

Reasons for Poverty

Poor households lack adequate funds to invest in their businesses. Loans are not easily accessible to them because of high interest rates and inability to meet the requirements including collateral. This lack of resources therefore limits investments required to improve productivity and incomes.

Businesses also have difficulties selling produce, products and services. They are limited in the variety of markets available to sell to. The local open markets are the only options available to most, hence they are unable to get competitive prices. High costs of transportation and lack awareness of alternative markets are the constraints in this regard.

Beneficiaries involved in agricultural production are also affected by seasonality. Peak seasons are characterized by high sales and low prices, while low sales and high prices are experienced during off-peak seasons. Inability to store produce means farmers are unable to take advantage of high prices during the off-peak seasons.

Constraints to Women's Participation in the Value Chain

Women are constrained in their access to land and ownership of business properties. They are also limited in their participation in other categories of businesses such as manufacturing of products and provision of services (e.g. logistics, processing, packaging, etc.). These may be because men have more access to resources like labour and finance.

Women are also somewhat limited in mobility, which may constrain their ability to be involved in some economic activities.

How could implementation of PIND's interventions be improved to support more inclusive growth?

PIND's business linkage intervention targets micro businesses and poor farmers who engage in agro-businesses. These include agro-dealers, input sellers, processors, marketers and off-takers. Many of these people are the poor and women. Beneficiaries have also been trained on how to use improved varieties, herbicides to control weed and fertilizers. Therefore, providing capacity to advise farmers on the right types of input to purchase.

The programme's partners also note that a challenge affecting outcomes is the impatience of farmers. Farmers are eager to experience the benefits of participating in trainings and using improved practices, and when these are not quickly realized, practices are not sustained. It would be beneficial to manage the expectations of farmers during training sessions.

Metrics for Measuring who is Benefitting from Programmes

Based on the findings, the characteristics highlighted in Table 20 can be used to target and measure poverty for MADE and PIND beneficiaries

	Cassava	Oil Palm	Fisheries	Poultry	Agri-Inputs	Leather	Business Linkages
Household size	6	6	5	5	5	6	5
Dependency Ratio	5:1	5:1	4:1	4:1	4:1	5:1	4:1
Self-and family-ownership of land/stalls	77%	84%		82%	81%	15%	83%
Average Age	31-55	31-55	31-55	36-55	40-50	41-45	36-50
Average Educational Level	49% - secondary education 36% - tertiary education 12% - primary education 4% - no formal education.	50% - secondary education 30% - tertiary education 16% - primary education 3% - no formal education	43% - secondary in MADE and PIND 48% - tertiary education in MADE 51% - tertiary education in PIND 6% - no formal education – MADE 0.6% - no formal education - PIND	39% - secondary education 54% - tertiary level education 3% - no formal education.	secondary education tertiary level education	75% - secondary school education 18% - tertiary education, 7% - primary education 0.7% - no formal education	43% secondary education 52% tertiary education 5% primary education
Role in VC	Production	Production, harvesting, processing, trading	Fish farming (pond), Fish smoking	Meat and egg production	Cassava and vegetable farmers	Input supply, production, sale of leather goods	Trading, agricultural production, manufacturing and service provision
Access to loans	17%	12%	18%	20%	15%	67%	12%
Average size of land	0.9 ha on average - PIND 0.8 ha - MADE 1ha	7.6ha	3 ponds		65% <2ha		
Poverty Targeting Metrics (using $3.10/day)	**Land Size** **MADE** *95.3%* - 0.3ha *92%* - 0.5ha *87.5%* - 1.1ha *76.4%* – 0.7ha	**Average Stands cultivated in a year** **MADE** *95.3%* – 0 stands *92%* -27 stands *87.5%* -187 stands	**Average Fish Stock/year** **MADE** *92%* – 390 fishes *87.5%* - 632 fishes *76.4%*– 632 fishes	**Monthly Bird Ownership** *92%* - less than 50 birds *87.5%* - 201-400 birds	**Average Land Holding** 28% - less than 1.1 hectares 37% - 1.1 to 2 hectares 23% - 2.1 –	**Output Type** *95.3%* - 75% shoes; 25% accessories *87.5%* - 75% shoes, 15% accessories *76.4%* - 88% shoes; 8%	**Business Type** *92%* - 43% selling of products; 29% manufacturing of products, 23% agricultural production; 6%

	PIND *95.3%* – 0.6ha *92% - 0.7ha* *87.5%* -0.8ha *76.4%* – 1.1ha	*76.4%*– 225 stands **PIND** *95.3%*– 298 stands *92%* - 73 stands *87.5%* -152 stands *76.4%*– 550 stands	**PIND** *92%* – 530 fishes *87.5%* - 1083 fishes *76.4%*– 742 fishes	*76.4%* - 51-200 birds	3hectares 7% - 3.1-4hectares 4% - more than 4 hectares	decorative items; 4% accessories	provision of services *87.5%* - 42% selling of products; 35% agricultural production, 13% manufacturing of products; 9% provision of services, *76.4%*- 63% agricultural production, 23% selling of products, 10% manufacturing of products, 3% provision of services

Conclusions

The findings show that overall, both programmes have successfully targeted poor beneficiaries in their interventions. MADE beneficiaries have a poverty likelihood of 47% based on $1.90/day, 86% based on $3.10/day and 67% based on the National Poverty Line. Similarly, the poverty rate for PIND beneficiaries across the intervention areas was 48% for $1.90/day poverty line, 86% based on $3.10/day and 67% based on the National Poverty Line. The poverty status of the non-beneficiaries was not different from those reached by both programmes implying that MADE and PIND programmes are working with beneficiaries who are not systematically different from other actors. The findings have also highlighted specific characteristics of the poor within each intervention which is useful for targeting by the programmes.

Recommendations

1. **Review classification and targeting of the poor to align with study findings**

One of the main objectives of this study was to classify beneficiaries of the MADE and PIND programmes based on very poor and poor and to establish indicators for targeting them. It is recommended that both programmes review the classification and targeting metrics for their interventions to align with the findings of this study. This will help programmes ensure beneficiaries are appropriate for the interventions and help with disaggregation for reports as well.

2. **Continue implementation of interventions to address the determinants of poverty for programmes' beneficiaries**

The assessment of the poor beneficiaries of the programmes have highlighted the determinants for poverty for the different intervention areas. These include issues such as limited opportunities for financing, lack of affordable inputs and markets, poor availability, access to modern agricultural assets including tools and equipment and poor access to market information. MADE and PIND interventions are already focusing on most of these critical problems. The programmes could continue to address these through recommendations 3 – 10.

3. **Develop Appropriate Financial Products and Disbursement Mechanisms**

The constraints faced in accessing finance creates an opportunity for MADE and PIND to work with financial service providers – both microfinance institutions, development finance institutions and commercial banks – to develop products that are suitable to farmers. The programmes can pilot a demonstrable model which assesses default rates. Once it is possible to demonstrate a sustainable cycle of lending and payback, financial institutions will be encouraged to tap into this underserved market, which will in turn improve the cropping and outputs for farmers, and extend the reach and profitability of financial institutions. MADE and PIND can also work with the CBN to tailor the Anchor Borrower's scheme to better suit farmers.

4. **Connect farmers to businesses looking to procure quality produce**

Whilst it is not possible for the programmes to address infrastructural constraints that make it difficult for farmers to take produce to larger central markets, opportunities exist to connect farmers to businesses sourcing quality cassava for production. These businesses could be incentivized to support farmers to aggregate and share cost of transportation to supply cassava or may be willing to send vehicles to pick up produce from collection centers. This type of opportunity could also encourage farmers to improve quality and productivity to meet the requirements of businesses.

5. **Developing Distribution Channels for Agri-inputs**

MADE currently supports agri-input sellers to develop distribution channels to reach smallholder farmers in rural and semi-urban locations. This approach is suitable for targeting of poor cassava farmers in these locations and should be continued.

6. **Access to Modern Equipment**

There are opportunities to help farmers improve incomes and productivity through provision of modern tools and equipment. The programmes can explore options for helping farmers acquire these through lease finance options.

7. Support Reduction of Post-harvest Losses

The programmes are addressing the issue of post-harvest losses by providing access to processing technology, and training across a range of practices such as post-harvest handling, pest control, preservation, packaging and storage. This intervention would substantially reduce losses for poor farmers.

8. Connecting farmers to more markets

Farmers currently have access to retailers and consumers in open markets, but are seeking support to expand their markets beyond the region so they can benefit from premium pricing and sell higher volumes. In addition, farmers are seeking support to learn about and meet export requirements to sell outside of Nigeria. Formation of and becoming members of associations can also help farmers explore new markets and improve bargaining power with local bulk buyers. Also, with the Federal Government's ongoing school-feeding programme, opportunities may exist for linking farmers to schools for sale of eggs and birds. Positive steps have been taken by MADE to provide access to additional markets, such as the MOU between leather goods manufacturers and FAMAD (a company involved in the manufacturing and distribution of footwear). Further opportunities exist to link the producers directly to markets in other West African countries, where demand for Nigeria's leather products appears to exist.

9. Improving Knowledge and Skills on Storage And Preservation

In addition to the training provided by PIND on agronomic practices, there are opportunities to improve the livelihoods of beneficiaries by providing knowledge and skills on storage and preservation. These could be enable farmers to delay the sale of some produce till a little later in the season, and earn more income. It is acknowledged that addressing issues around storage sustainably requires investment in facilities, availability of finance for space rental, as well as solutions for farmers' pressing need for money. However, some basic knowledge and skills can help farmers retain produce quality for longer and earn higher incomes.

10. Creating access to information and services to maximize productivity

Coupling access to inputs with information regarding input usage can create farmer loyalty to quality inputs. It is essential not only to provide quality inputs but also the necessary investment in after-sales services to increase the uptake of inputs. This will minimize the risk of crop failure resulting from improper use of inputs. Alternative means should also be explored for getting extension information to farmers. For instance, since most households have a radio, agricultural programmes may be used to reach farmers with farming advise.

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Annexes

Annex 1: List of MADE Interventions

An illustrative list of MADE interventions to date, which are organized under each of the sectors is as follows:

Agricultural Inputs

- Increasing quality uptake in the use of fertilizer, crop protection products and seeds through adoption of good agricultural practices (GAP);
- Catalysing agricultural input companies' establishment of commercially viable and reliable distribution channels through which agricultural inputs are sold directly to farmers and;
- Application of ICT by Value Added Service Companies in support of smallholder farmers' adoption of Good Agronomic Practices

Cassava

- Sustainable cassava production with improved varieties of cassava and bio-products as inputs in the Niger Delta Region
- Establishing linkages between processors of high quality cassava farms (HQCF) and smallholder farmers for uptake of fresh tubers

Fisheries

- Improving fish farmers knowledge, attitude and practices in pond development
- Deployment of improved fish smoking kilns technology to increase smoking efficiency – reduction in smoking time; fuel cost and increased capacity in the amount of fish that can be smoked in a given time; thus, reduce wastage of unprocessed fish; increase incomes and higher profitability.

Palm Oil

- Promoting adoption of best management practices by smallholders through good agronomic practice demos set up by agricultural input companies
- Improving efficiency of small oil processors through adoption of improved processing equipment, harvesting technology and practices.
- Improving harvesting efficiency through adoption of Mechanical Adjustable Harvester and Malaysian Knife
- Establishing linkages between smallholder producers and large plantations for uptake of fresh fruit bunches

Poultry

- Increasing uptake and improved access to and use of NCD vaccination by traditional poultry keepers thereby reduce poultry mortality due to Newcastle Diseases (and other diseases)
- Improving productivity and access to new markets for small household poultry producers

Finished Leather Goods

- Improving quality, distribution and sales of finished leather goods

Annex 2: Sample Distribution by Programmes

Sample Distribution - MADE

State	Ag. Inputs	Cassava	Fisheries	Palm Oil	Poultry	Leather	Business Linkages	Total
Abia	15	27	0	23	0	136	0	**201**
Akwa Ibom	26	47	3	50	28	0	0	**154**
Bayelsa	11	30	34	1	38	0	0	**114**
Cross River	30	26	54	31	13	0	0	**154**
Delta	38	3	32	22	27	0	0	**122**
Edo	12	13	0	27	23	0	0	**75**
Imo	11	13	0	24	0	0	0	**48**
Ondo	22	10	0	0	59	0	0	**91**
Rivers	17	17	51	0	0	0	0	**85**
Total	**182**	**186**	**174**	**178**	**188**	**136**	**0**	**1044**

Sample Distribution - PIND

State	Ag. Inputs	Cassava	Fisheries	Palm Oil	Poultry	Leather	Business Linkages	Total
Abia	0	17	0	30	0	0	3	**50**
Akwa Ibom	0	16	54	40	0	0	7	**117**
Bayelsa	0	8	7	0	0	0	16	**31**
Cross River	0	0	28	26	0	0	14	**68**
Delta	0	37	6	29	0	0	13	**85**
Edo	0	3	6	24	0	0	1	**34**
Imo	0	27	5	30	0	0	72	**134**
Ondo	0	60	64	0	0	0	1	**125**
Rivers	0	0	6	0	0	0	24	**30**
Total	**0**	**168**	**176**	**179**	**0**	**0**	**151**	**674**

Sample Distribution – Non-Beneficiaries

State	Ag. Inputs	Cassava	Fisheries	Palm Oil	Poultry	Leather	Business Linkages	Total
Abia	3	9	0	8	0	30	1	**51**
Akwa Ibom	5	13	18	34	12	0	4	**86**
Bayelsa	2	8	14	0	6	0	4	**34**
Cross River	7	6	28	13	3	0	3	**60**
Delta	8	10	11	7	8	0	3	**47**
Edo	2	9	1	10	7	0	1	**30**
Imo	2	9	1	10	0	0	17	**39**
Ondo	5	17	14	0	13	0	0	**49**
Rivers	3	4	13	0	1	0	5	**26**

Total	**37**	**85**	**100**	**82**	**50**	**30**	**37**	**421**

1	Name of Interviewer	
2	State	Select one: 1=Abia; 2=Akwa Ibom; 3=Bayelsa; 4=Cross River; 5=Delta; 6=Edo; 7=Imo; 8=Ondo; 9=Rivers
3	Date of Interview	
4	Name of Respondent	
5	Gender of Respondent	1. Male 2. Female
6	Position in the HH (ideally male or female head of household)	
7	Phone Number of Respondent	

Annex 3: Selected Research Tools

INTRODUCTION:
Good morning/afternoon/evening. My name is …….. I am from Practical Sampling International, an independent research agency. We are currently conducting a survey on economic well-being of people in this area. In this regard, I would like to ask you a few questions. Kindly note that your feedback will be treated with utmost confidence and used for research purpose only.

SECTION 1 – Poverty Scoring

1. How many members does the household have?
   1= Ten or more; 2=Eight or nine; 3=Seven; 4=Six; 5=Five; 6=Four; 7=Three; 8=One or two

2. INTERVIEWER input below the exact number of household members?

3. Out of this, how many household members depend on your income?

4. How many separate rooms do the members of the household occupy (do not count bathrooms, toilets, storerooms or garage)?
   1. One
   2. Two
   3. Three
   4. Four
   5. Five or more

5. The roof of the main dwelling is predominantly made of what material?
   1. Glass, clay tiles, asbestos or plastic sheets or others
   2. Concrete, zinc or iron sheets (aluminium)

6. What kind of toilet facility does the household use?
   1. None, bush, pail/bucket or others
   2. Uncovered pit latrine or VIP latrine
   3. Covered pit latrine or toilet on water
   4. Flush to septic tank or flush to sewage

7. Does the household own a gas cooker, stove (electric, gas, table or kerosene), or microwave?
    1. No
    2. Yes

8. How many mattresses does the household own?
    1. None
    2. One
    3. Two
    4. Three or more

9. Does the household own a TV set?
    1. No
    2. Yes

10. How many mobile phones does the household own?
    1. None
    2. One
    3. Two
    4. Three or more

11. Does the household own a motorbike or a car or other vehicle?
    1. No
    2. Only motorbike
    3. Car (regardless of motorbike)

12. Does any member of this household practice any agricultural activity such as crop, livestock or fish farming or own any land that is not cultivated? If so, does the household own any sprayers, wheelbarrows or sickles?
    1. Farmer or has cultivated land but no sprayers, wheelbarrows or sickles
    2. Farms or has cultivated land and has sprayers, wheelbarrows or sickles
    3. Does not farm or has uncultivated land

SECTION 2 – Agricultural Production and Practices

13. How long have you been engaged in farming?
    1. Less than one year
    2. 1 – 5 years
    3. 6 – 10 years
    4. 11 – 15 years
    5. 16 – 20 years
    6. Over 20 years

14. What is the size of your farm? (all plots owned or leased by household)
    1. 60 x 120 plot (a full plot)
    2. 120 x 120 plot (2 full plots)
    3. Half acre (3 plots)
    4. One acre (6 plots)
    5. Two acres (12 plots)
    6. Three acres (18 plots)
    7. Four acres (24 plots)
    8. Five acres (30 plots)
    9. Others (specify)……

15. Who owns the land that you (and your household) uses for farming?
    1. Self-owned
    2. Family – owned
    3. Government (local, state, or federal)

4. Leased
5. Crop share
6. Others (Specify)……

16. How much do you pay per year for your land?

    1. ……..
    2. I do not pay

17. How much of the land do you cultivate each year? (Should not exceed Q14)
    1. 60 x 120 plot (a full plot)
    2. 120 x 120 plot (2 full plots)
    3. Half acre (3 plots)
    4. One acre (6 plots)
    5. Two acres (12 plots)
    6. Three acres (18 plots)
    7. Four acres (24 plots)
    8. Five acres (30 plots)
    9. Others (specify)……

18. What type of crop do you normally plant?
    1. Hybrid/Crossbreed
    2. Local

19. Where do you source stems?
    1. Local/open markets
    2. Agricultural institutes
    3. Friends and family
    4. Importers
    5. NGO or Development agencies
    6. Government agencies
    7. Others (specify)……

If Option 5 is selected, ask:

20. Which NGOs or development agencies do you source stems from?
    1
    2
    3
    4
    5

21. How many seasons of farming do you practice in a year? _____

22. How much do you spend on inputs for your farming in a season?

Type of Input	Cost per season
Stems	
Crop protection products	
Fertilizer	

23. How much do you spend on other practices for your farming in a season?

Practice	Cost per season
Irrigation	
Land preparation	
Planting	
Weeding	
Harvesting	
Sales of products	

24. Which of the following do you have access to (that is, available in the community for your use)?

Type	Yes	No
Water pump	1	2
Watering can	1	2
Wheelbarrow	1	2
Knapsack sprayer	1	2
Hand hoes	1	2
Water tank	1	2
Hose/pipe	1	2
Chemicals like pesticides, fertilizers	1	2
Processing machine	1	2
Storage facilities	1	2
Fertilizers	1	2
Adequate labour	1	2
Good quality and affordable inputs	1	2
Adequate markets where crops can be sold	1	2

25. On average, how much of the crop did you harvest last year (in kg)?

26. Do you record any losses after harvest?
    1. Yes
    2. No

27. What factors contributed to the losses? And how much?

Cause of loss – Cassava Roots	Estimated Quantity lost (kg)
1. Rain	
2. Over production	
3. Pests	
4. Diseases	
5. Poor handling during harvest	
6. Poor storage	
7. Spoilage during transportation	
8. Poor packaging	
9. Others	

Cause of loss – Cassava Stems	Estimated Quantity lost (kg)
1. Rain	
2. Over production	
3. Pests	
4. Diseases	
5. Poor handling during harvest	
6. Poor storage	
7. Spoilage during transportation	
8. Poor packaging	
9. Others	

28. On average, how much of the cassava roots harvested did you consume or store for consumption (in kg)?

29. How much did you gift (in kg)?

    Roots Stems

30. What is the value of the gift (if you had to buy or could sell how much would you make?)

    Roots Stems

31. How much did you sell each kg of your crop last year? (Convert unit price to kg)

    Highest in the year
    Lowest in the year

32. To whom did you sell and where?
    1. Farm gate trader/processor
    2. Direct to consumers at markets
    3. Deliver to buyers/processors
    4. Others ……

33. What else do you do to earn income?

SECTION 3 – Challenges with Agricultural Production and Practices

34. What are your greatest challenges (or practices you would like to do differently) with regards to cassava farming?

35. What approach have you applied to handle the challenges?

36. Do you have ideas on how to earn more money from your crop production?

    1. Yes
    2. No

37. Are you able to implement the idea?
    1. Yes
    2. No

38. Why are you not implementing the idea?
    1. Lack of finance
    2. Lack of equipment
    3. Limited access to processing services
    4. Limited access to market
    5. Others (specify)…….

39. What kind of support have you received from MADE/PIND?
    …….

40. How has this been helpful to you?
    …….

41. Do you get information or support from other sources e.g. government extension workers, NGOs or donors?
    …….

42. What kind of assistance do you receive?

Government agency/NGO/Donor	Information or Support Received

43. Have there been any major changes in how much income you earn from farming over the last few years?
    1. Yes
    2. No

44. What kind of changes (a decrease, increase, etc.) and why?

Kind of change	Reason for change

Section 4 – Access to Finance

45. Do you have access to loans for your farming?
    1. Yes
    2. No

46. Have you taken out a loan for your farming in the last two years?
    1. Yes
    2. No

47. What criteria did you have to meet to access the loan?

48. Was it easy to obtain the loan?
    1. Yes
    2. No

49. Please explain response to Q48

50. Where did you get loans from? (Multiple options)
    1. Commercial bank
    2. Microfinance bank
    3. Cooperative society
    4. Agricultural bank
    5. Thrift (Esusu, Ajo, Akawo)
    6. Friends and family
    7. Others (Specify) ……..

51. What have you used the loans for? (Multiple options)
    1. Consumption
    2. Agricultural production (any point in value chain)
    3. Other Income generating activities
    4. Construction
    5. Medical expenses
    6. Education or school
    7. Others (Specify) ……..

52. How was the loan given? (Multiple options)
    1. Cash
    2. Inputs (stems, fertilizer, etc.)
    3. Others (Specify) ……

53. Do you agree or disagree with this statement: I am able to repay my loan on time without any difficulty
    1. Strongly agree
    2. Agree
    3. Disagree
    4. Strongly disagree
    5. Neutral

54. How do you repay your loan in the case of a bad farming season?

Section 5 – Access to Markets for Business – Distance, Costs and Other Factors

55. Do you go to any market?
    1. Yes
    2. No

56. What are the reasons for going to the market? (Multiple options)
    3. Selling agricultural products
    4. Buying agricultural inputs
    5. Market information
    6. Others (Specify) ……

57. How do you get to the market (multiple options)

Mode	**To buy inputs**	**To sell produce**
Foot		
Motorbike		
Car		
Truck		
Bus		
Others (specify)		

58. How long does it take to get to market by the usual mode of transportation? (in minutes)

Mode	**To buy inputs**	**To sell produce**
Foot		
Motorbike		
Car		
Truck		
Bus		

Others (specify)

59. How often do you or a member of your household go to the market in a month to sell/buy agricultural products?
    7. Rarely (1-2 times)
    8. Sometimes (3-10 times)
    9. Often (more than 10 times)

60. How much does it cost to go and come back from the market?

    To buy To sell

61. Is there an additional cost if you are transporting goods? If so, how much is this per trip on average?

62. How do you typically get market information – about prices, availability of inputs etc.?
    10. Town messenger/crier
    11. Friends and family
    12. TV
    13. Radio
    14. Newspaper
    15. Association
    16. Other farmers
    17. None
    18. Others (Specify) ……

Section 6 – Main Household Expenditure and Assets

63. Where does your household get all your food needs from? (Multiple options)
    1. From own farmland
    2. From market or other farmers
    3. Barter with other farmers
    4. Gifts from friends
    5. Others (Specify) ……

64. On average, how much do you spend on food each month?

65. In the past 30 days, was there ever a time when there was no food to eat of any kind in your house because of lack of resources to get food?
    1. Yes
    2. No
66. How often did this happen in the past 30 days?
    1. Rarely (1-2 times)
    2. Sometimes (3-10 times)
    3. Often (more than 10 times)
67. In the past 30 days, did you or any household member go to sleep at night hungry because there was not enough food in the household?
    1. Yes
    2. No

68. How often did this happen in the past 30 days?
    1. Rarely (1-2 times)

2. Sometimes (3-10 times)
3. Often (more than 10 times)

69. How does your household cope with a food shortage?
    1. Take on extra or different work
    2. Charity/beg
    3. Others (specify) ……..

70. What are your biggest non-farming expenditures for the household (what do you spend the most money on)? List the top three to five and tell us how much you spend each year (e.g., food, housing, school fees, religious obligations, etc.).

	Item	Cost per year
1		
2		
3		
4		
5		

71. Does your household usually have enough money to meet these costs?
    1. Yes
    2. No

72. Why is your household not able to?

73. Do you have months where you have extra money?
    1. Yes
    2. No

74. How often?
    ……..

75. If you have extra money, what do you do with it? (Multiple options)
    1. Save it
    2. Spend on income generating activities
    3. Buy something special for self or the household
    4. Others (specify) ……..

76. Do your children ever have to stay out of school due to lack of money?
    1. Yes
    2. No

77. For how long do they have to stay out in a year?
    ……

78. Do you take your children out of school at any other time for farm or household work?
    1. Yes
    2. No

79. Why do you take them out for farm or household work?
    ……..

Section 7 – Gender Roles, Controls and Access

80. What types of economic opportunities are viable for the men and women in cassava farming? Why?

Economic Opportunity	Viable for Men	Viable for Women	Viable for both	Reason for response

81. Do both men and women have access to the following opportunities/assets for increased income? (select which applies)

	Equal access between men and women	**Men have more access**	**Women have more access**	**Neither have access**	**Reason for Response**
Training					
Market information					
Job opportunities					
Market Access[14]					
Finance					
Agricultural Tools/equipment					
Agricultural input					
Land					
Labour					

82. How do you make decisions with regards to the following in the household?

Category of Items	**Joint decision making and discussion** (which HH members – e.g., male and female head of household)	**Men, seeking women's input** (which HH members) e.g., male head of household and wife or daughter- in-law	**Women, seeking men's input** (which HH members) e.g., female head of household and husband or father-in-law	**Men, without discussion** (which HH members) e.g., main earner, titular head of household	**Women, without discussion** (which HH members) e.g., main earner, titular head of household
EXPENDITURE					
1. Farm items and equipment					
2. Livestock purchase					
3. Household items (furniture, clothes, utensils)					
4. Food purchases					
5. Health/medicines purchases					
6. School fees					
7. Land purchases/lease					
8. Car/motorbike purchase/maintenance					

[14] Ability to sell, customers that buy produce, etc.

9. Social/community financial obligations

CONTROL OVER INCOME

10. Women's income
11. Men's income
12. Own savings

OTHER

13. Women's range of mobility (married)
14. Women's range of mobility (unmarried)

83. Do all members benefit when the household income increases? (e.g. better food, new clothing, access to education for boys and girls, etc) Please explain.

Section 8 – Access to formal and informal mechanisms

84. Do you or other members in your household belong to any type of agricultural related network, group, or association?
    1. Yes
    2. No

85. If yes, how does the network, group or association help you with your business? (Multiple options)
    1. Provision of farm inputs like tractors, plough, etc.
    2. Provision of subsidized chemicals, fertilizers
    3. It grants loans to members
    4. Provision of processing machineries
    5. Marketing of farm produces
    6. Others (Specify)……

86. If no, why do you not belong to any type of agricultural related network, group or association?

87. Is there a business development center or microfinance agency in your area?
    1. Yes
    2. No

88. If so, have you or other members in the household used the services? What services are offered and which do you use?

Type of Service	Used or not used?	Reason for using or not using

89. How have the services you have used been useful or not useful for your business?

SECTION 9 - Demographics

90. What age group do you fall into? (Select appropriate age group)
    1. 18-25
    2. 26-30
    3. 31-35
    4. 36-40
    5. 41-45
    6. 46-50
    7. 51-55
    8. 56-60
    9. 61 and above

91. What is your highest level of education?
    1. Primary school
    2. Secondary school
    3. Tertiary education
    4. No formal education
    5. Others (Specify) ……

92. What is your marital status?
    1. Married
    2. Single
    3. Divorced
    4. Widow/Widower

93. What is your religion?
    1. Christian
    2. Muslim
    3. Traditional
    4. Other specify) ……...

94. What ethic group do you identify with?

95. What type of settlement do you and your household reside in?
    1. Urban
    2. Semi-urban
    3. Rural

96. What is your employment status?
    1. Full-time employment
    2. Part-time employment
    3. Unemployed
    4. Self-employed

Key Informant Interview Guide

INTRODUCTION:
Good morning/afternoon/evening. My name is ……... I am from Practical Sampling International, an independent research agency based in Lagos. We are currently conducting a survey on economic well-being of people in this area. In this regard, I would like to ask you a few questions. Kindly note that your feedback will be treated with utmost confidence and used for research purpose only.

Questions

1. What is your position and what are your main responsibilities on this role?

1	Name of Interviewer	_____
2	State	Select one 1. Abia 2. Akwa Ibom 3. Bayelsa 4. Cross River 5. Delta 6. Edo 7. Imo 8. Ondo 9. Rivers
3	Date of Interview	
4	Name of Respondent	
5	Gender of Respondent	
6	Name of organization	
8	Phone Number of Respondent	

2. How long have you been in this position?

Section 1 – Understanding of MADE/PIND Programmes and Outcomes

1. What is the extent of your involvement or interaction with MADE/PIND?

2. Are there any factors that have facilitated or hampered your work with MADE/PIND?

3. What is your understanding of the wider objectives and outcomes of MADE/PIND's activities?
    a. Probe for their understanding of the programme, e.g. who the key actors are in their value chain or business environment, the duration of the programme, the wider operational area of the programme.

Section 2 – Relevance and Coverage

4. In your opinion, what type of people has the programme targeted?
    a. Probe for kinds of people in terms of farmers (types of value chains) businesses (types of businesses), access to land/assets access to labour, access to credit, access to markets

5. Do you think the programme has been inclusive in terms of whether it has reached both men and women? Poor and non-poor? Why
   Who do you think has benefited the most? Men or women? Poor or non-poor, Why?
   Who do you think is worse off? Men or women? Poor or non-poor? Why?

6. Reflecting on the types of people reached by the programme, do you think this is due to how the programme was implemented or how the programme was designed?
   Note: programme design refers to aspects such as what activities the programme has implemented, where, by whom, for which kind of target, etc.

7. How do you think the programe design or implementation could be reviewed to improve inclusivity?
   Probe: if issues such as poverty/inequality, gender, environmental pollution, labour, affordability, HIV/AIDS, human trafficking, or other issues should be investigated as barriers to inclusivity of people into the programmes and/or poor benefits from the programme

8. Do you think the programme has addressed areas of need within the targeted value chains and business environments?

9. How suitable are MADE/PIND's activities to the needs and the context of the value chains/business environments?

Probe *to explore the suitability of activities in the value chains, as compared to the culture/ethnicity of the states/communities in which interventions are implemented, the capacity of the farmers and businesses, the needs and constraints of women in the district, the infrastructure available to farmers and businesses, and other similar interventions that are taking place / have taken place within the value chains and business environments.*

Section 3 - Efficiency

10. Do you think MADE/PIND is achieving its intended objectives?

11. Are the objectives being achieved as a result of the programme or due to external factors?

12. What are some of the barriers of the programme to achieving its objectives?

13. Are there other programmes being implemented in the community/state that are similar to MADE/PIND's activities? How does MADE/PIND's activities compare with the other programmes?

14. Are there people in the value chains that are suffering because of MADE/PIND's activities (e.g. losing business and income making opportunities)?

15. Do you have any further comments, questions or suggestions you would like to provide to the programme?

FGD Guide

Section 1 – Awareness of MADE/PIND Programmes and Outcomes

16. Where did you hear about the programme?
    a. Was it well publicized? Do you think it is widely known in the area?

17. Do you think it was easier for men or women to access and participate in the programmes?
    a. Did women's spouses or male relatives agree to their participation in the programme or prevent it?
18. Do you think the programme is open and accessible by all?
    a. Who is able to participate in the programme and who is not?
    b. Are there groups able to participate and are there groups that are unable to participate? (either based on gender, ethnicity, age, marital status, poverty level?)
19. Who do you think needs this programme the most? Poor? Women? Men? Particular ethnic groups, etc.?
    a. Do you think these people have been reached by the programme? Explain
20. What were your initial expectations of this programme?
    a. How do you think your expectations have been met?
    b. How do you think this programme can be improved?
21. Do you think participation in the programme has changed your productivity and/or agricultural practices?
    a. How has it changed your productivity (increase, decrease) and what are some of the ways the programme has changed your productivity
    b. How has it changed your agricultural practices (for better or for worse) and what are some of the ways the programme has changed your agricultural practices
    c. If it has changed your productivity for better, what are some of the non-monetary changes that you have experienced? *Probe for Increased productive assets (e.g. farm tools, livestock) increased access to information? Increased access to finance?*
22. Do you think any of these changes would have happened without your participation in the programme?
23. Are there other factors outside programme that contributed to these changes (*Probe: other similar programmes that they participated in, economic climate, etc)*

Section 2 – Access to Markets

1. Do you have access to markets to sell your produce?
    a. What markets do you have access to?
    b. Are you generally satisfied with the market prices you get for your produce?
    c. What are the challenges you face in accessing better market prices?
    d. Are there certain types of markets that some groups can enter that others cannot? *Probe on gender, ethnicity, marital status, etc*
    e. What are your sources of inputs for your business?
    f. Do you have difficulties accessing these inputs? If so what are they?

2. Do you most often sell or consume your produce?
    a. How do you decide how much to sell or consume? Who in your household tends to make this decision? Are men supportive of women on how they want to sell or consume their produce?

3. If you sell your produce, what are the types of dynamics you use to sell your produce? *Probe: by being part of a farmers' association, contract farming, selling in open market to commercial buyers (Which?)*

4. What do you tend to use income from sales for?
    a. Probe: What aspects of agricultural production do you use your income for (eg for buying inputs? Agricultural equipment?
    b. Probe: what non-agricultural areas do you use your income for? Education, medical expenses, improvements in well-being., nutrition, improvements in household, etc
5. How do you decide what to use income for? Who in your household tends to make this decision?
    a. Are men supportive of what the women choose to do with their incomes?

Section 3 - Access to Finance

1. What kinds of loans or credit facilities do you have access to?
    a. Probe: do they tend to be from formal institutions like commercial banks, microfinance banks or informal institutions like associations, group lending schemes, family and friends

    b. How has your overall access to loans changed over the last two years – has it been easier or more difficult?
    c. How has your participation in the programme been useful for your ability to access loans/credit?
2. What do you tend to use loans for?
    a. *Probe: What aspects of agricultural production do you use your loan for (eg for buying inputs? Agricultural equipment? Do you use your loan to help access markets, such as using it for processing or accessing equipment for processing, for getting your product transported to markets, etc?)*
3. How easy is it for you to repay your loan?
    a. *Probe: Will you face any issues with your repayment terms? (eg access to cash?); do you believe you will pay back your loan in a timely manner? What challenges might you face in repaying your loan?*
4. Do you think different groups have the same or different levels of access to loans and credit facilities?
    a. Who is able to access credit more easily? (Men or women. Ethnic groups, marital status, income levels, educational level, type of business etc)
    b. What are some of the barriers that these different groups may face in accessing credit?
5. How do you decide whether to collect loans? What about the use of the loans? Who in your household tends to make this decision?
    a. Are men supportive of their wives of taking loans?
    b. Are men supportive of their wives on what they do with the loans?

Section 3 - Access to Assets

1. What types of assets do farmers typically have access to? For planting, harvesting, sales?
    a. Do you have challenges with accessing these objects for your business?
    b. Do different groups have different levels of access? Probe: Men/women, Ethnic groups, marital status, income level, educational levels
    c. Are you generally satisfied with the quality of the assets you have access to?
    d. How do you think the quality can be improved?

2. Is there a difference in the types of assets owned by different groups?
    Probe: Men/women, Ethnic groups, marital status, income level, educational levels
    a. Why do you think this is the case?
    b. Do you feel these differences affect productivity of the different groups?

Section 4 - Dealing with Uncertainties/Risks

1. What are the major challenges to your productivity? Household wellbeing?
    a. Probe: Financial, environmental pollution and degradation, access to labour, well-being of family members, etc
    b. How do you manage these challenges when they occur?
    c. What roles do community members, friends/family, association members play in these times?
    d. In situations when your harvest is poor, are you able to still repay any loans or debts you have? How so?