

Farmer Digital Information Exchange

Kenya & Bihar
June 2025



Welcome To Your 60dB Results

We enjoyed hearing from 824 of your farmers in Kenya and India – they had a lot to say!

01	About this Report	03
02	Methodology	04
03	Headlines	
	Performance Snapshot	07
	Top Insights	08
	Farmer Voices	10
04	Detailed Results	
	Deep Dive into Key Questions	12
05	Appendix	
	Detailed Benchmarking Summary	37
	Summary of Data Collection	39

About this report

Access to reliable, easy-to-use digital information is essential for smallholder farmers to make better decisions and improve their livelihoods. AI-powered solutions can support this by providing timely, relevant, and personalized advice. However, these benefits are only realized when the solutions truly meet the needs of their end-users: the farmers themselves.

The Agricultural Information Exchange Program (AIEP) leverages advanced digital tools, responsible AI, and language technology to enhance access to essential information and facilitate large-scale, two-way communication with smallholder farmers in Kenya and Bihar. It overcomes challenges like low literacy and limited digital skills by providing personalized, interactive content. AIEP also creates open Digital Public Goods, enabling anyone to build and share similar platforms to support farmers globally.

Under the Agricultural Information Exchange Program (AIEP), four cohorts have developed AI-driven solutions to improve farmers' access to information:

- Tech4Her (Dalberg and DeHaat)
- dynAg (CGIAR, International Rice Research Institute, CIMMYT, Gramhal, IKSL, Dexian India, and Sumarth)
- DigiFarm Mshauri (Safaricom and Opportunity International)
- A team of Viamo, Producers Direct, & HarvestPlus
- A team of DigiFarm and Gooley.AI

In partnership with the FAIR Forward team at Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, CLEAR Global, and funded by the Gates Foundation, 60 Decibels conducted research to evaluate how effectively these AI solutions serve farmers in their early stages.

This report is based on the voices of 824 farmers and 20 agents in Kenya and Bihar. The report covers insights on profile, user experience and effectiveness of solutions, and early impact. Respondents were selected randomly for phone interviews from a database provided by the AIEP partners. The surveys were conducted by 60 Decibels trained researchers.

824 farmers and
20 agents interviewed.

Methodology

(1/2)

We used a **mixed-methods approach**, combining both quantitative and qualitative data collection. We spoke to the *primary user* of each cohort's AI solution to ensure that the feedback received is meaningful and actionable. We also collected data from users who engaged with the product in the last three months, excluding those who used earlier versions. .

For the quantitative data, we conducted 824 interviews with farmers and agents who had directly engaged with the AI tool to assess user engagement, early impact, and adoption of digital tools.

The qualitative data was collected through 13 interviews with farmers we had previously interviewed. These follow-ups offered deeper insights into how farmers interact with the tools, whether they were experiencing any impact, and the perceived barriers to adoption within their communities. These insights are not intended to be representative but to be complementary. Additionally, the qualitative interviews helped assess the clarity and effectiveness of the quantitative survey questions, ensuring they accurately reflected user experience.

All responses were subjective and based on the individual experiences of the farmers and agents. To see more on how we collected the data, please see the [Appendix](#).

Who did we talk to?

>824
farmers

44% in Bihar
56% in Kenya

>20
agents

>5
cohorts

Participating cohorts

Digital Green	353 farmers
Viamo	362 farmers
Tech4Her	20 agents
dYnAg	6 farmers
Opportunity International	103 farmers

Methodology





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Study Dimensions

We designed a standardized set of KPIs to assess the performance of AI solutions from the end user's perspective, focusing on early usage patterns and perceived impact. This list was refined with input from MSC, PxD, KALRO, GIZ, and BMGF.

We found that to gather meaningful insights, data should be collected 3 to 6 months after users first access the solution. Adoption and consistent use of digital tools take time, and the transition from registration to regular use is gradual. Therefore, we recommend waiting at least 90 days after launch before collecting feedback. These metrics help identify engagement levels, user feedback, and early adoption, which are key to refining the service and ensuring it delivers value to farmers.

Additionally, we conducted qualitative interviews with farmers to understand whether they believe other farmers might provide dishonest or overly favorable responses. Most felt there was no reason to lie, as honest feedback would benefit them. However, some expressed concern that if their feedback didn't lead to visible improvements, they might hesitate to be fully honest. This underscores the importance of building trust, ensuring rapport with enumerators, and maintaining a transparent feedback loop.

Dimensions	Indicators
 User Engagement	<ul style="list-style-type: none">Type of information receivedValue chain where applied
 User Experience with Service Overall	<ul style="list-style-type: none">Change in convenienceSatisfaction (Net Promoter Score®)Challenges
 User Experience with Asking Questions	<ul style="list-style-type: none">Comfort asking questionsPerceived relevancePerceived completenessPerceived responsivenessEase of understanding
 Early Impact & Scalability	<ul style="list-style-type: none">Practical implementationChange in confidence in decision-makingFuture usePreferences

01

Headlines

“

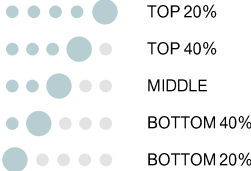
The AI tool is very nice because I can get information from it on my own. If you have a mobile device, then it can become a great source to get information, it understands everything very well. Earlier, I used to call the agriculture advisor, and sometimes he picks up and sometimes he doesn't.

- Male, 45, Bihar



Performance Snapshot

Performance vs. 60dB Benchmark



Gender

38%

Female



Smartphone Ownership

78%

own a smart phone



Alternatives

27%

could not easily find an alternative



Alternatives Comparison

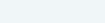
55%

say cohort solutions are 'much better' than alternatives.

Impact

56%

% saying accessing information is 'much easier'



Net Promoter Score®

60

on a -100 to 100 scale



Challenges

19%

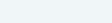
report challenges



Timeliness

72%

report receiving information 'always' when they need it



Farmer Voice

“Answers are instant. The answer that they provide is always with regards to the question that I have asked, and so far by using their advice I have seen improvement on my crop production. This shows that their information is reliable.- Female, 49

Data Summary

Company Performance: 824 interviews between March and May 2025 in Kenya and Bihar.

Quintile Assessment compares Company Performance with the 60dB Global Agriculture Benchmark, comprised of 26 companies, 11 countries, and 6,599 beneficiaries.

Full details can be found in the [Appendix](#).

Top Insights

1 The AIEP digital advisory MVPs are reaching a diverse farmer population, but there is still room to improve how services reach and benefit less advantaged groups.

38% of the users we spoke to are female, and the median age is 39.

74% have a secondary education or higher, and 78% have a smartphone, suggesting that the MVPs have not yet reached the lowest-literacy or lowest-digital-skill farmers.

Since the AI tools were designed to be gender-inclusive, ensuring women engage with and benefit from it was key. Female farmers are more satisfied with them (NPS of 66 vs. 57), but they face more challenges in understanding the content: 81% of male farmers find all the information easy to understand, compared to 70% of female farmers. The female farmers we spoke to are also less likely to have completed university.

The reach across the solutions also varies. The Bihari farmers we spoke to are younger and more educated than the Kenyan farmers.

Pages: [13](#), [14](#), [19](#), [24](#).

2 Farmers apply most of the information they receive from the AI tools to their farms.

Farmers mainly use the AI solutions to access information on crop and pest management, seed selection, weather, and irrigation.

54% apply all the information from the MVP to their farming, while financial barriers and input unavailability prevent others from doing so. Despite these challenges, 60% of farmers feel 'much more confident' in their farming decisions because of the AI tool. Those who apply all the information report higher confidence than those who do not.

To drive greater adoption and confidence in decision-making, the solution can collaborate with input providers to offer affordable recommended inputs to farmers.

Pages: [16](#), [27](#), [18](#).

3 Farmers are satisfied with the AIEP-supported digital advisory tools.

Collectively, the MVPs have a Net Promoter Score of 60, which is excellent. The Net Promoter Score® is a common measure of satisfaction. The main drivers of their satisfaction are reliable, comprehensive advice and convenient access to information. Detractors however want to see more human interaction and clearer information.

3 in 5 farmers say the AI tool provides all the farm information they need. For those who don't, the main recommendations include adding more diverse crop, pest, and livestock management information.

94% of farmers are comfortable asking questions, and 77% find all the information easy to understand.

Pages: [14](#), [19](#), [20](#), [24](#),

Top Insights

4 The MVPs are helping farmers access tailored, timely, and easily accessible information for their farming

Nearly two-thirds of farmers find the information from AI tools relevant to their farms, but there is still room for improvement. Some feel the advice lacks local relevance or personalization for their specific needs. As the MVPs continue to develop, adding more diverse information and tailored recommendations could address this gap.

More than half of the farmers we spoke to say accessing information is now 'much easier' thanks to AI tool, and 77% report they can always get the information they need when they need it. This is significantly higher than the 60db Bihar and Kenya national benchmarks, where only 11% and 26% respectively report the same, indicating that the chatbot provides more timely advice throughout the season.

Pages: [24](#), [19](#).

5 Although farmers have other sources of information, most prefer the AI tool and nearly all plan to continue using it.

73% of the farmers we spoke with said they could have gotten the information from another source. However, among those with access to an alternative, 84% said that the cohort's MVP was better than the alternative.

97% of farmers plan to continue using the AI tool, with 39% considering it their only source and 48% using it as their primary source. Although 73% of farmers could have gotten the information from another source, 84% of those with alternatives find the cohort's MVP to be better.

42% of farmers say they would prefer accessing the tool's information through agents, with 24% prefer in-person interactions. Younger farmers are more likely to prefer using the tool directly on their phones (69%) compared to older farmers (49%). Male farmers are also more likely than female farmers to prefer direct access.

Pages: [17](#), [30-32](#).

6 Agents share farmers' satisfaction with the solutions but emphasize the continued importance of human interaction.

Agents, like farmers, express high satisfaction with the solution, reflected in an impressive Net Promoter Score of 55. Over half of agents find all the information relevant, and 90% report always receiving timely answers. This aligns with farmer feedback, where ease of use, clarity, and prompt support drive satisfaction.

However, agents emphasize the ongoing need for human support in both their training and farmer engagement. Half prefer receiving information from the MVP in-person, and 70% believe an agent should 'always' or often be involved when providing agricultural advice. This suggests that while digital tools are effective, adding face-to-face interaction could further enhance its impact for both agents and farmers.

Pages: [34-35](#).

Farmer Voices

We love hearing farmer voices.

Here are some that stood out.

Opinions On Value Proposition

61% were Promoters and were highly likely to recommend

“It is very easy to obtain information using the AI tool. I simply open the app on my mobile device and get information either through SMS or by speaking, without having to go anywhere. The information is also accurate.”

- Female, 33

“The information you receive is always relevant to your question, making it a reliable source. Additionally, you get feedback quickly.”

- Male, 33

Impact Stories

89% shared how comfortable they felt using the solutions

“I receive information through both messages and voice input. When I send a message, I get an instant response. There's no need to go anywhere, I can access the information right from home”

- Male, 33

“The app provides a detailed explanation for any information I request, which makes it easy for me to understand.”

- Male, 40

“Through the AI tool, I can easily access accurate information about the weather and temperature. It also recommends which crop varieties to use for better yields.”

- Male, 40

“I received accurate and helpful farming information from the AI tool. After applying the advice provided, the yield of my crops increased.”

- Male, 34

Opportunities For Improvement

59% had a specific suggestion for information they would need from the solutions

“The app should also provide information about the market. I am engaged in farming, but if the app could show where to sell my crops to get a good price, it would be very helpful.”

- Female, 20

“In my area, I don't have access to information about which seed varieties to use and how to plant them. This type of information should be provided by the chatbot.”

- Male, 32

02

Detailed Results

“

This app is much better than Google. It provides accurate and reliable information. Google gives many different types of answers, which creates confusion.

- Male, 18



Who are the AI tools reaching?

- Demographics & Farm Profile
- Digital engagement
- Types of Information Accessed
- Availability of alternatives

What do farmers think about the tools?

- Net Promoter Score & Drivers
- Challenges
- Completeness of Responses
- Solution KPIs
- Areas to Improve

How are the tools impacting farmers?

- Application of Information & Barriers
- Change in confidence & convenience
- Reliance
- Scalability

How are agents engaging with the tools?

- User experience
- Need for agent-facilitated information

Demographics

38% of farmers we spoke to are female; the average household size is 7. There is a wide range in age, with the average being 39 years old.

Nearly 2 in 5 farmers we spoke to are women. The proportion is slightly higher in Kenya, where 44% are women, compared to 29% in Bihar.

3 in 10 farmers of the farmers we spoke to have completed tertiary education. Farmers in Bihar are more likely to have a university degree (37%) compared to those in Kenya (22%).

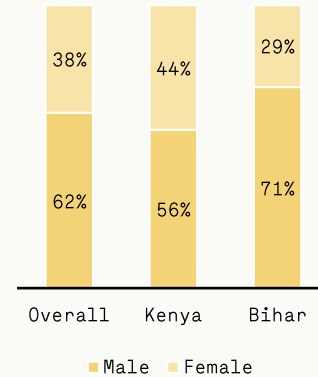
Additionally, male farmers are more likely to have a university degree (37%) than female farmers (18%).

Farmers in India are also younger, with an average age of 35, compared to Kenya's 43.

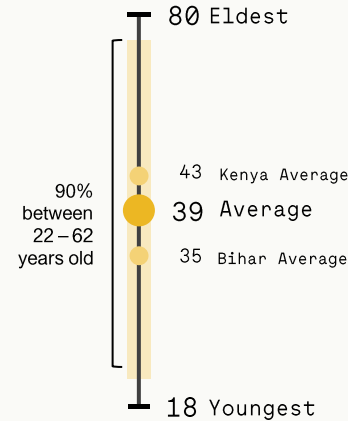
About the Farmers We Spoke With

Data relating to farmer characteristics (n = 824 | Bihar = 365, Kenya = 459)

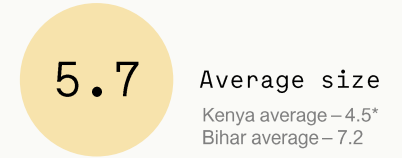
Gender



Age



Household Size



Education

- University, polytechnic, or above (30%)
- Secondary (44%)
- Primary (24%)
- No education (1%)

Digital Engagement

In Bihar, 96% of the farmers we spoke to have access to a smartphone, compared to 64% in Kenya. More farmers in Bihar also share their mobile phone than in Kenya.

This higher smartphone access helps explain why 96% of Bihari farmers use internet-enabled services on their phones, versus 61% in Kenya. Both exceed the national benchmarks in each country, suggesting a higher level of digital engagement among respondents ([see page 34](#)).

When asked about their preferred channels for accessing information, 33% of farmers in Bihar prefer mobile apps, while in Kenya, 28% prefer SMS and 27% in-person with an agent.

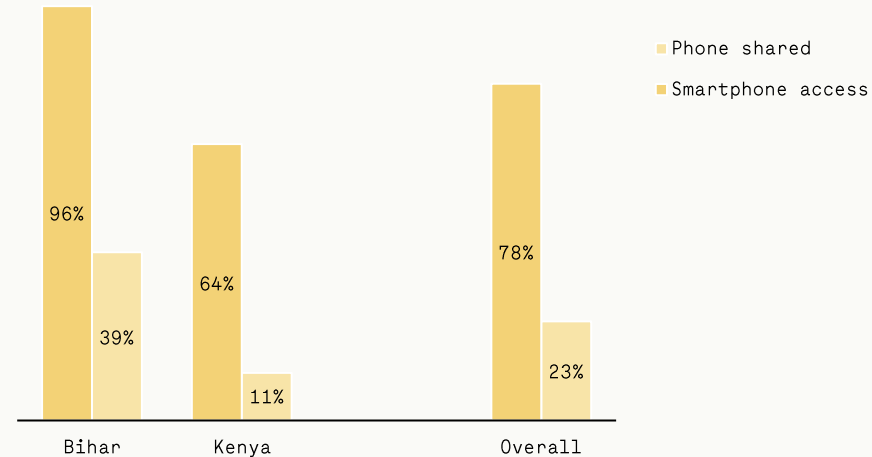
70% of farmers say they feel 'very comfortable' asking the tool questions and only 7% need support from someone in their community to use it.

23% of farmers share their mobile phone with someone else, and 78% have access to a smartphone.

Phone Access

Q: Do you share your mobile phone with anyone else? (n = 824 | Bihar = 365, Kenya = 459)

Q: Do you have a smartphone? (n = 824 | Bihar = 365, Kenya = 459)



Farm Profile

Farmers cultivated an average of 2.6 acres of land in the past year, and farming accounts for 48% of their household income.

Farming makes up nearly half of household income on average, so most farmers also rely on other sources of income to supplement their earnings.

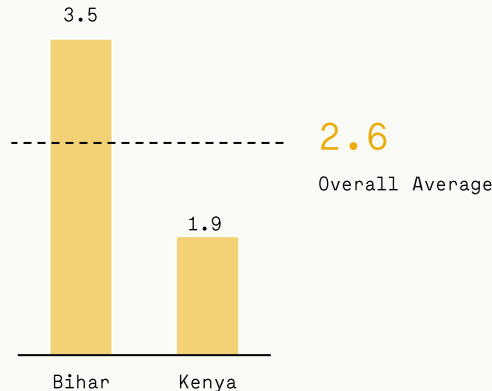
In Bihar, farmers have larger land sizes but a lower proportion of their income from farming, while in Kenya, farmers have smaller land sizes, but a higher proportion of their income comes from farming.

Male farmers report larger land sizes (3.4 acres) compared to female farmers (1.3 acres).

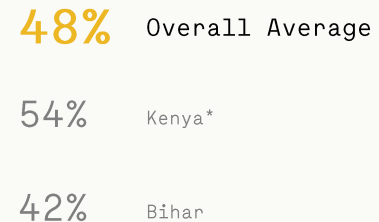
Compared to the national 60dB Information DFS benchmarks, land size in Kenya is similar to the national average (1.9 vs. 2.0 acres), while in Bihar, it is slightly higher (3.5 vs. 3.0 acres). See the [Appendix](#) for more details.

Average Land Size

Q: How much total land did you use for farming in the last 12 months? (n = 773 | Bihar = 347, Kenya = 426)
 Q: In the last 12 months, what proportion (%) of your household's total income came from farming? (n = 657 | Bihar = 329, Kenya = 328*)



Proportion of Household Income from Farming



Information Accessed

Farmers in Kenya mainly access pest management information, while Bihar farmers use the AI solution for crop management (e.g., when and how to plant, crop spacing, etc.). The tools are primarily used for beans (36%), potatoes (32%) and maize (28%).

Qualitative insights reveal that the information was new and valuable to farmers. For example, farmers mention that mixing pesticides with other recommended substances solved problems that pesticides alone could not. They also learned proper crop spacing, how to plant different seed types together, and how to use seed sowing machines, which led to improved yields.

A third of farmers use the tool following recommendations from trusted individuals. Convenience (31%) and reliability (22%) are other motivations.

Farmers mainly use the AI tool to access information on crop management, pest and disease management, and the use of fertilizers and chemicals.

Type of Information Accessed

Q: What type of information did you access from the solution? (n = 824 | Bihar = 365, Kenya = 459)

	Overall	Kenya	Bihar
Sample Size (n)	824	459	365
Crop management	66%	38%	88%
Pest & disease management	65%	81%	52%
Fertilizer & chemical use	46%	44%	48%
Seed selection	41%	21%	57%
Weather	28%	36%	21%
Irrigation	15%	19%	11%
Soil testing	8%	2%	12%
Market information	6%	2%	9%
Other	3%	4%	2%

Key : ■ Top Information 1 ■ Top Information 2 ■ Top Information 3

Availability of Alternatives

27% of farmers say they would not have access to farm-related information without the AI tool.

Bihari farmers are more likely to have access to similar alternative information solutions than Kenyan farmers. In both regions, over half of the farmers say the cohort's AI tool is 'much better'. The main reasons are:

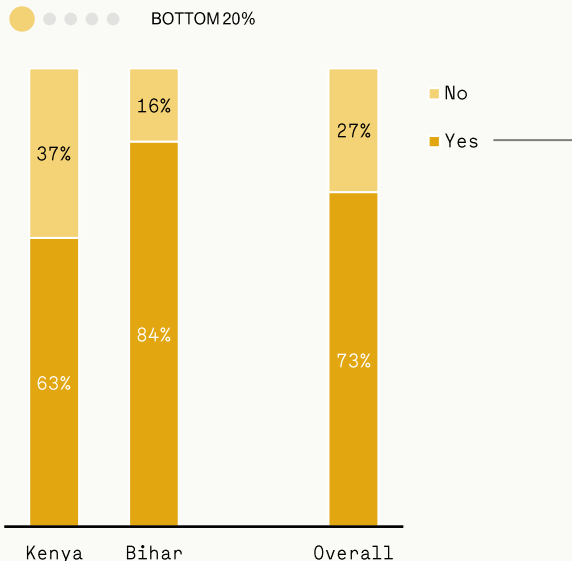
- Remote accessibility (57%)
- Quick response time (57%)
- Detailed information (39%)

Common alternatives are local retailers (34%), agriculture companies (22%), other farmers (17%), and government sources like KALRO and Bihar Krishi (14%). In Kenya, 27% also use agents.

Qualitative insights show that farmers find these services more accessible and comprehensive than message-based options though some still miss the personal touch of human interaction and feel that certain topics are missing.

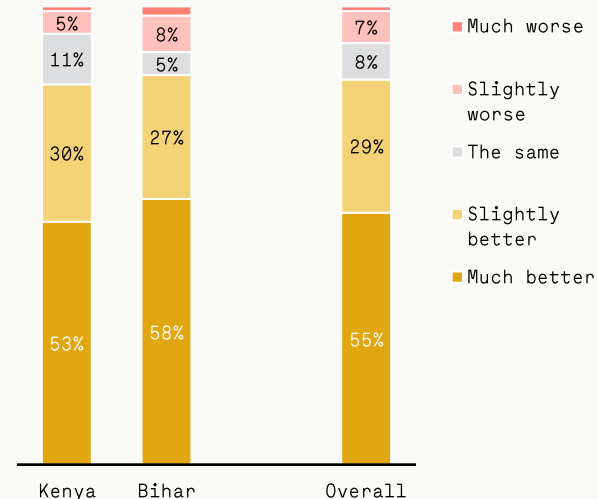
Access to Alternatives

Q: If you did not have access to the solution, where would you get this information? (n = 824 | Bihar = 365, Kenya = 459)



Comparison to Alternatives

Q: How does solution compare to this other information provider? (n = 600 | Bihar = 308, Kenya = 292)



Who are the AI tools reaching?

- Demographics & Farm Profile
- Digital engagement
- Types of Information Accessed
- Availability of alternatives

What do farmers think about the tools?

- Net Promoter Score & Drivers
- Challenges
- Completeness of Responses
- Solution KPIs
- Areas to Improve

How are the tools impacting farmers?

- Application of Information & Barriers
- Change in confidence & convenience
- Reliance
- Scalability

How are agents engaging with the tools?

- User experience
- Need for agent-facilitated information

Net Promoter Score[®]

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

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

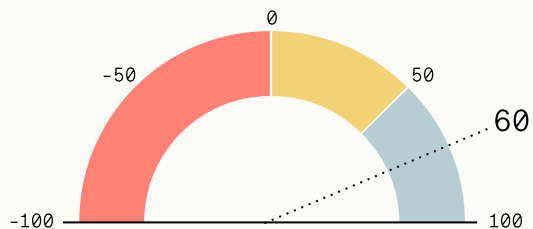
Female farmers report a higher NPS (66) than male farmers (57).

Qualitative data shows that many farmers share information from the AI tool with peers who are not on the platform and encourage them to try it or download it. Most peers accept the advice and are open to using it. However, some older farmers and those with larger farms remain skeptical or fear that using the information might harm their crops.

Collectively, the cohorts have an NPS of 60, which is excellent and higher than the 60dB Benchmark.

Net Promoter Score[®] (NPS)

Q: On a scale of 0 to 10, how likely are you to recommend the solution to a friend or family member, where 0 is least likely and 10 is most likely? (n = 824)



$$\text{NPS} = \text{xx\% Promoters} - \text{xx\% Detractors}$$

9-10 likely to recommend
0-6 likely to recommend

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

NPS Benchmarks

● ● ● ● ● TOP 20%

60 Decibels Agriculture Global Benchmark	46
24 companies	
60dB Kenya Information DFS Benchmark	26
60dB Bihar Information DFS Benchmark	40

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

NPS Drivers

Promoters value the reliable and comprehensive information. Detractors want more human interaction, and clearer communication.

67% are Promoters

They love:

1. **Reliable information**
(41% of Promoters / 28% of all respondents)
2. **Comprehensive advisory**
(39% of Promoters / 26% of all respondents)
3. **Accessibility**
(35% of Promoters / 24% of all respondents)

"It's easy for me to get information from [the AI tool] it provides accurate answers related to farming. I keep asking about crops based on specific weather conditions. There's no need to go anywhere to gather information. I get everything from the comfort of my home." - Male, 54

Tip:

Highlight the above value drivers in marketing Promoters are powerful brand ambassadors— can you reward them?

26% are Passives

They like:

1. **Detailed advisory**
(35% of Passives / 9% of all respondents)
2. **Prompt response**
(16% of Passives / 4% of all respondents)

They want to see:

1. **More complete information**
(27% of Passives / 7% of all respondents)

"It provides accurate information, but the materials it suggests aren't available in the market, and it doesn't have information on some new diseases." - Female, 35

Tip:

Passives won't actively refer you in the same way that Promoters will. What would it take to convert them?

7% are Detractors

They want to see:

1. **More human interaction**
(24% of Detractors / 14 respondents)
2. **Clearer communication**
(19% of Detractors / 11 respondents)
3. **More accurate information**
(17% of Detractors / 10 respondents)

"I know of farmers who want to use the app but don't understand how it works. Older farmers may also struggle with the language used. They should consider complementing the digital information with more in-person training to help farmers learn how to use the system." - Female, 40

Tip:

Negative word-of-mouth is costly. What's fixable here?

Farmer Challenges

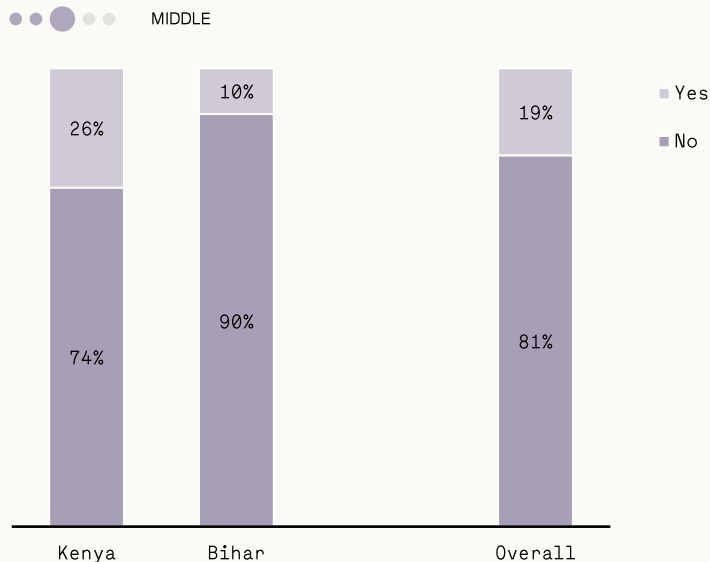
1 in 5 farmers are experiencing challenges with the cohort AI solutions, which is similar to the 60dB Agriculture Benchmark.

Farmers in Kenya (26%) are more likely to report experiencing a challenge compared to those in Bihar (10%).

For more details on these challenges, see the next page.

Farmers Reporting Challenges

Q: Have you experienced any challenges with the solution? (n = 824)



Farmer Challenges: Top Issues

We see regional differences between Kenya and Bihar in the challenges faced by farmers.

In Kenya, farmers more often report issues with delayed responses, language barriers, and platform complexity. In Bihar, the most commonly challenges are inaccurate information, unavailability of suggested products, and network connectivity issues.

Qualitative data shows that while farmers did not always view network issues as a direct challenge with the service, these issues still led to limited use of the AI tool that might not be captured here. Farmers also mention that the information would sometimes be more effective and practical if delivered in-person.

The most common challenges are delayed responses, language barriers, and inaccurate information.

Most Common Issues for 19% of Farmers Who Say They've Experienced a Challenge

Q: Please briefly explain the challenge you have faced. (n = 156). Open-ended, coded by 60 Decibels.

	Overall	Kenya	Bihar
Sample Size (n)	156	121	35
Delayed Responses	30%	34%	17%
Language Barrier	21%	21%	20%
Inaccurate Information	18%	13%	34%
Platform Complexity	16%	19%	6%
Unavailability of Products	15%	11%	29%
Complex Language	14%	18%	0%
Limited Crop Advisory	8%	8%	11%
Unfulfilled Promises	8%	10%	0%
Network Issues	8%	3%	23%
Accessibility Challenges	8%	10%	0%

Key : ■ Top Challenge 1 ■ Top Challenge 2 ■ Top Challenge 3

Key Performance Indicators

22% of farmers verified the information they received. Only 14% found the responses incomplete, and 6% sought additional information from other sources.

Male farmers (26%) and those with tertiary education (33%) were more likely to verify information than female farmers and those with secondary education or less (both 17%).

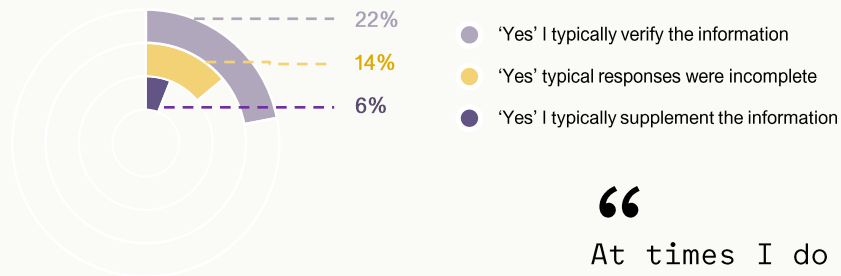
Most farmers feel the information provided by the AI solution is 'complete', with only a few seeking supplemental sources. Over 1 in 5 still choose to verify the information.

Completeness of Responses

Q: Did you have to verify the information from [Cohort] with another source? (n = 824).

Q: Think about the question(s) you asked the solution, did it provide a complete answer to your question(s)? (n = 824).

Q: Did you have to get additional information or advice from another source? (n = 824).



“

At times I do verify the information especially on pests and diseases with a mobile app called Plant Village to see if they are matching.

- Female, 49, Bihar

Key Performance Indicators

66% of farmers find all the information they received from the AI tool is relevant, 77% find it easy to understand, and 72% find the answers 'always' timely.

81% of male farmers found the information easy to understand, compared to 70% of female farmers.

Farmers with tertiary education also report greater ease and confidence using the tool. They are more likely to say the information is easy to understand (84% vs. 74%), that they received all the answers they needed (86% vs. 66%), and that they feel very comfortable asking questions (81% vs. 62%) compared to those with secondary education or less.

Performance on these metrics was slightly higher in Bihar.

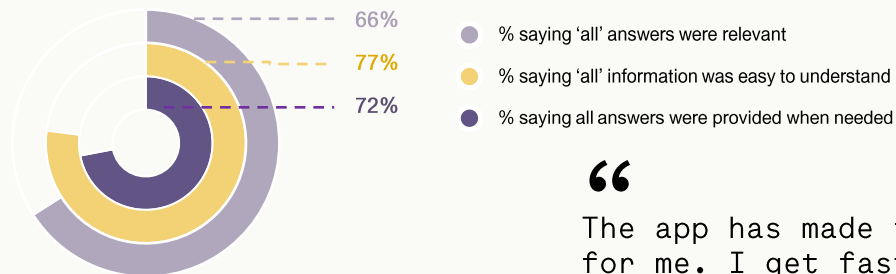
The AI tools are providing relevant, easy to understand, and timely information to farmers.

Relevance, Timelines, and Clarity

Q: How much of the information you received from the solution was relevant to the question(s) you asked?

Q: How much of the information you received from the solution was easy to understand?

Q: How often did the solution provide an answer to your question(s) within the time you needed?



“

The app has made farming easy for me. I get fast responses to any questions I ask related to the crops, and the information provided is accurate and perfect. It also offers information on seeds.

- Male, 20, Bihar

Opportunities for Improvement

Cohorts can improve the AI tools for farmers by providing more detailed responses and simplifying the language.

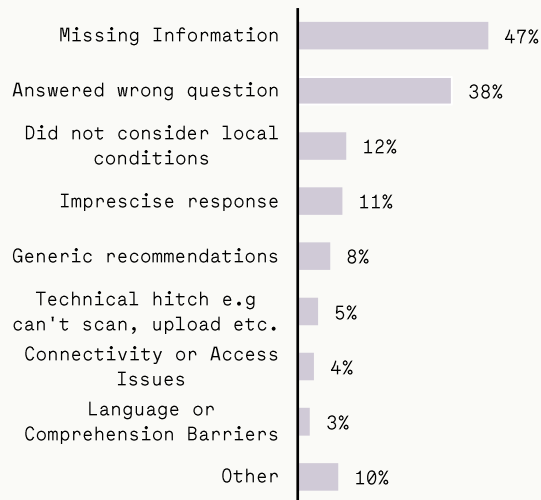
Among farmers who say the answers were incomplete, more in Kenya felt this was because the responses lacked important information (54%) compared to those in Bihar (35%).

Older farmers (35+ years) are more likely to report that the information is 'not easy' to understand compared to younger farmers (69% vs 45%).

Farmers without tertiary education are more likely to say they struggle to understand the information due to language difficulty and information overload.

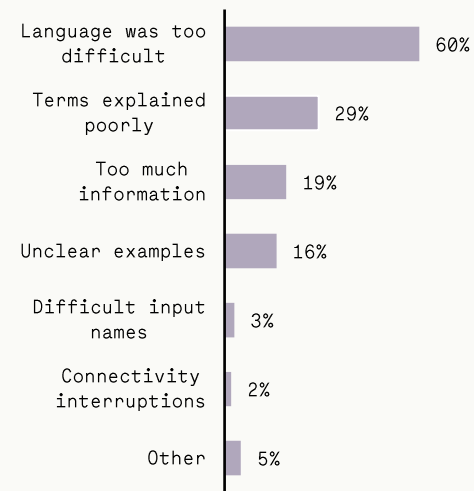
Reasons Responses are 'Incomplete' for 14% of Farmers

Q: Why were the answer(s) not complete? (n = 113).



Reason Responses are 'Not Easy' to Understand for 33% of Farmers

Q: Why was some of the information 'not easy' to understand? (n = 189).



Who are the AI tools reaching?

- Demographics & Farm Profile
- Digital engagement
- Types of Information Accessed
- Availability of alternatives

What do farmers think about the tools?

- Net Promoter Score & Drivers
- Challenges
- Completeness of Responses
- Solution KPIs
- Areas to Improve

How are the tools impacting farmers?

- Application of Information & Barriers
- Change in confidence & convenience
- Reliance
- Scalability

How are agents engaging with the tools?

- User experience
- Need for agent-facilitated information

Application of Information

More than half of farmers applied 'all' the information from the AI tool. The rest experienced challenges with input unavailability and financial constraints.

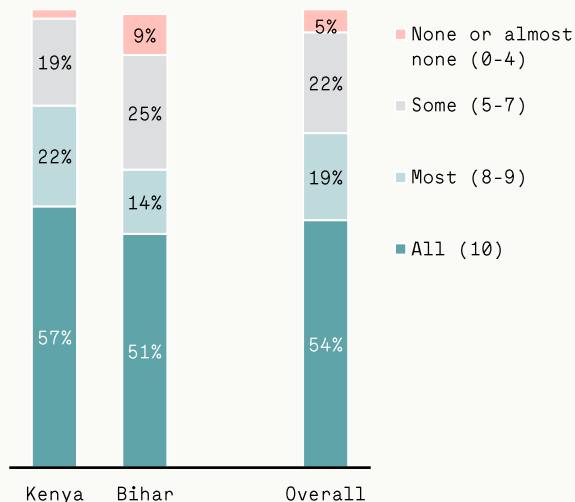
Application of information does not vary significantly by gender, age, land size, or education.

The top reasons for not applying 'all' the information are input unavailability (29%) and financial constraints (22%). Farmers in Kenya are more likely to report cost barriers than farmers in Bihar (34% vs. 7%).

The qualitative insights reinforced these barriers. Farmers described having to selectively apply advice due to limited capital. Others shared that recommended products weren't available in local agri-shops, suggesting the solution should offer a way to access them. Some also noted that advice wasn't tailored to local conditions (e.g. seed recommendations that didn't suit their needs) so they chose not to apply it.

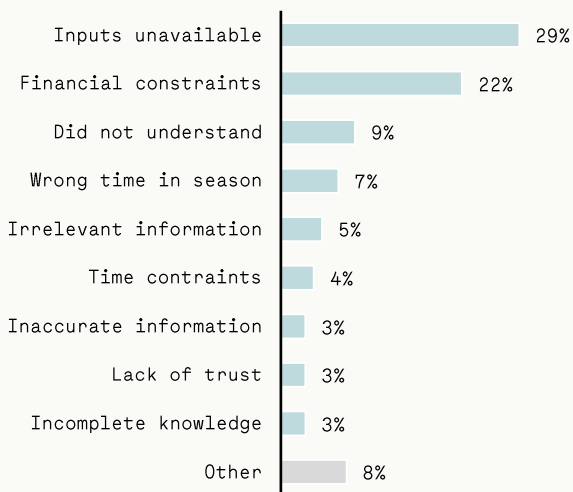
Application of Information

Q: On a scale of 0-10, how much of the information you received from the solution did you apply to your farming, with 0 being none of the information and 10 being all of it? (Kenya n = 420 | Bihar n=420 | Overall n=758).



Reasons Farmers Did Not Apply 'All' Information

Q: What was the main reason you did not apply all the information to your farming? (n = 412)



Change in Confidence

3 in 5 farmers feel 'much more confident' making decisions on their farm because of the AI tool.

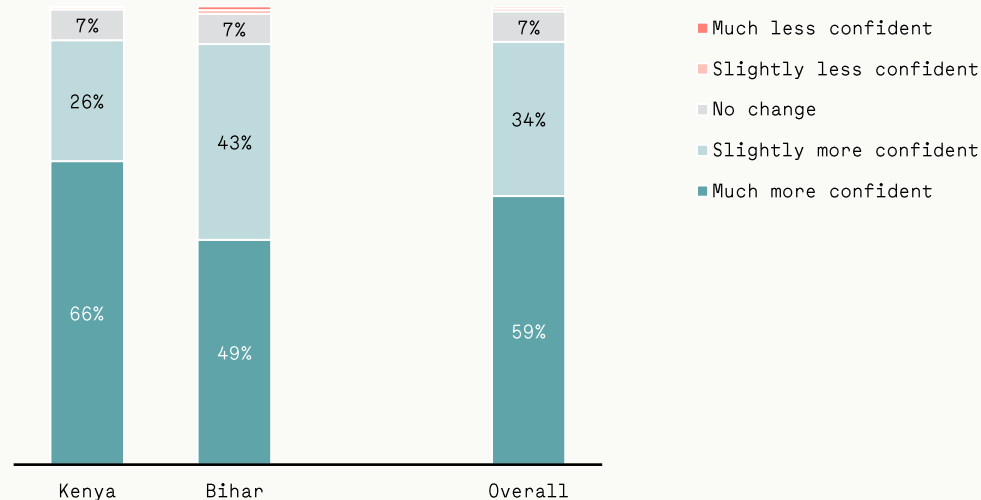
Farmers in Kenya report a greater increase in confidence when making farming decisions compared to those in Bihar.

We did not observe significant differences by age or gender.

More farmers who apply all the information from the AI tool report being 'much more confident' in making farming decisions compared to those who do not apply all the information.

Change in Confidence

Q: After using the solution, has your confidence in making decisions about your farming practices changed? Has it become: (n = 824)



Convenience of Accessing Information

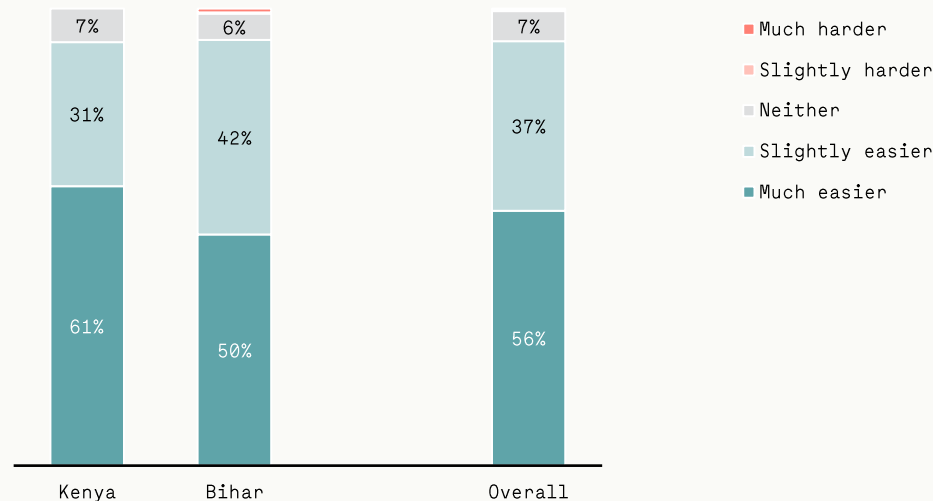
More farmers in Kenya report that the AI tool made it much easier to access information. This may be in part because fewer farmers in Kenya have alternative information sources compared to those in Bihar, making the change in convenience more significant.

The qualitative insights help explain why farmers perceive this shift in convenience. Respondents described the AI solution as accessible and intuitive—*like a teacher*. The ability to ask questions verbally rather than type them made it easier to use, especially for those with lower levels of education. Many noted that even when the app misunderstood a question, rephrasing usually resolved the issue. The tool's 24/7 availability was also seen as a major advantage over local agents.

More than half of farmers say the AI tool has made it 'much easier' to access reliable farming information.

Convenience

Q: Has your ability to access reliable information or advice for your farming changed? Has it become:
(n = 721*)



Reliance on AI Tool

39% of farmers rely solely on the cohorts' solution for farming information.

Farmers in Bihar (56%) are more likely to say the cohort solutions are their main source of farming information, compared to 39% in Kenya.

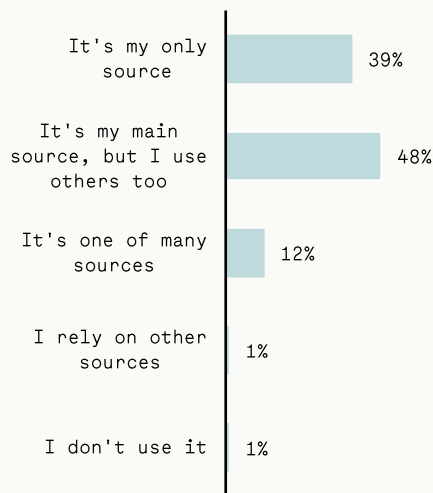
Similarly, farmers without tertiary education are more likely to report the cohort solution is their only source of farming information (44%), compared to those with university degrees (29%). Still, over half the farmers with a university degree report using the solution as their main source.

We find no differences in reliance on the AI tool by age or gender.

We saw how farmers rely on the AI tools through qualitative data. One farmer shared that after leaving his previous organization, he lost access to fertilizers and couldn't afford to buy more. The AI solution guided him on how to use manure to make his own fertilizer (see quotes).

Reliance

Q: Is the solution your primary source of farming information? (n = 824)



“

When I stopped having access to my fertilizer, my crops suffered. I would be finished if without the AI tool. I learned how to mix and use local manure for my crops and this helped me boost production.

- Female, Kenya

“

The information has been critical in my life. They taught me how to plant beans and maize well. I followed all their directions in planting, and I saw a greater harvest

- Female, Kenya

Future Use & Recommendations

Nearly all farmers say they plan to continue using the tool, and 3 in 5 have no suggestions for additional content.

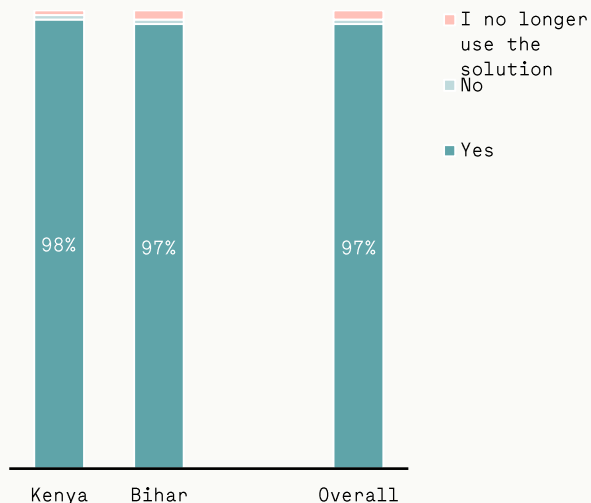
The main suggestions for additional content include more information on crop varieties and broader pest and disease management advice.

Farmers in Bihar (78%) are more likely to say they have no suggestions for additional information compared to Kenyan farmers (43%).

Additionally, in the qualitative interviews, we asked farmers what they saw as the main barriers to adoption for others in their community. In Kenya, farmers mention resistance to new technology, language limitations, lack of on-the-ground support or access to recommended products, high data costs, and poor connectivity. In India, responses focused more on low literacy levels, limited smartphone access, and lack of awareness of the solution.

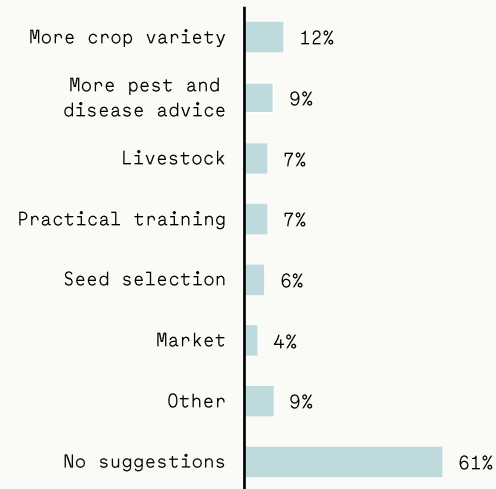
Scalability

Q: Do you plan to continue using the solution for your farming?
(n = 824)



Recommendations for Additional Content

Q: What type of information do you need that is not provided by solution? (n = 824)



Preferred Channel

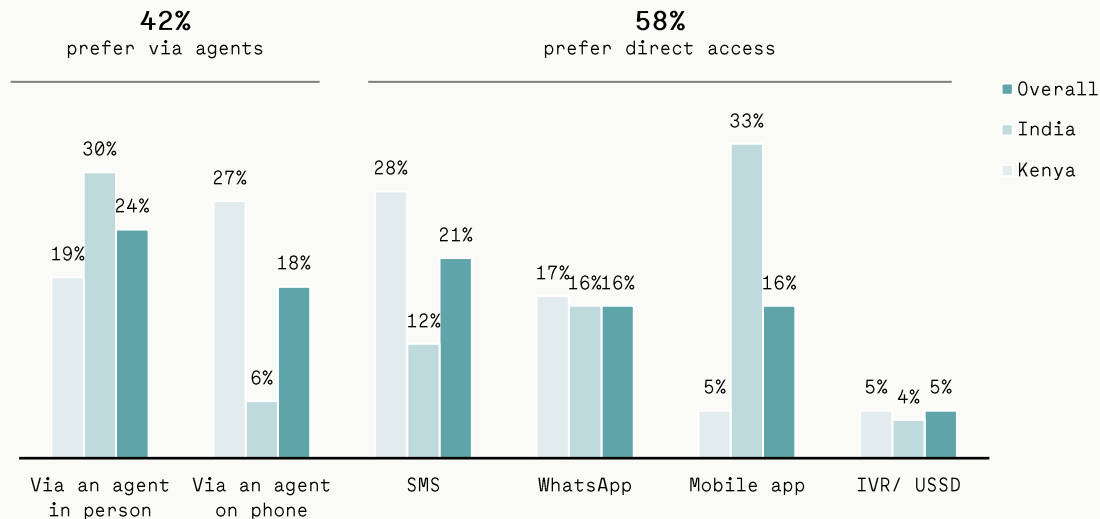
42% of farmers prefer accessing information from the AI tool through agents, and 24% prefer in-person interactions.

More Kenyan farmers prefer accessing information through agents compared to farmers in Bihar (46% vs. 36%). In contrast, more Bihari farmers prefer direct access via mobile phone than Kenyan farmers (64% vs. 54%).

Younger farmers (under 35) are more likely to prefer direct access on their own phones (69%) compared to older farmers (49%). Male farmers are also more likely than female farmers to prefer direct access.

Preferred Mode of Receiving Information

Q: Which channel would you most prefer to use for accessing solution? (n = 824)



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Agents: Satisfaction

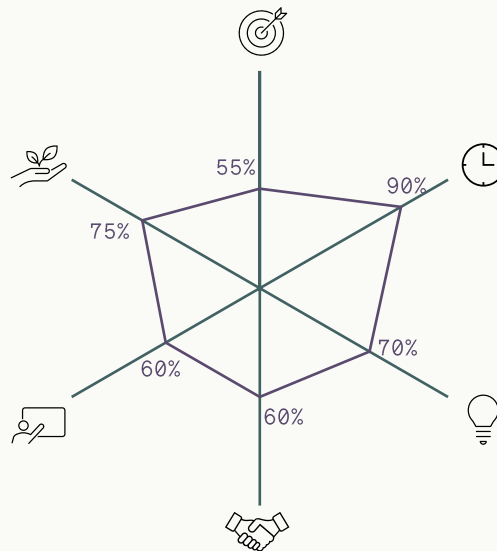
Agents value the speed, relevance and convenience of using Tech4Her services.

We also conducted interviews with 20 agents who use the AI tools to deliver information to farmers. Here's what they shared:

Agents are mainly satisfied with the AI tool because it it's relevance to agents, trustworthy information, and comprehensive guidance.

Over half of agents consider 'all' the information they receive from the AI tool relevant, and 90% say they 'always' get timely answers. This translates into meaningful on-the-ground impact: 75% say their ability to support farmers has improved since using the tool.

Services Segmentation Analysis



Key

- Relevance**
% 'all' information relevant
- Timeliness**
% 'always' got information on time
- Ease of Understanding**
% 'all' information easy to understand
- Convenience**
% 'much easier' to access information
- Application of Information**
% 'all' information with farmers
- Ability to Assist Farmers**
% 'very much improved' ability to assist farmers

Agents: Preferences

A third of agents believe an extension agent should ‘always’ be involved in providing farm advice. 70% prefer receiving information from the AI tool through interactive trainings.

However, despite being satisfied with the tools, agents still value interactive or in-person interactions.

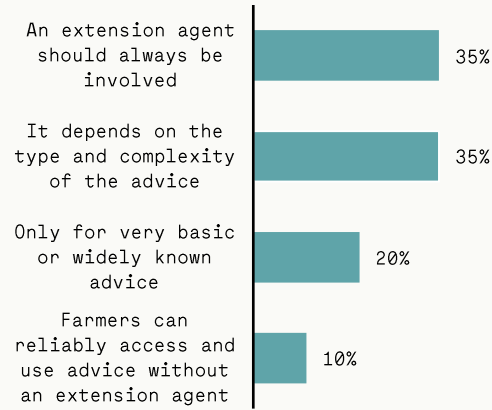
Over a third believe an agent should always be involved when sharing information with farmers, while another 35% think involvement should depend on the type and complexity of the advice.

Additionally, agents prefer receiving information through interactive trainings rather than directly on their mobile phones, with half favoring in-person sessions and the other half preferring phone-based interactions.

This indicates that while these tools are important for providing timely and relevant information, balancing them with human and in-person interactions is essential.

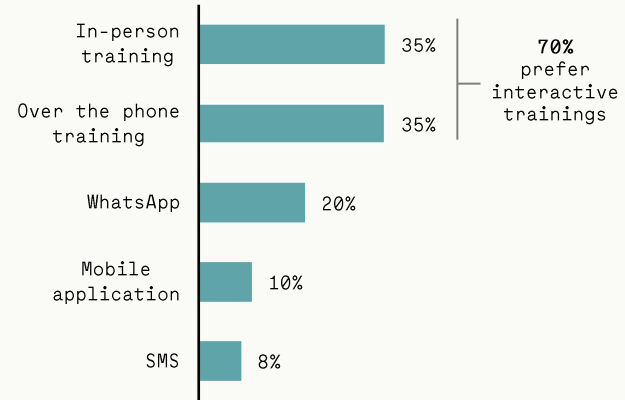
Sharing Agricultural Advice Without Extension Agents

Q: According to you, are there situations where agricultural information or advice be shared effectively without an extension agent like yourself? (n = 20)



Preferred Mode

Q: Which channel would you most prefer to use for accessing Tech4Her's information? (n = 20)



03

Appendix



Detailed Benchmarking Comparison

AIEP solutions perform particularly well on farmer satisfaction and improving access to farming information.

The performance column presents how you compare to 60 Decibels Benchmarks in the Agriculture sector globally.

We also compare AIEP Cohort solution results with our national pilot in Kenya, where we collected profile and user engagement data from users of digital farmer information services (DFS).

Information on the benchmarks is found below:

60dB Global Agriculture Benchmark:

# companies	26
# countries	11
# farmers	6,599

Comparison of Company Performance to Selected 60dB Benchmarks

Dimension	Indicator	AIEP Solutions	60dB Global Agriculture Benchmark	60dB Kenya Information DFS Benchmark	60dB Bihar Information DFS Benchmark
Who	% female	38	31	51	28
	Average land size (acres)	2.6	-	2.0	3.0
	% smartphone ownership	78	-	37	68
	% using internet-enabled services	76	-	59	47
	% could not easily find an alternative	27	83	-	-
What Impact	% saying accessing information is 'much easier'	56	-	48	26
	Net Promoter Score	60	46	26	40
Experience	% experiencing challenges	18	20	17	6
	% receiving information 'always' when they need it	72	-	26	11

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'.

Summary Of Data Collected

A random sample of 824 farmers from 4 companies was used for FarmerChat in the past 3 months, sampled from a farmer database sent to us by GIZ.

824 phone interviews completed in between March and April, 2025.

Methodology

Metric	India	Kenya
Responses collected	365	459
% female	106	204
Language	Hindi	Swahili, English, Dholuo
Dates	March and April, 2025	March and April, 2025
Response rate	25%	75%
Average time p/interview	22 minutes	18 minutes
Confidence Level	90	90
Margin of error	4%	2%

I can now plant on time.

I used to delay getting seeds.

I was interested in the payment plan.

My family is
very

>healthy

>happy

>safe

>hopeful

now.

Hanadi Al-Saidi

Riya Yadav

Betty Njagi

Emma Saisi

Ashley Wanza

For queries, please email:

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riya@60decibels.com