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IGNITE Lean Data Insights: Demo Farmer Households' Experience with PBR cowpea Training, Production, & Outreach

African Agricultural Technology Foundation (AATF)

Nigeria

May 2022

Overview

About AATF's PBR Cowpea Initiative

Since 2019, the African Agricultural Technology Foundation (AATF) has been part of a multilateral partnership to support three seed companies in the commercialization of Pod Borer Resistant (PBR) cowpea in Nigeria. PBR cowpea has been shown to increase yields by up to 70% for farmers and requires less pesticides than conventional cowpea.

AATF's goal is to help increase the uptake of the seed so that farmers can experience increased agricultural productivity and income. Given that cowpea is a major source of protein in Nigeria, and both men and women are involved in this value chain, PBR cowpea has the potential to create both gender and nutrition outcomes within households through increased yields, income, and women's participation.

AATF, along with its partners, has therein facilitated training on PBR cowpea for Extension Agents (EA) and helped set up Demo Farms, which farmers can visit and observe.

About This Study & Report

The objective of this study is to help AATF better understand the experience of female and male Demo Farmers (DF) in their training by Extension Agents (EA), and planting and harvesting PBR cowpea. We explore the impact on income, consumption, and dynamics within Demo Farmer households that planted PBR cowpea.

60 Decibels' Lean Data researchers conducted phone interviews with 250 Demo Farmers and additional members in the household of another gender – Secondary Respondents (SR) – in order to understand the households' perspective on PBR cowpea and whether satisfaction and impact differed between different genders.

The report is structured into four main sections:

1) Respondent Profile & Experience with EAs
2) Experience Disseminating Lessons to Observer Farmers
3) Household Experience with PBR cowpea
4) Impact of PBR cowpea & Household Dynamics

Throughout this report, we present sex disaggregated insights and call out any statistically significant trends by segments or metrics in the report commentary.

About The Results

60 Decibels conducted phone interviews with 250 AATF Demo Farmers out of the 363 contacts provided by AATF. We were unable to reach 113 contacts due to the following challenges:

- 53 phone numbers could not go through
- 23 contacts indicated that they had no knowledge or association with PBR cowpea.
- 6 contacts were unwilling to be interviewed
- 30 contacts were wrong numbers

For all 250 successful interviews we asked to speak to someone of the opposite gender within the household.

We spoke to a small number of Secondary Respondents, because we faced challenges in getting a hold of more Secondary Respondents (see page 12 for more details). As such, the results shared here may not be representative of the full Secondary Respondent group, but still provide insights to help review and shape the project.

Methodology

250 Primary Respondent (Demo Farmer) and 79 Secondary Respondent (another respondent in the same household as Demo Farmer of opposite gender) phone interviews were completed in March 2022.

Study Limitations:

Some challenges our team faced during data collection include:

- Most Primary Respondents are male, so the gender breakdown is only 13% female and 87% male for Primary Respondents. However, this enabled us to get a hold of a higher proportion of female Secondary Respondents (see pages 11 and 12 for more details).
- Some Primary Respondents (10%) were unwilling to hand over the phone to a spouse / partner, or another adult of the opposite gender. Other challenges with outreach are listed on page 12.

Methodology

Survey mode	Phone
Country	Nigeria
Language	English, Hausa, Pidgin, Yoruba, Tiv
Dates of data collection	February – March 2022
Sample Frame	Attempted to reach all Demo Farmers (Primary Respondents) from contact list of 363 farmers shared by AATF and 30% of Secondary Respondents of the opposite gender in the Demo Farmers' households.
Response rate*	Primary Respondents: 81%* Secondary Respondents: 34%**

Responses Collected

Farmers	Primary Respondents: 250 Secondary Respondents: 79

* Primary Response Rate: Completed # of interviews / (Total numbers dialed – wrong numbers – ineligible numbers/refusals)
** Secondary Response Rate: Completed # of interviews / (Total # of Primary Respondents Interviewed – refusals – unanswered numbers)

Sampling For Primary Respondents (Demo Farmers)

Our confidence level and margin of error for results are calculated based on the total number of phone numbers we had access to (363 farmer phone numbers), and not the total population of farmers that AATF serves.

We did not receive contact information on Secondary Respondents. We asked Primary Respondents (Demo Farmers) to hand over the phone to someone of the opposite gender in the household in order to get a hold of Secondary Respondents.

Our sample includes 250 Primary Respondents (218 male, 32 female) across different regions in Nigeria.

Sampling	% sample	% AATF DF contact base
% Female	13%	Unknown
% North East	35%	37%
% North Central	29%	29%
% North West	22%	20%
% South West	8%	8%
% South South	3%	3%
% Adopted Village	2%	3%
% South East	1%	1%

Accuracy	
Confidence Level	c. 90%
Margin of error	c. 3%

Contents

We enjoyed hearing from 250 Demo Farmers and 79 Secondary Respondents about their experience learning about PBR cowpea and sharing lessons with farmers – they had a lot to say!

Contents

Top Findings

1

After training, females' main takeaways were related to qualities of PBR cowpea, while males were more focused on PBR cowpea's effects on farming practices.

Female DFs and SRs are more likely to cite qualities of PBR cowpea (e.g. PBR cowpea's resistance to pests/insects/legume Pod Borer, PBR cowpea's early maturity) as their main takeaways. Male DFs and SRs, on the other hand, are more likely to mention the management of the PBR cowpea (e.g. how and when to plant it, number of sprays required) as their main takeaway.

2

While males are disseminating information on PBR cowpea to more farmers than females, they are slightly less satisfied with PBR cowpea compared to their female counterparts.

A higher proportion of male DFs hosted farm field days compared to female DFs (41% vs. 28%). Both male DFs and SRs also shared more information on PBR cowpea with more farmers. Despite this, male DFs and SRs had lower Net Promoter Scores (a gauge of farmer satisfaction) than their female counterparts, indicating they are slightly less satisfied with PBR cowpea (see page 30 for reasons for dissatisfaction).

3

Most farmers are preserving the little PBR cowpea they harvested for the next farming season, in hopes that they will have more to consume in the future.

When asked what farmers did with their harvested PBR cowpea, the majority (68%) reported they preserved at least some of it, with 39% reporting preserving all of it for next season. In addition, only 33% of DFs who consumed PBR cowpea reported increases in their overall cowpea consumption, and a lower proportion of SRs (16%) reported increases. When farmers who reported no increases were asked why this was the case, 29% reported they are preserving their crop for next season.

4

The majority of male and female DFs say they are the final decision maker on trying PBR cowpea. The majority of male and female SRs report 'no change' for changes in time women spend on agricultural and non-agricultural activities.

For DF financial decision-making: This could be because their role as Demo Farmer enables them to have primarily responsibility / say over decisions as they pertain to PBR cowpea, regardless of whether they are male or female. **In terms of changes for women and girls:** This could be because SRs are less involved with PBR cowpea overall and therefore, don't have visibility on what may/may not have changed due to PBR cowpea directly.

Respondent Voices (1/2)

We love hearing farmer voices.

Here are some that stood out among Demo Farmers and Secondary Respondents.

Value Proposition of PBR Cowpea

83% of Demo Farmers and 87% of Secondary Respondents are Promoters and are highly likely to recommend PBR cowpea.

"I'd recommend PBR cowpea because of its early maturity and its resistance to Pod Borer. It doesn't consume many insecticides, and spraying twice is enough." – Demo Farmer, Male, 54

"I will recommend the PBR cowpea because I have tried it, I have planted and harvested, and it is good and less stressful on maintenance costs." – Demo Farmer, Male, 38

"The seed grows fast and only takes about 40-60 days to yield and the crop it produces is very good." – Demo Farmer, Female*

"I have seen the seed and I like it, and it doesn't require that you spend so much." – Demo Farmer, Female*

"I'd recommend PBR cowpea because of its early maturity and it doesn't require much spraying of insecticides because it is already resistance to legume Pod Borer." – Secondary Respondent, Male**

"I have seen my husband's crop yield well and I have also cooked it and it is that good. I will recommend it for other farmers and women…" – Secondary Respondent, Female**

Most Important Information from Training

100% of Demo Farmers and 80% of Secondary Respondents shared the most important pieces of information they received about PBR cowpea.

"We shouldn't spray too much of insecticides because it requires only two times spraying of insecticides, and it is not advisable to inter crop with this PBR cowpea ." – Demo Farmer, Male, 44

"The most important information I received from the Extension Agent is on how to properly space, prepare the soil when planting and also put just one crop per hole when planting." – Demo Farmer, Female, 50

"This PBR cowpea matures earlier than the local cowpea and it is resistant to Pod Borer, so it doesn't need much spraying of insecticides ." – Secondary Respondent, Female**

"The PBR cowpea seed yields better crop than the local cowpea. It also matures early and is resisrant to insect.." – Secondary Respondent, Male**

* For Demo Farmers: If age is not provided in a quote, it is because a respondent preferred not to disclose his/her age.

** For Secondary Respondents: Age was not asked to these respondents, so age will not be provided in any quotes.

Respondent Voices (2/2)

We love hearing farmer voices.

Here are some that stood out among Demo Farmers and Secondary Respondents.

Impact on Consumption of PBR Cowpea

33% of Demo Farmers (34% male, 21% female) and 16% of Secondary Respondents (29% male, 13% female) who consumed their PBR cowpea report increased cowpea consumption since the introduction of PBR cowpea.

"It has increased because I'm now involved in PBR cowpea farming, which doesn't need much spending of money on chemicals. I used to consume it like three times in a week but now I consume cowpea almost every day." – Demo Farmer, Male, 54

"We like cowpea a lot in my household, and we consume the local cowpea at least three times a week. I hope we can get more of the PBR cowpea to plant, I am sure we will consume more of it because it tastes better than the local cowpea and it gets soft faster when we prepare it." – Demo Farmer, Male, 36

"Consumption increased because we like the PBR cowpea very much." – Secondary Respondent, Female

"The consumption level has increased because everybody in my house now prefers the PBR cowpea to the local one, so we have to make the PBR cowpea more." – Demo Farmer, Male, 38

"We cannot do without eating cowpea weekly in the house because it can be cooked in various styles." – Demo Farmer, Female

Other Impact on Demo Farmers Households

42% of Secondary Respondents (41% male, 43% female) mention impact from PBR cowpea on changes for women and girls in the household.

"The positive change is that they [women and girls] were lazy to work with us when were working but now with this PBR cowpea that doesn't need much work, they always give us a helping hand in the farm." – Secondary Respondent, Female

"Women and girls now want to try this PBR cowpea because of its early maturity." – Secondary Respondent, Female

"Women now want to try cowpea farming because of this PBR cowpea." – Secondary Respondent, Female

"Women and girls have become aware of the benefits of agricultural activities." – Secondary Respondent, Male

"Not all of them [women and girls] have the time to assist in the farm but now they engage in order to help their children and community." – Secondary Respondent, Male

Respondent Profile and Experience with Extension Agent

- Demo Farmer (DF) and Secondary Respondent (SR) Profiles
- Demo Farmer experience with Extension Agent (EA)
- Understanding of PBR cowpea and perception of benefits
- Most important information received from training
- Experience with PBR cowpea seeds and harvest

Experience Disseminating Lessons to Observer Farmers

- Observer Farmers reached and channels
- Likelihood of purchase from male farmers vs. female farmers

Household Satisfaction with PBR Cowpea

- Satisfaction with PBR cowpea (Net Promoter Scores)

Impact of PBR Cowpea and Household Dynamics

- Impact on income
- Impact on consumption
- Dynamics on decision-Making
- Changes in time females Spend on activities
- Other household changes

“I was told that the PBR cowpea is a very good seed that yields better than the local cowpea and I know that it only requires two times spraying with insecticide till the day of harvest.”

– Demo Farmer, Female

Demo Farmer (DF) Profile

The typical Demo Farmer we spoke with is a 47-year-old male living in a town or village in the North. Over the past 12 months, they farmed on an average of 4.3 hectares of land, primarily cultivating cowpea and maize.

About The Demo Farmers (DFs) We Spoke With

(n = 250)

87% Male

13% Female

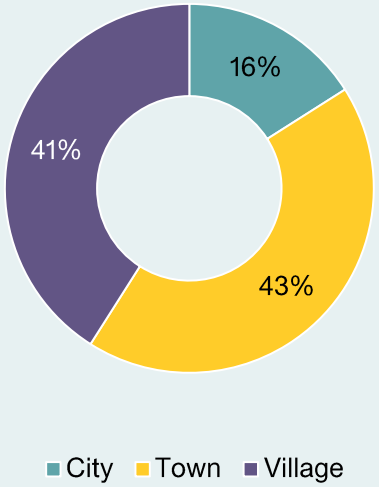
47 Average age (years)

Household Size

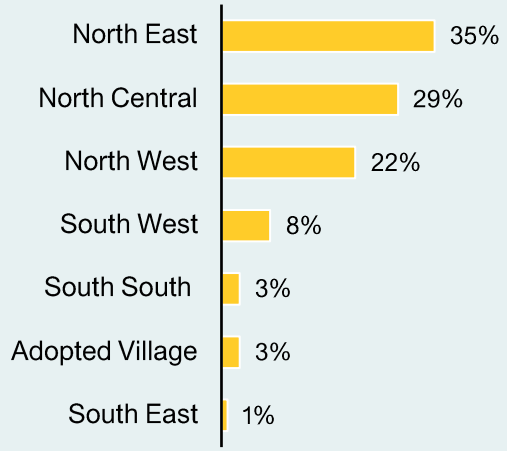
9 Average size

5 Adults in household

Demo Farmer Location



Regions*



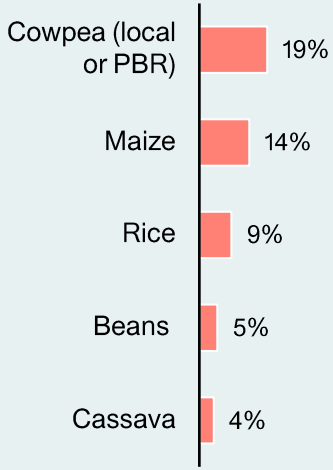
Land (Avg Hectares) Used for Farming in Last 12 Months

4.3 Total hectares (ha)

0.06 Ha used for PBR cowpea (1% of total land)

2.7 Ha used for local cowpea (63% of total land)

Top 5 Crops Grown in Last 12 Months



* Region categorizations were made from state data from the contact list that AATF provided. This is also reflected in the sampling slide (page 4).

Secondary Respondent (SR) Profile

The average Secondary Respondent we spoke with is female. Most of these respondents are Demo Farmers' spouses.

For all 250 Demo Farmers we spoke to, we requested to speak to their spouse or any other household member of the opposite sex. We successfully reached 79 Secondary Respondents.

Unsuccessful outreach is due to:

- DF is the only one involved in farming – 37 (15%)
- Lack of consent from DF – 24 (10%)
- DF and Secondary Respondent are of the same gender – 20 (8%)
- Call was scheduled, but respondent never answered the phone – 19 (8%)
- Partner/spouse is unavailable – 14 (6%)
- DF is single – 11 (4%)
- DF did not harvest or felt it would be irrelevant to speak with spouse – 4 (2%)

About The Secondary Respondents (SRs) We Spoke With

(n = 79)

Secondary Respondent Sex

19% Male

81% Female

Relationship to Demo Farmer

88% Spouse

4% Aunt / Uncle

3% Parent

2% Niece / Nephew

1% Child

DF Experience with Extension Agent (EA)

Female Demo Farmers were more likely to be trained by a female Extension Agent, while male Demo Farmers were more likely to be trained by a male Extension Agent.

Question only asked to DFs

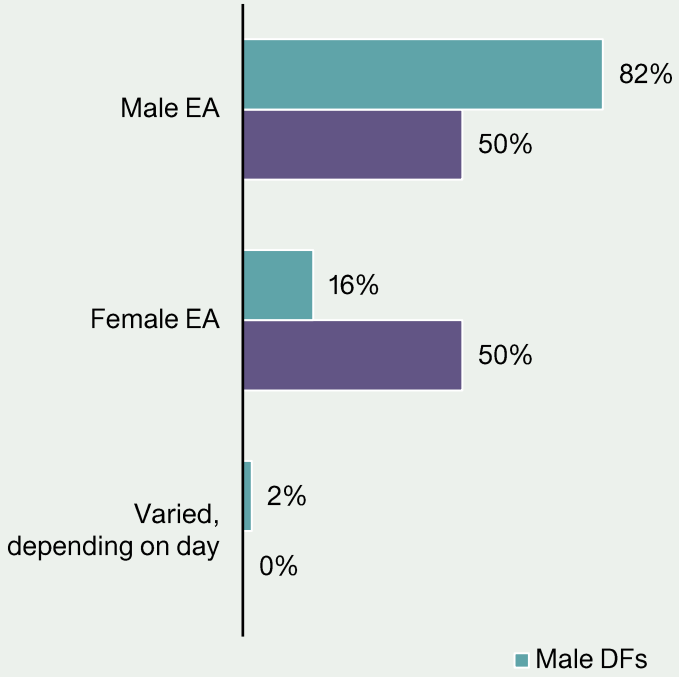
Most DFs interact with these EAs once a week or 2-3 times per month. Male DFs interact with EAs more frequently than their female counterparts.

DFs trained by female EAs interact with their EA more frequently than those trained by male EAs:

- A lower proportion of DFs who were trained by female EAs interacted with the EA once a month (4%) than those trained by a male EA (14%).
- A higher proportion of DFs trained by female EAs interacted with the EA 2-3 times per week (23%) than those trained by male EAs (15%).

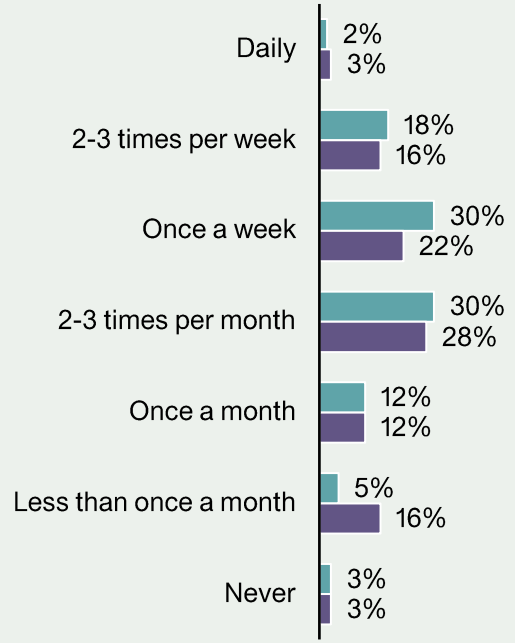
Gender of EA who Conducted Training

(male n = 218, female n = 32)



Frequency of Interaction with EA in Latest Planting Season

(male n = 218, female n = 32)



Perception of PBR Cowpea Benefits Over Local Cowpea

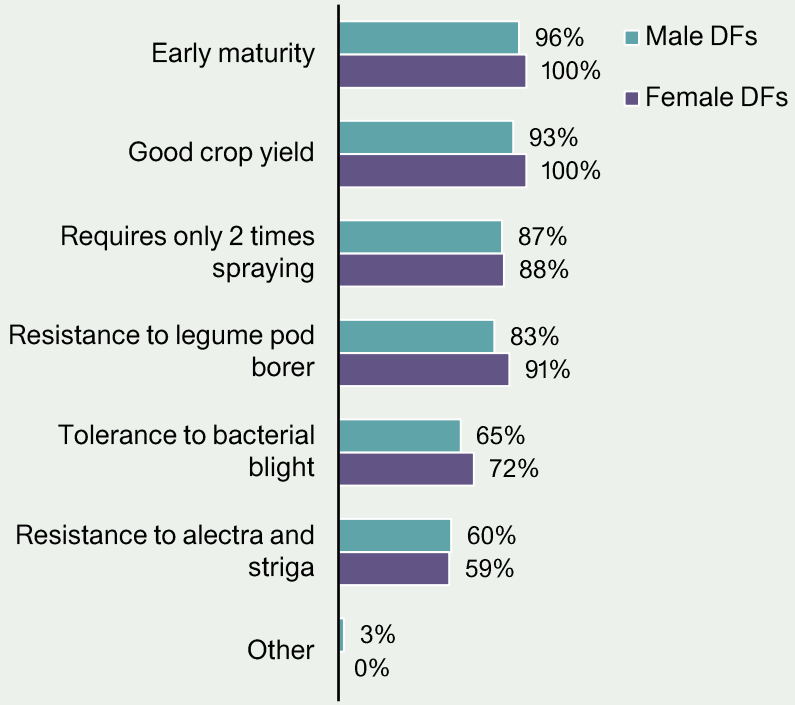
Female SRs are less likely to see early maturity and less spraying as top benefits, compared to male SRs.

A higher proportion of DFs selected benefits than predicted by EAs ((EA study - Dec 2021), particularly 'early maturity', 'requires only 2 times spraying', and 'resistance to legume Pod Borer'.

Both Demo Farmers and Secondary Respondents report the top three benefits of PBR cowpea to be early maturity, high yield, and less spraying compared to the local cowpea.

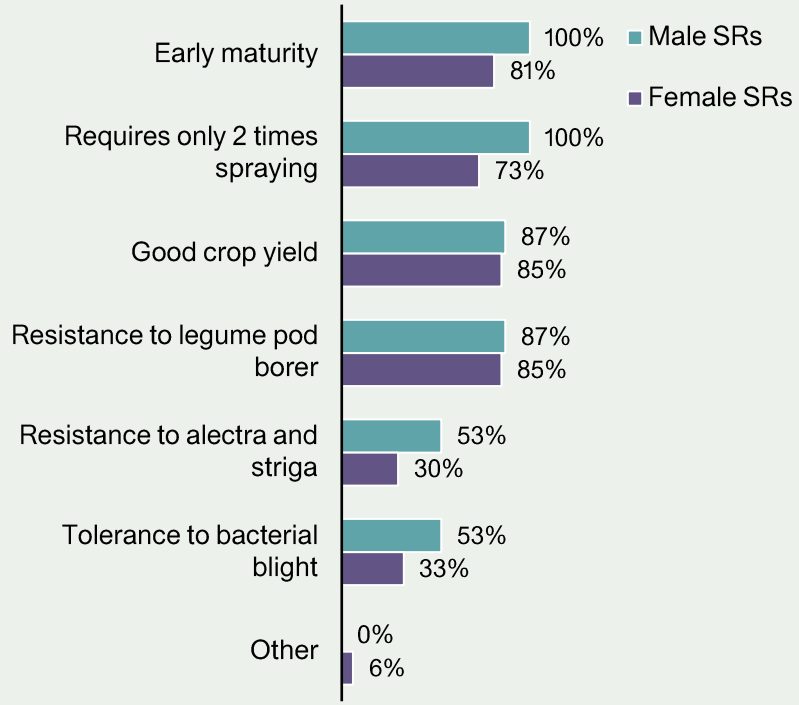
DF Perception of Benefits

(male n = 218, female n = 32, multi-select allowed)



SR Perception of Benefits

(male n = 15, female n = 64, multi-select allowed)



Impact of Training on Understanding of PBR Cowpea

Both Demo Farmers and Secondary Respondents rate their knowledge and understanding of PBR cowpea as higher after training.

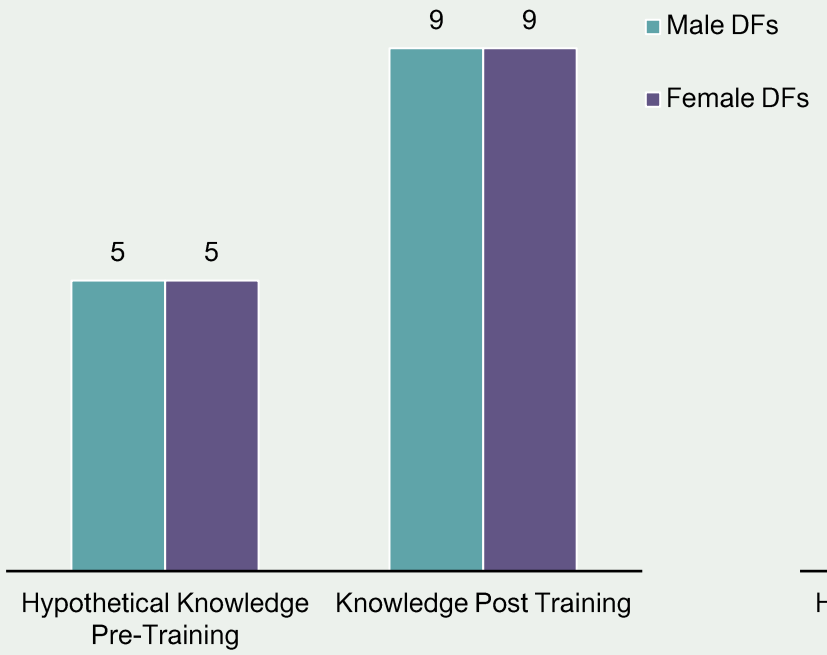
To gauge the impact of training on knowledge and understanding of PBR cowpea, we asked DFs and SRs to:

1. Rate their current knowledge and understanding of PBR cowpea, on a scale of 0 to 10 where 0 is negligible and 10 is extensive.
2. Rate their perceived knowledge and understanding of PBR cowpea, on a scale of 0 to 10 where 0 is negligible and 10 is extensive, if extension worker/Demo Farmer did not share information about PBR cowpea with them.

Female SRs report a higher difference in current versus hypothetical understanding than male SRs.

DF Understanding of PBR Cowpea

(male n = 218, female n = 32, average score out of 10)



SR Understanding of PBR Cowpea

(male n = 15, female n = 64, average score out of 10)

Main Takeaways From PBR Cowpea Training

We asked all DFs and SRs who attended training or interacted with an EA/DF about the single most important piece of information they received on PBR cowpea from an EA or a DF. Top themes mentioned by both respondent groups are on the right.

Female DFs and SRs are more likely to cite qualities of PBR cowpea (e.g. PBR cowpea's resistance to pests / insects / legume Pod Borer, PBR cowpea's early maturity) as their main takeaways.

Male DFs and SRs, on the other hand, are more likely to mention the management of the PBR cowpea (e.g. how and when to plant it) as their main takeaway.

Key Takeaways for DFs

(n = 250). Open-ended, coded by 60 Decibels; multiple themes per respondent are possible.

#1 How and when to plant PBR cowpea

#2 PBR cowpea's resistance to pests / insects / legume Pod Borer

#3 PBR cowpea requires less application of pesticide / insecticide

"The most important piece of information I received from the Extension Agent was how to plant cowpea properly. I also learned the appropriate distance when planting." - Demo Farmer, Male, 29

"PBR cowpea doesn't need much spraying of insecticides. Two times spraying is enough because this PBR cowpea matures earlier than the local cowpea."
- Demo Farmer, Female, 61

Key Takeaways for SRs

(n = 63)* Open-ended, coded by 60 Decibels; multiple themes per respondent are possible.

#1 PBR cowpea requires less application of pesticide / insecticide

#2 PBR cowpea's resistance to pests / insects / legume Pod Borer

#3 PBR cowpea matures early/grows fast

"This PBR cowpea matures earlier than the local cowpea and it is resistant to Pod Borer, so it doesn't need much spraying of insecticides."
- Secondary Respondent, Female

"This PBR cowpea matures earlier than the local cowpea and it requires only two times spraying of insecticides, which still gives good crop yield."
- Secondary Respondent, Female

*Only 80% of Secondary Respondents attended trainings on PBR cowpea or received information from a DF (63 respondents), so this question was only asked to them.

DF Experience Purchasing/Receiving PBR Cowpea

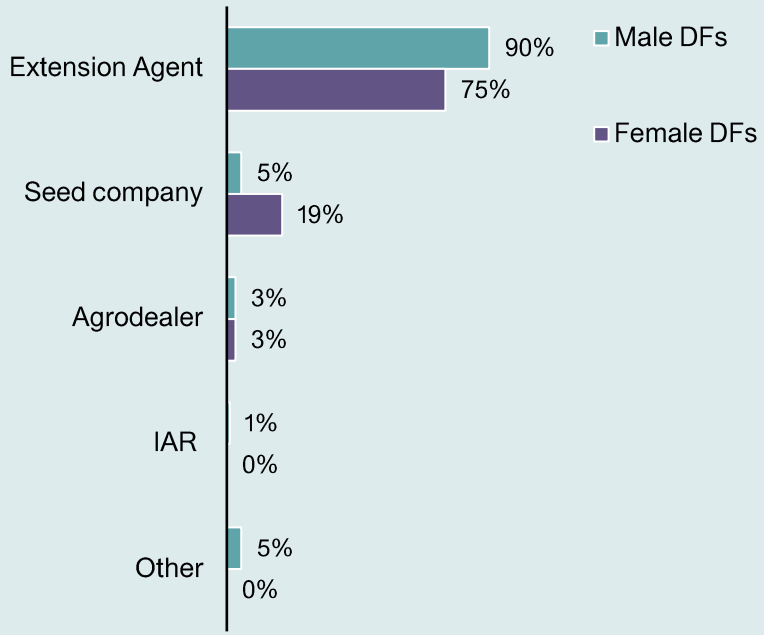
PBR cowpea seeds were primarily obtained or purchased from Extension Agents. Female DFs were more likely to purchase seeds for consumption at home.

Question only asked to DFs

Female DFs were less likely to purchase or obtain seeds from Extension Agents than male DFs (75% vs. 90%), but more likely to purchase/obtain from a seed company (19% vs. 5%).

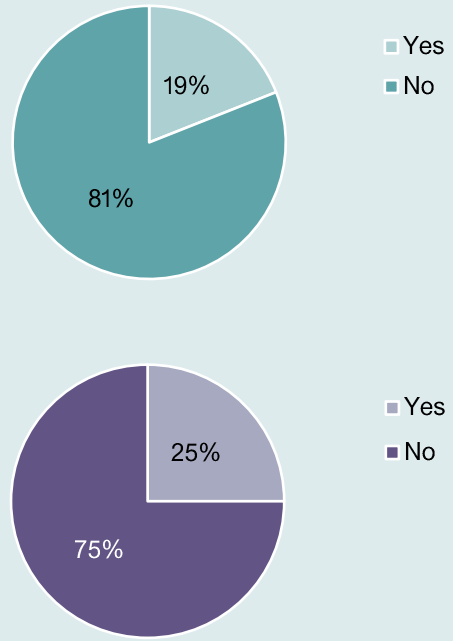
Where DF Purchased/Received PBR Cowpea Seeds

(male n = 218, female n = 32)



Whether or Not Seeds Were Purchased for Consumption at Home

(male n = 218, female n = 32)



DF Experience With Harvested PBR Cowpea

Of the DFs who harvested PBR cowpea, most preserved their PBR cowpea for the next planting season. Harvested PBR cowpea was primarily stored using normal bags or containers.

Question only asked to DFs

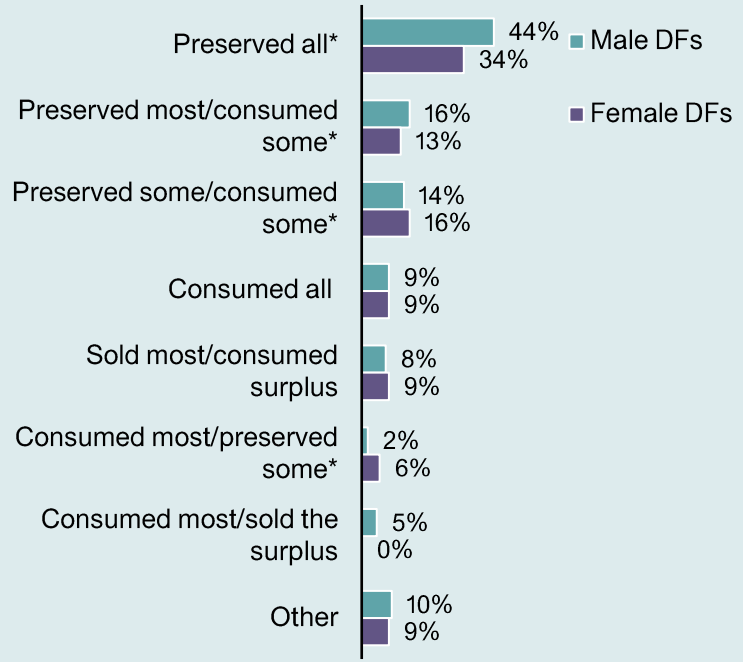
92% of the household harvested the PBR cowpea they planted in the latest season (July - September 2021). The 8% who did not harvest primarily mentioned that their crop was eaten by livestock (29%) or had not matured yet (14%).

Male DFs were more likely to preserve all or most of their purchased/ harvested PBR cowpea than female DFs.

Those who reported 'other' types of storage primarily mention jerrycans (33%) and sacks (27%).

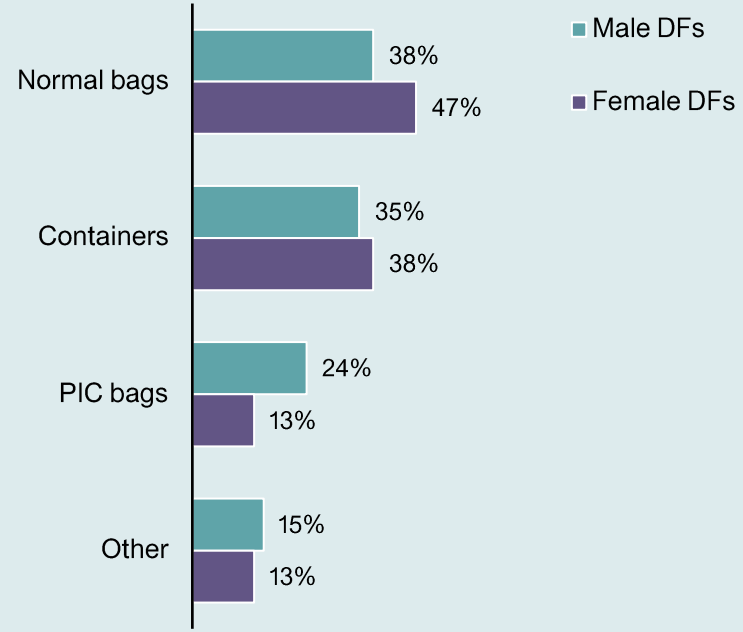
What Household Did With Harvested PBR Cowpea

(male n = 197, female n = 32, multi-select allowed)



How Harvested PBR Cowpea Was Stored

(male n = 197, female n = 32, multi-select allowed)



*These responses originally came up in the "other" category, but were later coded due to the high number of respondents reporting them.

Respondent Profile and Experience with Extension Agent

- Demo Farmer (DF) and Secondary Respondent (SR) Profiles
- Demo Farmer experience with Extension Agent (EA)
- Understanding of PBR cowpea and perception of benefits
- Most important information received from training
- Experience with PBR cowpea seeds and harvest

Experience Disseminating Lessons to Observer Farmers

- Observer Farmers reached and channels
- Likelihood of purchase from male farmers vs. female farmers

Household Satisfaction with PBR Cowpea

- Satisfaction with PBR cowpea (Net Promoter Scores)

Impact of PBR Cowpea and Household Dynamics

- Impact on income
- Impact on consumption
- Dynamics on decision-Making
- Changes in time females Spend on activities
- Other household changes

“I don't think there's anything that will prevent male farmers from trying this PBR cowpea. People are already asking me where they can get the PBR cowpea.”

- Demo Farmer, Male, 45

Farmer Dissemination: Reach (DF)

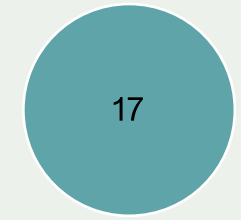
Female Demo Farmers host more farmers on farmer field days than male Demo Farmers. Male Demo Farmers share PBR cowpea information with more farmers outside of farmer field days.

In total, 40% of Demo Farmers hosted farmer field days. Male DFs were most likely to host farmer field days than female DFs (41% vs. 28%). It could be that because females host less farmer field days, they are more likely to host more farmers on their field days.

When looking into differences by region, we found DFs in North Central region reach out to more farmers outside of farmer field days (15) than DFs in North West (12) or North East region (11).

Number of Farmers Attending Farmer Field Days*

(male n = 91, female n = 9)

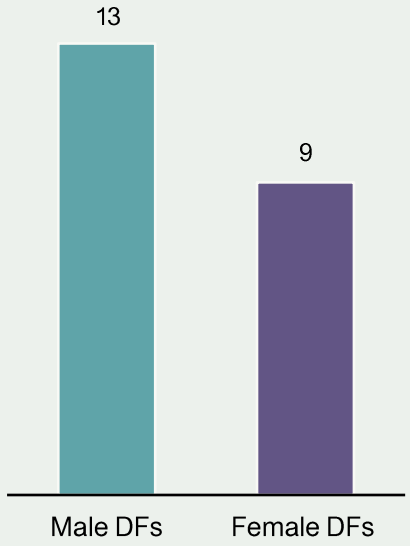


Average # of Farmers Attending Field Days Hosted by Male DFs

Average # of Farmers Attending Field Days Hosted by Female DFs

Number of Other Farmers DFs Shared Information With*

(male n = 218, female n = 32)



*We provided ranges (1-20, 21-40, 41-60, 61-80, 81+) as answer options. We used the midpoint of each range weighted by proportion who mentioned that range to calculate sample average.

Farmer Dissemination: Channels (DF)

The most common channel for information dissemination on PBR cowpea for both male and female farmers is a demo farm visit.

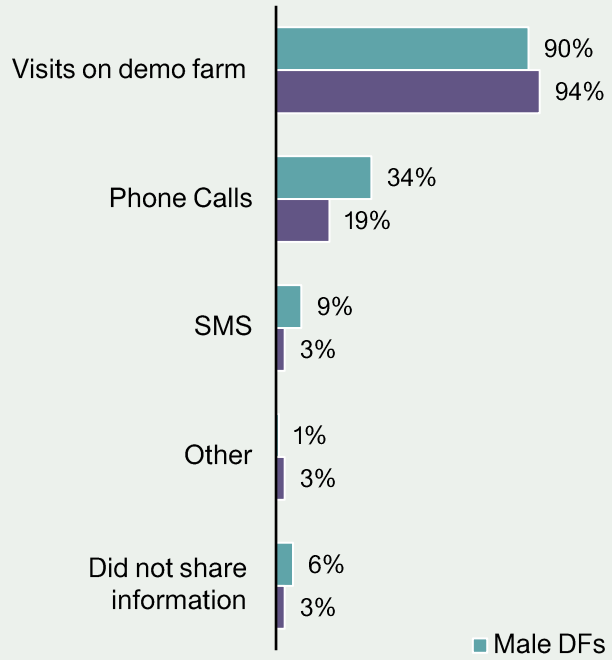
Male DFs are more likely to reach out to both male and female farmers via the phone, compared to female DFs.

'Other' channels include Whatsapp, community meetings, interactions with farmers on their farm, farmer associations, interactions with farmer outside of the farm, and the internet.

Farmers who 'Did not share information' with other farmers primarily spoke of not being allowed to speak to any one of the opposite gender due to this being the cultural norm within their household/community.

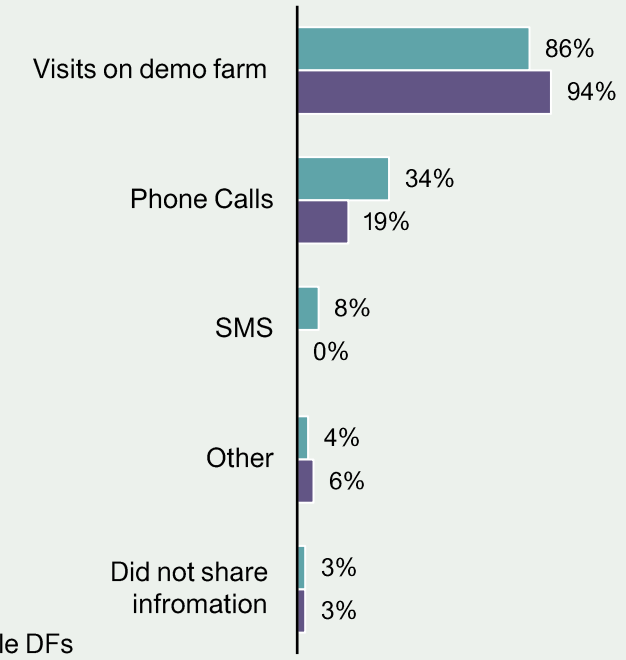
Channels DFs Use to Share Information With Male Observer Farmers

(male n = 218, female n = 32, multi-select allowed)



Channels DFs Use to Share Information With Female Observer Farmers

(male n = 218, female n = 32, multi-select allowed)



Farmer Dissemination: Reach and Channels (SR)

Male SRs shared information on PBR cowpea with more farmers than female SRs.

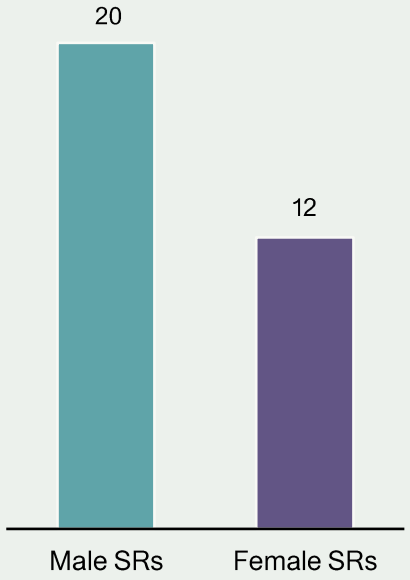
Both male and female SRs shared information with more farmers than male and female DFs (see page 21). This may be due to the fact that SRs do not host farmer field days, and therefore, are only able to share information with farmers externally.

However, SRs primarily share information on PBR cowpea during demo farm visits, despite not being the primary person trained to manage PBR cowpea.

80% of SRs who reported 'other' channels mentioned that they share information when cooking PBR cowpea for their friends.

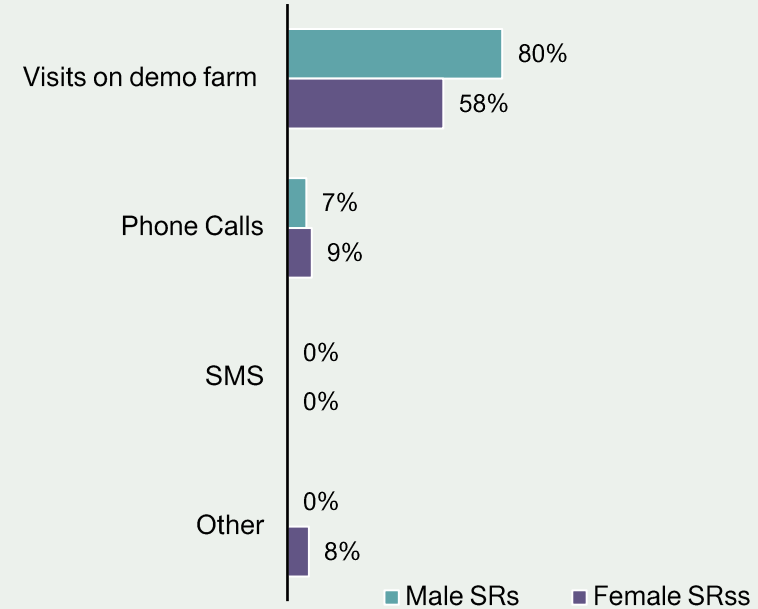
Number of Farmers Reached

(male n = 12, female n = 44)*



Channels SRs Use to Share Information With Other Farmers

(male n = 15, female n = 64)



*We provided ranges (1-20, 21-40, 41-60, 61-80, 81+) as answer options. We used the midpoint of each range weighted by proportion who mentioned that range to calculate sample average.

Likelihood of Male vs. Female Farmers to Purchase PBR cowpea

On average, DFs believe fewer female farmers will purchase PBR cowpea than male farmers.

Question only asked to DFs

We asked DFs to estimate what number of male and female farmers (out of 10) will:

- Buy PBR cowpea in the next season
- Not buy PBR cowpea in the next season but might buy season after
- Not buy PBR cowpea

While male and female DFs believe the same number of male farmers will purchase PBR cowpea this next season (8), female DFs believe more female farmers will buy PBR cowpea this next season compared to their male counterparts (8 vs. 6).

DF Perspective on Number of Male Farmers Likely to Purchase PBR cowpea

(male n = 218, female n = 32, avg. of every 10 farmers)

Avg # to Purchase Next Season

- 8 Male DF
- 8 Female DF

Avg # to Purchase Season After

- 1 Male DF
- 1 Female DF

Avg # to Never Purchase

- 1 Male DF
- 1 Female DF

DF Perspective on Number of Female Farmers Likely to Purchase PBR cowpea

(male n = 218, female n = 32, avg. of every 10 farmers)

Avg # to Purchase Next Season

- 6 Male DF
- 8 Female DF

Avg # to Purchase Season After

- 1 Male DF
- 0 Female DF

Avg # to Never Purchase

- 1 Male DF
- 0 Female DF

What Prevents Male Farmers from Purchasing

We asked DFs about challenges that would prevent male farmers from purchasing PBR cowpea. Top challenges that DFs mention are on the right.

DFs who did not report challenges felt nothing will prevent male farmers from buying, had no opinion, or mentioned it was too soon to tell whether there would be challenges.

Lack of awareness and scepticism are also top challenges EAs face in convincing male farmers to try PBR cowpea (EA study - Dec 2021).

One-fourth of male and female Demo Farmers each reported challenges for male farmers in purchasing PBR cowpea.

Question only asked to DFs

Top Challenges For Male Farmers (Male DF perspective)
(n = 53)

#1 Scarcity of PBR cowpea

#2 Financial constraints

#3 Male farmers are unsure due to lack of awareness

"PBR cowpea is not available in the market and a lot of farmers do not know where to get it. If it is unavailable, it can prevent male farmers from trying it." - Demo Farmer, Male

"The only thing that could prevent male farmer from trying PBR cowpea is if they do not have the money to purchase the variety." - Demo Farmer, Male

Top Challenges For Male Farmers (Female DF perspective)
(n = 8)

#1 Financial constraints

#2 Male farmers are unsure due to lack of awareness

#3 Male farmers are sceptical of PBR cowpea's benefits

"The only reason that could prevent the men from trying PBR cowpea is if they don't have money to purchase it." - Demo Farmer, Female, 61

"Because they don't know the usefulness of PBR cowpea, and they have never tried it to see the usefulness." - Demo Farmer, Female 22

What Prevents Female Farmers from Purchasing

We also asked DFs about challenges that would prevent female farmers from purchasing PBR cowpea. Top challenges that DFs mention are on the right.

DFs who did not report challenges felt nothing will prevent female farmers from buying, had no opinion, or mentioned it was too soon to tell whether there would be challenges.

Lack of engagement in farming is also one of the top challenges EAs face in convincing female farmers to try PBR cowpea (EA study - Dec 2021).

Male Demo Farmers are significantly more likely to report challenges preventing female farmers from purchasing PBR cowpea than female Demo Farmers (28% vs. 19%).

Question only asked to DFs

Top Challenges For Female Farmers (Male DF perspective)
(n = 58)

#1	Scarcity of PBR cowpea
#2	Female farmers do not engage in farming
#3	Financial constraints

"Most farmers don't know where to get the PBR cowpea seed from. This is the only reason that may prevent female farmers from trying it." - Demo Farmer, Male

"Women do not own farm in my culture, most of the decision on which variety of crop to plant are made by men who are the owners of the farmland." - Demo Farmer, Male, 61

Top Challenges For Female Farmers (Female DF perspective)
(n = 6)

#1	Female farmers are sceptical of PBR cowpea's benefits
#2	Female farmers do not engage in farming
#3	Financial constraints

"Some might not believe until they see result themselves." - Demo Farmer, Female, 38

"Women do not own or are not in charge of the farms. Most of them just assist their husband in planting/weeding, and do not make decisions." - Demo Farmer, Female, 61

Respondent Profile and Experience with Extension Agent

- Demo Farmer (DF) and Secondary Respondent (SR) Profiles
- Demo Farmer experience with Extension Agent (EA)
- Understanding of PBR cowpea and perception of benefits
- Most important information received from training
- Experience with PBR cowpea seeds and harvest

Experience Disseminating Lessons to Observer Farmers

- Observer Farmers reached and channels
- Likelihood of purchase from male farmers vs. female farmers

Household Satisfaction with PBR Cowpea

- Satisfaction with PBR cowpea (Net Promoter Scores)

Impact of PBR Cowpea and Household Dynamics

- Impact on income
- Impact on consumption
- Dynamics on decision-Making
- Changes in time females Spend on activities
- Other household changes

“I'd recommend PBR cowpea because of its early maturity and it doesn't require much spraying of insecticides - only two times spraying is enough, which saves cost and time. It also gives good crop yield.”

- Demo Farmer, Male, 36

DF Satisfaction with PBR cowpea

Demo Farmers gave PBR cowpea an excellent Net Promoter Score (NPS) of 78, indicating high satisfaction. Female DFs gave a slightly higher NPS than male DFs.

The Net Promoter Score® (NPS) is a gauge of satisfaction. Anything above 50 is considered very good. A negative score is considered poor.

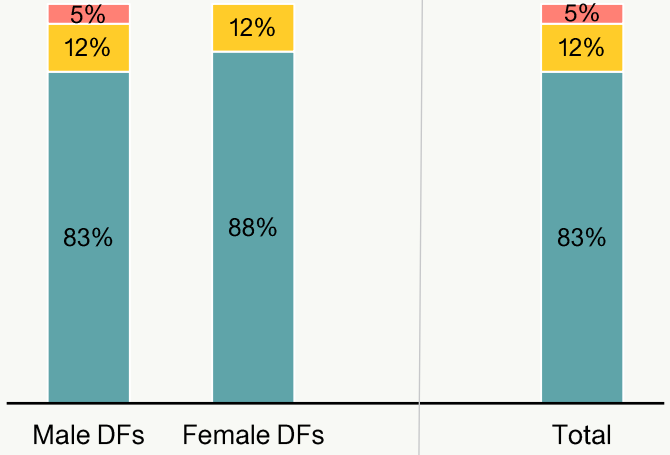
We looked for correlations between NPS and other metrics and found:

- Those who rated their knowledge of PBR cowpea higher after training were more likely to be Promoters of PBR cowpea.
- Those who hosted farmer field days had a higher NPS (82) than those who did not (76).

Both male and female DFs gave PBR cowpea a much higher NPS than EAs predicted (EA study - Dec 2021). EAs predicted that male DFs would have an NPS of 63, and female DFs would have an NPS of 40.

DF Net Promoter Score* for PBR cowpea

Likelihood of recommending the PBR cowpea to another farmer (n = 250)



	Male DFs	Female DFs	Total
NPS	79	88	78
n =	218	32	250

Promoters are those who are most satisfied with a company's services and likely to actively recommend them to others (rating of 9 or 10)

Passives refer to those who will not actively refer a company's services in the same way Promoters will (rating of 7 or 8)

Detractors are those who are least satisfied with a company's services and might actively deter people from using them (rating of 0-6)

*NPS was measured by asking Demo Farmers o rate their likelihood to recommend a service to another farmer on a scale of 0 to 10, where 0 is least likely and 10 is most likely. The NPS is the % of DFs rating 9 or 10 ('Promoters') minus the % of DFs rating 0 to 6 ('Detractors').

*NPS is sensitive to small sample sizes. Larger female sample sizes would be needed to draw firm conclusions of NPS by gender.

Net Promoter Score Drivers for DFs

Demo Farmer Promoters value PBR cowpea's high yield and early maturity / fast growth, as did Passives. There were very few Detractors.

	:)	: \	: (
Male DFs 	83% are Promoters. **They LOVE:** 1. Good / high yield (55%) 2. Early maturity / fast growth (52%) 3. Resistance to pests, insects, and legume Pod Borer (39%)	12% are Passives: **They LIKE:** 1. Good/high yield (77%) 2. Early maturity / fast growth (58%) **But complain about:** 1. Its small size (1 farmer)	5% are Detractors. **They DISLIKE:** 1. Crop affected by external factors, such as weather, animals, & "Fulani herdsman" (3) 2. Late supply of seeds from EAs (3) 3. Crop affected by pesticides/herbicides (3) 4. Crop affected by insects (2)
Female DFs 	88% are Promoters. **They LOVE:** 1. Early maturity/fast growth (68%) 2. Good/high yield (64%) 3. Resistance to pests, insects, and legume Pod Borer (25%)	12% are Passives: **They LIKE:** 1. Good/high yield (75%) 2. Early maturity/fast growth (50%)	0% are Detractors.
	"I'd recommend this PBR cowpea because of its early maturity, its resistance to Legume Pod Borer, and the good crop yield it gives." - Secondary Respondent, Female	"It yielded even more than we were told it would yield. The flowering base was fast during planting, as it started coming out within two weeks of planting." - Demo Farmer, Male, 43	"The Fulani herdsmen destroyed all my crop with their cow. I could not experience if the PBR cowpea is as good as the Extension Agent informed me." - Demo Farmer, Male, 42

*All percentages are out of the total % of Promoters, Passives, Detractors among male and female Demo Farmers (Primary Respondents), respectively.

SR Satisfaction with PBR cowpea

Secondary Respondents gave PBR cowpea an excellent Net Promoter Score of 86, indicating high satisfaction. Female SRs had a much higher NPS than male SRs.

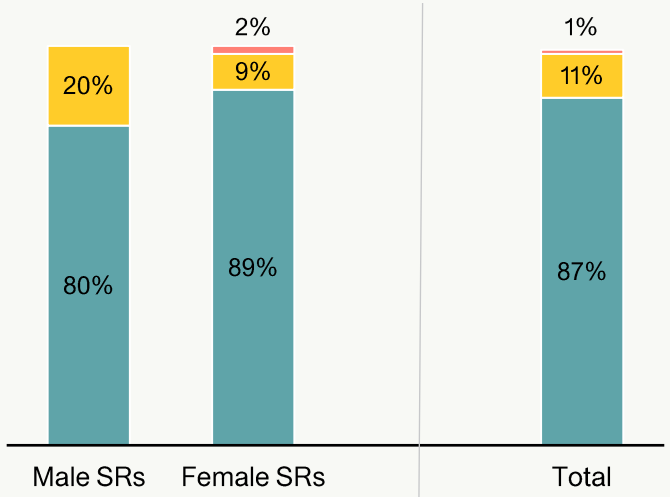
SRs have a much higher overall NPS than DFs. This could be due to DFs' overall responsibility for PBR cowpea, potentially resulting in less exposure/experience among SRs, and therefore, fewer challenges faced when purchasing or harvesting the crop. SR and DF Promoters overlapped in 61 out of 79 households (77%).

We looked for correlations between NPS and other metrics and found:

- Those who rated their knowledge of PBR cowpea higher after training were more likely to be Promoters of PBR cowpea.
- Those who shared information on PBR cowpea with other farmers had a higher NPS (96) than those who did not (61); this validates the claim that Promoters are likely to actively recommend PBR cowpea to others.

SR Net Promoter Score* for PBR cowpea

Likelihood of recommending the PBR cowpea to another farmer (n = 79)



	Male SRs	Female SRs	Total
NPS	80	87	86
n =	15	64	79

Promoters are those who are most satisfied with a company's services and likely to actively recommend them to others (rating of 9 or 10)

Passives refer to those who will not actively refer a company's services in the same way Promoters will (rating of 7 or 8)

Detractors are those who are least satisfied with a company's services and might actively deter people from using them (rating of 0-6)

*NPS measured through asking Secondary Respondents to rate their likelihood to recommend your service to another farmer on a scale of 0 to 10, where 0 is least likely and 10 is most likely. The NPS is the % of respondents rating 9 or 10 ('Promoters') minus the % of respondents rating 0 to 6 ('Detractors').

*NPS is sensitive to small sample sizes. Larger female sample sizes would be needed to draw firm conclusions of NPS by gender.

Net Promoter Score Drivers for SRs

Almost all Secondary Respondents are Promoters. They value PBR cowpea's early maturity/fast growth and resistance to pests, insects, and Pod Borer.

	:)	: \	: (
Male SRs 	80% are Promoters. **They LOVE:** 1. Early maturity/fast growth (67%) 2. Resistance to pests / insects / legume Pod Borer (67%) 3. Less use of herbicides/pesticides (42%)	20% are Passives: **They LIKE:** 1. Good / high yield (67%) 2. The good quality of the crop (33%)	0% are Detractors.
Female SRs 	89% are Promoters. **They LOVE:** 1. Early maturity/fast growth (58%) 2. Good/high yield (47%) 3. Resistance to pests, insects, and legume Pod Borer (46%)	9% are Passives: **They LIKE:** 1. Resistance to pests, insects, and legume Pod Borer (67%) 2. Good/high yield (50%) 3. The good quality of the crop (17%)	2% are Detractors. **They DISLIKE:** 1. Had no opinion on PBR cowpea (1 SR)
	"I'd recommend this PBR cowpea because of its early maturity, its resistance to Legume Pod Borer, and the good crop yield it gives." - Secondary Respondent, Female	"…it yielded good crop, and I did not invest too much time and there was no stress over it during the time of planting." - Secondary Respondent, Female	"I can't really say much about the [PBR] cowpea." - Secondary Respondent, Female

*All percentages are out of the total % of Promoters, Passives, Detractors among male and female Secondary Respondents, respectively.

Respondent Profile and Experience with Extension Agent

- Demo Farmer (DF) and Secondary Respondent (SR) Profiles
- Demo Farmer experience with Extension Agent (EA)
- Understanding of PBR cowpea and perception of benefits
- Most important information received from training
- Experience with PBR cowpea seeds and harvest

Experience Disseminating Lessons to Observer Farmers

- Observer Farmers reached and channels
- Likelihood of purchase from male farmers vs. female farmers

Household Satisfaction with PBR Cowpea

- Satisfaction with PBR cowpea (Net Promoter Scores)

Impact of PBR Cowpea and Household Dynamics

- Impact on income
- Impact on consumption
- Dynamics on decision-Making
- Changes in time females Spend on activities
- Other household changes

“We use the [PBR] cowpea to make different kind of meals, such that we can have varieties of meal by preparing it in different ways. This has made the consumption rate slightly increase in my household.”

- Demo Farmer, Male, 45

Perceived Impact of PBR cowpea on Income

A higher proportion of male Demo Farmers report significant increases in income compared to their female counterparts.

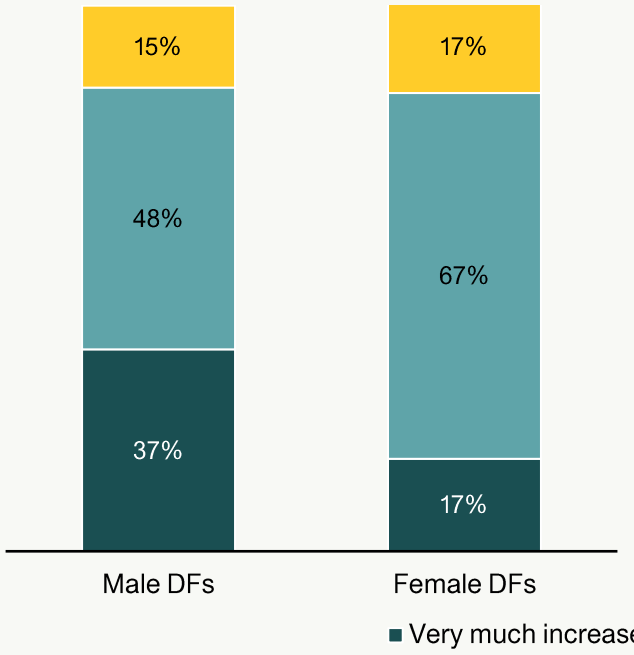
Only 14% of DFs reported their household sold their PBR cowpea. Data from these households is displayed in the first graph on the right.

Only 16% of SRs (13 respondents) interviewed came from households where PBR cowpea was sold. Data from these households is displayed in the second graph on the right.

Surprisingly, 8 out of the 13 SRs who reported 'no change' (62%) came from households where the DFs reported increases.

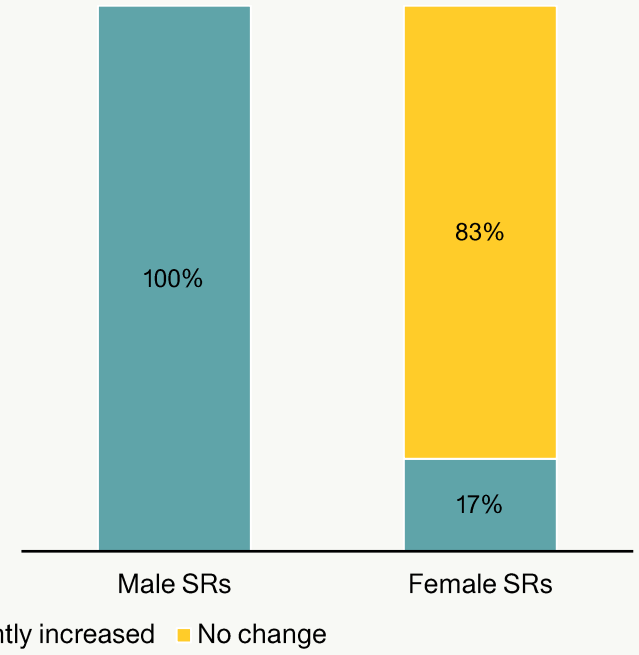
DF Perceived Change in Income from PBR cowpea

(male n = 27, female n = 6)



SR Perceived Change in Income from PBR cowpea

(male n = 1, female n = 12)



Very much increased | Slightly increased | No change

Reasons for Increases in Household Income

For the few Demo Farmers and Secondary Respondents who report increased income, higher prices and ability to sell more are primary reasons for the increases.

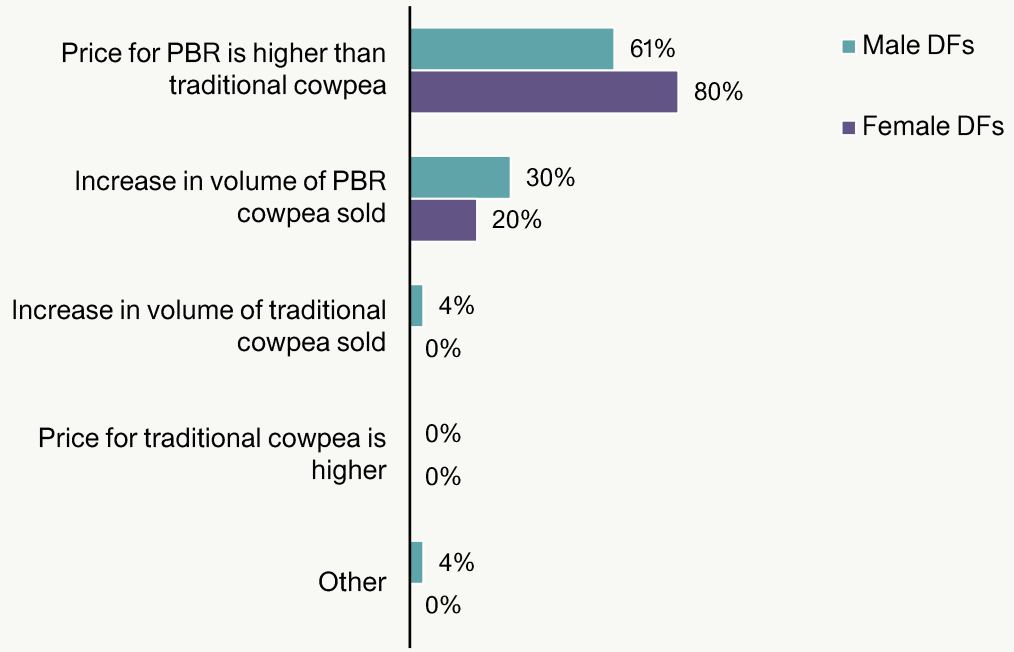
We asked both DFs and SRs who reported an increase in income their reasons for these increases.

Female DFs are more likely to report higher prices and less likely to mention increases in volume as reasons for increased income, as compared to male DFs.

Only 3 SRs reported increases in income (2 females, 1 male). This sample size is too small to draw any inferences or conclusions on reasons for this increase.

DF Reasons for Increased Income

(male n = 23, female n = 5, multi-select allowed)



DF Uses of Money Earned From PBR cowpea

Demo Farmers primarily use the income they earn from PBR cowpea to cover household expenses and purchase agri-inputs.

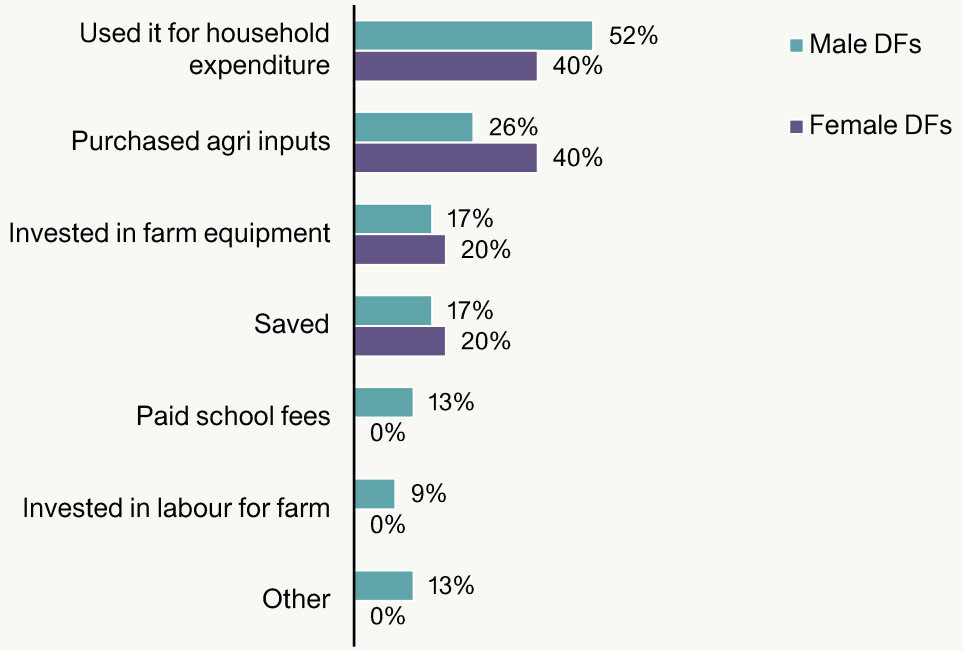
Question only asked to DFs

We asked DFs who reported increased income what they used their increased income for.

Male DFs are more likely to use the income for household expenditure, while female DFs are more likely to use it for purchasing agri-inputs.

DF Uses of Income

(male n = 23, female n = 5, multi-select allowed)



DF Perceived Impact on Household Consumption

A third of Demo Farmers who consume cowpea report their household consumption of cowpea has increased since the introduction of PBR cowpea to their household.

We asked DFs who consume cowpea if they believe adopting PBR cowpea has impacted the amount of cowpea they consume.

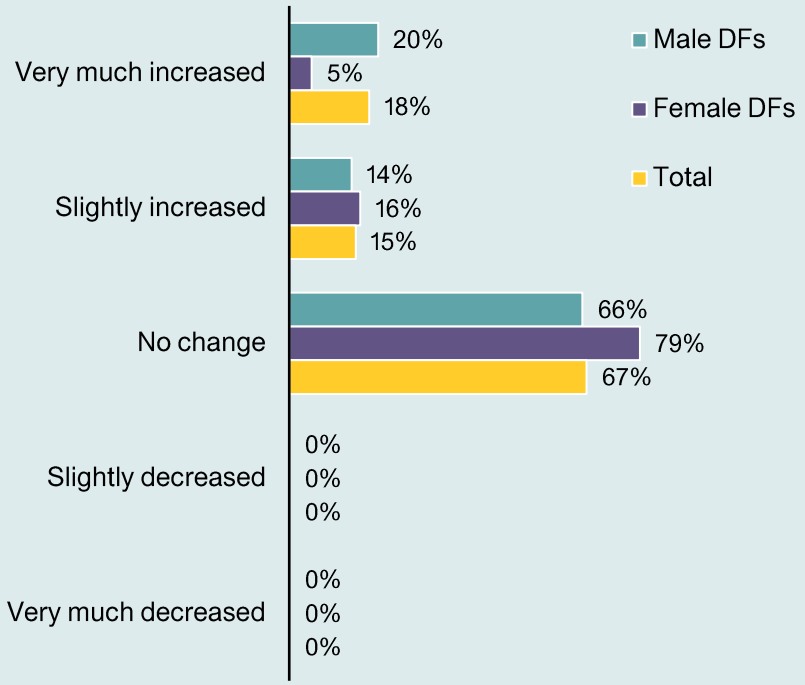
Most DFs (68%) report 'no change'. These DFs primarily mention that they:

- Consume a lot to begin with and therefore, have not changed the amount consumed (51%)
- Are preserving PBR cowpea for the next planting season (29%)
- Do not have much PBR cowpea to consume due to low yield from recent planting season (18%)

Male DFs are more likely to report increases in cowpea consumption in their household (34%) than female DFs (21%).

DFs' Perceived Change in Household Cowpea Consumption

(male n = 118, female n = 19, total n = 137)*



Very much increased:
"It has increased because my parents love consuming cowpea and it is one of my favorites dishes… now that I'm in the [PBR] cowpea farming system, the rate at which my household consumes cowpea has really increased." - Demo Farmer, Male, 45

Slightly increased:
"The PBR cowpea harvest added to our local cowpea harvest, which slightly increases the cowpea we have in the household." - Demo Farmer, Male, 51

No change:
"There is no change because we are preserving the harvest for the next planting season." - Demo Farmer, Female, 40

*Only asked to those who said they consumed PBR cowpea, or purchased grains for consumption (see page 17 & page 18)

DFs' Reasons for Increase in Consumption

DFs were asked to describe – in their own words – why they think cowpea consumption has increased in their household. The top reasons DFs mention are shown on the right.

Other reasons include:

- More family members now consume PBR cowpea (11%)
- Local cowpea is now supplemented with PBR cowpea (9%)
- PBR cowpea is now a household staple (9%)

Female DFs are more likely to mention PBR cowpea's accessibility/availability (50%), while only male DFs mention PBR cowpea's better taste (13%).

Most Demo Farmers believe increases in household consumption are driven by more accessibility/availability of cowpea for their household and high yield.

Top Three Reasons 33% of DFs Believe Household Cowpea Consumption Has Increased

(male n = 40, female n = 4, total n = 44). Open-ended, coded by 60 Decibels; multiple themes per respondent are possible.

36% mention the **crop's accessibility/availability**
(12% of all respondents who consumed PBR cowpea)

"It has increased because I no longer purchase cowpea from the market. I consume the one I harvested." - Demo Farmer, Male, 51

27% talk about **PBR cowpea's high yield/harvest**
(9% of all respondents who consumed PBR cowpea)

"…they have taught us how to plant cowpea properly, it now yields a little bit more, which provides more cowpea to feed on." - Demo Farmer, Male, 45

11% report **PBR cowpea's better taste**
(14% of all respondents)

"Because it's not costly compared to other cowpea." - Demo Farmer, Female, 48

Impact on Consumption Patterns (DF)

Most Demo Farmers consumed the PBR cowpea they harvested/purchased once a month or less. When consuming cowpea, almost all consume the cowpea grain.

Question only asked to DFs

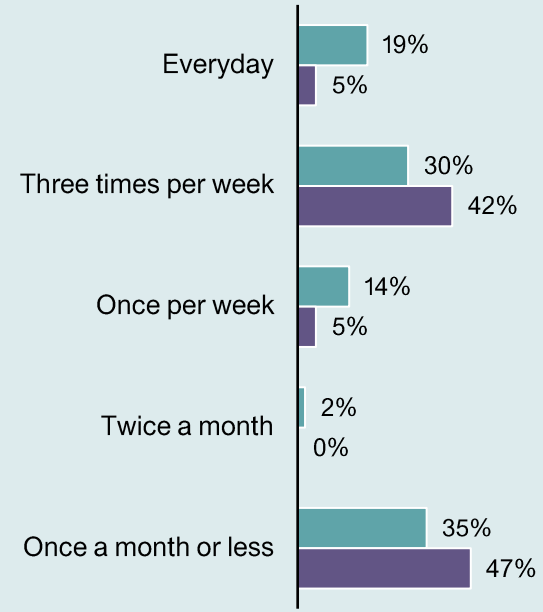
We asked Demo Farmers who consume PBR cowpea how frequently they consume it and which part of the cowpea they consume.

Male DFs are more likely to consume PBR cowpea every day (19%) as compared to female DFs (5%).

Those who consume once a month or less are more likely to report 'no change' in consumption (78%), as compared to those who consume twice a month or more often (62%).

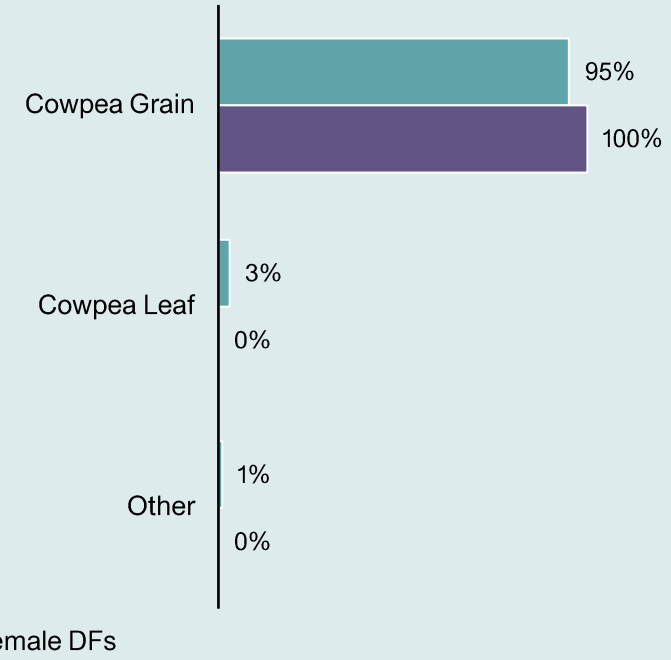
Consumption Frequency

(male n = 118, female n = 19)



Part of PBR cowpea Consumed

(male n = 118, female n = 19, multi-select allowed)



SR Perceived Impact on Household Consumption

Only 16% of Secondary Respondents who consume cowpea report their household cowpea consumption has increased since the introduction of PBR cowpea to their household.

We also asked SRs if they believe adopting PBR cowpea has impacted the amount of cowpea they consume.

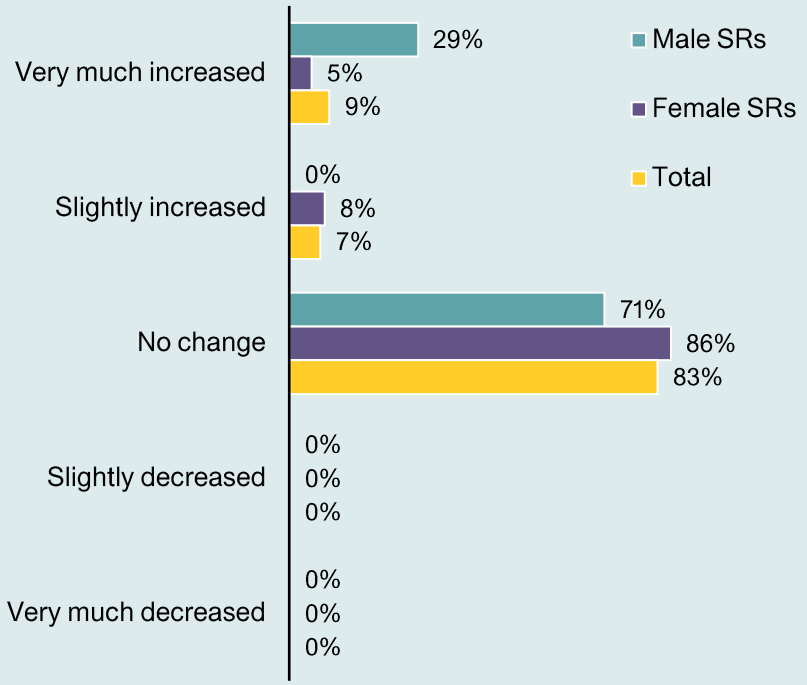
A higher proportion of SRs report 'no change' than DFs (83%). These SRs mention the same reasons as DFs including that they:

- Consume a lot to begin with and therefore, have not changed the amount consumed (49%)
- Are preserving the PBR cowpea for the next planting season (23%)
- Do not have much PBR cowpea to consume due to low yield from recent planting season (14%)

Male SRs are more likely to report increases in cowpea consumption (29%) than female SRs (13%).

SRs' Perceived Change in Household Cowpea Consumption

(male n = 7, female n = 36, total n = 43)



Very much increased:
"Because when the PBR cowpea is brought home to cook, it is easier to cook than the local ones." - Secondary Respondent, Male

Slightly increased:
"There was increase in the harvest." - Secondary Respondent, Female

No change:
"My husband said he didn't get much yield like we expected, because after he used that spray that they gave him, he lost most of the crop. So we preserved what we have for next planting season. We want to have as much as possible to save and eat." - Secondary Respondent, Female

*Data only displayed for SR respondents from DF households that consumed or purchased for consumption (see page 17 & page 18)

SRs' Reasons for Increase in Consumption

SRs were also asked to describe – in their own words – why they think cowpea consumption has increased in their household. The top reasons SRs mention are shown on the right.

Secondary Respondents primarily believe increases in household consumption are driven by family/friends' growing interest in consuming PBR cowpea.

Top Three Reasons 16% of SRs Believe Household Cowpea Consumption Has Increased

(male n = 2, female n = 5, total n = 7). Open-ended, coded by 60 Decibels; multiple themes per respondent are possible.

28% mention **family/friends growing interest in eating PBR cowpea**
(3% of all respondents)

"Because people in my house are showing interest in eating [PBR] cowpea." - Secondary Respondent, Female

14% mention **PBR cowpea's high yield/harvest**
(1% of all respondents)

"The harvest increased." - Secondary Respondent, Female

14% talk about **PBR cowpea's availability/accessibility**
(1% of all respondents)

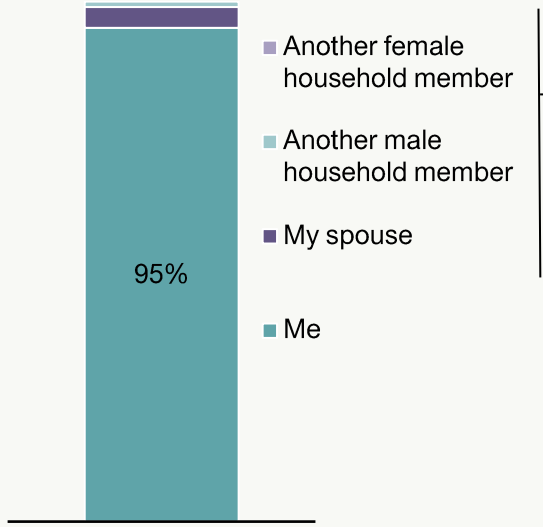
"We have it in our farm and we eat after harvest." - Secondary Respondent, Male

DF Perspective on Decision to Try PBR cowpea

88% of female Demo Farmers report being the final decision maker to try PBR cowpea. Of the remaining, all provide a lot of input in this decision.

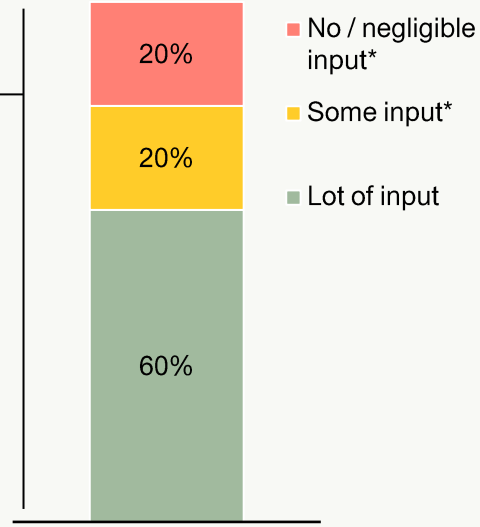
Final Decision Maker to Try PBR cowpea

(n = 218 male DF)



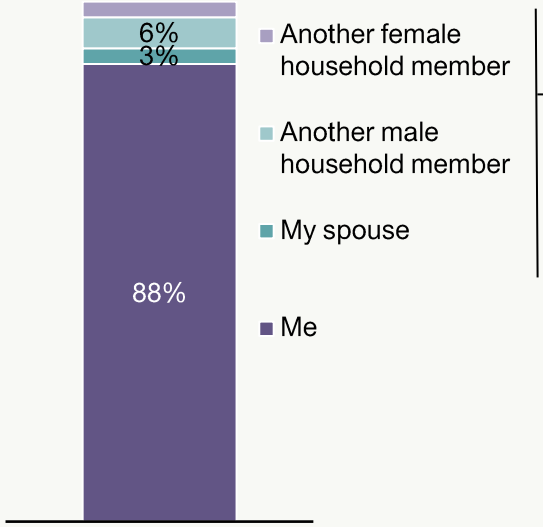
Level of Input in Decision to Try PBR cowpea

(n = 10 male DF)



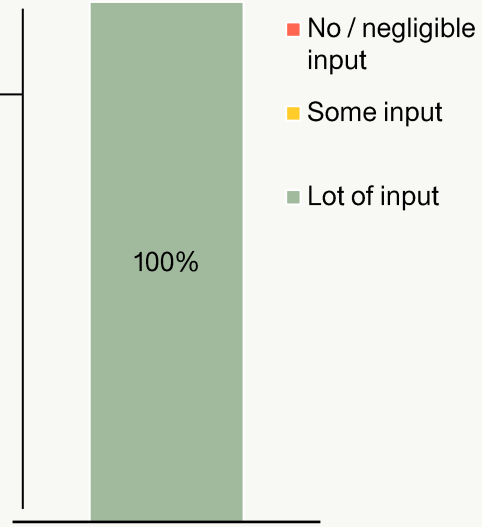
Final Decision Maker to Try PBR cowpea

(n = 32 female DF)



Level of Input in Decision to Try PBR cowpea

(n = 4 female DF)



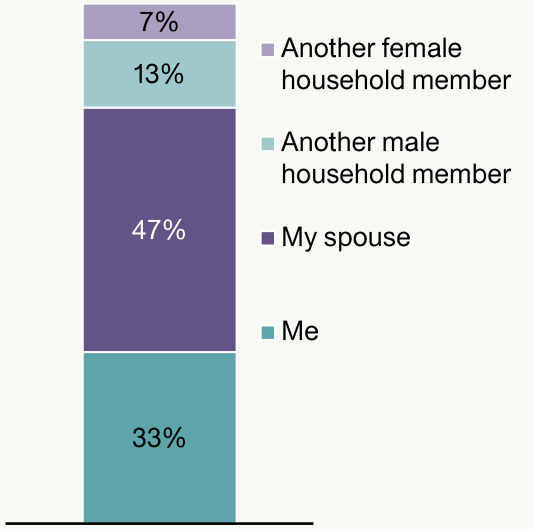
*The 4 male DFs who reported some or none/negligible input mentioned that their wife makes all decisions (2 DFs), or that they do not have enough harvested for consumption (2 DFs),

SR Perspective on Decision to Try PBR cowpea

Only 11% of female Secondary Respondents report being the final decision maker to try PBR cowpea. Of the remaining, 77% provide at least some input in this decision. Almost all SRs (98%) believe a good decision was made.

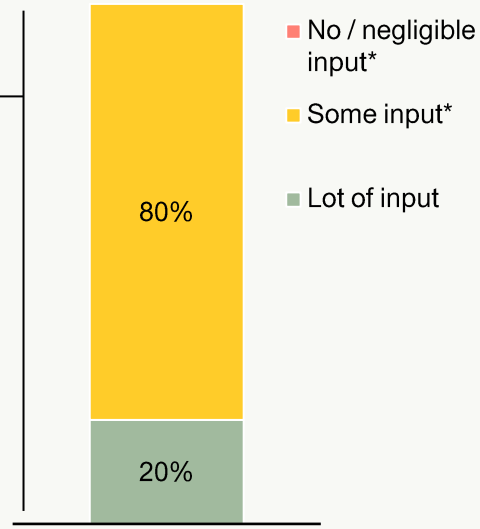
Final Decision Maker to Try PBR cowpea

(n = 15 male SR)



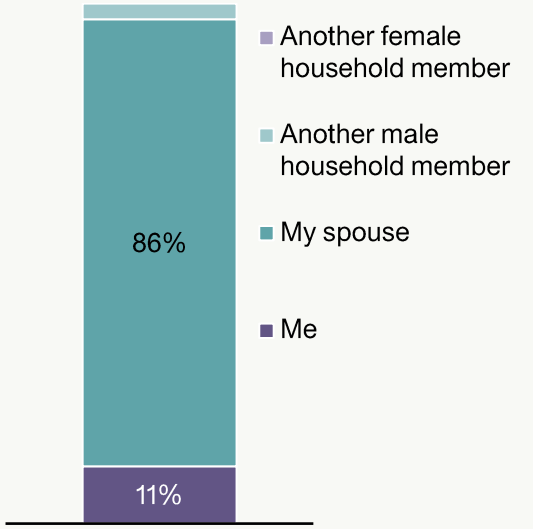
Level of Input in Decision to Try PBR cowpea

(n = 10 male SR)



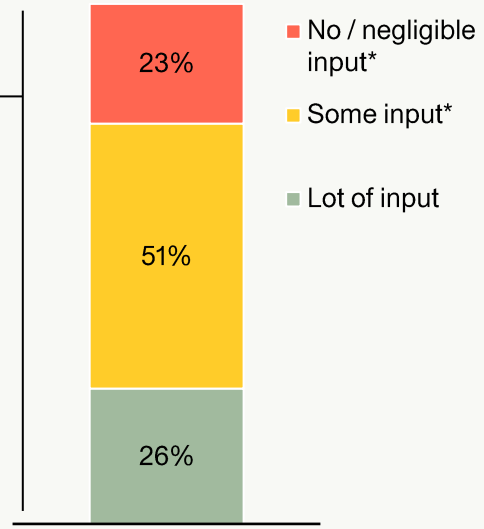
Final Decision Maker to Try PBR cowpea

(n = 64 female SR)



Level of Input in Decision to Try PBR cowpea

(n = 57 female SR)



*Of the 8 male DFs who reported some or none/negligible input, 88% reported that “this is just how things are done” and 13% reported “I do not know enough about PBR cowpea”.

*Of the 42 female DFs who reported some or none/negligible input, 62% reported “this is how things are done”, 19% reported “I do not know enough about PBR cowpea”, 2% reported “I don’t have time”, and 31% reported “other”.

SR Perspective on Time Spent by Women

A fifth of male Secondary Respondents, and a slightly lower proportion of female SRs, believe the time women spend on agriculture and non-agriculture activities has increased.

Question only asked to SRs

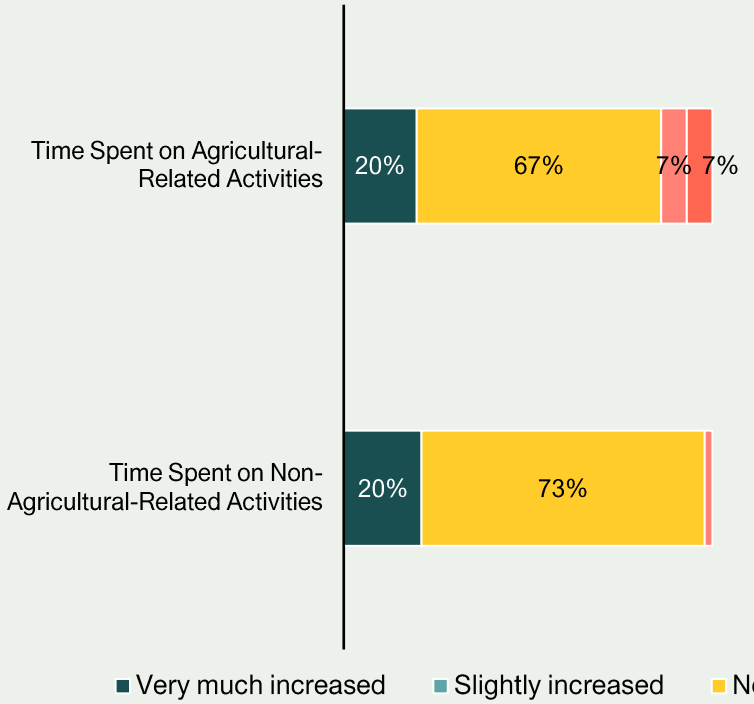
We asked SRs about any shifts in time that women and girls spend on chores, activities, and responsibilities in the household since the adoption of PBR cowpea.

The majority of male and female SRs say there has not been a chance. A few male and female SRs believe the time women spend on agriculture household chores has decreased.

We also asked SRs if women stopped doing an activity that they were earning an income from. Only 4% reported that they have.

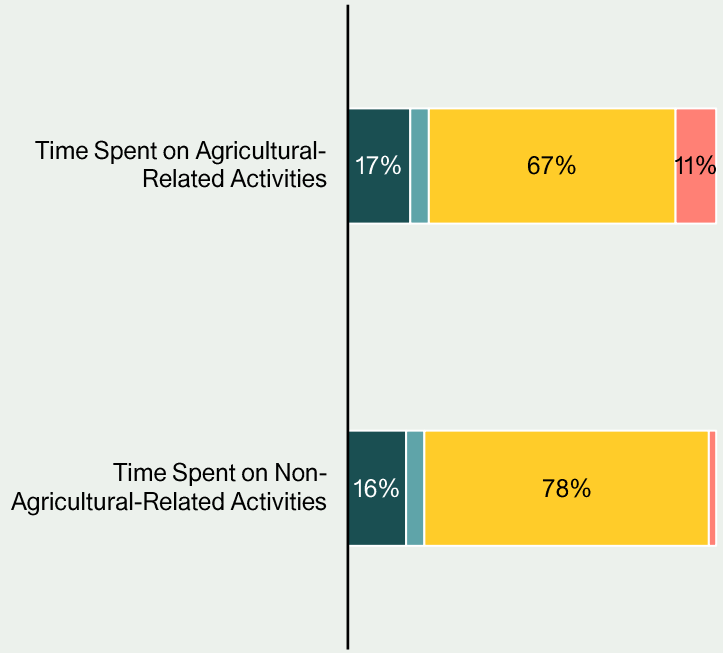
Change in Time Women Spend on Chores Since Adoption of PBR cowpea

(n = 15 male SR)



Change in Time Women Spend on Chores Since Adoption of PBR cowpea

(n = 64 female SR)



SR Perspective on Other Household Changes for Women

We asked both male and female SRs to explain any other changes for women and girls in the household. Top positive changes are on the right.

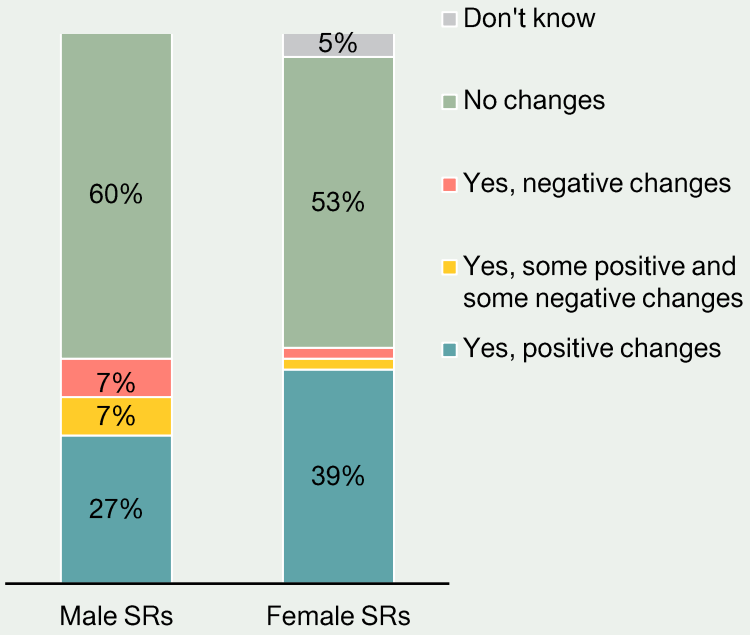
Regarding negative changes, while male SRs did not mention any, female SRs mentioned that females are less engaged in farming.

Female Secondary Respondents are more likely to report positive changes for women in their households than male Secondary Respondents.

Question only asked to SRs

SR Perspective on Whether There Have Been Other Changes for Women

(male n = 15, female n = 64)



Male SRs believe positive changes are…

1. More engagement in farming

"Women and girls have become aware of the benefits of agricultural activities…"
– Secondary Respondent, Male

"Women and girls go into farming as much as male farmers do."
– Secondary Respondent, Male

Female SRs believe positive changes are…

1. More engagement in farming
2. Less time spent on farm

"The positive change is that they were lazy to work with us before… now with this PBR cowpea that doesn't need much work, they always give us a helping hand in the farm." – Secondary Respondent, Female

RECOMMENDATIONS

Recommendations from Some Initial Findings

We had a few suggestions for AATF and EAs based on two of the findings presented on page 6.

Finding	Recommendation	For More Information
Finding #1: After training, females' main takeaways were related to qualities of PBR cowpea, while males were more focused on PBR cowpea's effect on farming practices.	This can be something Extension Agents pay closer attention to when training Demo Farmers, so that AATF feels confident that both female and male DFs have a solid understanding of the both management of PBR cowpea and its qualities. Doing so can encourage female DFs to farm PBR cowpea correctly, and male DFs to promote qualities of PBR cowpea to others.	Page 16
Finding #2: While males are disseminating information on PBR cowpea to more farmers than females, they are slightly less satisfied with PBR cowpea compared to their female counterparts.	Detractors of PBR cowpea primarily spoke of the seeds being supplied late and factors affecting their crops (such as external factors, pesticides, and insects). It might be worth reviewing open-ended responses that came from Passives/Detractor DFs (and SRs), particularly males, to learn more about their concerns in general. Further conversations with these farmers during training or interactions may also help AATF understand on-going sources of satisfaction and dissatisfaction. This can help ensure there is no misinformation and challenges are resolved.	Pages 21, 23, 29, 31

Additional Recommendations

Providing seeds on loans, encouraging more farmer field days, and informing Extension Agents of the results of this study could improve uptake and impact of PBR cowpea.

Finding	Recommendation	For More Information
Financial constraints came up as a top challenge both male and female DFs feel will prevent farmers from purchasing PBR cowpea.	It will be interesting to see whether this also comes up in the Observer Farmer study that will take place. If this does come up in the Observer Farmer study, it might be worth evaluating if AATF could provide PBR cowpea seeds on loans to farmers to ensure higher uptake.	Pages 25, 26
Both male and female DFs and SRs prefer to use their demo farms to share information on PBR cowpea.	Only 40% of Demo Farmers hosted farmer field days. Male DFs were most likely to host farmer field days than female Demo Farmers (41% vs. 28%). Demo Farmers (especially female DFs) could be encouraged to host more farmer field days to increase uptake of PBR cowpea. There is also potential to encourage involvement of Secondary Respondents in these demos.	Pages 22, 23
Extension Agents have less faith in Demo Farmer uptake of PBR cowpea than Demo Farmers themselves.	A higher proportion of DFs selected benefits than predicted by EAs in the EA study that took place in December 2021. In addition, both male and female DFs gave PBR cowpea a much higher NPS than Extension Agents predicted. It might be worth sharing results of this study with Extension Agents, so they have more faith in Demo Farmers and context on their level of understanding of the crop.	Pages 14, 29

What Next?

…& Appendix

Impact Management Project

We aligned your results to the Impact Management Project. We're big fans of the IMP – it's a simple, intuitive and complete way of conceptualizing impact.

We take pride in making the data we collect easy to interpret, beautiful to look at, and simple to understand and act upon.

We also align our data with emerging standards of best practice in our space, such as the Impact Management Project (IMP).

The IMP introduces five dimensions of impact: Who, What, How Much, Contribution, and Risk.

These dimensions help you check that you haven't missed any ways of thinking about, and ultimately measuring, the positive and negative changes that are occurring as a result of an intervention.

IMPACT MANAGEMENT PROJECT

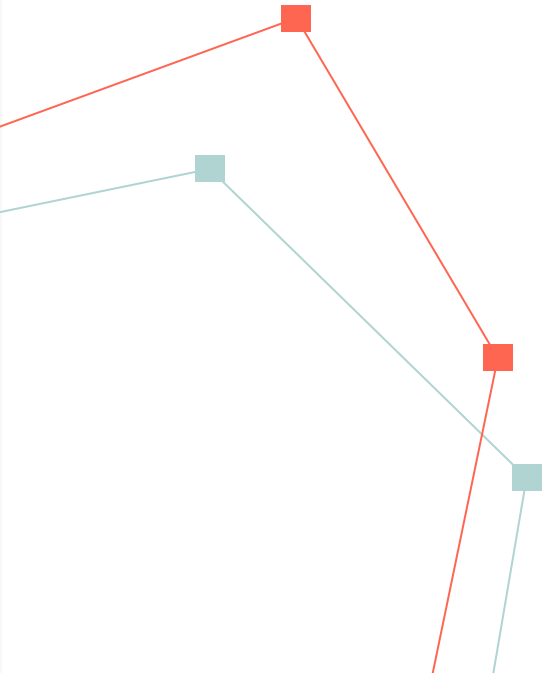
Dimension	Explanation
Who ○	The **Who** of impact looks at the stakeholders who experience social and environmental outcomes. All things equal, the impact created is greater if a particularly marginalised or underserved group of people is served, or an especially vulnerable part of the planet protected. **For the who of impact, we tend to work with our clients to understand poverty levels, gender and disability inclusivity.**
What Impact □	**What** investigates the outcomes the enterprise is contributing to and how material those outcomes are to stakeholders. We collect most of this what data using qualitative questions designed to let customers tell us in their own words the outcomes they experience and which are most important to them.
How Much ≡	**How Much** looks at the degree of change of any particular outcome.
Contribution +	**Contribution** seeks to understand whether an enterprise's and/ or investor's efforts resulted in outcomes that were better than what would have occurred otherwise. In formal evaluation this is often studied using experimental research such as randomised control trials. Given the time and cost of gathering these data, this is not our typical practice. We instead typically ask customers to self-identify the degree to which the changes they experience result from the company in question. We ask customers whether this was the first time they accessed a product of technology like the one from the company, and we ask how easily they could find a good alternative. If a customer is, for the first time, accessing a product they could not easily find elsewhere, we consider that the product or service in question has made a greater contribution to the outcomes we observe.
Risk △	**Impact Risk** tells us the likelihood that impact will be different than expected. We are admittedly still in the early days of figuring out how best to measure impact risk – it's an especially complex area. That said, where customers experience challenges using their product or service, we do think that this correlates with a higher risk that impact does not happen (i.e. if a product or service is not in use then there's no impact). Hence, we look at challenge rates (the percent of customers who have experienced challenges using a product or service), and resolution rates (the percent of customers who experienced challenges and did not have them resolved) as customer based proxies for impact risk.

Calculations & Definitions

For those who like to geek out, here's a summary of some of the calculations we used in this deck.

Metric	Calculation
Net Promoter Score®	The Net Promoter Score is a common gauge of customer loyalty. It is measured through asking customers to rate their likelihood to recommend your service to a friend on a scale of 0 to 10, where 0 is least likely and 10 is most likely. The NPS is the % of customers rating 9 or 10 out of 10 ('Promoters') minus the % of customers rating 0 to 6 out of 10 ('Detractors'). Those rating 7 or 8 are considered 'Passives'.

Thank You For Working With Us!



We hope you can apply these insights right away!

About IGNITE

The Impacting Gender & Nutrition through Innovative Technical Exchange in Agriculture (IGNITE) mechanism is a five-year invested funded by the Bill & Melinda Gates Foundation and implemented by Tanager, Laterite, and 60 Decibels (60dB) to improve household nutrition and women's empowerment by strengthening African institutions' ability to integrate gender and nutrition into their way of doing business and their agricultural interventions.

IGNITE works with African institutions to design, implement, and evaluate nutrition-sensitive and gender-integrated agriculture interventions

Your Feedback

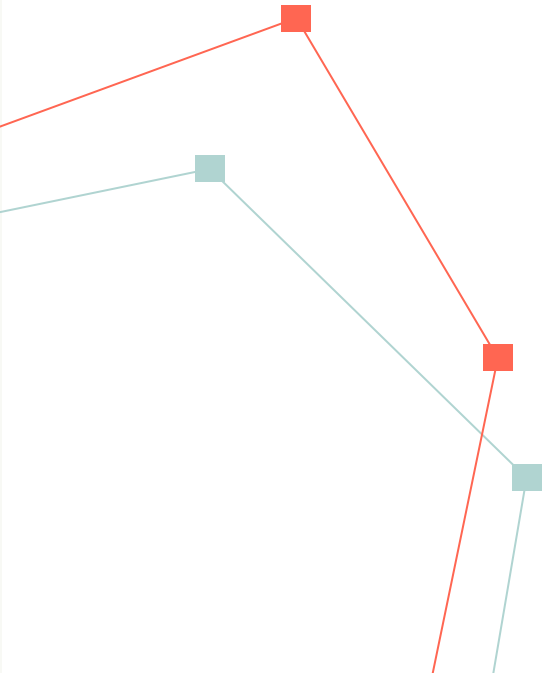
We'd love to hear your feedback on the 60dB process; take 5 minutes to fill out our feedback survey!

Acknowledgements

Thank you to Cecilia Limera, Emmanuel Okogbenin, Moses Taiwo, Ruth Rotich, Millicent Sedi, and Ijeoma Akaogu from the AATF and Catherine Macharia-Mutie, Samwel Oando, Maureen Munjua, Benson Mutuku, and Charles Karari from Tanager for their support throughout the project.

This study was undertaken by 60dB as part of the IGNITE project.

IGNITE Partner Profiles



About 60 Decibels

60 Decibels makes it easy to listen to the people who matter most. 60 Decibels is an impact measurement company that helps organizations around the world better understand their customers, suppliers, and beneficiaries. Its proprietary approach, Lean Data, brings customer-centricity, speed and responsiveness to impact measurement.

60 Decibels has a network of 750+ trained Lean Data researchers in 50+ countries who speak directly to customers to understand their lived experience. By combining voice, SMS, and other technologies to collect data remotely with proprietary survey tools, 60 Decibels helps clients listen more effectively and benchmark their social performance against their peers.

60 Decibels has offices in London, Nairobi, New York, and Bengaluru. To learn more, visit 60decibels.com.

We are proud to be a Climate Positive company.

About Tanager

Tanager, an ACDI/VOCA affiliate, is an international nonprofit that brings people together at the table, on the ground, and across supply chains to co-create economic and social opportunities that change lives. Working closely with our partners, we align interests to expand market access and unlock the full potential of shared market opportunities that result in reliable supply chains, stable incomes, healthy families, and resilient communities.

About Laterite

Laterite is a data, research and advisory firm dedicated to providing high-quality research services for social impact in East Africa. We provide technical advice on the design and implementation of research projects, development interventions, and socio-economic policies. We strive to deliver impactful research that helps decision-makers find solutions to complex development problems. Our approach is structured, data intensive, and embedded in the local context. Laterite has been in operation for ten years and is currently established in Rwanda, Ethiopia, Kenya, Uganda and the Netherlands.

Acronyms & Abbreviations

A list of acronyms / abbreviations used in this report.

Abbreviation	Definition
EA	Extension Agents
PBR	Pod Boer Resistant Cowpea
DF	Demo Farms / Demo Farmers (Primary Respondent)
SR	Secondary Respondnet
NPS®	The Net Promoter Score is a common gauge of customer loyalty. It is measured through asking customers to rate their likelihood to recommend your service to a friend on a scale of 0 to 10, where 0 is least likely and 10 is most likely. The NPS is the % of customers rating 9 or 10 out of 10 (‘Promoters’) minus the % of customers rating 0 to 6 out of 10 (‘Detractors’). Those rating 7 or 8 are considered ‘Passives’.

tanager

an ACDI/VOCA affiliate

laterite

DATA | RESEARCH | ADVISORY

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