

Bayer Crop Science: GeoPotato

Farmer Insights

Bangladesh



Welcome To Your 60dB Results

We enjoyed hearing from 275 farmers served by GeoPotato - they had a lot to say!

Contents

Headlines

- 03 / Performance Snapshot
- 04 / Top Actionable Insights
- 05 / Farmer Voices

Detailed Results

- 06 / Farmer Profile
- 11 / GeoPotato's Impact
- 21 / Farmer Experience

Appendix

- 29 / Methodology

GeoPotato Performance Snapshot

GeoPotato performs particularly well on farmers' satisfaction with few challenges, increased production, and earnings. There is room to reach more lower-income farmers.

<p>Profile</p> <p>0.73</p> <p>Inclusivity Ratio</p>	<p>Quality of Life</p> <p>33%</p> <p>quality of life 'very much improved'</p>	<p>Way of Farming</p> <p>30%</p> <p>way of farming 'very much improved'</p>	<p>Crop Production</p> <p>45%</p> <p>production 'very much increased'</p>	<p>Farmer Voice</p> <p>"In the past, I used to apply fungicides the usual way like the seniors in my community. But now, I apply pesticides according to GeoPotato's instructions and find it is more effective." - Male, 22</p> <p>Data Summary</p> <p>Company Performance: 275 farmer phone interviews in April 2023, in Bangladesh.</p>
<p>Crop Earnings</p> <p>38%</p> <p>earnings 'very much increased'</p>	<p>Net Promoter Score®</p> <p>62</p> <p>on a -100 to 100 scale</p>	<p>Challenges</p> <p>8%</p> <p>report challenges</p>	<p>Climate Resilience</p> <p>24%</p> <p>resilient farmers *</p> <p><small>* Households not affected by climate shocks out of 27% in communities with climate shocks.</small></p>	

Top Insights

1 GeoPotato has the scope to expand its market reach to more female and lower-income farmers across regions.

Of the farmers we spoke with, all but 1 are male, from Rajshahi (61%) and Rangpur (39%). This suggests a need to reach more female farmers and farmers from other regions. Additionally, GeoPotato has an inclusivity ratio of 0.73, suggesting a need to reach more lower-income households compared to the national population.

See pages: [7](#) and [9](#).

4 Learning from insights from farmers in Rajshahi and applying them to those in Rangpur can boost the overall impact on the wider farmer population.

Impact seems to be experienced differently by region: farmers in Rajshahi are more likely to report 'very much improved' way of farming and quality of life as well as increased production and earnings compared to those in Rangpur.

See pages: [12](#), [14-16](#), and [28](#)

2 GeoPotato offers farmers a unique service that positively impacts their farming and wellbeing.

89% of farmers couldn't find a good alternative to GeoPotato's services. This emphasizes the competitive advantage and uniqueness of GeoPotato's late-blight alert messages. Most farmers report positive changes to their way of farming, production, earnings, quality of life, and climate resilience because of GeoPotato.

See pages: [10](#), [12-16](#), and [19](#)

5 Increased engagement with GeoPotato's late-blight alert messages leads to greater impact and satisfaction for farmers.

Tenure seems to have an important effect in assimilating impact and satisfaction: longer-tenured farmers are more likely to report improved way of farming and increased production than shorter-tenured ones. This leads to higher satisfaction among this group.

See pages: [12-14](#), [22-24](#), and [27](#)

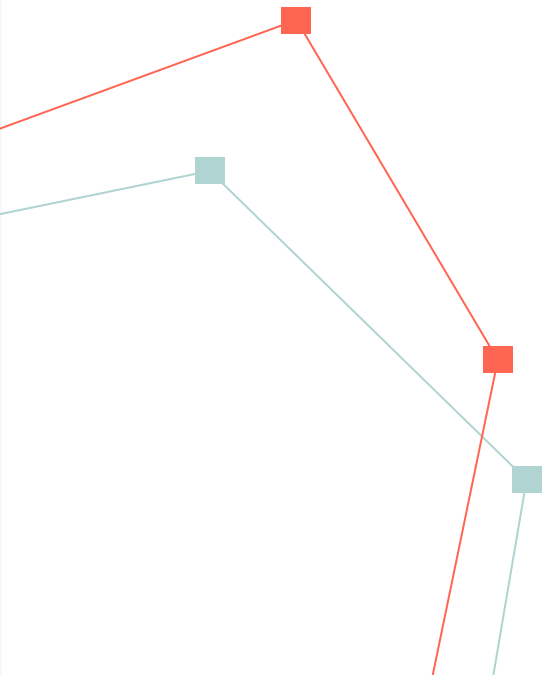
3 GeoPotato's advanced, timely alerts drive high satisfaction, but there is room for in-person engagement.

GeoPotato has an excellent Net Promoter Score[®] of 62, primarily due to the advanced, timely alerts. 92% of farmers did not report challenges. Nevertheless, there is room for in-person training and messages that are tailored to ensure easy comprehension among illiterate farmers.

See pages: [22](#), [23](#), and [25](#)

Farmer Voices

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



Impact Stories

82% shared how GeoPotato's late-blight alert messages have improved their quality of life

“Due to the cautionary messages on late blight, there has been a lot of improvement in my standard of living. Currently, besides potatoes, I also grow other crops, along with the income from potato sales. I have invested the money from potato sales in my business.”
- Male, 47

“Through SMS, we learned that rotting can be prevented with proper fungicide application. We have to spray on time. Therefore, the damage is also decreasing. This will help me get more yield later, which is useful for my financial development.”
- Male, 38

“I have suffered many times because of blight. But I now know in advance about the blight breakout and remedies. They told me different medicine names like Antracol. In the last season, my crops were free from the attack. I was able to avoid losses. This was my improvement because of GeoPotato.” - Male, 55

“I yielded good potatoes on time and the market price was really in my favor, so I have earned a good amount. I can now provide my children with a good education, good food, and most importantly, I am happy with my progress.” - Male, 28

Opinions On GeoPotato Value Proposition

70% are Promoters and highly likely to recommend

“Before, I had to go to shops and ask the shopkeeper for his advice on what pesticide or fungicide to apply, but now we can get to know this through GeoPotato's messages right at my home. This is a good thing for our country, so I will recommend this to all.” - Male, 24

“I will suggest other farmers to follow the alerts from GeoPotato because I think this is an effective service for cost minimization. I don't need to apply [fungicides] so many times like before. If I apply it according to their instructions, it is enough.” - Male, 55

Opportunities For Improvement

8% experienced challenges and have a specific suggestion for improvement

“It would be better if we could talk directly about the problem [with a representative over the phone] and take action accordingly. Moreover, Bayer's fungicides recommended are not always available here. It would be better if they would suggest 2-3 more types of fungicides.” - Male, 32

“I am a less educated person in the village, so I can't use a mobile phone. Many times, I can't read even if someone sends an SMS. When my child reads out the message, only then do I understand.” - Male, 52

Who Are You Reaching?

- Demographics
- Farming profile
- Income inclusivity
- Availability of alternatives

What Impact Are You Having?

- Impact on way of farming
- Impact on crop production
- Impact on money earned
- Impact on quality of life
- Impact on climate resilience

How Can You Improve?

- Net Promoter Score & drivers
- Trust and timeliness
- Challenges

“We can be warned about the weather in advance at home and get advice about fungicides due to which we have benefited a lot. I would also recommend [GeoPotato’s SMS advisory system] to everyone.” - Male, 48

Demographics

GeoPotato appears to be serving a relatively homogenous farmer base of male farmers in Rajshahi – suggesting the scope to target more female farmers in other regions.

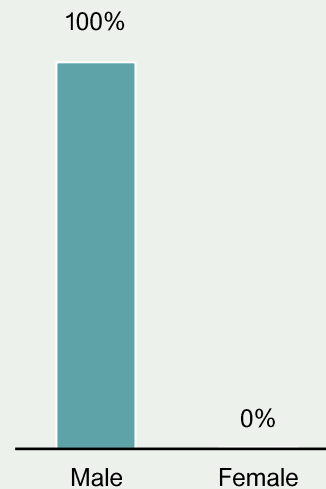
On average, we spoke with 40-year-old farmers living with 5 other members in their households.

There is an equal split between younger and older farmers with regard to their average age.

About The Farmers We Spoke With

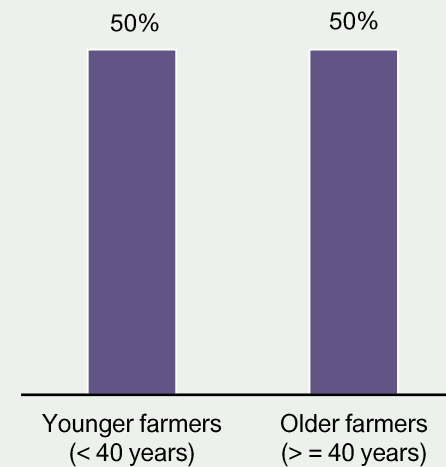
Data relating to farmer characteristics (n = 275)

Gender



Average Age (in years)

40



Average Household Size

6

Region

- Rajshahi (61%)
- Rangpur (39%)
- Barisal (1 respondent)

Farming Profile

On average, farmers report interacting with GeoPotato's late-blight alert messages for 13 months and farming on 3.6 acres of land.

We spoke to farmers at varied times since sowing as shown below*:

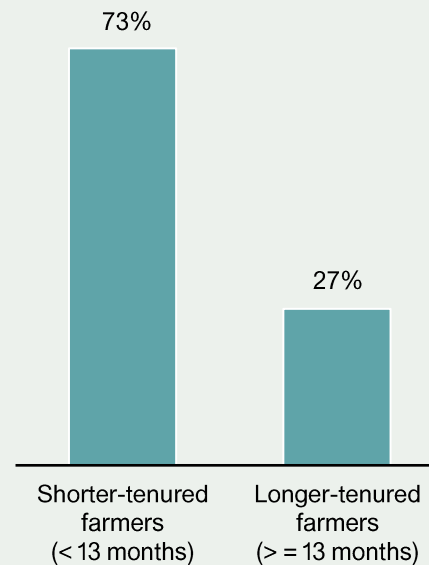
- 3 months (22%)
- 4 months (69%)
- 5 months (9%)

Throughout this report, we have called out significant differences by region and tenure. No significant differences were found by gender, as all but 1 are male, and age.

Farmer Tenure

Q: How many months back did you start interacting with / receiving late-blight alert messages from GeoPotato? (n = 275)

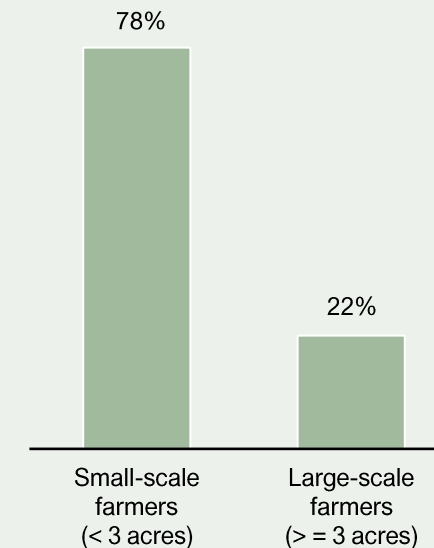
13 Average tenure in months



Land Under Cultivation

Q: How much total land did you use for farming in the last 12 months? Consider all crops planted. (n = 275)

3.6 Average land used (in acres)



* Extracted from data shared by GeoPotato's team.

Income Inclusivity

GeoPotato is reaching relatively higher-income households compared to Bangladesh's national average – suggesting a need to reach more lower-income farmers.

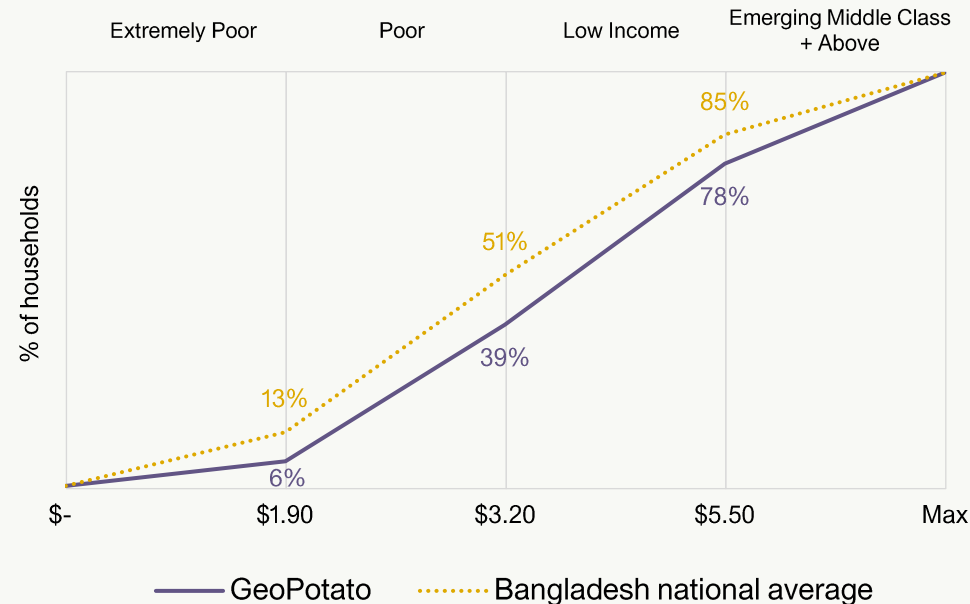
Using the Simple Poverty Scorecard, we measured how the income profile of your farmers compared to the Bangladesh national average.

Bangladesh is classified as a lower-middle-income, with a poverty line of \$3.20. 39% of farmers live under \$3.20 per day, compared to 51% nationally. GeoPotato's inclusivity ratio of 0.73.

Longer-tenured farmers are more likely to live in poverty (56%) compared to shorter-tenured ones (43%). This could indicate GeoPotato is increasingly reaching more well-off farmers in recent times.

Income Distribution of GeoPotato Relative to Bangladesh

% living below \$xx per person / per day (2011 PPP) (n = 275)



Inclusivity Ratio

Degree that GeoPotato is reaching low-income farmers in Bangladesh

0.73

We calculate the degree to which you are serving low-income farmers compared to the general population.

1 = parity with population;
 > 1 = over-serving;
 < 1 = under-serving.

See [Appendix](#) for calculation.

Availability of Alternatives

The availability of alternatives provides insight into the competitive landscape and the degree to which GeoPotato is providing a scarce service.

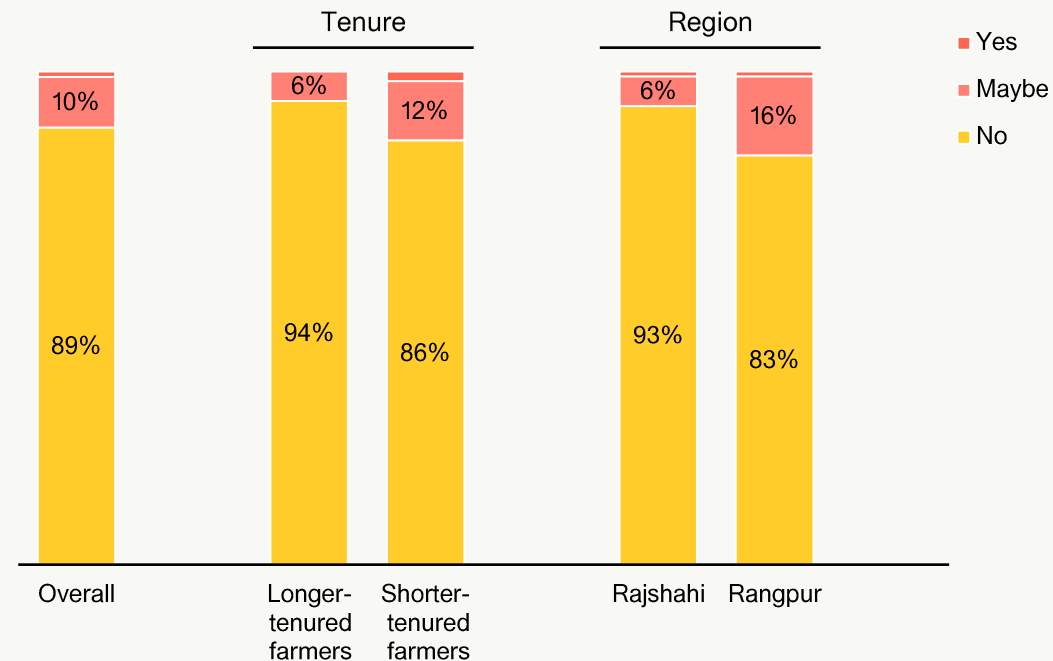
Increased usage of GeoPotato's late-blight alert messages leads to a higher perception of its uniqueness: longer-tenured farmers are more likely not to easily find a good alternative (94%) compared to shorter-tenured farmers (86%).

Farmers in Rajshahi perceive GeoPotato's late-blight alert message to be more unique compared to those in Rangpur: farmers in Rajshahi are more likely not to easily find a good alternative (93%) compared to those in Rangpur

GeoPotato is providing a unique service in the market with close to 9 in 10 farmers saying they could not easily find a good alternative to the late-blight alert messages.

Access to Alternatives

Q: Could you easily find a good alternative to GeoPotato's late-blight alert messages? (n = 263)





Who Are You Reaching?

- Demographics
- Farming profile
- Income inclusivity
- Availability of alternatives

What Impact Are You Having?

- Impact on way of farming
- Impact on crop production
- Impact on money earned
- Impact on quality of life
- Impact on climate resilience

How Can You Improve?

- Net Promoter Score & drivers
- Trust and timeliness
- Challenges

“We got enough time to take proper care. We applied fungicides on time and other fertilizers too.” - Male, 55

Way of Farming: Overview

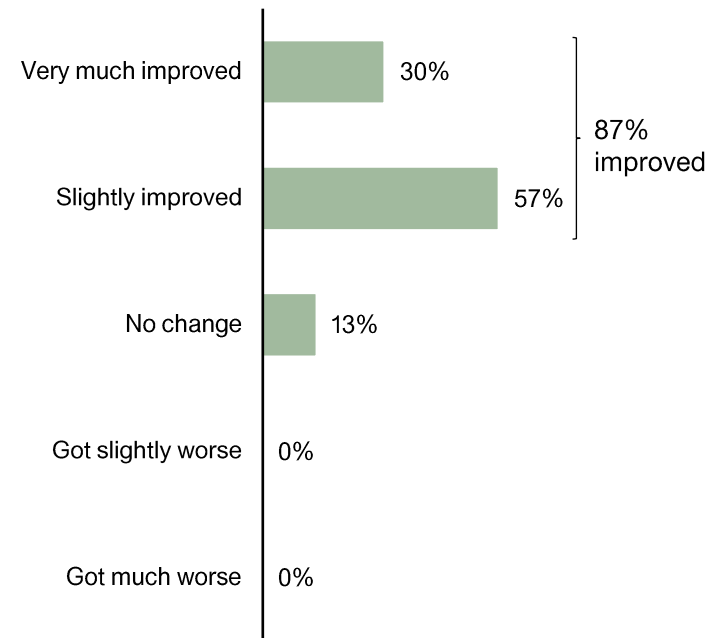
Farmers in Rajshahi are more likely to report 'very much improved' way of farming (34%) compared to those in Rangpur (22%). This might indicate differences in the adoption of GeoPotato's alert messages to agricultural practices across regions.

The longer farmers use GeoPotato, the more likely they are to witness an improved way of farming: longer-tenured farmers are more likely to report improved way of farming (93%) than shorter-tenured ones (85%).

GeoPotato enhances farmers' agricultural practices with 87% of farmers reporting an improved way of farming. 3 in 10 reporting significant improvements.

Changes In Way Of Farming

Q: Has your way of farming changed because of GeoPotato's late-blight alert messages? (n = 274)



Very much improved:

“I have used the [fungicide] mentioned in the SMS alert in lower quantities. I have also used a similar fungicide that is widely available in the market at a comparatively lower cost.” - Male, 55

Slightly improved:

“I used to apply [fungicides] in a traditional or as usual way which was not so fruitful for me. Now, I follow the instructed time and pattern, and that made the difference.” - Male, 30

No change:

“I am not so educated, and I don't use a mobile all the time. I missed some important messages. So, I could not improve my farming pattern.” - Male, 59

Way of Farming: Top Improvements

Farmers were asked to describe – in their own words – the ways in which their farming had changed because of GeoPotato’s late-blight alert messages. The top improvements are to the right. Others include:

- Improved knowledge of disease prevention (26%)
- Better planning or decision-making for the farm (17%)
- Less reliance on local information sources (8%)

Farmers reporting ‘no change’ in their way of farming say they are primarily using traditional or familiar methods of farming (27%) or they missed messages because they do not check their phones regularly (22%).

When we look at farmers’ open-ended responses, we discover the top reason why farmers say their way of farming has improved is the usage of effective fungicides.

Top Self-Reported Outcomes for 87% of Farmers Who Say Way of Farming Improved

Q: How has your way of farming has improved? (n = 238). Open-ended, coded by 60 Decibels.

34%

mention using effective fungicides

(29% of all respondents)

“Previously, I used to spray fungicides from different companies available in the local market. I got an SMS and it suggested I spray Melody and Secure in the field. I just followed the instructions and now, my production is better than before.” – Male, 36

28%

talk about timely application of fungicides

(24% of all respondents)

“The SMS provides timely and accurate information on weather patterns, disease outbreaks, and soil moisture levels. This information helped me to make right decisions about when to apply fungicides, thereby reducing crop losses.” – Male, 43

28%

report using advanced weather alerts and forecasting

(24% of all respondents)

“These days, I can prepare for the worst situation. We use the advance alert messages as a warning, so we can be ready for the prevention [of late blight] and use modern technology like forecasts and alerts on the mobile phone.” – Male, 40

Potato Production

GeoPotato boosts farmers' potato production with 86% reporting increased production; 45% reporting 'very much increased'. 72% say they utilized the same amount of land to realize this increase, indicating higher productivity.

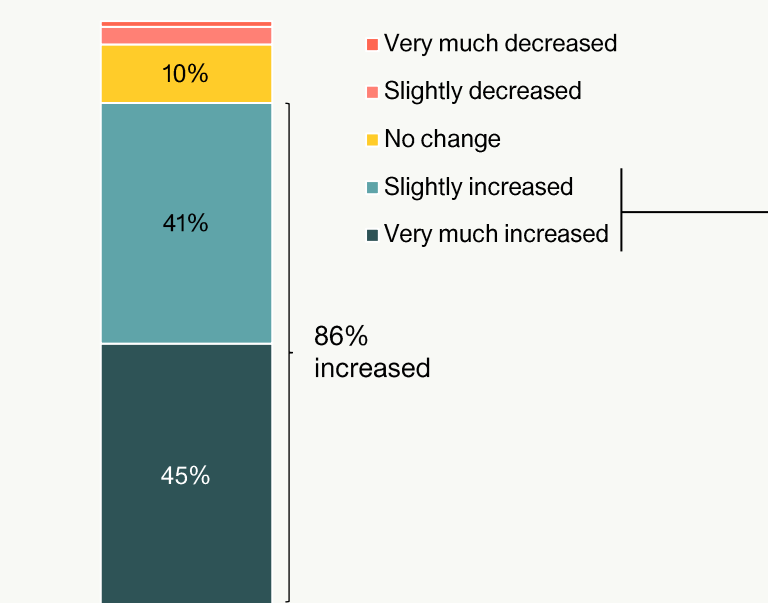
The increase in potato production can be attributed to the improved way of farming, as farmers who report increased production are more likely to indicate improvements in their farming practices.

Farmers in Rajshahi are more likely to report increased potato production (90%) compared to those in Rangpur (79%).

The longer farmers use GeoPotato's late-blight alert messages, the greater the likelihood of experiencing an increase in production: longer-tenured farmers are more likely to report 'very much increased' potato production (56%) than shorter-tenured farmers (41%).

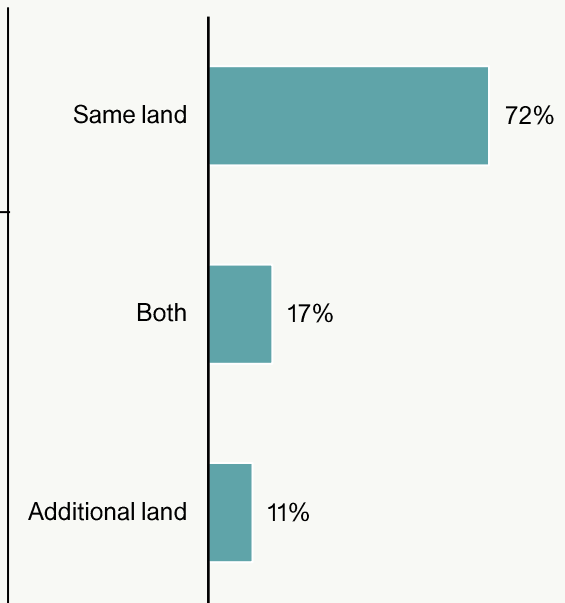
Impact on Potato Production

Q: Has the total production from your potatoes changed because of GeoPotato's late-blight alert messages? (n = 275)



Reasons for Increased Crop Production

Q: Was this increase because you planted additional land or was it from the same amount of land? (n = 237)



Money Earned

GeoPotato facilitates greater earnings for farmers with 83% reporting increased earnings; 38% reporting 'very much increased'. 9 in 10 farmers attribute the increase to increased volume sold.

Farmers reporting no change in earnings primarily attribute it to no change in their yields (50%), low market prices (38%), and not following the advice provided (18%).

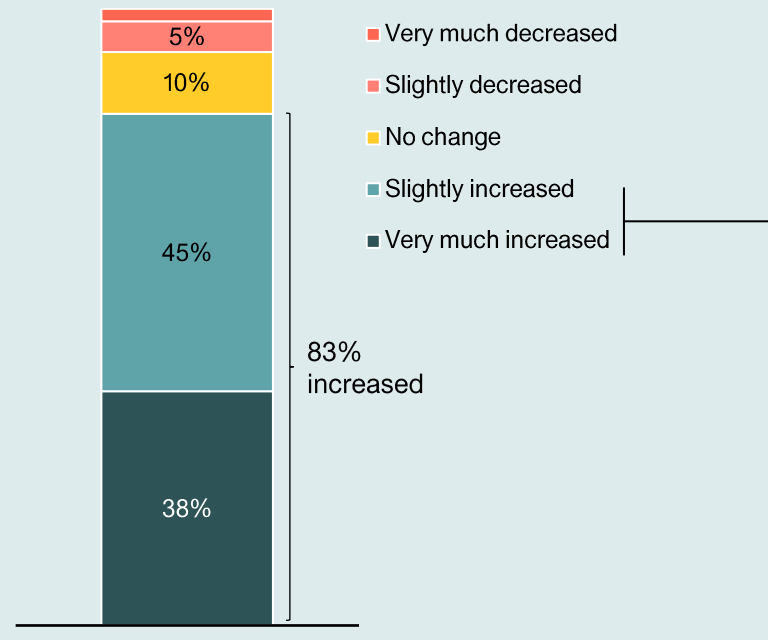
Farmers reporting decreased earnings primarily attribute it to a decrease in price (56%) and volume sold (44%), and increased cost (33%).

The increase in earnings can be attributed to the improved way of farming and increased production, as farmers who report increased earnings are more likely to indicate improvements in their farming practices and increased production.

Farmers in Rajshahi are more likely to report increased earnings (90%) than those in Rangpur (73%).

Change in Money Earned from Potato

Q: Has the money you earn from potatoes changed because of GeoPotato's late-blight alert messages? (n = 275)



Reasons for Increase in Money Earned

Q: What were the main reasons for the increase in money earned? Select all that apply (n = 229)



Quality of Life: Overview

To gauge the depth of impact, farmers were asked to reflect on whether their quality of life has changed because of GeoPotato's alert messages.

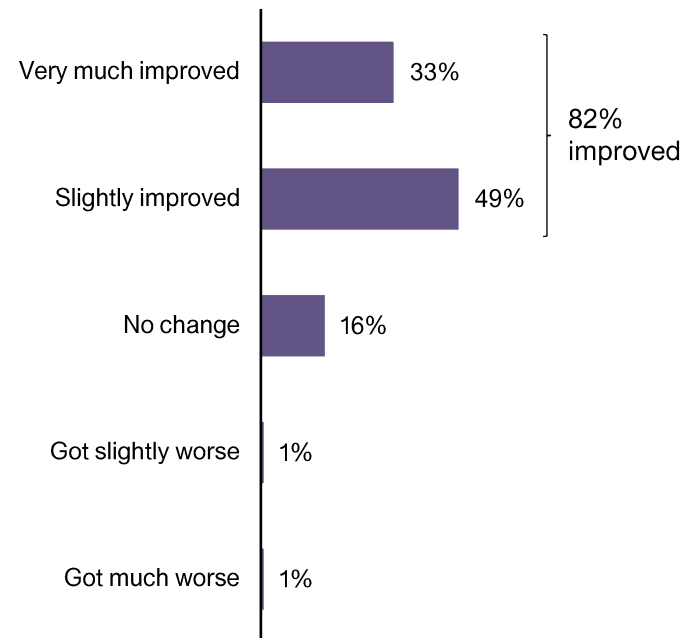
Farmers in Rajshahi are more likely to report 'very much improved' quality of life (40%) than those in Rangpur (23%).

Positive farming outcomes contribute to an improved quality of life for farmers: farmers who report improved ways of farming, increased production, and earnings are more likely to indicate an improved quality of life.

GeoPotato empowers farmers' quality of life with 82% reporting improved quality of life. A third report significant improvements.

Perceived Quality of Life Change

Q: Has your quality of life changed because of GeoPotato's late-blight alert messages? (n = 275)



Very much improved:

“By the grace of Allah, my production has increased a lot. I can afford education for my children. I keep getting more production every year and was able to increase my earnings a lot too.” - Male, 65

Slightly improved:

“We prepared ahead through precautions and used fungicides for the crop at the right time. It reduced crop damage. As a result, the production has increased, which is financially beneficial for me.” - Male, 24

No change:

“I have used enough fungicides and took very good care of the crops, but I still didn't get satisfactory production.”
- Male, 50

Quality of Life: Top Improvements

Farmers were asked to describe – in their own words – the positive changes they were experiencing because of GeoPotato’s alert messages.

The top outcomes are shown on the right. Others included:

- Ability to afford household expenses (35%)
- Enabled investments in additional land and businesses (20%)
- Reduced stress levels (15%)

Farmers reporting ‘no change’ in quality of life primarily mention insufficient production despite GeoPotato’s advisory (23%), low potato prices received (21%), and inability to use message instructions effectively (21%).

When we look at farmers’ open-ended responses, we discover the top reasons why farmers say their quality of life has improved are increased income and yield.

Most Common Self-Reported Outcomes for 82% Who Say Quality of Life Improved

Q: How has your quality of life improved? (n = 227). Open-ended, coded by 60 Decibels.

81%	mention increased income (67% of all respondents)	“By [following] the instructions given through SMS, my earnings from potato cultivation are 15,000 BDT more compared to last year. With the extra money, I borrowed 1 bigha of land for paddy cultivation for one year.” – Male, 42
65%	talk about increased potato yield (53% of all respondents)	“GeoPotato has helped improve [my] quality of life as they alert us 2-3 days before bad weather. For this reason, we can be cautious and as a result, the production is better than before.” – Male, 25
41%	report better disease prevention and management (34% of all respondents)	“Last year, I had lost a lot of my potatoes to blight. But this year, I have used the medicine Antracol as per GeoPotato’s advice. My production increased a lot as a result.” – Male, 24

Climate Shocks: Overview

This page provides insights into the climate shocks faced by the farmers in the last 24 months and the next page talks of GeoPotato's role in climate shock recovery.

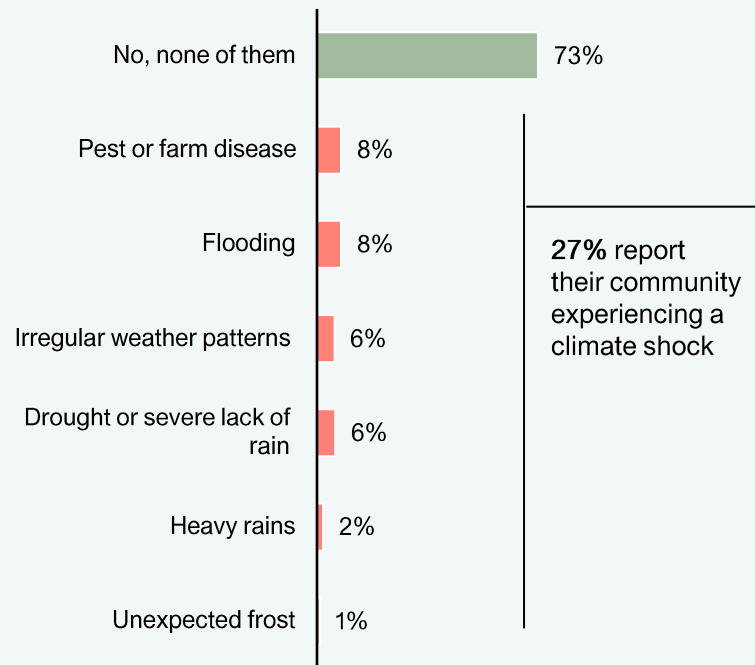
Pest or farm disease is a second key shock that has affected farmers' households, of which GeoPotato aims at providing farmer support with its late-blight alert messages.

Farmers in Rajshahi are more likely to be in communities that experienced climate shocks (78%) than those in Rangpur (66%).

73% of farmers' communities did not experience climate shocks. Of those that did, slightly over 3 in 4 report their households being affected by the climate shock.

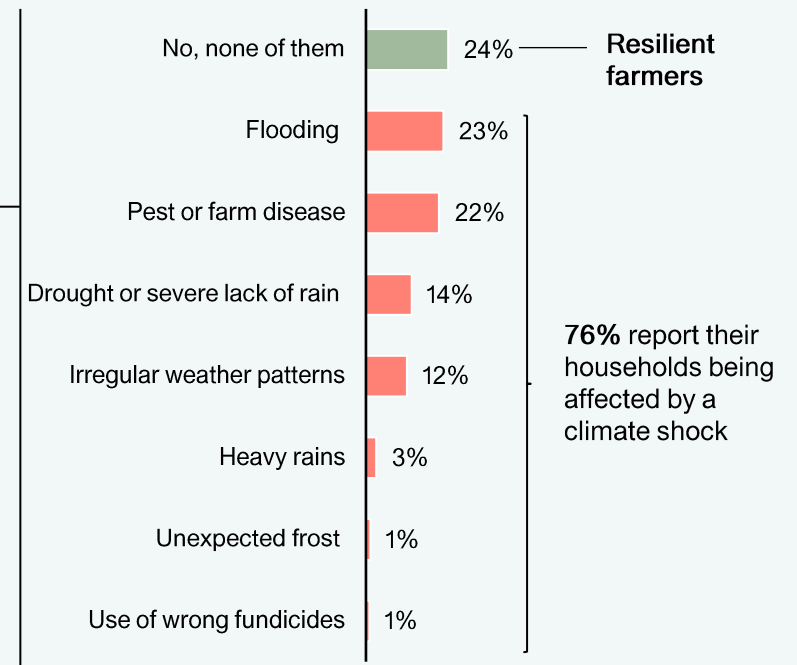
Climate Shocks Within the Community

Q: In the last 24 months, did your community/village experience any of the following? Select all that apply (n = 275)



Shocks Affecting Farmers Households

Q: Which of these shocks affected your household the most in the last 24 months, if any? Select all that apply (n = 74)

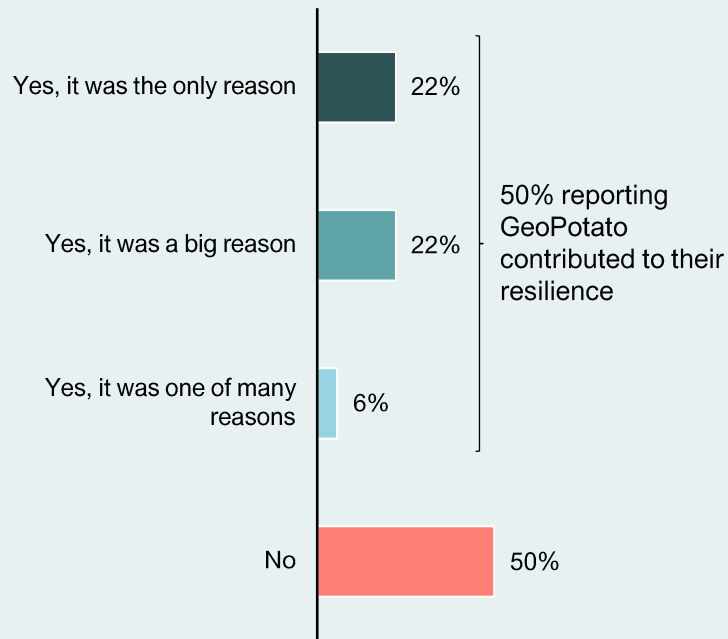


Climate Shocks: Resilience & Recovery

GeoPotato contributes to farmers' resilience and recovery from shock with half of the unaffected households saying GeoPotato contributed to their resilience and 71% of those affected saying GeoPotato had a positive effect on recovery.

GeoPotato's Contribution to Resilience

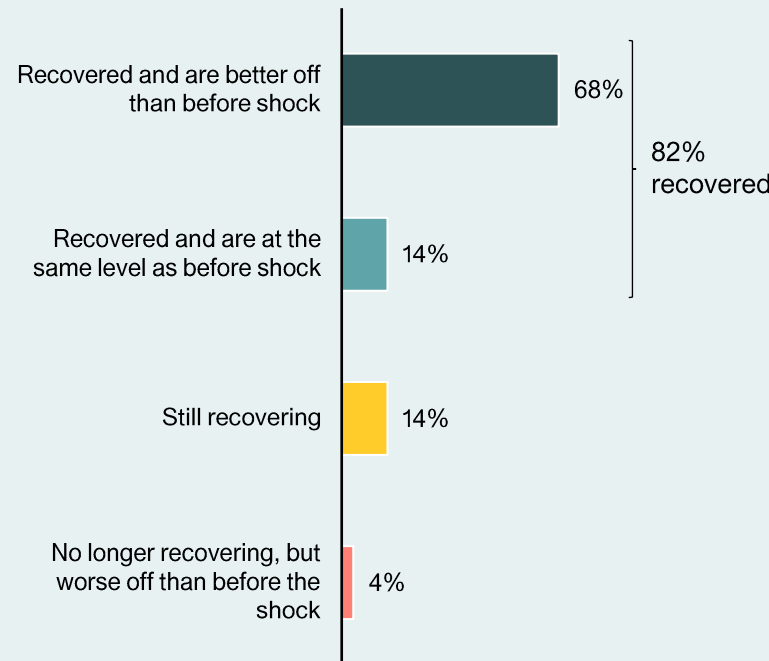
Q: Did GeoPotato contribute to your family remaining unaffected by the event? (n = 18)*



*Only asked farmers whose households were not affected by a climate shock

Household Recovery from Climate Shocks

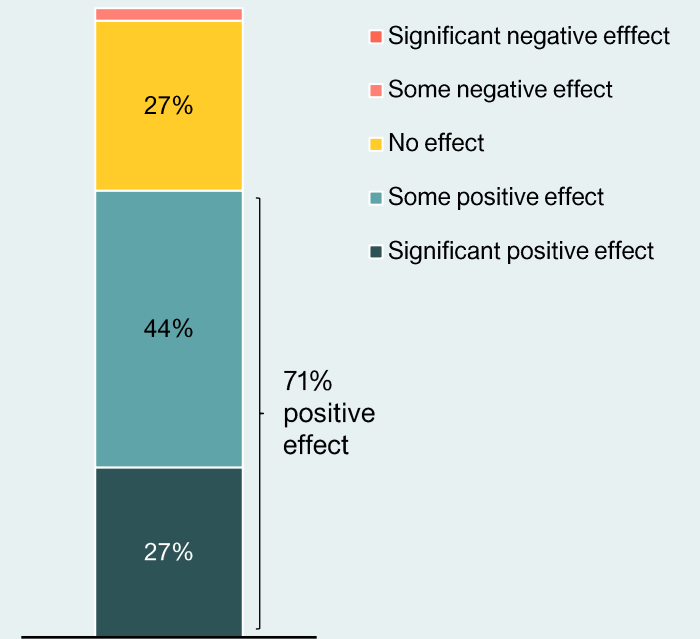
Q: To what extent was your household able to recover from this event? (n = 56)**



**Only asked farmers whose households were affected by a climate shock

GeoPotato's Contribution to Recovery

Q: Did your involvement with the GeoPotato have a positive, negative, or no effect on your recovery? (n = 56)**



Farmer Impact by Poverty Level

Impact seems to vary depending on the poverty status of farmers with those not in poverty more likely to report a deeper impact than those in poverty.

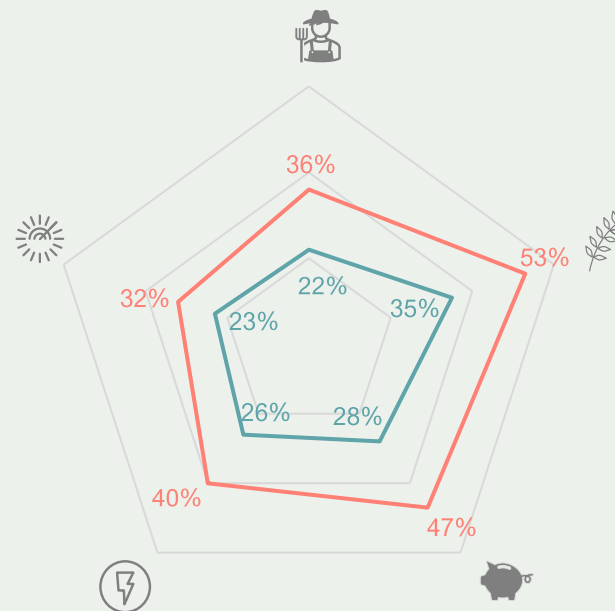
The Poverty Probability Index (PPI, [page 9](#)) provides a poverty rate for the group of households where respondents live. At the individual level, the PPI only provides poverty likelihoods.

Given this methodological limitation, we have determined a poverty likelihood threshold that results in an overall (group) poverty rate. This allowed us to classify individuals into those living in poverty and not in poverty under the country's poverty line.

Average performance across all metrics:

- Not-in-poverty: **42%**
- In-poverty: **27%**

Impact by Poverty Level



Key:

- Not-in-poverty**
n = 148
- In-poverty**
n = 127
- Way of Farming**
% 'very much improved'
- Production**
% 'very much increased'
- Earnings**
% 'very much increased'
- Quality of Life**
% 'very much improved'
- Contribution to Recovery**
% GeoPotato had a 'significant positive effect' on recovery

Who Are You Reaching?

- Demographics
- Farming profile
- Income inclusivity
- Availability of alternatives

What Impact Are You Having?

- Impact on way of farming
- Impact on crop production
- Impact on money earned
- Impact on quality of life
- Impact on climate resilience

How Can You Improve?

- **Net Promoter Score & drivers**
- **Trust and timeliness**
- **Challenges**

“I am benefiting by acting on the alert messages received through GeoPotato. I recommend others to do the same. I didn't know about the weather before [and] it was late to take any action. Now that doesn't happen.” - Male, 25

GeoPotato Satisfaction: Overview

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

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

Increased engagement with GeoPotato's late-blight alert messages leads to higher satisfaction.

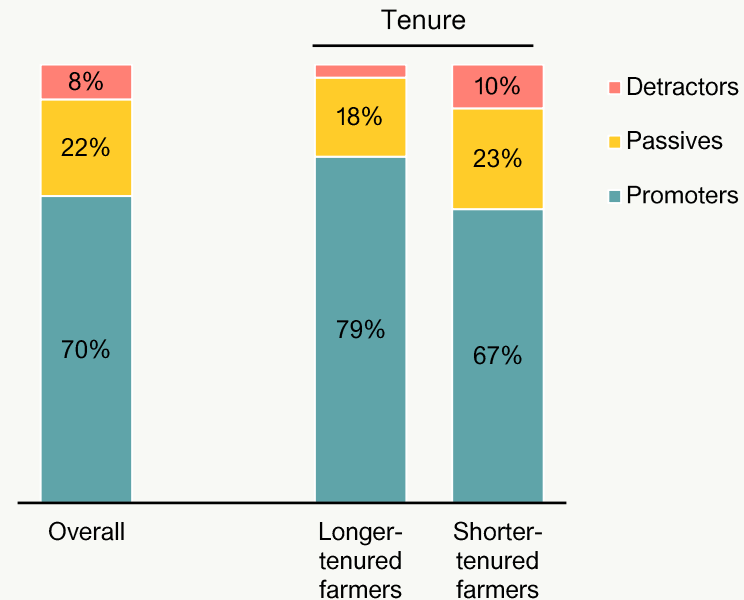
There were no significant differences by region.

Higher satisfaction can be attributed to improved way of farming, increased production, higher earnings, and an overall enhanced quality of life.

Farmers are highly satisfied with GeoPotato with a Net Promoter Score® of 62, which is excellent.

Net Promoter Score® (NPS)

Q: On a scale of 0-10, how likely are you to recommend GeoPotato's late-blight alert messages to a friend or family member, where 0 is not at all likely and 10 is extremely likely?
(n = 275 | Longer-tenured farmers = 75, Shorter-tenured farmers = 200)



NPS	62	76	57
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GeoPotato Satisfaction: NPS Drivers

Promoters and Passives value advanced, timely alerts.
Detractors would primarily like practical, in-person training.

70% are Promoters :)

They love:

1. Advanced or timely weather alerts
(56% of Promoters / 39% of all respondents)
2. Improved technical knowledge about crop diseases and protection
(39% of Promoters / 27% of all respondents)
3. Ability to prevent crop loss or disease
(27% of Promoters / 19% of all respondents)

“[GeoPotato] can predict the exact infection period. So, we could manage to prepare well with the possible prevention materials.” - Male, 50

Tip:

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

22% are Passives :\

They like:

1. Advanced or timely weather alerts
(58% of Passives / 13% of all respondents)
2. Effectiveness of suggested fungicides
(30% of Passives / 7% of all respondents)

But complain about:

1. Not following instructions or missing messages
(7% of Passives / 1% of all respondents)

“Their timing is the main reason that I have given this score. Sometimes, I miss the messages so it would be better if we get a direct voice call.” - Male, 55

Tip:

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

8% are Detractors :(

They want to see:

1. Practical, in-person training
(52% of Detractors / 4% of all respondents)
2. Accessibility of messages to farmers with lower literacy levels
(26% of Detractors / 2% of all respondents)
3. More timely messages
(22% of Detractors / 2% of all respondents)

“The message comes at the end of the potato harvest. Farmers can't be bothered by SMS. They even don't understand the message.” - Male 30

Tip:

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

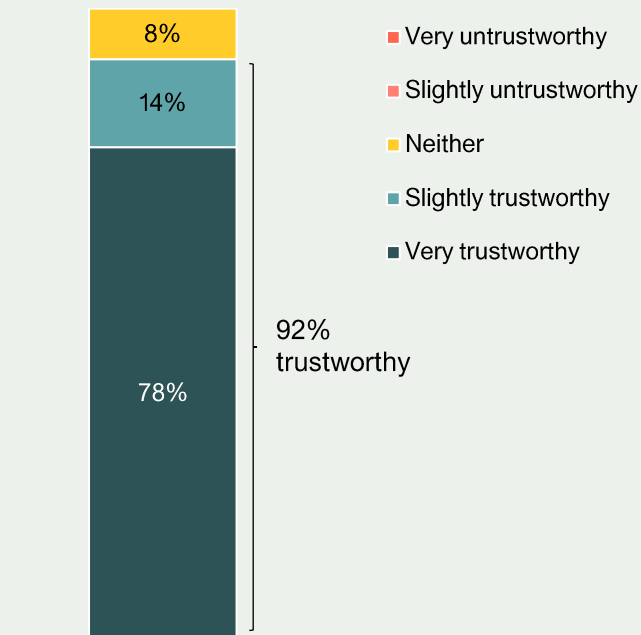
Trust and Timeliness

The high trustworthiness and timeliness of GeoPotato's late-blight alert messages directly contribute to the elevated level of farmer satisfaction.

GeoPotato's late-blight alert messages are trustworthy and timely with 92% of farmers finding them trustworthy and 83% saying they receive them at the right time 'always' or 'often'.

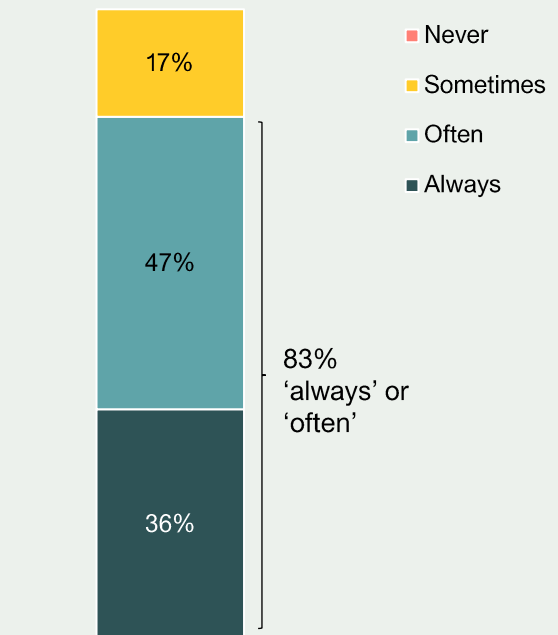
Trust in Information

Q: Did you find GeoPotato's late-blight alert messages trustworthy or not? Is it: (n = 275)



Timeliness of Information

Q: How often would you say you received late-blight alert messages from GeoPotato at the right time i.e. exactly when you needed them? (n = 275)



Challenges

Looking to address and reduce farmer challenges is key to satisfaction and uptake because farmers without challenges are more likely to have a higher Net Promoter Score, feel GeoPotato's late-bright alert messages are trustworthy, and 'always' or 'often' timely than those with challenges.

The challenges raised are in line with issues raised by [Detractors](#).

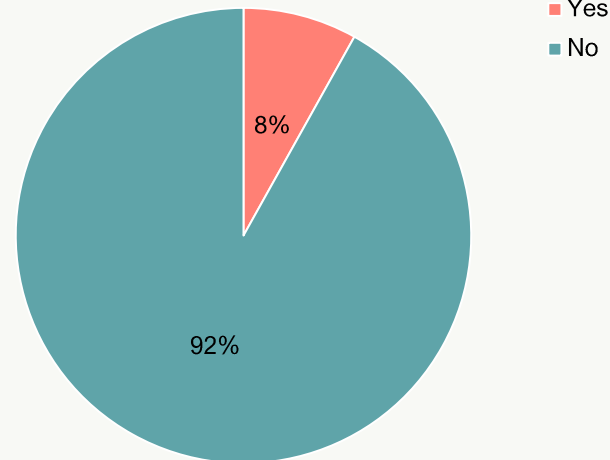
Other challenges mentioned are:

- Expensive fungicides (4 respondents)
- Limited local availability of recommended fungicide (3 respondents)

GeoPotato's late-blight messages are seamless with 92% of farmers not reporting challenges. Those who did primarily report missed messages, limited literacy, and untimely messages.

Reporting Challenges

Q: Have you experienced any challenges with GeoPotato's late-blight alert messages? (n = 272)



Top Reported Challenges

Q: Please explain the challenge(s) you have experienced. (n = 22). Open-ended, coded by 60 Decibels.

1. Missed messages

(6 respondents)

“I missed the SMS alert sometimes as I stay busy with other work. It is difficult for me to [understand] every call or SMS.”
- Male, 20

2. Limited education or literacy

(5 respondents)

“I am an uneducated person who can't understand or read an SMS. I ask my other friends to read the SMS, so I can take action accordingly.” - Male, 48

3. Untimely messages

(5 respondents)

“They send messages after morok affects my farm. I received the message but by then, my farm had already been affected.”
- Male, 25

What Next?

...& Appendix

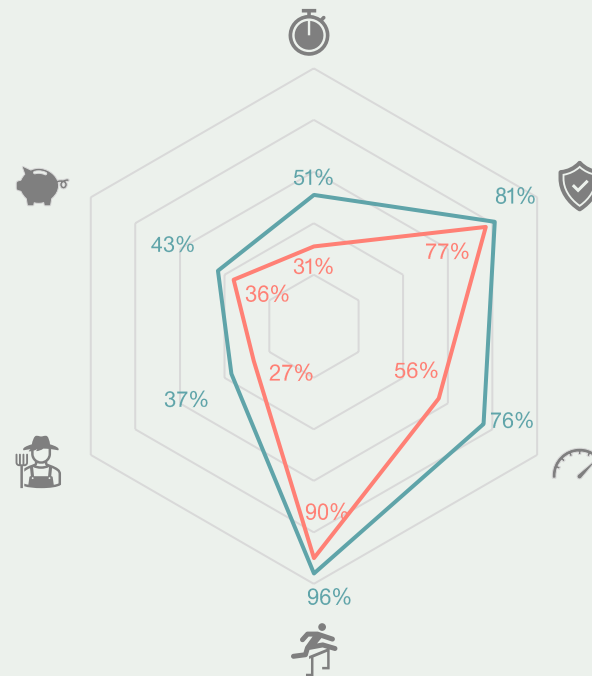
Farmer Impact & Experience by Tenure

The longer farmers utilize GeoPotato's late-blight messages, the more positive impact they will witness and the higher their satisfaction levels will be.

Average performance across all metrics:

- Less than 13 months: **53%**
- 13 months or more: **64%**

Experience and Impact by Tenure of Interaction with GeoPotato



Key:

- **Less than 13 months**
n = 200
- **13 months or more**
n = 75
- Timeliness**
% 'always' on time
- Trustworthiness**
% 'very trustworthy'
- Net Promoter Score**
Proxy for farmer satisfaction and loyalty (scale of -100 to 100)
- Challenges**
% facing 'No' challenges
- Way of Farming**
% 'very much improved'
- Earnings**
% 'very much increased'

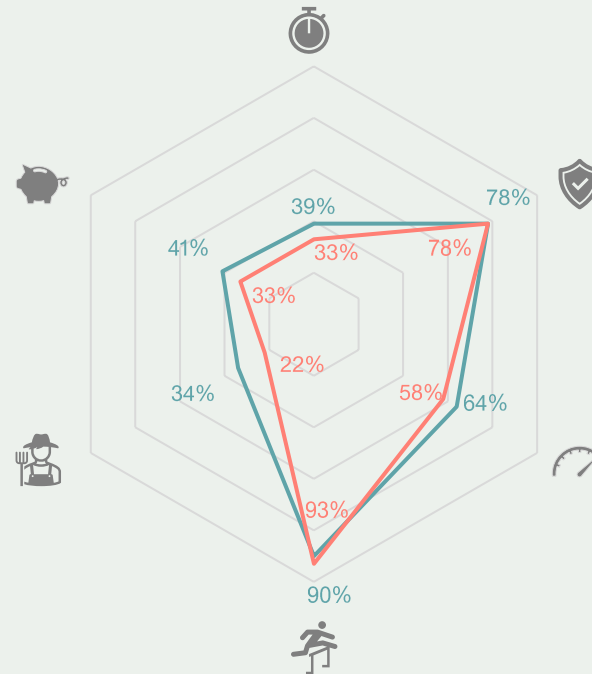
Farmer Impact & Experience by Region

Although farmers across regions experience GeoPotato's services similarly, those from Rajshahi report slightly deeper impact, compared to their counterparts in Rangpur.

Average performance across all metrics:

- Rangpur: 53%
- Rajshahi: 53%

Experience and Impact by Region



Key:

- Rangpur
n = 107
- Rajshahi
n = 167
- Timeliness**
% 'always' on time
- Trustworthiness**
% 'very trustworthy'
- Net Promoter Score**
Proxy for farmer satisfaction and loyalty (scale of -100 to 100)
- Challenges**
% facing 'No' challenges
- Way of Farming**
% 'very much improved'
- Earnings**
% 'very much increased'

Impact Management Project

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**

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.

Dimension	Explanation
Who ○	The Who of impact looks at the stakeholders who experience social and environmental outcomes. All things equal, the impact created is greater if a particularly marginalised or underserved group of people is served, or an especially vulnerable part of the planet protected. For the who of impact, we tend to work with our clients to understand poverty levels, gender and disability inclusivity.
What Impact □	What investigates the outcomes the enterprise is contributing to and how material those outcomes are to stakeholders. We collect most of this what data using qualitative questions designed to let farmers 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 farmers to self-identify the degree to which the changes they experience result from the company in question. We ask farmers 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 farmer 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 farmers 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 farmers who have experienced challenges using a product or service), and resolution rates (the percent of farmers who experienced challenges and did not have them resolved) as farmer based proxies for impact risk.

Calculations & Definitions

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

Metric	Calculation
Net Promoter Score®	The Net Promoter Score is a common gauge of farmer loyalty. It is measured through asking farmers 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 farmers rating 9 or 10 out of 10 ('Promoters') minus the % of farmers rating 0 to 6 out of 10 ('Detractors'). Those rating 7 or 8 are considered 'Passives'.
Inclusivity Ratio	The Inclusivity Ratio is a metric developed by 60 Decibels to estimate the degree to which an enterprise is reaching less well-off farmers. It is calculated by taking the average of Company % / National %, at the \$1.90, \$3.20 & \$5.50 lines for low-middle income countries, or at the \$3.20, \$5.50 and \$11 lines for middle income countries. The formula is: $\sum_{x=1}^3 \frac{([Company] Poverty Line \$x)}{(Country Poverty Line \$x)} / 3$

Methodology Overview

275 phone interviews were completed in April 2023.

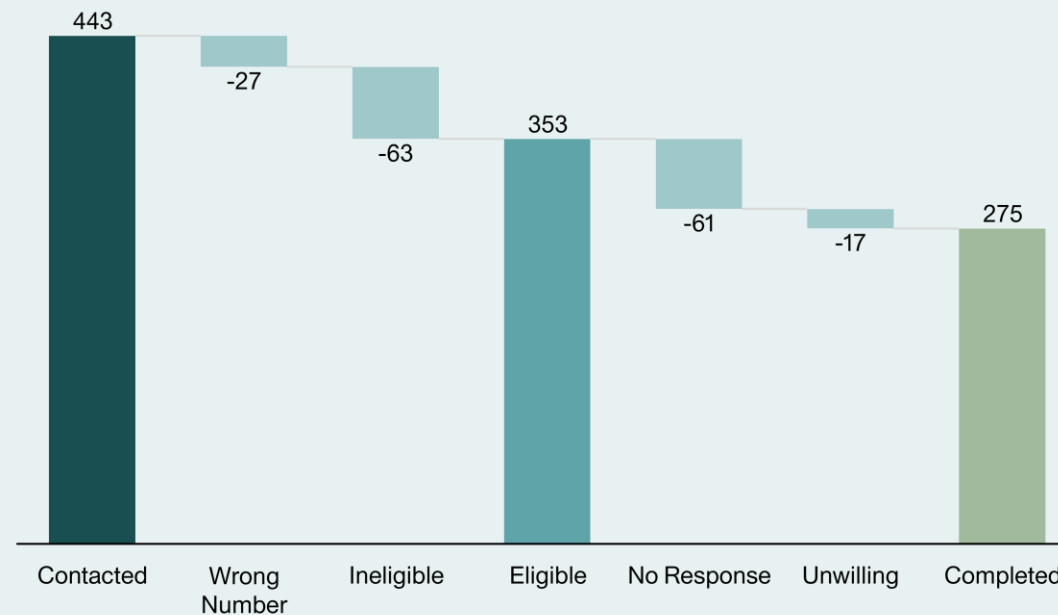
Country	Bangladesh
Language	Bengali
Survey Mode	Phone
Survey Length	30 questions
Survey Duration	19 minutes

Population Size	50,000 farmers
Database Size	1,277 farmers
Contacted	443 contacts
Call Attempts	3 per contact
Completed	275 interviews
Response Rate	77%

Confidence Level	90%
Margin of Error	5%

Data Collection Funnel – Response Rate: 77%

Response rate is calculated from eligible respondents.



Note: No response includes unanswered calls, phone turned off, and phone out of service.

Representativeness

Segment	Population %	Sample %
Rajshahi	63%	61%
Rangpur	37%	39%

Research Team

Gender	Number
Female	4
Male	1

Thank You For Working With Us!


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 customer-centricity, speed and responsiveness to impact measurement.

60 Decibels has a network of 1,200+ trained Lean Data researchers in 75+ 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. 

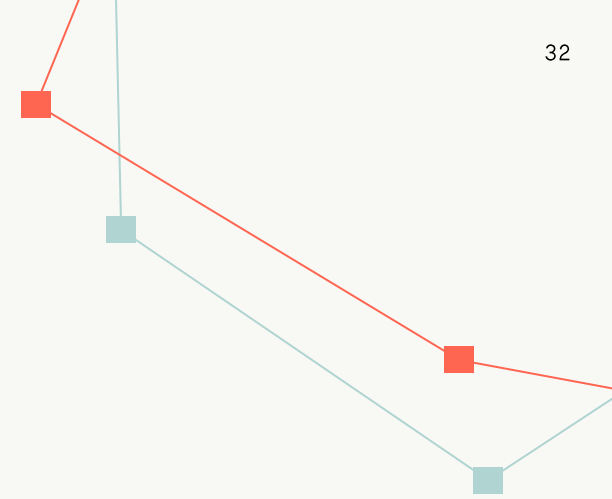
Your Feedback

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 Constance, Albert, and Farid for their support throughout the project.

This work was generously sponsored by Bayer Crop Science.



I can be alert about the weather.
I can know when to spray fungicides.
I get the right advice.

I am able to

>make the right decision
>apply the right medicine.

All these changes have come my way.

Ramiro Rejas

Jared Adema

Malavika Rangarajan

Nikhil Menon

Susan Kaburu

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