Syngenta Foundation India

Farmer Insights



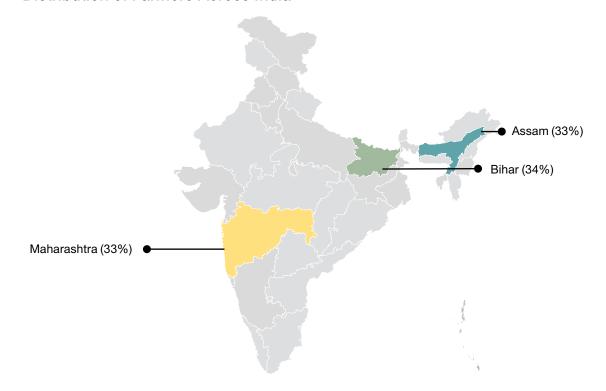
60_decibels May 2023

Syngenta Foundation India's Agri-Entrepreneur (AE) program provides services such as crop advisory, market linkages, and farm inputs to farmers. 60 Decibels spoke to farmers who engage with AEs to understand the impact of the program.

The farmers we spoke to are distributed across three states in India, as shown on the right. All respondents are farmers and have interacted with SFI-trained Agri-Entrepreneurs (AEs) in the past 12 months.

We spoke to 455 farmers that engage with Syngenta Foundation India (SFI)'s Agri-Entrepreneurs across three states.

Distribution of Farmers Across India



Welcome To Your 60dB Results

We enjoyed hearing from 455 farmers associated with Syngenta Foundation India - they had a lot to say!

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on a -100 to 100 scale

Syngenta Foundation India Performance Snapshot - Overall

8%

report challenges

SFI's Agri-Entreprenuer program is positively impacting farmers' income and productivity. Few farmers report challenges.

80%

crop/livestock

production

report increase in total

Contribution Impact Change in Way Gender of Farming 23% 75% 83% 81% % female farmers quality of life way of farming first time accessing improved served improved service provided • • • • Challenges Income Earned Net Promoter Crop Production Score®

79%

increased

Farmer Voice

"The information my Agri-Entrepreneur provides is very innovative and new. This knowledge benefits all of us and I will surely recommend the program to everyone" - Male, Maharashtra, 41

Data Summary

Company Performance: 455 farmer phone interviews in February 2023, in India.

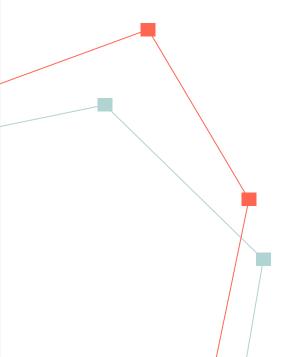
Quintile Assessment compares Company Performance with 60dB Agriculture Benchmark comprised of 95 companies, 21 countries, and 20,000+ customers. Full details can be found in Appendix.

Performance vs. 60dB Benchmark

- TOP 20%
- TOP 40%
- MIDDLE
- BOTTOM 40%
- BOTTOM 20%

Farmer Voices

We love hearing farmer voices. Here are some that stood out.



Impact Stories

75% shared how the AE's services has improved their quality of life

"In the last two years my income was next to zero due to damaged crops. But after working with [the AE], I was able to invest in a mushroom plantation. My earnings have improved. I am finally able to afford basic amenities such as good quality food and clothing for my family." - Female, Assam, 38

Earlier, we had nothing. We couldn't meet our basic needs. Now, have been able to buy a motorcycle, construct a *pakka* house, and the AE has been personally very helpful with education of our children and their health. Moreover, we used to be in debt. That has now changed. I have cleared all my debts." - Male, Assam, 50

"I have gained more respect among other farmers. I have built an identity for myself. I look at [the AE] being a woman and doing so well. I am inspired by her and proud of what I do for my family." - Male, Bihar, 55

"I am now aware of irrigation patterns for crops. For example, corn requires 2-3 days of water in the soil before we sow the seeds, however, earlier we would only water the soil for one day." - Male, Bihar, 40

"I have learnt many new things such as mixed cropping. In my kitchen garden, I grow vegetables. I even use deflated tires filled with mud to grow coriander and tomatoes. I have learnt so many innovative things." - Male, Maharashtra, 30

Opinions On SFI's Value Proposition

61% were Promoters and were very likely to recommend the good advice given by their AEs

"[The AE] is very popular among farmers because of his knowledge and hard work. He advises us on how to use the fertilizer optimally in order to increase our yield." - Male, Maharashtra, 36

"[The AE] is a very humble person. He is very patient and a good neighbor, with good knowledge of farming. Farmers are often not educated, and they do not have good knowledge on many subjects. People like [the AE] help farmers very much." - Female, Bihar, 40

Opportunities For Improvement

65% had a specific suggestion for improvement

"[The AE] should frequently visit our fields. She must tell us about the seeds, fertilizers and other things so our production can increase." - Female, Maharashtra, 28

"Sometimes I am unsure whether or not I can call [the AE] to my field to check on the crops. He should make himself more accessible to us." –Male, Assam, 42

"[The AE] should become more professional and advise the larger community where men are dominating at present. She currently helps only at the kitchen garden level." - Male, Bihar, 52

Key Takeaways

Farmers are satisfied with AE services. Frequent AE communication drives higher satisfaction.

> Syngenta Foundation India's AE program has an NPS of 49, which is good. Farmers are happy with their AEs' advice, gaining new knowledge, and the AEs' commitment. Dissatisfied farmers complain about limited AE involvement and communication. Farmers who communicate at least weekly with their AE are more likely to be satisfied with their services, compared to those communicating less frequently.

See pages 8 and 12

AEs are driving improvements in farming practices, which positively impact productivity.

> Close to 4 in 5 farmers report improvements in their way of farming and total production. 79% report access to improved quality fertilizer and 62% report a decrease in the total amount used. Accordingly, more than half of farmers report a reduction in expenditure on agricultural inputs. 42% of farmers have adopted intercropping, yet 1 in 4 remain unaware of the technique.

See pages 9, 11, 16, and 45.

Farmers are earning more money because of their engagement with AEs.

4 in 5 farmers say they are earning more as a result of the AE. For most farmers, this is driven by increased productivity and reduced expenditures.

75% of farmers report improved quality of life, primarily due to increased income.

See pages 14, 15 and 18.

Farmer satisfaction can be accelerated by deepening AE engagement levels.

Top challenges reported by farmers include lack of field visits and follow up interactions from their AE. They also want a wider coverage of topics, namely around organic farming and rearing livestock.

How can Syngenta Foundation India encourage AEs to maintain consistent contact with farmers?

See pages <u>30</u>, <u>33</u> and <u>34</u>.

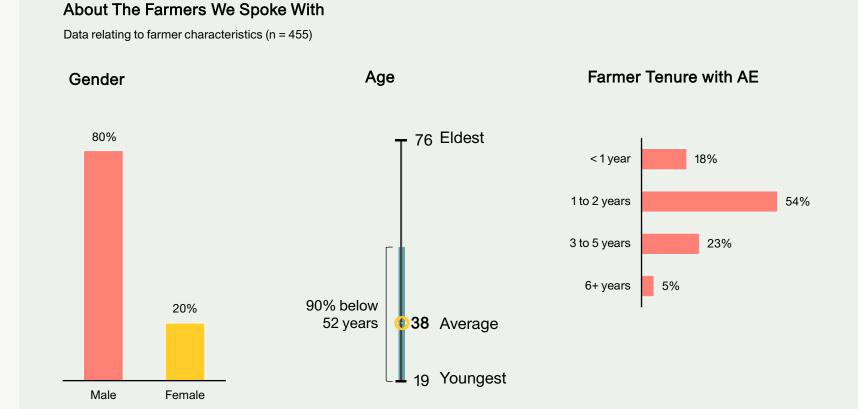
"Earlier we used to face a lot of scarcity. Now we can afford clothes and higher education. Both my boys are in college. We also have some savings for medical emergencies."

-Male, Assam, 34

- Who are Your Farmers?
 - Farmer demographics
 - What is the Impact on Farmers'
 - Production
 - Income
 - Quality of life
- What are Farmers Doing Differently?
 - Way of farming
 - Intercropping
 - Fertilizer
 - Market price and input expenses
 - Number of crops
- How Can You Improve?
 - Net Promoter Score & drivers
 - Challenges
 - Top suggestions

The gender distribution of farmers varies by state. 31% of the farmers we spoke to in Bihar are female, compared to 17% in Maharashtra and 11% in Assam.

Median tenure is lower in Maharashtra (1.5 years) than in Assam and Bihar (2 years).



Wealth Index

The Wealth Index helps us identify the likelihood of your farmers living in a certain wealth quintile compared to India's and the state's populations. We use the index to determine the proportion of your farmers that lie in the Bottom 20th, Bottom 40th, Bottom 60th, and Bottom 80th wealth quintiles in India and your state(s) of operation.

Less than 60% of SFI's farmers lie in the bottom 60% category of wealth distribution, indicating that SFI is slightly under-penetrating poorer populations.

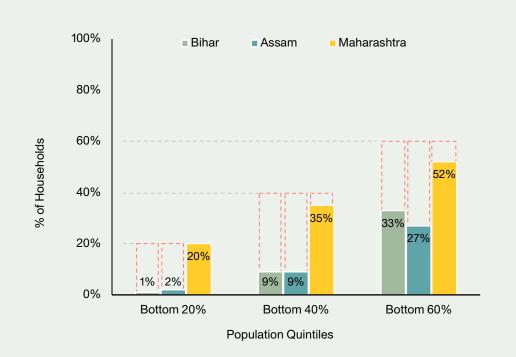
We have included state-specific wealth index calculations in the appendix – see page 45 for more information.

SFI is serving slightly wealthier farmers in all three states compared to state-level wealth distributions.

Wealth Distribution of SFI's Farmers Relative to State Averages

% living in the poorest xx% in [state] (n = 455)

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How To Read This Chart

The x-axis shows the distribution of wealth in the general population.

The y-axis and chart bars show the proportion of SFI's farmers that fall into the bottom 20%, the bottom 40% etc., of the population.

If SFI's farmers exactly matched the distribution of wealth in the general population, then the percentages on the y-axis would exactly match, i.e. 20%, 40%, 60%, 80%, and coincide with the red lines.

The differences in distribution highlight where SFI is over- or under-penetrating certain segments.

Services Received & Frequency of AE Interactions

We asked farmers what services they receive from their AE and how frequently they communicate with them.

Frequency of interaction with AEs varies by state. More farmers in Bihar and Assam communicate with their AE weekly (60% and 59%), compared to farmers in Maharashtra (36%).

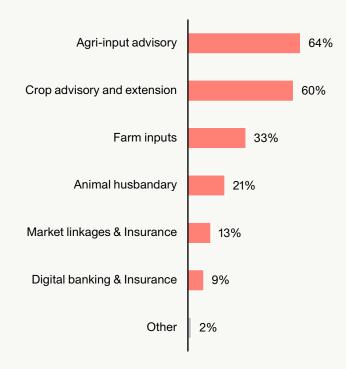
Consistency in AE interactions plays a role in farmer satisfaction and impact. We explore this further on page 19 and page 29.

Farmers most commonly report receiving input and crop advisory services from AEs. Half of farmers communicate with their AEs at least weekly.

Services Received by Farmers

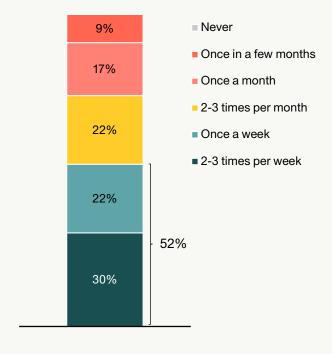
Q: What services are you receiving from [AE name]? (n = 455)

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Frequency of AE Interactions

Q: How frequently do you communicate with [AE name]? (Include phone calls, SMS, WhatsApp, and in-person interactions) (n = 455)



A high proportion of farmers are accessing bundled services like those the AE provides for the first time. This suggests that Syngenta Foundation India is reaching an under-served farmer base.

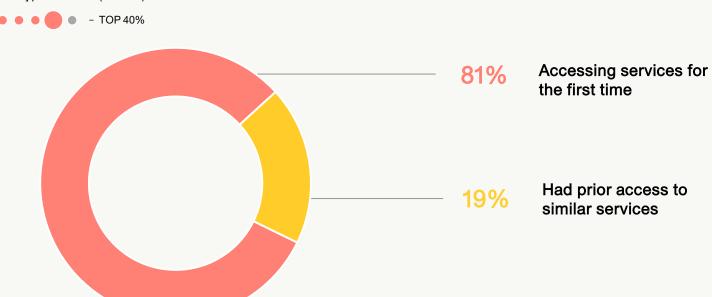
Farmers in Maharashtra are more likely to say that they are accessing services provided by the AE for the first time, compared to farmers in Bihar and Assam. Differences in first access by state are indicated below.

By State

		First Access
>	Overall:	81%
>	Maharashtra:	91% 👚
>	Bihar:	79%
>	Assam:	74%

First Access

Q: Before you started interacting with [AE name], did you have access to [services] like those that [AE name] provides?? (n = 455)



Profile

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Crop Production

60 __decibels

4 in 5 farmers report an increase in crop production after engaging with their AE.

We asked farmers if their crop production has changed because of the AE's services.

Farmers who report way of farming improvements because of their AE's advice are more likely to say their crop production increased, compared to those who did not change their practices (91% vs. 25%).

Similarly, farmers with higher production are more satisfied with AE services than those who experienced no change (NPS of 64 vs. - 2).

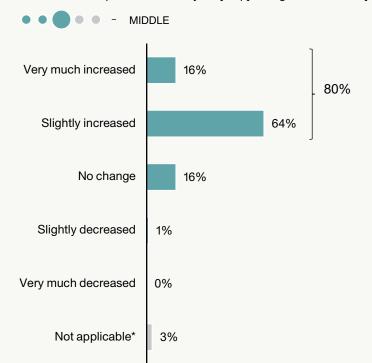
Crop Production Increase by State

% reporting increase

Overall:	80%
Bihar	85% 👚
Maharashtra	78%
Assam	75%
	Bihar Maharashtra

Impact on Production

Q: Has the total production from your [crop] changed because of [AE name]'s [services]? (n = 455)



"Earlier I used the traditional method of farming and the outputs where limited. However, now, I use the new techniques which the [AE] introduced, and we see that the production has increased."

- Male, Bihar, 55

"We have decreased our fertilizer use and also we shifted to organic farming. The quality of seeds help me in increasing the production." - Male, Maharashtra, 35

Changes in Money **Earned (1/3)**

Close to 4 in 5 farmers report an increase in their income. Of this group, nearly half say their income increased by 50% or more.

We found a positive correlation between increased income and farmer satisfaction. Farmers with increased incomes are more satisfied with AE services than those who witnessed no change (NPS of 64 vs. - 3.)

The degree of income change also plays a role: Farmers reporting increased income of 50% or more are more satisfied than farmers who say their income increased only a little (NPS of 71 vs. 56.)

Crop Revenue Increase by State

% reporting increase

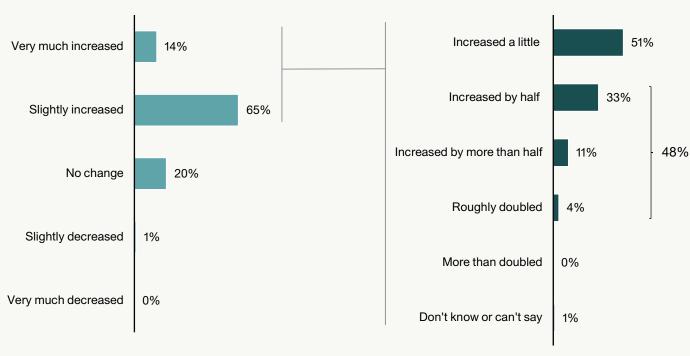
79% > Overall: 80% 79% Maharashtra > Assam 76%

Changes in Farmer Income

Q: Has the money you earn changed because of [AE name] [services]? (n = 455)

Proportion of Increase in Income

Q: Can you give a rough estimate of how much your money earned has increased because of [AE name]'s [services]? (n = 357)



Changes in Money Earned (2/3)

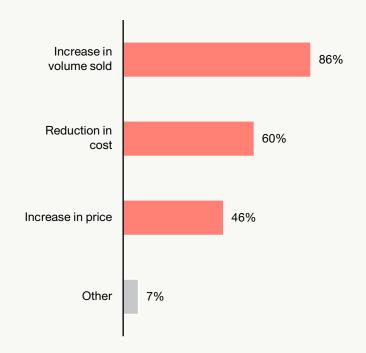
For the 79% of farmers who report higher earnings, the top reasons are increased volume of sales and reduced costs.

We found a positive correlation between improvements in 'way of farming' and those who report reduced costs. Farmers who report positive changes in their way of farming are more likely to cite reduced costs as a driver of increased earnings.

Most farmers attribute increased income to increased crop volume sold. For those who reported no change in income, the top reason was high costs.

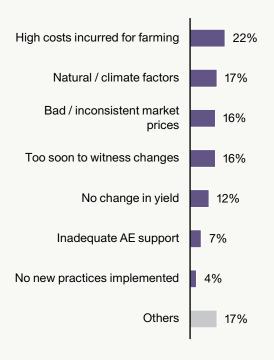
Reasons for Increase in Money Earned

Q: What were the main reasons for the increase in money earned? (n = 357). Multiple answers allowed.



Reasons for No Change in Money Earned

Q: Why do you think you have not seen any changes in money earned from crop? (n = 92). Open-ended, coded by 60 Decibels.



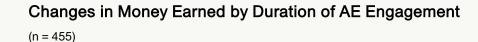
Changes in Money Earned (3/3)

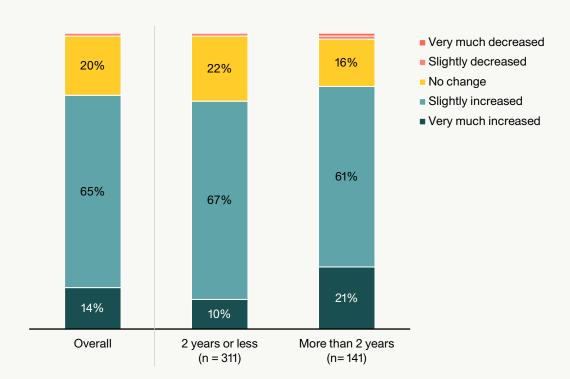
Farmers who have worked with AEs for more than two years are more likely to report increased earnings.

We found a positive correlation between the change in money earned and a farmer's duration of engagement with their AEs.

This suggests that farmers are continuously learning from AEs and adopting their recommendations. It also aligns with some farmers reporting that it is too soon to experience changes.

We also found that farmers engaged with AEs for greater than 2 years are more likely to mention increase in price received as a key driver of improved income (62%), compared to those engaged for 2 years or less (38%).





Impact Performance: Quality of Life

75% of farmers report that their quality of life has improved because of the AE's services. This is lower than the 60dB benchmark of 86% in agriculture.

To gauge depth of impact, farmers were asked to reflect on whether their quality of life has changed since they started engaging with their AE.

Three quarters said their life had improved, with 18% of all farmers reporting it had 'very much improved'.

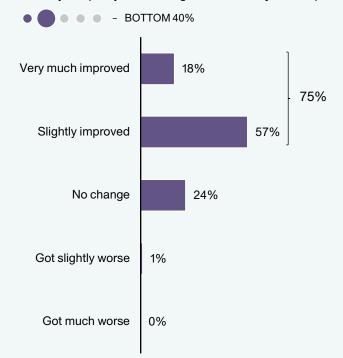
Farmers in Assam were slightly less likely to report 'very much improved' quality of life, compared to farmers in other states. We've listed differences across states for this metric below.

Quality of Life Improved by State

	% Very much improved	% Slightly improved	
> Overall	18%	57%	
> Bihar	21% 👚	56%	
> Maharashtra	20%	54%	
> Assam	13% 👢	61% 👚	

Perceived Quality of Life Change

Q: Has your quality of life changed because of [services provided] by [AE name]? Has it: (n = 455)



Very much improved:

"If we listen and implement [AE's] advice properly, then our income increases. I have installed a motor pump for water." - Male, Assam, 47

Slightly improved:

"[AE's] guidance is making a lot of difference. The medicines and fertilizers has helped increase our production and reduce our cost. We used the money to send our children to school." - Male, Maharashtra, 50

No change:

"We know most of the things [AE] says. Most of the times, the rain and other weather problems destroy the growth of the crops." - Male, Bihar, 52

Quality of Life: Top Outcomes

Respondents were asked to describe the positive changes they were experiencing since engaging with their AE. The top outcomes are shown on the right. Others include:

- Ability to afford assets (11%)
- Easier or more convenient access to inputs (7%)
- Improved confidence (6%)

Farmers who report 'no change' in quality of life mainly attribute it to:

- Lack of change in production or income (30%)
- AEs not being engaged (22%)
- Climate factors (15%)

Top quality of life outcomes were increased income and ability to afford expenses.

Three Most Common Self-Reported Outcomes for the 75% of Farmers Who Say Their Quality of Life Improved

Q: Please explain how your quality of life has improved. (n = 344). Open-ended, coded by 60 Decibels.

Top Quality of Life Improvements	Overall	Bihar	Maharashtra	Assam
Sample Size	344	122	112	110
Improved income	59%	56%	64%	58%
Ability to afford household bills	33%	31%	25%	44%
Improved technical knowledge on farming	27%	28%	37%	17%
Improved savings	22%	21%	22%	21%
Ability to afford child's education	18%	20%	13%	22%
Better farm yield or productivity	18%	21%	18%	14%



"I have a lot more earnings and have gained a lot of knowledge through the training. The training was easy and didn't require much effort. You get benefits by investing a small amount of time."

- Male, Bihar, 30

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Impact Performance: Way of Farming

More than 4 in 5 farmers report improvements in their way of farming because of their AE's services.

Farmers were asked how their way of farming had changed since engaging with their AE.

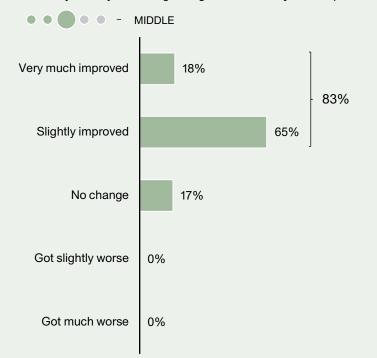
Farmers who report communicating 'very frequently' with their AEs are more likely to say their way of farming has 'very much improved' (26%), compared to those communicating 'somewhat frequently' (10%) or 'infrequently' (0%).

Way of Farming Improved by State

	% Very much improved	% Slightly improved	
> Overall > Bihar	18% 20% ↑	65% 65%	
> Maharashtra > Assam	18% ↓ 15%	70% 1 62%	

Changes in Way of Farming

Q: Has your way of farming changed because of [services provided] by [AE name]? Has it: (n = 455)



Very much improved:

"The cost of farming has drastically gone down. Especially the cost of fertilizers and pesticides. We also farm organically now by using vermicompost, cow-dung, etc." - Male, Assam, 28

Slightly improved:

"We farm with a tractor; we were using labour for ploughing and harvesting. We practice intercropping, crop rotation and use adequate DAP, potash, and NPK." - Male, Maharashtra, 20

No change:

"We don't have much money, neither we have any support to increase production. We are farming with whatever meagre sources we have." - Male, Bihar, 65

Way of Farming: Top Outcomes

Respondents were asked to describe – in their own words – the improvements in their way of farming since engaging with their AE.

The top outcomes are shown on the right. A few other way of farming improvements include:

- Better crop disease management (8%)
- Improved irrigation practices (8%)

Farmers who report 'no change' in their way of farming report:

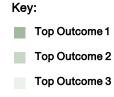
- Lack of sustained support from the AE (45%)
- Not learning any new techniques from the AE (26%)
- Unwillingness to adopt new techniques (25%)

The top reported farming improvement is appropriate use of fertilizers and pesticides.

Most Common Way of Farming Improvements

Q: Please explain how your way of farming has improved. (n = 378*). Open-ended, coded by 60 Decibels.

Top Way of Farming Improvements	Overall	Bihar	Maharashtra	Assam
Sample Size	378	130	132	116
Appropriate fertilizer and pesticide application	40%	37%	37%	46%
Improved farming knowledge / skills	34%	33%	27%	43%
Use of organic fertilisers	24%	33%	26%	11%
Better quality of inputs used	20%	25%	27%	5%
Reduced production cost	10%	10%	9%	10%
Adoption of intercropping	9%	12%	11%	4%
Better management of livestock health	8%	4%	5%	17%
Soil testing	5%	0%	1%	16%



Intercropping

2 in 5 farmers report intercropping. Of those farmers, slightly over a third adopted this because of their AE.

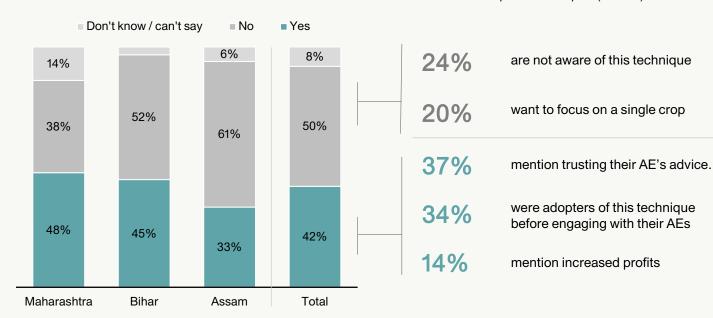
Farmers in Maharashtra are more likely to report using the intercropping technique (48%) compared to farmers in Bihar (45%) or Assam (33%).

Of the 42% of farmers who use intercropping, over a third mention adopting the technique because of their AEs and a third of them mention that they were already using this technique. 14% mention increased yield and profits.

Of the 58% of farmers who do not use intercropping, a quarter of them are not aware of this technique and a fifth of them choose to focus on a single crop.

Adoption of Intercropping Technique

Q: Do you currently use the intercropping technique in your farm? (n = 455)



Drivers of Adoption / Non-Adoption

Q: [If adopters of intercropping]: What made you adopt this technique? (191)

Farming Outcomes

Q: [If non-adopter]: Is there a specific reason why you chose not to adopt this technique? (n = 229)

Change in Usage of Fertilizer

62% of farmers have reduced their fertilizer use due to an AE. 4 in 5 farmers report accessing improved quality fertilizer.

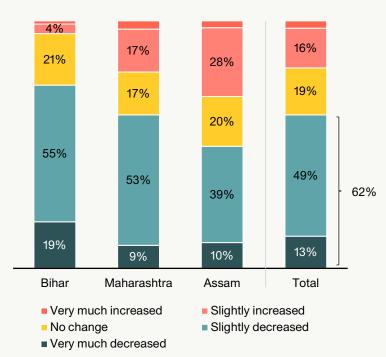
AEs have impacted both the quality and quantity of fertilizer used across all states, and farmers who report access to higher quality are more likely to report a decrease in the amount used.

Farmers in Bihar are most likely to report decreased fertilizer use (74%), while farmers in Assam are less likely (49%.)

We see a similar trend across states in access to improved quality of fertilizers. Farmers in Bihar and Maharashtra are more likely (85% and 80%) to report using improved quality fertilizers than in Assam (69%).

Change in Quantity of Fertilizer

Q: Has there been a change in the amount of fertilizer that you use because of [AE name's services]? (n = 450)*



* Data excludes those respondents who chose not to answer.

Change in Quality of Fertilizer

Q: Has there been a change in the quality of fertilizer that you have access to because of IAE namel's services? $(n = 450)^*$



More farmers in Assam report an increase in price received (61%) while fewer farmers in Maharashtra report an increase (44%.)

Farmers in Bihar are most likely to report a decrease in expenditure on inputs because of improved agrochemical management (75% compared to an average of 58%).

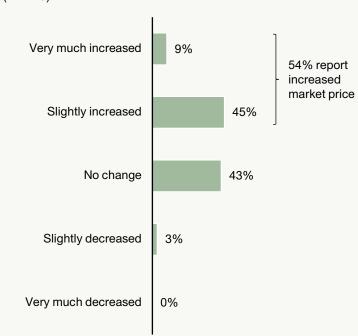
Indicators Segmented by State

Market Price % reporting increase	Expenditure on Inputs % reporting decrease
54%	58%
44% 👢	62%
53%	75% 👚
61% 🛊	31% 👢
	% reporting increase 54% 44% 53%

More than half of all farmers report an increase in the price they receive because of their AEs. More than half also report spending less on inputs because of improved agrochemical management.

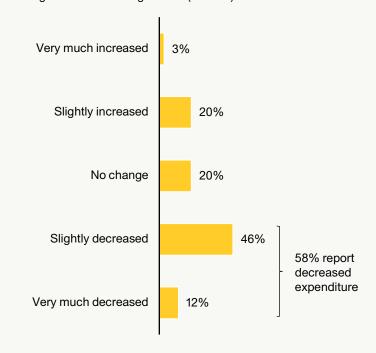
Changes in Market Price Received

Q: Have you experienced a change in the market price you receive for your produce because of [AE name]'s services? $(n = 443)^*$



Changes in Amount Spent on Inputs

Q: Have you experienced any change in the amount you spend on agricultural inputs because of improved pesticide and agrochemical management? (n = 447)*



Number of Crops Cultivated

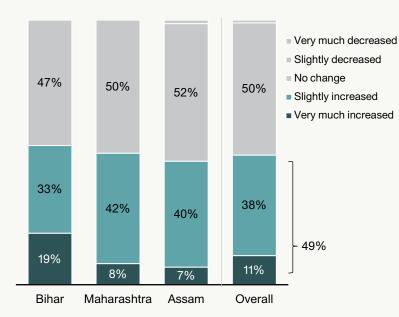
49% of farmers increased the number of crops they cultivate, suggesting that AEs are facilitating the adoption of new crops and helping farmers to diversify their income. Changes are similar across all states.

Nearly half of all farmers increased the number crops they cultivate and one third of livestock farmers own more livestock because of the AE.

Change in Number of Crops Cultivated

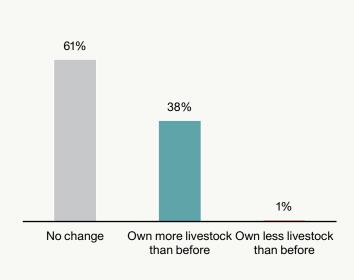
Q: Has the number of crops that you cultivate changed as a result of working with the AE? (n = 455)

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Change in Livestock Owned

Q: Has there been any change in livestock (Cattle, poultry etc) that you own because of [AE name]'s services? (n = 256)*



^{*} Data includes only those farmers who own livestock.

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Net Promoter Score®

SFI's AE program has a Net Promoter Score of 49, which indicates fair satisfaction among farmers and is higher than the 60 Decibels Agriculture Benchmark.

The Net Promoter Score® is a gauge of satisfaction and loyalty. Anything above 50 is considered excellent. A negative score is considered poor.

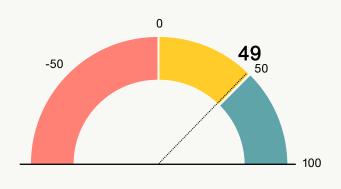
Asking farmers to explain their rating provides insight into what they value and what creates dissatisfaction. These details are on the next page.

Frequency of AE interaction is associated with farmer satisfaction. Farmers who communicate at least weekly with their AE are more likely to be satisfied with their services (NPS of 75), compared to farmers communicating 'somewhat frequently' (31) or 'infrequently' (-20).

We also observed differences in NPS by state. See page 31.

Net Promoter Score® (NPS)

Q: On a scale of 0-10, how likely are you to recommend [services provided] by [AE name] to a friend or family member, where 0 is not at all likely and 10 is extremely likely? (n = 455)



NPS = 61% Promoters — 12% Detractors 9-10 likely to 0-6 likely to recommend recommend

NPS Benchmarks





India Agriculture Benchmark 39 18 companies

Creators of the NPS, Bain & Company, suggest that a score of*:

- Above 0 is good
- Above 20 is favourable
- Above 50 is excellent
- Above 80 is world class

These are only general guidelines. A 'good NPS' will depend on the industry and country the organization is in.

Promoters and Passives value the good advice received from their AE. Detractors complain about the lack of involvement from AEs.

59% are Promoters

They love:

- 1. Good advice received from the AE (66% of Promoters / 40% of all respondents)
- 2. Improved knowledge of farming techniques (25% of Promoters / 15% of all respondents)
- 3. Availability and commitment of the AE (23% of Promoters / 14% of all respondents)

"[The AE] has good knowledge and imparts it to us in a practical manner. In case of any problem, she is always available." - Female, Bihar, 40

Tip:

Highlight the above value drivers in marketing.

Promoters are powerful brand ambassadors can you reward them?

29% are Passives

They like:

- 1. Good advice received from the AE (54% of Passives / 15% of all respondents)
- 2. Availability and commitment of the AE (19% of Passives / 5% of all respondents)

But complain about:

1. Lack of involvement from AE (21% of Passives / 6% of all respondents)

"[AE name] gives good advice. He is more active during the sowing and harvest time. Otherwise, he visits once every few months." - Male, Maharashtra, 24

Passives won't actively refer you in the same way that Promoters will.

What would it take to convert them?

12% are Detractors

They complain about:

- 1. Lack of involvement from AE (70% of Detractors / 8% of all respondents)
- 2. Not enough topics covered (34% of Detractors / 4% of all respondents)
- 3. Poor communication from AE (13% of Detractors / 2% of all respondents)

"The service I get is not regular. The frequency of communication by the AE is very poor. It would help to get more visits and training." - Male, Assam, 23

Tip:

Negative word of mouth is costly.

What's fixable here?

NPS by State

In addition to the top three satisfaction drivers, farmers in Bihar are more likely than average to mention the following

> Good quality products: 21% of farmers in Bihar vs. 8% of farmers in Maharashtra and Assam.

as their value drivers:

> Improved production: 14% farmers in Bihar vs. 5% of farmers in Maharashtra and Assam.

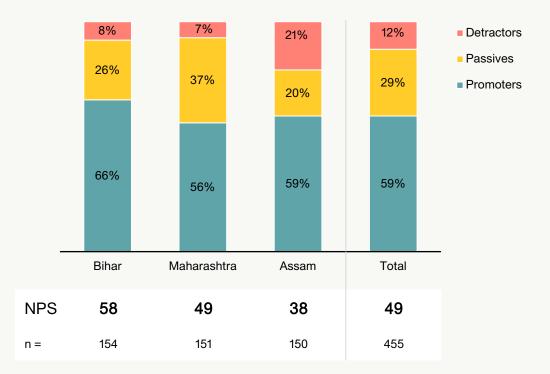
In Assam, farmers are more likely to complain about the inadequacy of topics covered by their AE (8%), compared to those in Bihar (3%) and Maharashtra (1%).

Farmer satisfaction is also influenced by the challenges faced by farmers. Find out more on the next page.

Farmers in Assam are less satisfied with their AEs' services than farmers in Bihar and Maharashtra.

Net Promoter Score by State

(n = 455)



Farmer Challenges (1/2)

Most farmers (92%) report no challenges with their AEs.

The 8% of farmers who report challenges have a lower NPS than those reporting no challenges (NPS of -55 vs. 59).

A slightly higher proportion of farmers in Bihar (12%) report challenges compared to the average (8%). Despite the high challenge rate, SFI's NPS for farmers in Bihar is the highest at 58. Addressing challenges faced by farmers could further improve their already high satisfaction levels. More information about challenges on the next page.

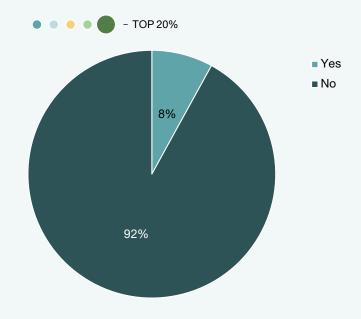
By State

Challenge rate

>	Overall:	8%
>	Maharashtra:	8%
>	Bihar:	12%
>	Assam:	5%

Proportion of Farmers Reporting Challenges

Q: Have you experienced any challenges with [AE name]? (n = 455)



Maharashtra

"[The AE] is very reluctant to provide any information. The knowledge she provides is very basic and there is nothing new which we can learn from her. She lacks motivation and I don't think she is at all interested in working as AE." - Male, Maharashtra, 52.

Bihar

"[The AE] communicates quite rarely. He doesn't organize meetings, neither does he provide any new information. He also never repeats information due to which we have forgotten few things as well." - Male, Bihar, 38.

Assam

"The work is not being done proactively. [The AE] calls for meetings and talks about projects, but they never materialize. Things that are promised are not given." - Male, Assam, 50.

Farmer Challenges (2/2) Top Issues

The chart on this slide presents the most common challenges that farmers face. The blue highlights rank these challenges based on the proportion of farmers reporting the challenge in each state.

Farmers in Bihar are more likely to report that their AE is not visiting them enough (84%), compared to farmers in Assam (71%) and Maharashtra (67%).

The top challenges for farmers are lack of field visits and inadequate coverage of topics.

Most Common Issues Among 8% of Farmers Reporting Challenges

Q: Please explain the challenges you have experienced. (n = 38). Open-ended, coded by 60 Decibels.

Top Challenges	Overall	Bihar	Maharashtra	Assam
Number of farmers facing challenges	38	19	12	7
Lack of field visits by AE	76%	84%	67%	71%
Not enough topics covered	26%	37%	25%	0%
Did not get expected outcomes	11%	11%	8%	14%
High input costs	3%	0%	8%	0%
Others	9%	0%	17%	14%



40% of them mention they want to see more involvement and engagement from their AEs. A quarter want better training, and 13% want support around digital banking services.

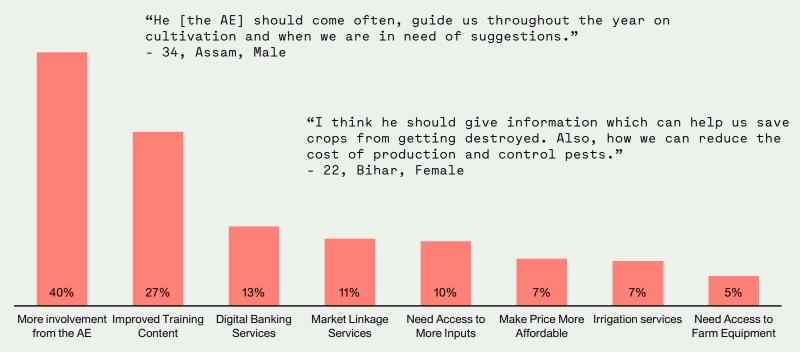
Other suggestions include improved market access, access to inputs, and reduction of prices.

Farmers ask for more engagement with their AEs and improved training content.

Lean Data Insights For Syngenta Foundation India

Suggested Improvements

Q: What about [AE name] or their services could be improved? (n = 255)*. Open ended, coded by 60 Decibels.



^{*} Data includes only those farmers who had specific suggestions.

"I have learnt intercropping and mixed farming techniques, and now I can cultivate two or more crops at the same time without compromising on my soil" - 55, Maharashtra, Male

What Next?

...& Appendix

How to Make the Most of These Insights

Here are ideas for ways to engage your team and use these results to fuel discussion and inform decisions.

Example tweets or Facebook posts to share publicly

- 75% of our farmers say the quality of their lives has improved since working with their AEs. "I have gained more respect among other farmers. I have built an identity for myself." #ListenBetter with @60_decibels
- 80% of farmers report an increase in total crop/livestock production. We #ListenBetter with @60 decibels

What You Could Do Next. An Idea Checklist From Us To You :-)

Engage Your Team	Sometimes the best ideas come from unexpected places!		
	Set up team meeting & discuss what's most important, celebrate the positives & identify next steps		
Spread The Word	Reach a wider audience on social media & show you're invested in your farmers – we've added some example posts on the left		
Close The Loop	We recommend posting on social media/website/blasting an SN saying a 'thank you to everyone who took part in the recent surve with our research partner 60 Decibels, your feedback is valued, and as a result, we'll be working on XYZ.		
	Compare these results with insights from the AE survey to get a full picture of your impact.		
	After reading this deck, don't forget to let us know what you thought here.		
Take Action!	Collate ideas from team into action plan including responsibilities		
	Keep us updated, we'd love to know what changes you make based on these insights		

☐ Send deck to team & invite feedback, questions and ideas.

Detailed Benchmarking Comparison

SFI performs particularly well on first time access and increased production.

Comparison to benchmarks can be useful to identify where you are underor over-performing versus peers, and help you set targets. We have aligned your results to the Impact Management Project framework – see next slide.

Information on the benchmarks is found below:

Company Data

customers 455

60dB Global Benchmark:

companies 445 # customers 132,501

60dB Agriculture Benchmark

companies 95
customers 22,728

60dB India - Agri Benchmark

companies 18 # customers 3,176

Comparison of Company Performance to Selected 60dB Benchmarks

Dimension	Indicator	SFI	Global Benchmark	Agriculture Benchmark	Agriculture Benchmark
Who O	% female	20	41	25	4
How Much	% reporting quality of life improved	75	79	86	78
Ē	- % reporting quality of life very much improved	18	35	31	19
	- % reporting quality of life slightly improved	57	45	-	-
	% reporting 'way of farming' improved	83	-	88	76
	% reporting income increased	79	-	74	46
	% reporting production increased	80	-	77	49
Contribution	% first time accessing service	81	65	74	72
Risk +	% experiencing challenges	8	20	22	19
Experience \triangle	Net Promoter Score	49	47	38	39

60dB

60dB

60dB India

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 marginalized 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.				

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'.		
Wealth Index	This indicator helps us identify the likelihood of your customers / beneficiaries living in a certain wealth quintile compared to India's and the state's populations. The Wealth Index is calculated based on responses to seven state-specific questions focused on asset ownership. This methodology has been developed by Innovations for Poverty Action using the DHS Wealth Index for India.		

Summary Of Data Collected

455 phone interviews completed between January to March 2023

Methodology		Sampling	% sample	% population
Survey mode	Phone			population
Country	India	Maharashtra	34%	79%
Language English, Hindi, Assamese		Bihar	33%	10%
Dates	January to March 2023	Assam	33%	11%
Sampling	Stratified sample of 455 farmers across three states, randomly sampled from a database of 3,390 farmers shared with us.	Accuracy Confidence Level* c. 90%		
		Margin of error		c. 6%
Response rate	74%	Margin of error		0.070
Average time/interview	20 mins	Research Assi	etante	
Responses Collected				
Farmers	455	Female	9	
i aimeis		Male	3	

^{*}Our confidence level cannot account for two unknowns for this population: mobile penetration and the extent of completeness of SFI's farmer phone number list.

Syngenta Foundation India Performance Snapshot - Maharashtra

In Maharashtra, SFI is positively impacting crop production and income and is reaching more low-income farmers than in Bihar and Assam.

Wealth Index

52%

live in the bottom 60% of Maharashtra's population for wealth

Impact

74%

quality of life improved

Change in Way of Farming

88%

way of farming improved

Contribution

91%

first time accessing service provided

Farmer Voice

"We are earning more from our agriculture. We have also reduced our number of working hours. Additionally, the best thing is that we now have good quality of products."

- Male, Maharashtra, 22

Data Summary

Company Performance: 151 farmer phone interviews in February 2023, in Maharashtra, India

Net Promoter Score®

50

on a -100 to 100 scale

Challenges

8%

report challenges

Income Earned

79%

increased

Crop Production

78%

report increase in total crop/livestock production

Syngenta Foundation India Performance Snapshot - Bihar

More farmers in Bihar report productivity increases, but there is room for improvement in reaching underserved farmers.

Wealth Index

33%

live in the bottom 60% of Bihar's population for wealth

Impact

77%

quality of life improved

Change in Way of Farming

85%

way of farming improved

Contribution

79%

first time accessing service provided

Farmer Voice

"[My AE] is very enthusiastic. His behavior is very good towards all of us. All of his suggestions have shown good results. He gives us knowledge about which seeds to use, what fertilizers to apply, and in what quantities."

- Male, Bihar, 52

Data Summary

Company Performance: 154 farmer phone interviews in February 2023, in Bihar, India

Net Promoter Score®

58

on a -100 to 100 scale

Challenges

12%

report challenges: 65% not resolved

Income Earned

80%

increased

Crop Production

85%

report increase in total crop/livestock production

Syngenta Foundation India Performance Snapshot - Assam

In Assam, SFI is achieving income and productivity impacts on par with Maharashtra and Bihar. There is room for improvement on farmer satisfaction and reaching underserved farmers.

Wealth Index

27%

live in the bottom 60% of Assam's population for wealth

Impact

74%

quality of life improved

Change in Way of Farming

77%

way of farming improved

Contribution

74%

first time accessing service provided

Farmer Voice

"Earlier we didn't know a lot of things. Now, through [the AE's] meetings and discussions we know a lot more. In the meetings, [the AE] talks about our current situation and how we can better it".

Data Summary

Company Performance: 150 farmer phone interviews in February 2023, in Assam, India

Net Promoter Score®

38

on a -100 to 100 scale

Challenges

5%

report challenges: 65% not resolved

Income Earned

76%

increased

Crops Production

75%

report increase in total crop/livestock production

Wealth Index – Maharashtra

In Maharashtra, SFI is serving slightly wealthier farmers than both national and state-level wealth distributions.

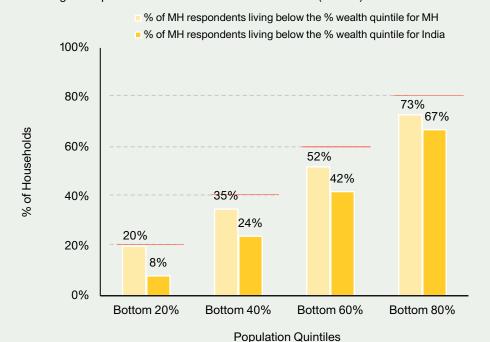
The Wealth Index helps us identify the likelihood of your farmers living in a certain wealth quintile compared to India's and the state's populations. We use the index to determine the proportion of your farmers that lie in the Bottom 20th, Bottom 40th, Bottom 60th, and Bottom 80th wealth quintiles in India and your state(s) of operation.

42% of SFI's farmers lie in the bottom 60% of the wealth distribution in India. This indicates that SFI is serving a lower proportion of customers in the bottom 60% of wealth distribution, i.e. the farmers are wealthier, on average.

Similarly, at the state level, 52% of SFI's farmers are in the bottom 60% of Maharashtra's population, indicating that SFI is slightly under-penetrating poorer populations within the state as well.

Wealth Distribution of SFI's Farmers Relative to National and State Averages

% living in the poorest xx% in Maharashtra and in India (n = 149)



How To Read This Chart

The x-axis shows the distribution of wealth in the general population.

The y-axis and chart bars show the proportion of SFI's farmers that fall into the bottom 20%, the bottom 40% etc., of the population.

If SFI's farmers exactly matched the distribution of wealth in the general population, then the percentages on the y-axis would exactly match, i.e. 20%, 40%, 60%, 80%, and coincide with the red lines.

The differences in distribution highlight where SFI is over- or under-penetrating certain segments.

Wealth Index – Bihar

77% of SFI's farmers lie in the bottom 60% of the wealth distribution in India. This indicates that SFI is serving a relatively higher proportion of farmers that are less wealthy, on average.

However, at the state level, 33% of SFI's farmers are in the bottom 60% of Bihar's population, indicating that SFI is under-penetrating the poorer farmer populations within the state.

In Bihar, SFI is reaching wealthier farmers than the statelevel distribution, but these farmers are poorer than the national-level wealth distribution.

Wealth Distribution of SFI's Farmers Relative to National and State Averages

% living in the poorest xx% in Bihar and in India (n = 153)



How To Read This Chart

The x-axis shows the distribution of wealth in the general population.

The y-axis and chart bars show the proportion of SFI's farmers that fall into the bottom 20%, the bottom 40% etc., of the population.

If SFI's farmers exactly matched the distribution of wealth in the general population, then the percentages on the y-axis would exactly match, i.e. 20%, 40%, 60%, 80%, and coincide with the red lines.

The differences in distribution highlight where SFI is over- or under-penetrating certain segments.

Wealth Index – Assam

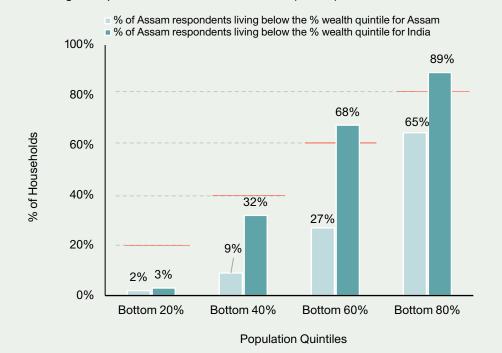
Close to two thirds (68%) of SFI's farmers lie in the bottom 60% of the wealth distribution in India. This indicates that SFI is serving a relatively high proportion of farmers that are less wealthy, on average.

At the state level, close to a quarter (27%) of SFI's farmers are in the bottom 60% of Assam's population. Similar to Bihar, this indicates that SFI is under-penetrating the poorer farmer populations within the state.

In Assam, SFI is not reaching the poorest quintile of farmers.

Wealth Distribution of SFI Farmers Relative to National and State Averages

% living in the poorest xx% in Assam and in India (n = 145)



How To Read This Chart

The x-axis shows the distribution of wealth in the general population.

The y-axis and chart bars show the proportion of SFI's farmers that fall into the bottom 20%, the bottom 40% etc., of the population.

If SFI's farmers exactly matched the distribution of wealth in the general population, then the percentages on the y-axis would exactly match, i.e. 20%, 40%, 60%, 80%, and coincide with the red lines.

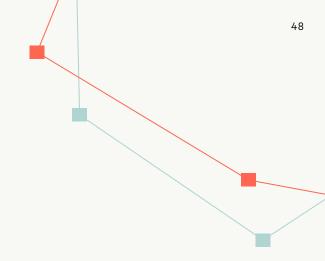
The differences in distribution highlight where SFI is over- or under-penetrating certain segments.

With Us!

Thank You For Working

Lean Data Insights For Syngenta Foundation India

Let's do it again sometime.



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 customercentricity, 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. (\$\hat{\omega} \text{positive} representations)



Your Feedback

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

Acknowledgements

Thank you to the Syngenta Foundation India team for their support throughout the project.

We have earned higher profits.

The harvest is good. The sales have shot up.

I have gained a lot of knowledge.

He is very talented and with his guidance

> I have seen

> progress

now.

Venu Aggarwal venu@60decibels.com

Ellie Turner
ellie.turner@60decibels.com

Achyut Rokkam achyut@60decibels.com

Malavika Rangarajan malavika@60decibels.com

Jacob Thamarappally jacob@60decibels.com