Ignitia
Farmer Insights

Nigeria

Credit: https://tinyurl.com/yyx3wqs

AGRIFIN

> ## We work with +14m farmers & over 130 partners across Africa

Mercy Corps' AgriFin is funded by the Mastercard Foundation and Bill and Melinda Gates Foundation to help organizations design, test and scale digitally-enabled services for Africa's smallholder farmers.

- Objective to develop services that increase farmer income, productivity and resilience, with 50% outreach to women.
- Work with private & public sector scale partners such as banks, mobile network operators, agribusinesses, technology innovators and governments.
- We help our partners develop bundles of digitally-enabled services, including smart farming, financial services, market access and logistics supporting data-driven partnerships.

Nigeria
Ethiopia
Kenya
Uganda
Tanzania
Zimbabwe
Zambia
Indonesia

MERCY CORPS | AGRIFIN   ignitia TROPICAL WEATHER FORECASTING

AGRIFIN IMPACT SERIES: IGNITIA

AgriFin Impact Series

In recognition of the wide reach and diverse range of products and services offered through the AgriFin ecosystem we are working with 60 Decibels to measure our impact across some of our strategic partners. Partners were selected based on their area of expertise and level of engagement. This approach considers differences across the following categories by adding the element of flexibility in the research approach; products and services offered, expected outcomes, harvest periods and data available.

AgriFin & Ignitia

Ignitia (est in 2015) is a technology company that provides a highly accurate (84% accuracy compared to 34% accuracy) weather forecast model specifically designed for the tropics. They offer a pay-as-you-go (PAYG) model where farmers subscribe to daily, highly accurate (i.e., localized) 48-hour rainfall weather forecasts via SMS, driving their decisions to farm, harvest, and other services. Ignitia's is available to individuals through MNO subscription or organizations that partner with them. They have roughly 1.6M customers, of which 1.1m are active (30 days). They operate both as a B2B (companies pay on behalf of farmers) and as a more direct B2B2C model (companies introduce Ignitia to farmers, who in turn pay for the service themselves). Indorama (largest urea fertilizer plant manufacturer in SSA) supplies urea fertilizer to SHFs and is actively look to increasingly reach more SHFs in hard-to-reach locations where SHFs are taught to apply the urea to improve their yield. Often times, sample urea is given to SHFs with the hope that as their yields and incomes increase they continue to purchase fertilizer, however, the level of rain/irrigation directly affect the effectiveness of the urea fertilizer. Since most SHFs in Nigeria practice rain-fed agriculture, they need highly accurate tropical rainfall forecasts during their crop farming cycle so they know when to apply the fertilizer for the best results.

AgriFin bundled Indorama's urea fertilizer with Ignitia's weather services and made both services available via the agro-dealers. 10k farmers received the 48-hour daily forecasts over a 3 month cropping cycle. The project aim was to test whether bundled fertilizer sales with accurate weather forecasts will achieve the above goal and present an opportunity for input manufacturers and distributors to bundle future products to increase returns for their business and the farmers (50% increased productivity of farmers). Ignitia discounted the weather service cost and ADF paid for the weather service provided to the 10k SHFs and the evaluation impact assessment.

Welcome To
Your 60dB Results

We enjoyed hearing from 255 of your farmers - they had a lot to say!

Contents

Headlines

Detailed Results

What Next

Appendix

Ignitia Performance Snapshot

Ignitia is performing well on poverty reach and positively impacting farmers' livelihood and lives. It can address farmer challenges to improve their satisfaction.

Inclusivity Ratio

1.18

live in poverty

Impact

68%

quality of life
'very much improved'

What Impact

- 41% speak about increased production

- 31% talk about ability to plan farming better

- 20% speak about ability to provide food to family

First Access

89%

first time accessing service provided

Farmer Voice

"It is simply because they are like a coach (mentor), telling us what to expect of the weather as a farmer. As a farmer, the information prepares me for safety."

Data Summary

Ignitia Performance: 255 farmers interviewed during September 2020.

Quintile Assessment compares Ignitia's performance with 60dB Agriculture Benchmark for Farmer as Customer comprised of 32 companies, 15 countries, and 8,000 farmers. Full details can be found in Appendix.

Net Promoter Score®

65

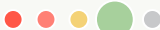on a -100 to 100 scale

Challenges

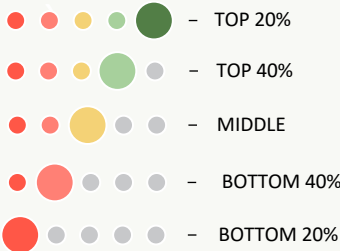### 16%

report challenges

Crop Revenue

61%

'very much increased'

Crop Production

68%

'very much increased'

Performance vs. 60dB Benchmark

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

Top Impact Insights

Ignitia is servicing an underserved market and impacting farmers' way of farming, farm outcomes and overall quality of life, while helping farmers be more resilient against climate shocks.

Headline	Detail
● Ignitia is providing a unique service in an underserved market	87% of Ignitia's farmers live in poverty compared to 85 % in rural Nigeria. Nine in 10 farmers accessed weather forecast service for the first time due to Ignitia and 7 in 10 could not easily find a good alternative.
● Ignitia is changing farming practices, improving crop outcomes and farmers' overall quality of life	Over 80% of the farmers reported improvements in their way of farming, farm production and revenue, and overall quality of life because of Ignitia's weather forecast service. Farmers spoke about improved knowledge of weather patterns and ability to better plan their farm activities like applying fertilizers. They spoke of improved production - from same and additional land, reduced wastage and revenue increases due to larger sales volumes and better prices. Farmers who had used Ignitia services for 7 months or more, reported deeper impact than those who has used it for a shorter period of time suggesting that the company's impact performance improves with time.
● Ignitia's is helping smallholder farmers become more resilient against climate change shocks	Of the 121 farmers whose households were hit by a climate shock in the last 24 months, 79% said Ignitia had a positive impact on their recovery. Top shocks reported by farmers included flooding, significant pest/farm disease outbreak and drought. Farmers reported that access to Ignitia's weather forecast helped them in their recovery from climate shocks, implying that beyond improvements in farming practice, farming outcomes and quality of life, Ignitia is also helping smallholder farmers become more resilient against climate shocks.

Top Actionable Insights

Farmers want Ignitia to grow, and reach a larger customer base. They suggest improvements to current services and addition of new ones.

Headline

Detail

● Ignitia's high quality and accurate service is helping them build a strong base of satisfied and loyal farmers

Ignitia has an excellent Net Promoter Score (NPS) of 65. This indicates high farmer satisfaction and loyalty and a strong word of mouth. 74% of its farmers are active promoters of the company's services. This group values Ignitia's support with farm planning, improving their farming methods, and access to accurate forecasts.

Farmers want Ignitia to 'share information with more people'. They request more frequent predictions that are consistently accurate.

An idea: Ignitia can incentivize referrals to leverage its strong word of mouth.

● During COVID-19, farmers want Ignitia to support them in accessing inputs and specific information.

Farmers asked for access to additional services such as inputs and training. These asks were more pronounced in the context of COVID-19. A large proportion of farmers reported financial difficulty and requested cash-based support.

In the next 6 months, almost 70% of farmers plan to plant new crops that are easier to sell, fetch better prices and can be consumed by the family. They would find advice about climate, purchase price and high value crops useful. Their preferred means of receiving this information are SMS, radio, extension workers.

For discussion: Can Ignitia cater to demands for complementary service offerings, specially during this difficult time?

Farmer Voices

We love hearing farmer voices.

Here are some that stood out.
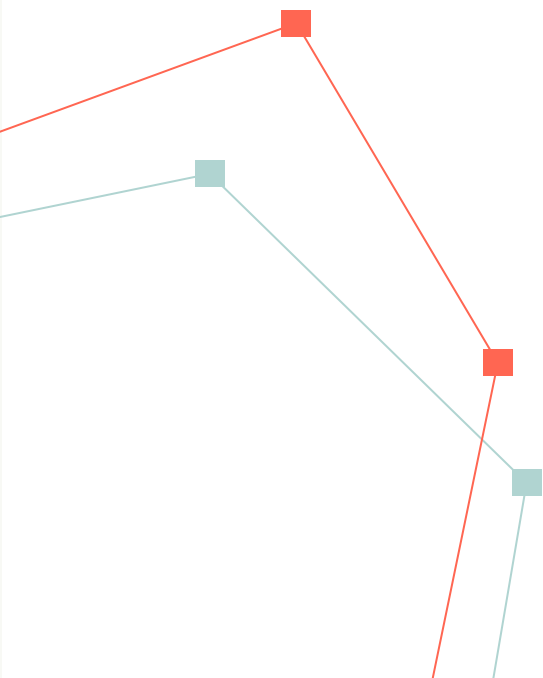
Impact Stories

87% shared how Ignitia services had improved their quality of life

"My farm produce is more than what I used to have because of the updates they give on weather."

"My farm produce is better now because I know better when to apply fertilizer, when to apply pesticides and when to take any step I need on my farming activities because of the weather update iska weather forecast gives. It is really helpful."

"It has changed because of the confidence I get when taking the next step on my farm anytime I get the update because it works for me."

"We have seen improvement and differences between the time when we didn't use the forecast and now that we are using the forecast. The quantity of our yields have increased more than before, even the seeds quality have improved. Our plants looks good."

Opinions On Ignitia Value Proposition

74% were Promoters and were highly likely to recommend

"The iska weather forecast sms has helped me a lot especially in determining the best time to treat my crops and the outcome was very good because my crops came out with good yield."

"I will recommend them because of their regular communication weather information they pass across to detect our farming challenges facing farmers."

Opportunities For Improvement

74% had a specific suggestion for improvement

"The company should provide sufficient farm equipment and other farm inputs. This would promote the company because customer (farmers) sees what is going on."

"The company they should give us and other people an awareness on their services. They should keep sending us the messages."

Key Questions
We Set Out To Answer

● **Who is Ignitia reaching?**

- Income, farm and disability profile

- Importance of Ignitia offerings

- Availability of alternatives in market

- Exposure and resilience to climate shocks

● **What impact is Ignitia having?**

- Impact on way of farming

- Changes in crop production, productivity and revenue

- Impact on quality of life

- Impact on recovery from climate shocks

● **Are farmers satisfied with Ignitia & why / why not?**

- Net Promoter Score & drivers

- Top challenges experienced

- Suggestions for improvement

● **COVID-19 focused additional insights of interest to Ignitia**

- Experience with COVID-19

- Future willingness to plant new crops

- COVID-19 and access to information / advice

- COVID-19 and challenges with inputs

"At first I didn't really know the importance until I wanted to apply fertilizer and the rain was inconsistent. When I started using the forecast it was like magic."

About The Farmer

On average, Ignitia farmer cultivated 3.4 hectares in the last 12 months.

We asked questions to understand the farmers' homes, farms, and engagement with Ignitia.

Nearly all the farmers (98%) we interviewed, resided in North West, North East or North Central zones.

On average, about half of the family's income in the last 12 months came from crops which were directly impacted by Ignitia's weather forecast SMS.

The average farmer in our sample had interacted with the company for 7 months. For 65%, this interaction started less than 6 months.

About The Farmers We Spoke With

Data relating to farmer characteristics (n = 255)

10

Median household size

3.4

Hectares were cultivated by the median farmer last year
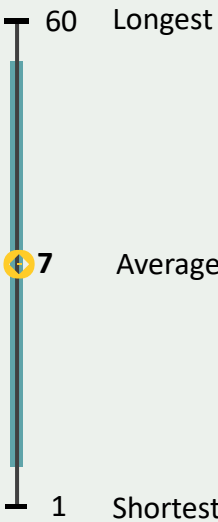
43

Average age

52%

Of household income last year came from crops that used Ignitia's weather forecast SMS

Ignitia Engagement Duration

(months)

60 Longest

7 Average

1 Shortest

Poverty And Inclusivity

Ignitia is serving farmers whose poverty profile is comparable to Nigeria's rural national average.
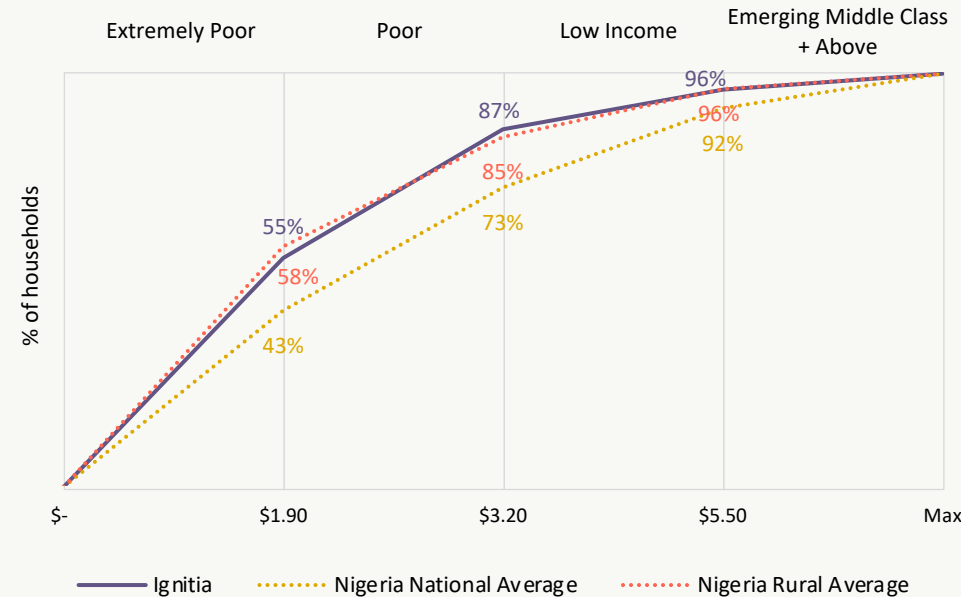
Using the Poverty Probability Index® we measured how the income profile of your farmers compares to the Nigeria average.

87% of Ignitia farmers live on less than $3.20 per day. This results in an inclusivity ratio of 1.18. This implies that Ignitia is serving a higher percentage of low-income farmers than the Nigerian national average.

You can read more about inclusivity ratio on the right and here.

Income Distribution of Ignitia Farmers Relative to Nigeria National Average

% living below $XX per person / per day (2011 PPP) (n = 247)

Extremely Poor | Poor | Low Income | Emerging Middle Class + Above

% of households

96%
87%
96%
92%
85%
73%
55%
58%
43%

$- $1.90 $3.20 $5.50   Max

——— Ignitia   .... Nigeria National Average   .... Nigeria Rural Average

Inclusivity Ratio

Degree that Ignitia is reaching low-income farmers in Nigeria

1.18

●●●●● – TOP 40%

We calculate the degree to which you are serving low-income farmers compared to the general population. 1 = parity with national pop. ; > 1 = over-serving; < 1 = under-serving.
See Appendix for calculation.

First Access and Alternatives

89% of farmers were receiving weather forecasts of the kind Ignitia provides, for the first time. Even today, majority of the farmers cannot find a good alternative to Ignitia.

To understand the company's contribution, we ask farmers if it is facilitating access to a new product or service and whether this offering can be easily replaced by an alternative.

The high percentage of farmers who are accessing Ignitia services for the first time suggests that it is reaching an under-served farmer base.

The low availability of alternatives suggests that Ignitia is providing a scarce service.

First Access

Q: Before you started interacting with Indorama, did you have access to iska weather forecasts like those that Indorama provides? (n = 255)

● ● ● ● ○ – TOP 40%

89% — Accessing Ignitia's weather forecast SMS for the first time
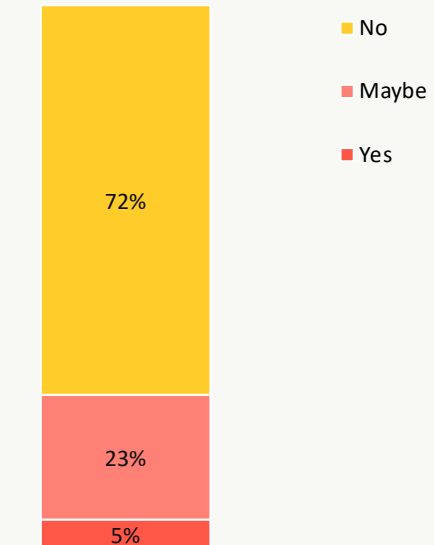
11% — Had prior access to similar services
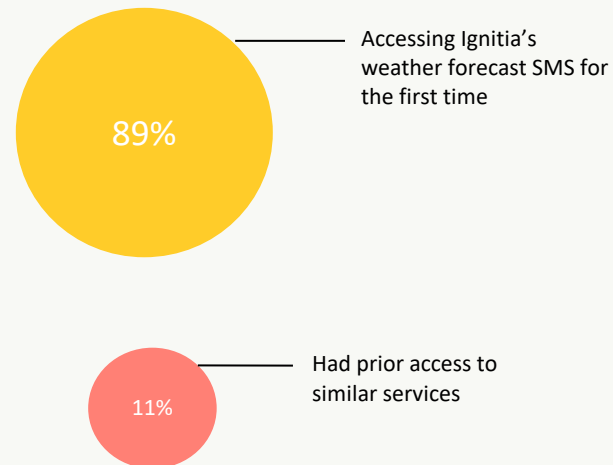
Access to Alternatives

Q: Could you easily find a good alternative to Indorama's iska weather forecasts? (n = 250)

● ● ● ● ○ – TOP 40%

- No
- Maybe
- Yes

72%
23%
5%

Resilience to Shocks

80% of farmers said their community faced a climate shock in the last two years. Three quarters of this group were unaffected or able to bounce back from the shock.

80% Of all farmers said their community experienced at least one climate related shock in the last 24 months

Of this group of 199 farmers…

37% Were not affected by the shock that hit their community
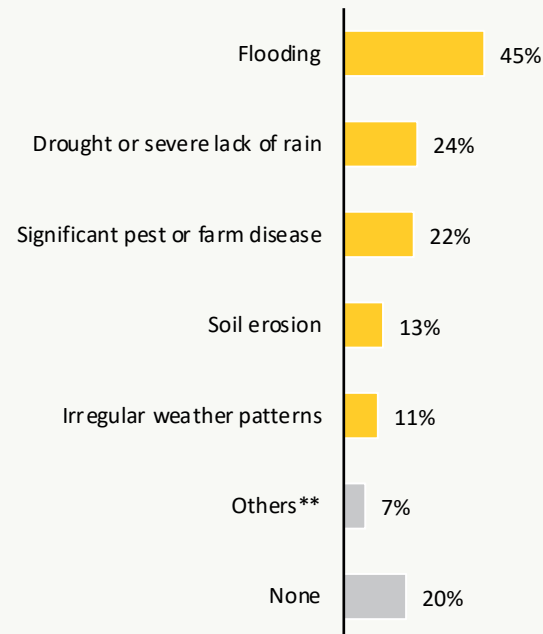
39% Have recovered fully

24% Have not recovered

Shocks Experienced By Community
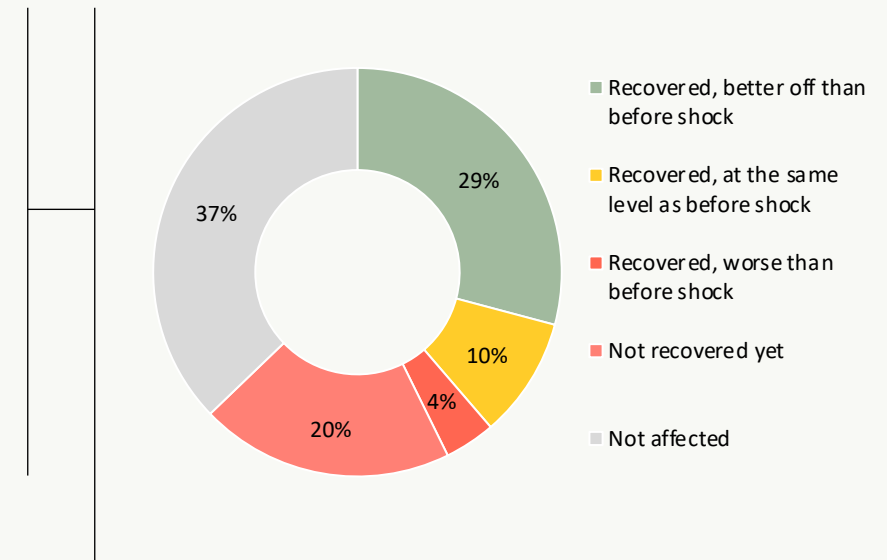
Q: In the last 24 months, did your community / village experience any of the following? (n = 246, multiple responses allowed except 'None')

Shock	%
Flooding	45%
Drought or severe lack of rain	24%
Significant pest or farm disease	22%
Soil erosion	13%
Irregular weather patterns	11%
Others**	7%
None	20%

** Responses in Others include natural fire and unexpected frost

Affect and Recovery for Household

Q: To what extent was your household able to recover from this event? (n = 199)

- Recovered, better off than before shock — 29%
- Recovered, at the same level as before shock — 10%
- Recovered, worse than before shock — 4%
- Not recovered yet — 20%
- Not affected — 37%

* Not affected is based on farmers reporting None to question: Which of these shocks affected your household the most?

Disability Profile

We used the [Washington Group Disability questions](#) on disability to understand the profile of households and how products, services, marketing, training, or after-sales support could be more inclusive.

Ignitia farmer households have a 6.7% disability prevalence, which is higher than Nigeria's national population disability rate of 2%.

You can use this information to identify ways to better serve your farmers. For example, if respondents have challenges with eyesight, consider larger informational stickers or brochures. If they have challenges with walking or climbing steps, consider whether the test reports are easily accessible for these farmers.

The disability rate among Ignitia farmer households is more than thrice that of Nigeria's national population.

Disability Profile of Ignitia's farmer Households

% who said a member of their household had a lot of difficulty doing any of the following or cannot do at all. (n = 253)

6.7% Respondents said that one or more of their household members had al least one of six disabilities

3.1%
difficulty seeing, even if wearing glasses (if available)

0.4%
difficulty remembering or concentrating

2.4%
difficulty hearing, even if using a hearing aid (if available)

1.2%
difficulty with self-care, such as washing all over or dressing

1.6%
difficulty walking or climbing steps

0.4%
difficulty communicating or being understood, using their usual language

Key Questions
We Set Out To Answer

Who is Ignitia reaching?

- Income, farm and disability profile
- Importance of Ignitia offerings
- Availability of alternatives in market
- Exposure and resilience to climate shocks

What impact is Ignitia having?

- Impact on way of farming
- Changes in crop production, productivity and revenue
- Impact on quality of life
- Impact on recovery from climate shocks

Are farmers satisfied with Ignitia & why / why not?

- Net Promoter Score & drivers
- Top challenges experienced
- Suggestions for improvement

COVID-19 focused additional insights of interest to Ignitia

- Experience with COVID-19
- Future willingness to plant new crops
- COVID-19 and access to information / advice
- COVID-19 and challenges with inputs

"The weather forecasts prepare me ahead of time so that everything would be done exactly according to the season."

Way of Farming

72% of all farmers reported that their way of farming "very much improved" because of Ignitia's weather forecast.
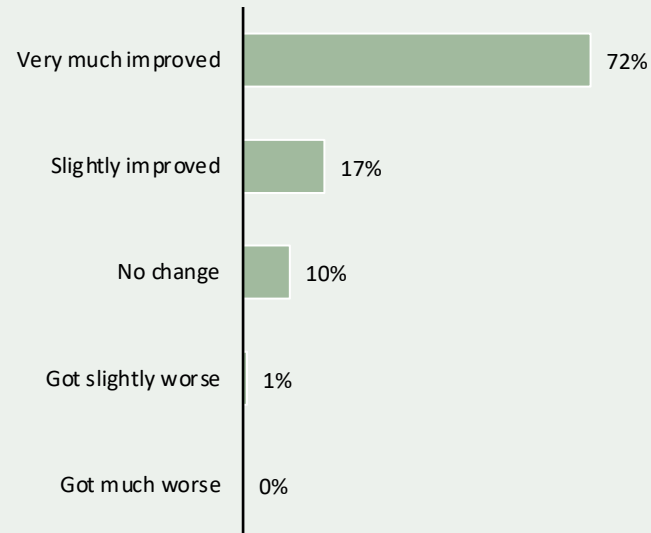
To gauge the effect of Ignitia's weather forecast SMS on the farmer's way of farming, we asked farmers how their way of farming had changed since they received Ignitia's weather forecast.

Unsurprisingly, we found a strong correlation between way of farming and production, such that farmers that reported improvements in their way of farming, also reported increased production.

Changes In Way Of Farming

Q: Has your way of farming changed because of Indorama's iska weather forecasts? (n = 247)

Category	Percentage
Very much improved	72%
Slightly improved	17%
No change	10%
Got slightly worse	1%
Got much worse	0%

Very much improved:
"Using their forecast and applying it on the farm, I had a good yield more than the one I use to get on the previous years."

"I no longer take blind decisions. I act based on the update I get to avoid crop damage. The prediction seems to be 90 percent true based on my experience."

Slightly improved:
"It has improved in helping me make decisions on my farm and help me take precaution against flood."

Way of Farming: Top Outcomes

Farmers were asked to describe – in their own words – the changes in way of farming since they received Ignitia's weather forecast SMS.

The top outcomes are shown on the right.

Others changes included:

- Reduced wastage (15%)
- Better application of chemicals (14%)
- Better land preparation (14%)

Ignitia's weather forecasts helped farmers apply fertilizer and other inputs better and enabled them to plan their farming, which led to reduced wastage and increased production.

Top Three Self-Reported Outcomes for 89% of Farmers Who Say Way of Farming Improved

Q: Please explain how your way of farming has improved. (n = 221, multiple responses allowed). Open-ended, coded by 60 Decibels.

41% — Spoke about **better application of fertilizers**
(36% of all respondents)

"It has improved because I know when to apply fertilizer in my farm and my crops are really good."

34% — Reported **ability to plan farming better** such as right time to sow and apply inputs.
(31% of all respondents)

"I can properly plan on what to do on my farm now and predict what to plant and when to."

30% — Spoke about **improved production**
(27% of all respondents)

"The volume of my production has increased which helps me to get more money from my production."

Crop Production

88% of farmers report an increase in crop production. 64% of this group realized this increase without planting additional land, suggesting an increase in productivity.
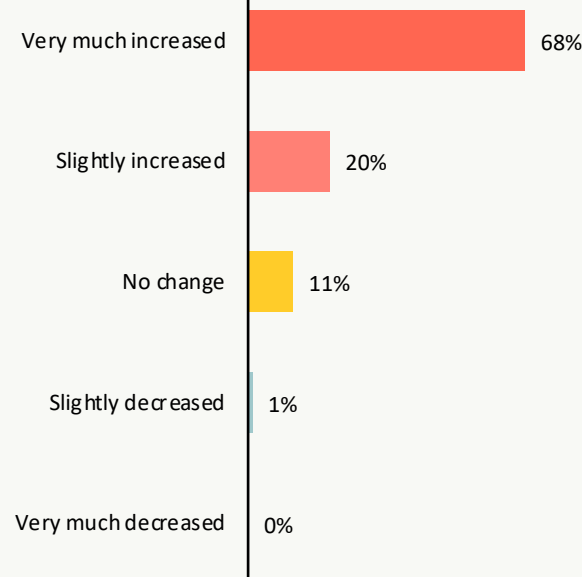
We asked farmers if they had noticed changes in the production of crops that used Ignitia's weather forecast SMS and what might have caused it.

Unsurprisingly, farmers who reported "very much increased" in their production, were also more likely to have reported "very much improved" in both, their way of farming, and their quality of life.

Impact on Production

Q: Has the total production from your crop changed because of Indorama's iska weather forecasts? (n=234)

● ● ● ⬤ ● – TOP 40%

Very much increased	68%
Slightly increased	20%
No change	11%
Slightly decreased	1%
Very much decreased	0%

Reasons for increases in production

Q: Was this increase because you planted additional land or was it from the same amount of land? (n=205)

- 33% ■ Additional land
- 64% ■ Same land
- 3% ■ Other
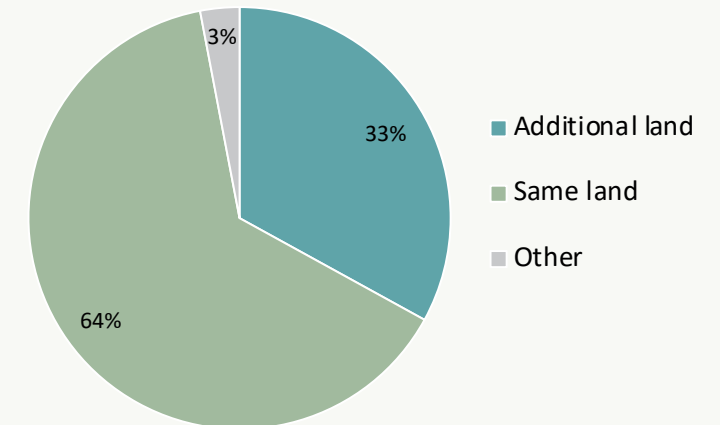
Crop Revenue (1/2)

87% of farmers reported an increase in revenue from crops that used Ignitia's offering. Increase in volume sold and better prices were main reasons for the increase.

We asked farmers if they had noticed changes in the revenue from the crops they used Ignitia's weather forecast SMS for.

As we noted earlier, 52% of farmers' total household income last year came from farming that used Ignitia's weather forecast SMS.
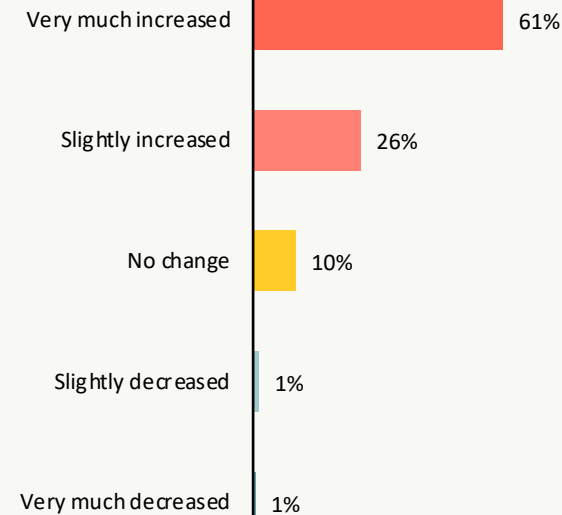
Returns from Crops

Q: Has the money you earn from farming changed because of Indorama's iska weather forecasts? (n=212)

● ● ● 🔴 ● — TOP 40%

Very much increased	61%
Slightly increased	26%
No change	10%
Slightly decreased	1%
Very much decreased	1%

Reasons for Increased Returns

Q: What were the main reasons for the increase in money earned? (n=185, multiple responses allowed)

Increased volume sold	85%
Increase in price	47%
Reduced cost	8%
Other	2%
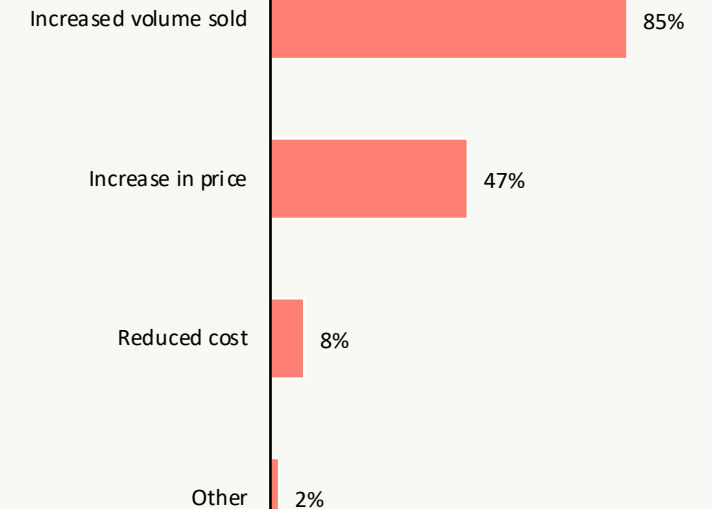
Crop Revenue (2/2)

Farmers reported a 48% increase in revenue, which accounts for 52% of total household income. For majority, this increase was significant.

52%
Of total household income last year came from farming that used Ignitia's weather forecast SMS

48%
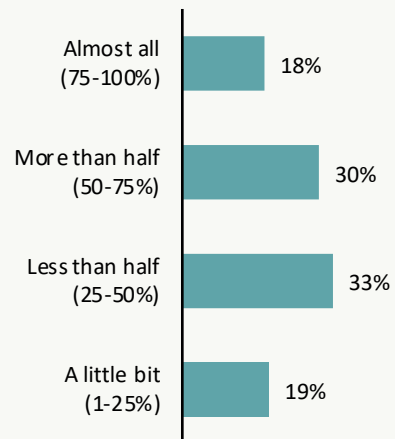Was the average increase in revenue from crops that used Ignitia's weather forecast SMS

95%
Rated this change a significance of 4 or 5 when thinking about its contribution to household income
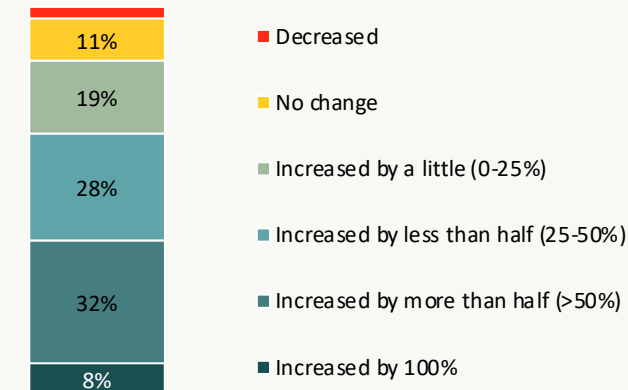
Household Income Impacted By Ignitia

Q: In the last 12 months, what proportion (%) of your household's total income, came from farming? (n=246)

| Category	%
Almost all (75-100%)	18%
More than half (50-75%)	30%
Less than half (25-50%)	33%
A little bit (1-25%)	19%

Change In Crop Returns

Q: a) Can you give a rough estimate how much your money earned from farming has increased because of Indorama's iska weather forecasts? (n=197)

Segment	%
No change	11%
Increased by a little (0-25%)	19%
Increased by less than half (25-50%)	28%
Increased by more than half (>50%)	32%
Increased by 100%	8%

Legend:
- Decreased
- No change
- Increased by a little (0-25%)
- Increased by less than half (25-50%)
- Increased by more than half (>50%)
- Increased by 100%

Significance of Change in Crop Returns

Q: On a scale of 1 to 5, where 1 is not significant at all and 5 is very significant how significant is this increase to your overall household income? (n=186)

Rating	%
5	64%
4	31%
3	5%
2	0%
1	1%

Quality of Life
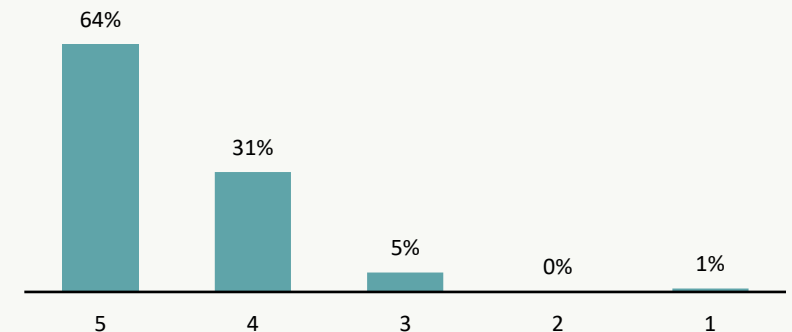
87% of farmers report improvements in quality of life because of Ignitia, and 68% report 'very much improved' quality of life.
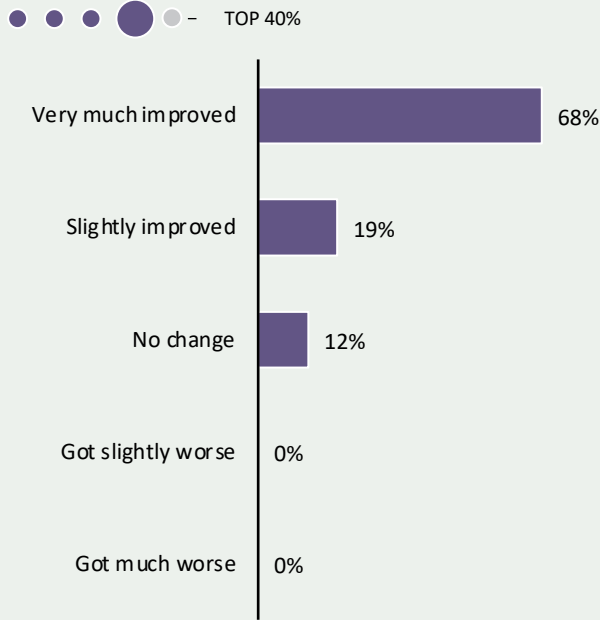
To gauge depth of impact, farmers were asked to reflect on whether their quality of life has changed because of Ignitia.

The average farmer has worked with Ignitia for only 7 months. Such widespread reports of positive impact in a relatively short span of time is an impressive feat.

Perceived Quality of Life Change

Q: Has your quality of life changed because of Indorama's iska weather forecasts? (n = 241)

● ● ● ● ○ – TOP 40%

Very much improved	68%
Slightly improved	19%
No change	12%
Got slightly worse	0%
Got much worse	0%

Very much improved:
"The provision of seed and the information the company provided in time has really improved my life."

"My farming system has changed in every aspect and it has improved my earnings, quality and quantity of my products now."

Slightly improved:
"For the past few months, I don't worry about what the weather will be tomorrow. My mind is always at peace because I trust the information."

Quality of Life:
Top Outcomes

Farmers were asked to describe – in their own words – the positive changes they were experiencing because of Ignitia's weather forecast SMS.

The top outcomes are shown on the right.

Others changes included:

- Increase in earnings (18%)
- Ability to pay for household expenses (12%)
- Reduced wastage (10%)
- Purchase new assets (8%)
- Invest in new businesses (6%)

Improved production, ability to plan farming better and provide food to family, were most frequently mentioned explanations around how quality of life had improved.

Top Three Self-Reported Outcomes for 87% of Farmers Who Say Quality of Life Improved

Q: Please explain how your quality of life has improved. (n = 211, multiple responses allowed). Open-ended, coded by 60 Decibels.

41%   Spoke about **improved production**
(36% of all respondents)

"My farm produce is more than what I used to have because of the updates they give on weather."

31%   Spoke about **ability to plan farming better**   (27% of all respondents)

"My life has improved in a way that with the iska weather forecast helps me get to plan my day to day activities."

20%   Spoke about **ability to provide food to family**
(18% of all respondents)

"Since my harvest is good then the quality of life has improved because from my farm produce, I feed myself and my household members."
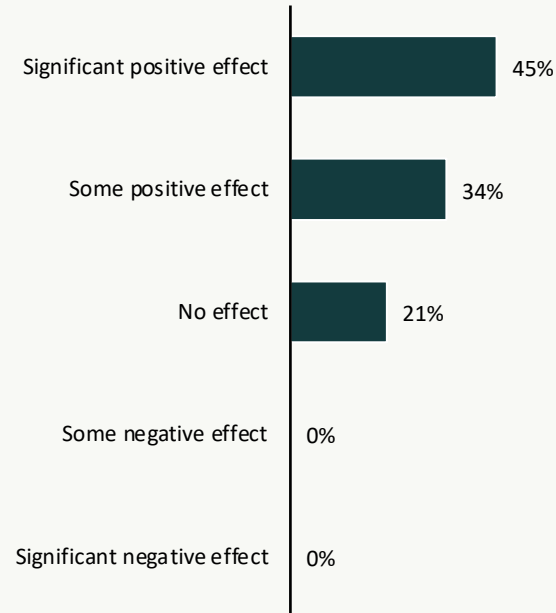
Recovery From Climate Shocks

Ignitia's weather forecast service had a positive effect on recovery of 79% farmers, who faced a shock in the last two years.

We asked 121 producers who reported being affected by a climate shock if Ignitia had impacted their recovery from the climate shock reported earlier.

Majority of farmers reported positive effect on recovery. This implies that beyond improvements in farming practice, farming outcomes and quality of life, Ignitia was also helping smallholder farmer become more resilient against climate shocks.

Impact of Ignitia on Recovery

Q: Did you involvement with Indorama's iska weather forecasts have a positive, negative or no effect on your recovery? (n=121)

Significant positive effect	45%
Some positive effect	34%
No effect	21%
Some negative effect	0%
Significant negative effect	0%

"The information about temperature, wind and rain helps me to prepare my farm animals for their health."

"He has learnt to plan his activities ahead of every weather condition like during rainy period. Before it rains, he tries not to apply pesticides as the rain will wash it away, so he does it after."

Additional Insights: Disaggregation By Tenure

Ignitia's impact on farming practice, farming outcomes and quality of life is immediate, and is likely to deepen over time.

We wanted to understand if farmer experience with the service and the farming outcomes changed over time.

Regardless of tenure, farmers were reporting improvements in their farming practice, their farming outcome and overall quality of life. We believe the impact is likely to deepen over time, because tenured farmers were more likely to report an outcome as "very much" improved, while less tenured farmers were more likely to report it as "slightly" improved.

Importantly a farmer's experience with Ignitia was not deteriorating over time, implying consistency in quality of service.

Average performance across metrics:

- 6 months or less: **69%**
- 7 months or more : **75%**

Experience and Farming Outcomes by Tenure
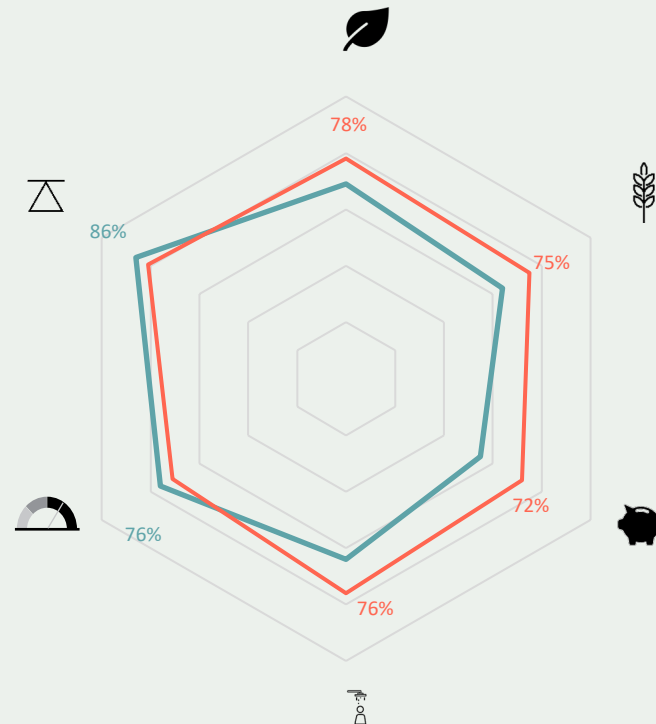
Key: Farmer Tenure

○ **6 months or less**   n = 166

○ **7 months or more**
n = 89

Way of Farming
% reporting "very much improved" because of Ignitia weather forecasts

Production
% reporting "very much improved" because of Ignitia weather forecasts

Money Earned
% reporting "very much improved" because of Ignitia weather forecasts

Quality of Life Impact
% reporting "very much improved" because of Ignitia weather forecasts

Net Promoter Score®
% Promoters

Challenges
% "no" challenges with Ignitia

Additional Insights: Qualitative Feedback Deep Dive

We took a closer look at the qualitative narrative for each farmer to understand the impact in greater detail.

We looked for themes in farmers' qualitative descriptions of change and found that they mapped closely to Ignitia's Positive Change domains.

The top ones that emerged touched upon the ways in which Ignitia's impact thesis on creating positive change under the three pillars.

Farmers' qualitative feedback shows that Ignitia is creating the positive change it intended to.

Alignment: Farmer Feedback and Ignitia's Impact Themes

Ignitia Impact Theme	Consolidated Qualitative Feedback from Farmers
Trust	• 24% spoke of accurate and reliable information • 25% reported improved knowledge of weather patterns
Behaviour Change	• 46% spoke about changes in application of inputs, fertilizers and chemicals • 67% expressed ability to plan farming better, in land preparation, tilling or other farm activities
Optimized Planning	• 52% reported improved production • 22% spoke about lesser wastage and losses

Key Questions
We Set Out To Answer

Who is Ignitia reaching?

- Income, farm and disability profile
- Importance of Ignitia offerings
- Availability of alternatives in market
- Exposure and resilience to climate shocks

What impact is Ignitia having?

- Impact on way of farming
- Changes in crop production, productivity and revenue
- Impact on quality of life
- Impact on recovery from climate shocks

Are farmers satisfied with Ignitia & why / why not?

- Net Promoter Score & drivers
- Top challenges experienced
- Suggestions for improvement

COVID-19 focused additional insights of interest to Ignitia

- Experience with COVID-19
- Future willingness to plant new crops
- COVID-19 and access to information / advice
- COVID-19 and challenges with inputs

"The information he gets about these forecast are mostly accurate and has really helped him improve his farming practices."

Farmer Satisfaction: Net Promoter Score

Ignitia has a Net Promoter Score® of 65 which is excellent, and much higher than the 60dB agriculture benchmark.

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

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

Promoters were more likely to report an improvement in their quality of life, crop production and money, potentially implying that Ignitia's strong impact performance is tied to its quality of service.

Net Promoter Score® (NPS)

Q: On a scale of 0-10, how likely are you to recommend Indorama to a friend or family member, where 0 is not at all likely and 10 is extremely likely? (n = 255)

0

-50   50

65

100
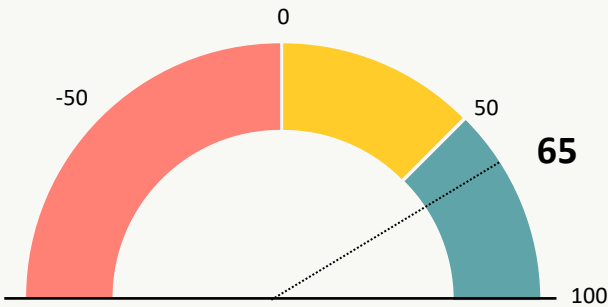
NPS = % Promoters — % Detractors

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

NPS Benchmarks

● ● ● ● ○ — TOP 40%

60 Decibels Global Agri Average   33
62 companies

Farmer as customer average   32
33 companies

West Africa average   21
15 companies

NPS Drivers

Promoters loved that Ignitia helped them plan their farming better, improved their farming methods, and provided forecasts that were accurate.

74% are Promoters   :)

They love:

1. Ability to plan farming better
   (32% of Promoters / 24% of all respondents)

2. Ability to improve farming methods
   (26% of Promoters / 19% of all respondents)

3. Accurate weather forecasts
   (20% of Promoters / 15% of all respondents)

"The iska weather forecast has helped me in keeping track of when I am supposed to work on my farm and this has influenced my crop growth positively."

Tip:

Highlight the above value drivers in marketing.

Promoters are powerful brand ambassadors — can you reward them?

17% are Passives   : \

They like:

1. Ability to plan farming better
   (35% of Passives / 6% of all respondents)

2. Accurate weather forecasts
   (23% of Passives / 4% of all respondents)

But complain about:

1. Inaccurate weather forecasts
   (23% of Passives/ 4% of all respondents)

"The iska weather forecast isn't accurate some times."

Tip:

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

What would it take to convert them?

9% are Detractors   : (

They complain about:

1. Inaccurate weather forecasts
   (39% of Detractors / 4% of all respondents)

2. Do not believe in weather forecasts
   (26% of Detractors / 2% of all respondents)

3. Do not understand information and forecasts
   (9% of Detractors / 1% of all respondents)

*13% of Detractors reported too soon to tell

"The actions that could make me recommend it to a friend is that they should be sending a right or reliable message on the weather forecast."

Tip:

Negative word of mouth is costly.

What's fixable here?

NPS by Segmented by region

Farmer's satisfaction with the service is tied to region. Farmers in North West zone were more satisfied than those in North Central and North East zones.

Upon disaggregating NPS by region, we found North Central zone has a higher % of dissatisfied farmers.

The NPS for those in North West Zone was 72, compared to 49 and 57 in North Central and North East zones respectively. The % of passive farmers in North Central zone is twice that of farmers in North West zone.

Question

NPS is a helpful metric to track over time to detect subtle changes in customer satisfaction. How can Ignitia improve NPS Score in North Central & North East zone?

Net Promoter Score Segmented By Region

Q: On a scale of 0-10, how likely are you to recommend Indorama to a friend or family member, where 0 is not at all likely and 10 is extremely likely? (n = 255)

	North Central	North East	North West	Total
Detractors	13%	10%	8%	9%
Passives	26%	22%	13%	17%
Promoters	62%	68%	80%	74%
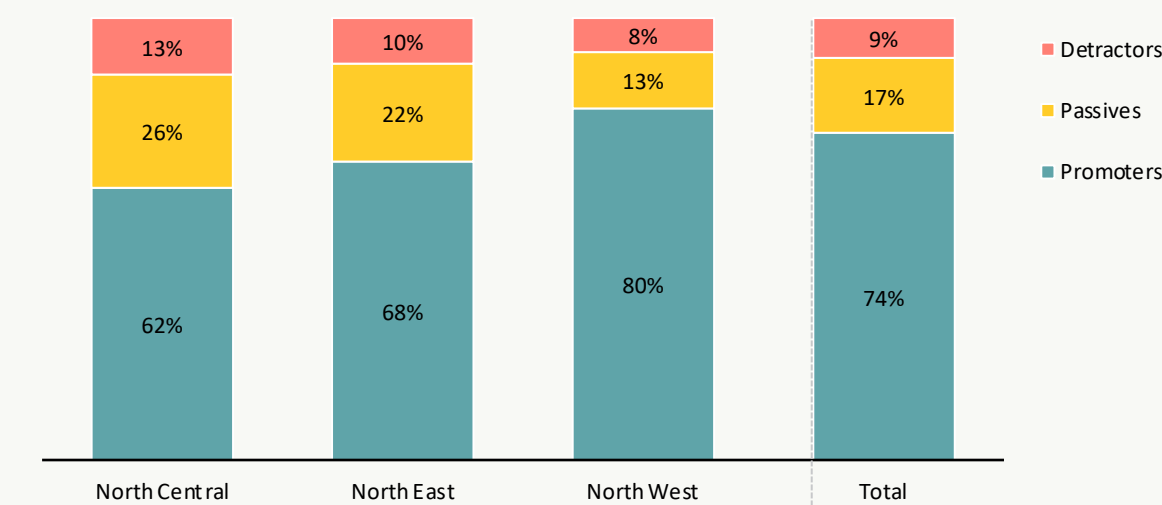
	North Central	North East	North West	Total
NPS	49	57	72	65
n =	39	68	142	255

Farmer Challenges

Asking about farmer challenges enables Ignitia to identify problem areas and tackle them proactively.

Unresolved challenges can encourage negative word-of-mouth.

Upon further analysis, we found that farmers reporting challenges had a much lower Net Promoter Score® of 20 compared to 74, for those that did not face any challenges.

16% of farmers report challenges with Ignitia. Farmers complained of not receiving SMS, or receiving inaccurate forecasts. Some others wanted Ignitia to provide inputs.

Proportion of Farmers Reporting Challenges

Q: Have you experienced any challenges with Indorama? (n = 253)

● ● ○ ○ ○   –   BOTTOM 40%

■ Yes
16%

■ No
84%
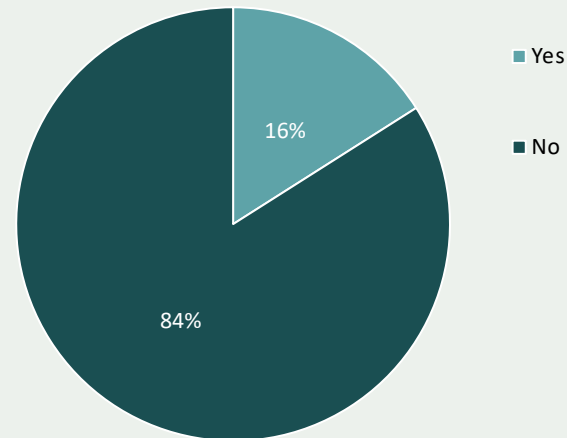
Top Challenges Reported

Q: Please explain the challenge you have experienced (n = 40, multiple responses allowed) Open-ended, coded by 60 Decibels

1. Not receiving messages
(40% of farmers w. challenges / 6% of all respondents)

"I have stop receiving messages for a month now and am really sad about it."

2. Inaccurate weather forecasts
(38% of farmers w. challenges / 6% of all respondents)

"Sometimes the forecast is not accurate, there are times they predict rain but it falls in a different area or village."

3. Access to inputs
(23% of farmers w. challenges / 4% of aa respondents)

"Yes, I expect that iska Weather forecast would grant a loan to us (farmers) but they didn't."
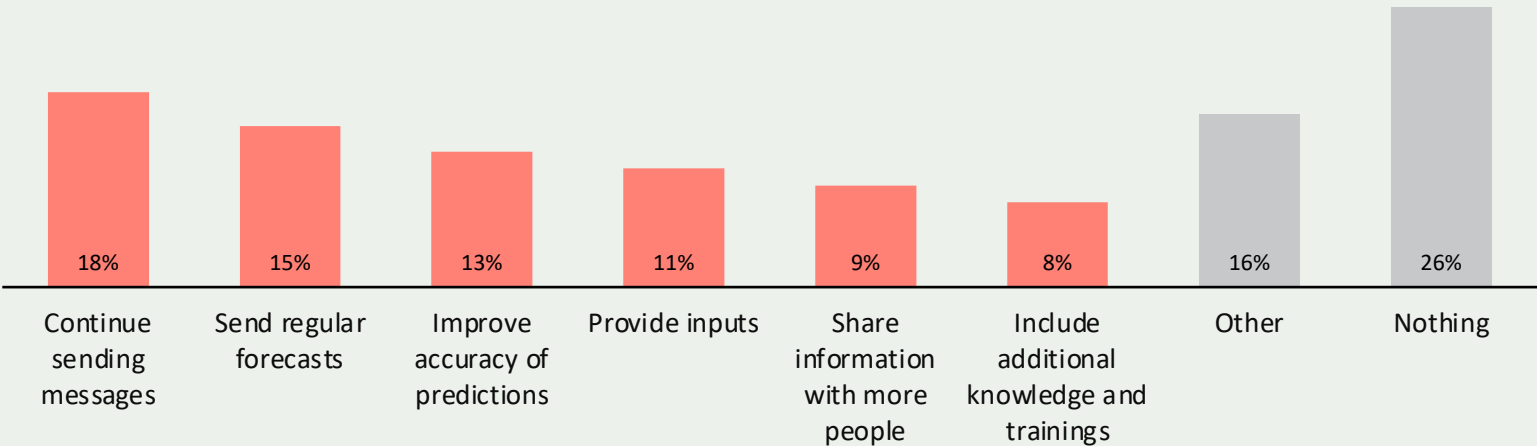
Farmer Suggestions

Farmers wanted Ignitia to continue sending SMSes, to more people and with more frequency and accuracy. There is also demand for new services like access to inputs, and trainings.

We asked farmers an open-ended question about their suggestions to help Ignitia improve.

Roughly one quarter could not think of a specific suggestion. Among those that did share a specific suggestion, 18% wanted more communication, 15% wanted regular forecasts and 13% wanted improved accuracy of predictions from Ignitia's weather forecast SMS.

Suggested improvements

Q: What about Indorma could be improved? (n = 255, multiple responses allowed) Open ended, coded by 60 Decibels, % of respondents)

"I want them to continue sending the messages because we are benefiting from using it. But sometimes when they send messages on rain, sometimes it does not come true."

"Actually, they have given us advise on how to plant and apply fertilizer. Let them also provide farm inputs. Let there be regular communication with customers."

Continue sending messages	Send regular forecasts	Improve accuracy of predictions	Provide inputs	Share information with more people	Include additional knowledge and trainings	Other	Nothing
18%	15%	13%	11%	9%	8%	16%	26%

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- Experience with COVID-19
- Future willingness to plant new crops
- COVID-19 and access to information / advice
- COVID-19 and challenges with inputs

"Money that can help me buy inputs to try to get back on my feet as this COVID has paused a lot and caused market loss."

Concern About COVID-19

Seven months on, 93% of farmers remained concerned about COVID-19.

We asked farmers questions related to COVID-19 to assess their level of concern and identify potential support areas.
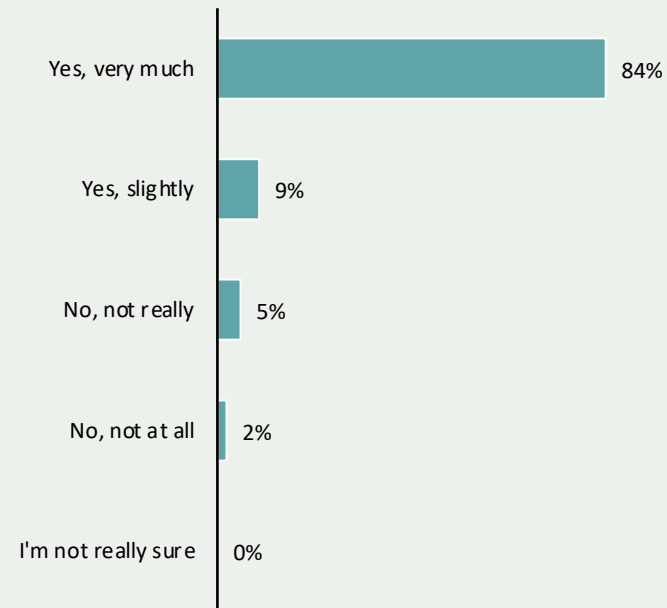
When asked to share how their life could be improved during this time of the COVID-19 pandemic, farmers asked for support with inputs for farming, cash handouts for general spending and capital for agricultural practices and business.

Other responses included support with food (9%), medical supplies (5%), and precautionary information around COVID-19 (4%) to name a few.

Level of Concern Over COVID-19

Q: Are you concerned about COVID-19? (n = 255)

Response	Percentage
Yes, very much	84%
Yes, slightly	9%
No, not really	5%
No, not at all	2%
I'm not really sure	0%

Things That Could Improve Life

Q: Related to this pandemic, what one thing could improve your life at this time? (n = 255, multiple responses allowed) Open-ended, coded by 60 Decibels

Response	Percentage
Agricultural inputs	26%
Cash handouts	26%
Financial support for farm/business	13%
Reopen economy	9%
Food	9%
Medical Supplies	5%
Information Support	4%
Other	13%
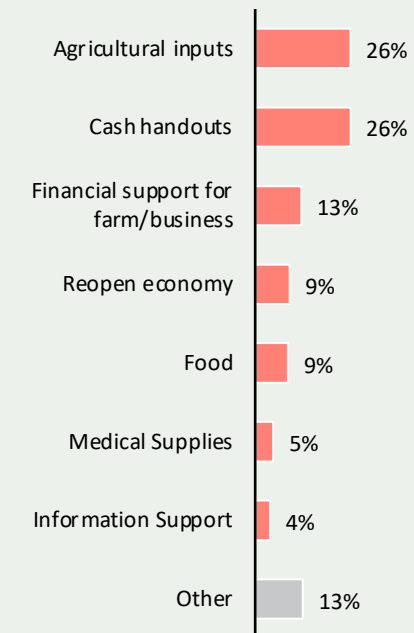
Next Month on Farm During COVID-19

We asked farmers what phase of farming they will be in next month and whether they're confident in their ability to manage as they normally would.

Two thirds of farmers report that they will be harvesting their crop in the next month. Around 30% said they would be planting in the next month.

91% of respondents indicated they were 'very confident' and 7% 'slightly confident' that they will fare well in the next month.

Farmers are most likely harvesting, and despite the pandemic, majority are confident of undertaking these activities, as they normally would.

Current Agricultural Activity

Q: Which of these phases of farming will you be in for the next month? (n = 254, multiple responses allowed)

Activity	%
Harvesting	65%
Planting	29%
Land preparation	24%
Selling	18%
Crop on the farm	6%
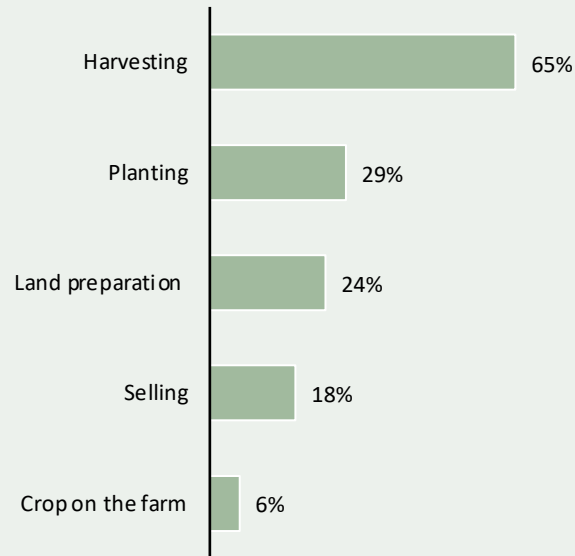
Confidence in Performing Activity

Q: How confident do you feel that you will be able to undertake these activities as you would have normally? (n = 254)

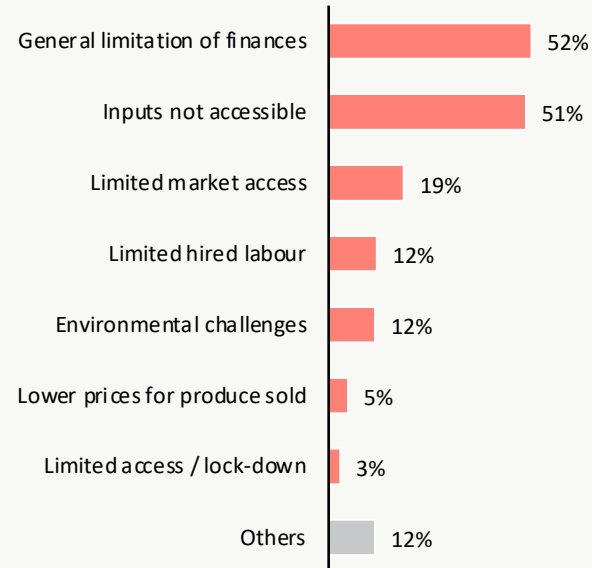| Confidence	%
Very confident	91%
Slightly confident	7%
Not very confident	2%
Not confident at all	0%
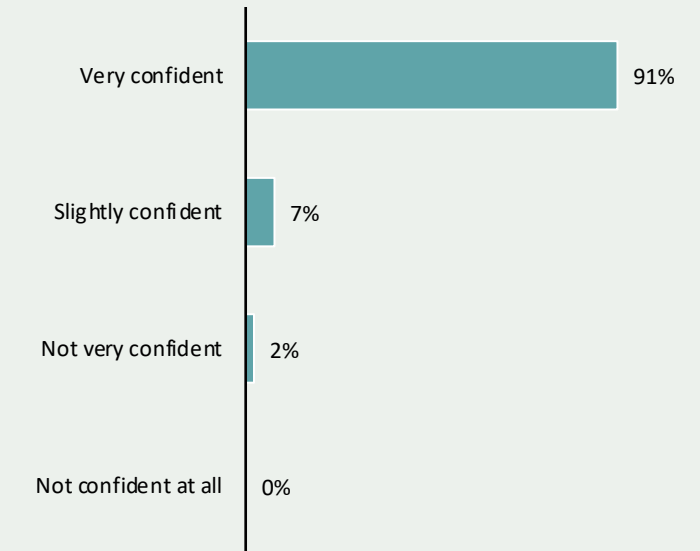
Challenges and Requests

Farmers shared a variety of challenges, but lack of financing and inaccessibility to inputs emerged as top two challenges. As a solution, farmers wanted subsidized inputs and cash.

When we asked farmers what they need at this time to overcome challenges they anticipate in undertaking farming activities normally at this time.

Apart from cash and subsidized inputs, farmers asked for credit, food and better selling prices. Other solutions included lifting mobility restrictions and information on COVID-19.
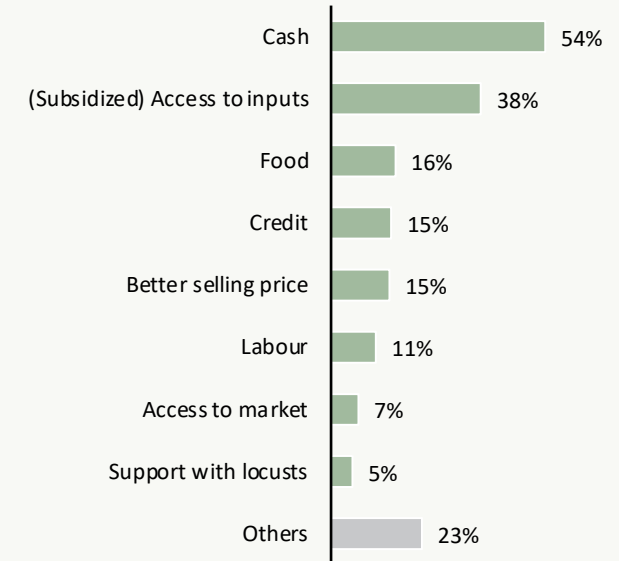
Top Challenges Related to COVID-19

Q: What do you anticipate the biggest challenges being? (n = 201, multiple responses allowed)

Challenge	%
General limitation of finances	52%
Inputs not accessible	51%
Limited market access	19%
Limited hired labour	12%
Environmental challenges	12%
Lower prices for produce sold	5%
Limited access / lock-down	3%
Others	12%

Solutions for Top Challenges

Q: What kinds of agricultural products / services / information would be most useful for you to overcome these challenges? (n = 203, multiple responses allowed)

Solution	%
Cash	54%
(Subsidized) Access to inputs	38%
Food	16%
Credit	15%
Better selling price	15%
Labour	11%
Access to market	7%
Support with locusts	5%
Others	23%

COVID-19 Support:
New Crops

69% of farmers were looking to plant new crops in the next six months. No single crop emerged as a primary choice. Ease of selling and better price were top reasons for planting new crops.

We asked farmers if they are planning to plant any new crops in the next 6 months and why they wanted to plant those crops.

Apart from ease of selling and better price, other reasons for planting new crops included family consumption, lower input costs and familiarity with crops.

Some of the crops that farmers mentioned were – rice, maize, onion, tomato, beans and pepper.
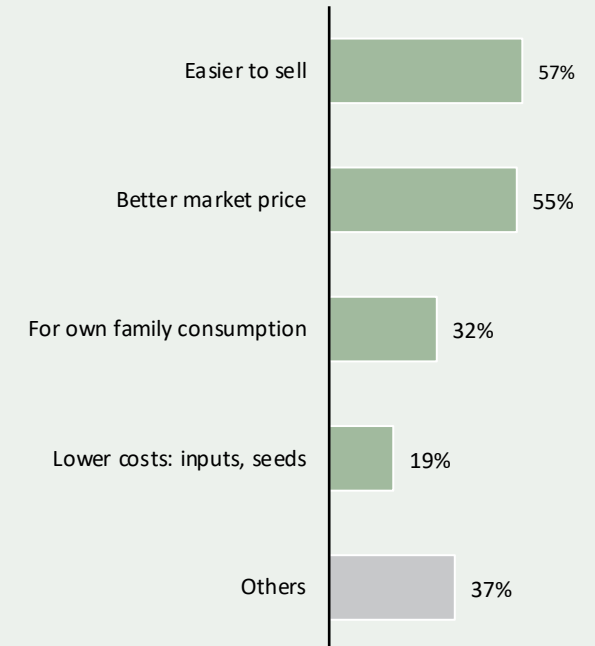
Adoption of New Crops

Q: Which new crops, if any, are you planning to plant in the coming 6 months? (n = 253)

- New Crops
- Not planning to plant new crops

69%

31%
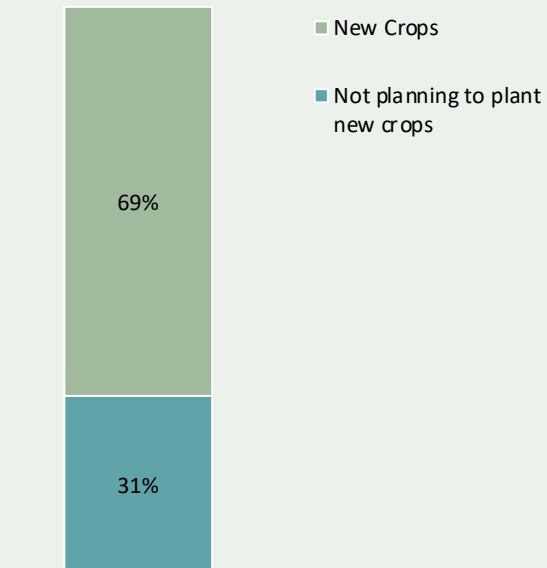
Reasons for Adoption of New Crops

Q: Why are you planting the new crop? (n= 174, multiple responses allowed)

|	
Easier to sell	57%
Better market price	55%
For own family consumption	32%
Lower costs: inputs, seeds	19%
Others	37%

COVID-19 Support: Information

In the next 6 months, majority of farmers want information on climate forecasts and prices. SMS and Radio were most often reported as most trusted sources of information.

We wanted to learn from farmers what information around farming they would find useful in the next 6 months, and what sources they tend to trust.

Apart from climate forecasts and price, farmers want information around highest value crops to plant and buyers. Other reasons include access to inputs, information about social distancing and mobility restrictions.
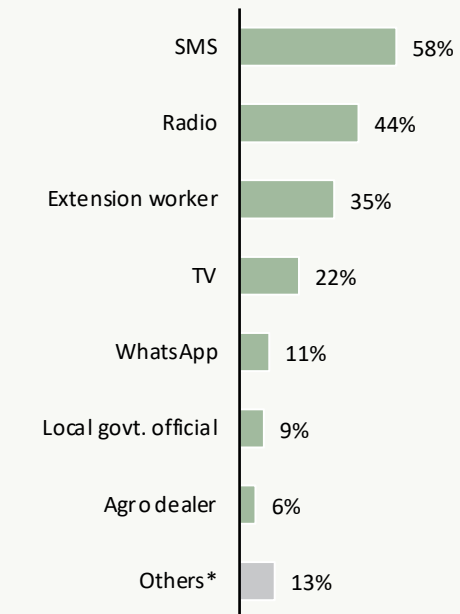
Useful Advice for next 6 Months

Q: What kind of advice would you find useful for the next 6 months?   (n = 255, multiple responses allowed)

Climate forecasting	68%
Price	49%
Highest value crops	35%
Buyers	27%
Others	15%
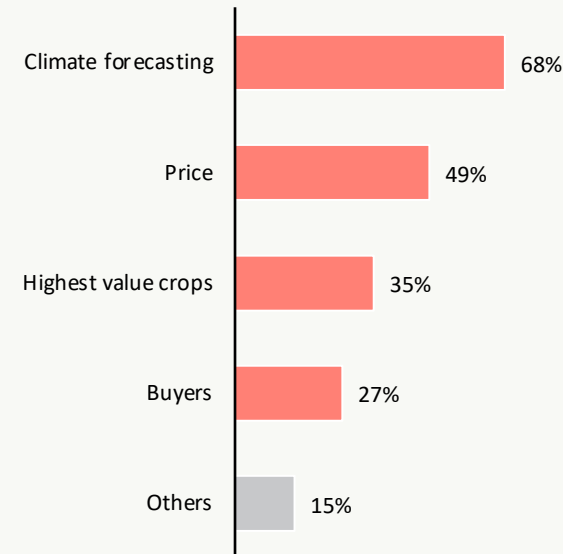
Trusted Sources of Information

Q: What are your trusted sources for this information?   (n = 255, multiple responses allowed)

SMS	58%
Radio	44%
Extension worker	35%
TV	22%
WhatsApp	11%
Local govt. official	9%
Agro dealer	6%
Others*	13%

*Others include Facebook, friends and family
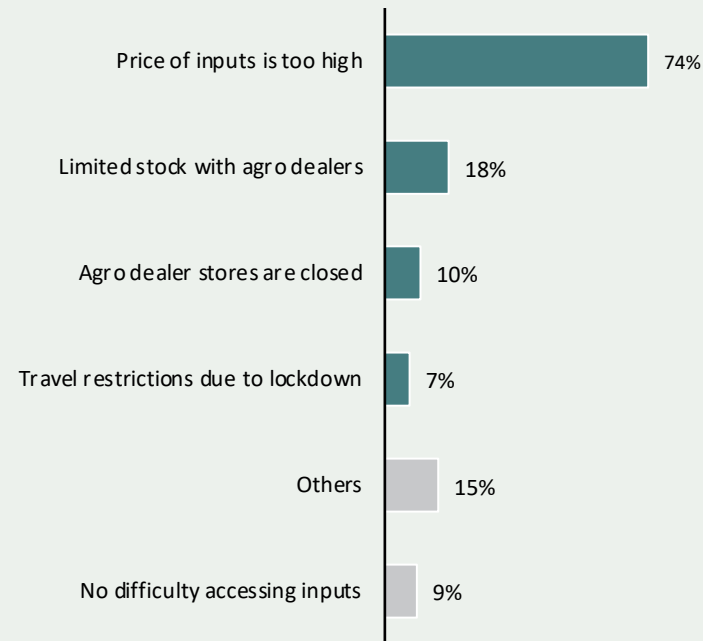
COVID-19 Challenges: Inputs

Close to three fourth of farmers anticipate input prices being too high as a challenge for the next six months. Support with inputs was also a suggestion farmers had for Ignitia.

Farmers anticipate challenges with input prices being too high, and agro-dealers having insufficient stocks.

Farmers perceive difficulties in purchasing fertilizers, pesticides and seeds in the coming months.
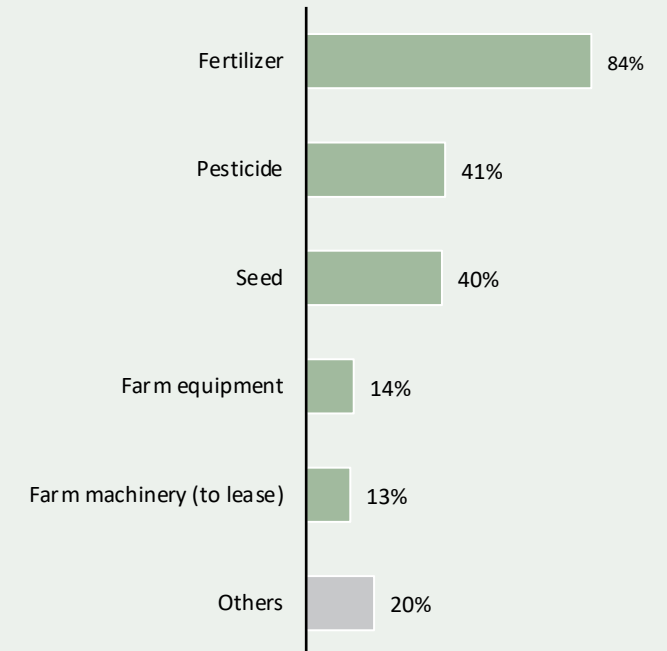
Perceived Challenges Buying Inputs

Q: When you try to purchase inputs in the next 6 months, which of these challenges do you anticipate experiencing?   (n= 255, multiple responses allowed)

Challenge	%
Price of inputs is too high	74%
Limited stock with agro dealers	18%
Agro dealer stores are closed	10%
Travel restrictions due to lockdown	7%
Others	15%
No difficulty accessing inputs	9%

Type of Inputs

Q: Which types of inputs will you find particularly hard to purchase?   (n = 255, multiple responses allowed)

Input	%
Fertilizer	84%
Pesticide	41%
Seed	40%
Farm equipment	14%
Farm machinery (to lease)	13%
Others	20%

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

- 87% of our farmers say the quality of their lives has improved since working with us. "[farmer quotation]" #listenbetter with @60_decibels

- 74% of [farmers] would recommend us to a friend or family member – what are you waiting for?

- 38% of all challenges faced by our farmers are related to inaccurate forecasts – what improvements would you like to see? We #listenbetter with @60_decibels

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

Engage Your Team	☐ Share staff quiz – it's a fun way to fuel engagement & discussion
	☐ Send deck to team & invite feedback, questions and ideas. 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	☐ Let us know if you'd like us to send an SMS to interviewed farmers with a short message letting them know feedback is valued and as a result, you'll be working on XYZ
	☐ If you can, call back the farmers with challenges and/or complaints to find out more and show you care.
	☐ After reading this deck, don't forget to let us know what you thought [feedback form]
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

Detailed Benchmarking Comparison

Ignitia is performing well on poverty reach and positively impacting farmers' livelihood and lives. It can address farmer challenges to improve their satisfaction.

Comparison to benchmarks can be useful to identify where you are under- or 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:

Ignitia Data
# farmers	255

60dB Global Agriculture Average
# companies	64
# farmers	12,309

60dB Agriculture Farmer as Customer Average
# companies	32
# farmers	7968

60dB West Africa Average
# companies	17
# farmers	3619

Comparison of Ignitia Performance to Selected 60dB Benchmarks

| Dimension	Indicator	Ignitia	60dB Global Average	60dB Agriculture* Average	60dB West Africa Average
Who ○	Inclusivity Ratio	1.2	1.2	1.1	2.2
	% female	4	30	34	35
How Much	% reporting quality of life very much improved	68	41	47	44
	% reporting quality of life slightly improved	19	40	36	34
	% reporting crop production very much improved	68	36	44	36
	% reporting crop revenue very much improved	61	36	39	26
What Impact □	% reporting quality of life improved due to **increased production**	36	-	-	-
	% reporting quality of life improved due to improved **ability to farm better**	27	-	-	-
Contribution +	% first time accessing Ignitia offerings	89	71	74	68
	% saying no good alternatives are available	72	79	88	83
Risk △	% experiencing challenges	16	28	23	26
Experience	Net Promoter Score	65	33	32	21

*Specifically, Agriculture – Farmer As Customer Average

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 Ignitia % / 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: $$\sum_{x=1}^{3} \frac{([Company]\ Poverty\ Line\ \$x)}{(Country\ Poverty\ Line\ \$x)}\ /\ 3$$

Summary Of Data Collected
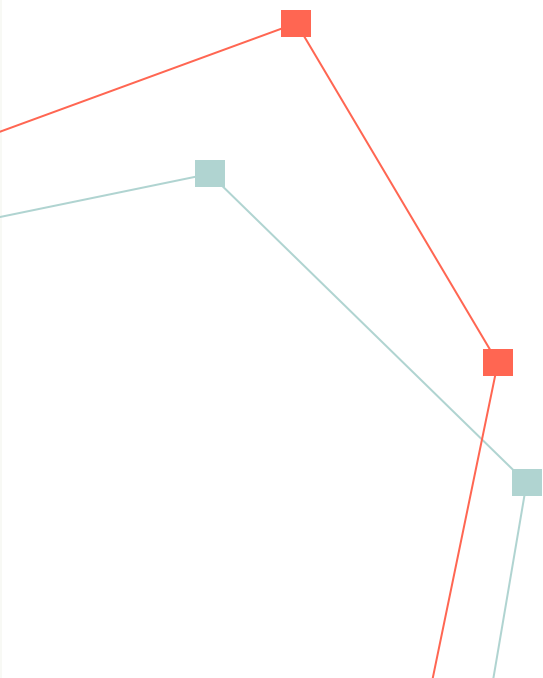
255 phone interviews completed in September 2020

Methodology

Survey mode	Phone Interviews
Country	Nigeria
Language	Hausa, English
Dates	September 2020
Sampling	Selected randomly 1995 Ignitia farmers who had worked with company
Response rate	66%

Responses Collected

Farmers	255

Sampling

	% sample	% population
Kebbi	21%	16%
Bauchi	18%	13%
Sokoto	16%	21%
Plateau	11%	16%

Accuracy*

Confidence Level	c. 90%
Margin of error	c. 5%

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

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 farmers, suppliers, and beneficiaries. Its proprietary approach, Lean Data^{SM}, brings farmer-centricity, speed and responsiveness to impact measurement.

60 Decibels has a network of 500+ trained Lean Data researchers in 45+ countries who speak directly to farmers 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.

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 Seth Kamens from Ignitia, & Jack Odero and Collins Marita from Mercy Corps for their support throughout the project.

This work was generously funded by Mercy Corps AgriFin Accelerate (AFA) Programme and the Strengthening Impact Investing Markets in Agriculture (SIIMA) programme, through FCDO's Research and Evidence Division.
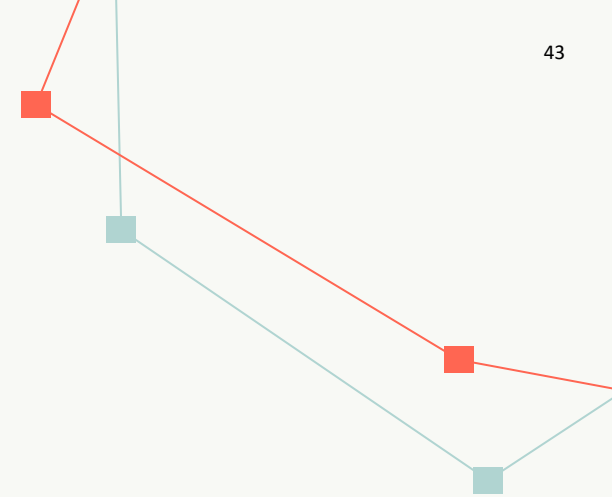
It helps me manage crops properly

I prepare my land at due time.

My family and

I can

>eat healthy foods now

>and

>I'm able to buy

things I was unable to

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