# Bayer Crop Science: Ansal Tomatoes Follow-Up Study

Kenya



60 \_\_decibels November 2023

# Welcome To Your 60dB Results

We enjoyed hearing from 211 Ansal Tomatoes farmers in Kenya – they had a lot to say!

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Bayer Crop Science aims to learn about the impact that Ansal Tomatoes is having on beneficiary farmers in Kenya and how their experiences change over time.

60 Decibels set out to learn more about this through two Lean Data studies: a baseline study conducted in 2022 and a follow-up study conducted a year later. This report has the results, analysis, and insights from the follow-up study conducted between September and October 2023.

Listening to farmers' voices during the follow-up study provided key insights into their journey with Ansal Tomatoes over the last 12 months.

Lean Data Study	Baseline	Follow-Up		
Sample Size	418 farmers	211 farmers (subset of respondents from baseline)		
Farmer Profile	<b>√</b>			
Harvest Productivity	<b>√</b>	$\checkmark$		
Farmer Satisfaction	<b>√</b>	$\checkmark$		
Impact Performance	<b>√</b>	$\checkmark$		
Training Sources	$\checkmark$	$\checkmark$		
Training Experience		$\checkmark$		
Climate Resilience		✓		

### Performance Snapshot

At the follow-up, farmers report sustained impact, with room to scale satisfaction by addressing their challenges and expanding training reach.

Gender

9%

female farmers served (vs. 18% at baseline)

Impact

52%

quality of life 'very much improved' (vs. 52% at baseline)

• • • •

Self-Reported Outcomes

- 41% talk about improved farming outcomes or higher yields
- 37% say they are able of afford education

Way of Farming

28%

'very much improved' (vs. 33% at baseline)



Net Promoter Score®

39

on a -100 to 100 scale (vs. 48 at baseline)

Challenges

35%

report challenges (vs. 51% at baseline)

••••

Money Earned

50%

'very much increased' (vs. 55% at baseline)

• • • •

Production

59%

'very much increased' (vs. 50% at baseline)

• • • •

### Farmer Voice

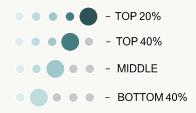
"Ansal seeds have a very good rate of production. If you compare it with other seeds in the market, I get more value for my money from Ansal." - Male

### Data Summary

Ansal Tomatoes Performance: 211 farmer phone interviews in September-October 2023 in Kenya.

Quintile Assessment compares Project Performance with 60dB Farmer as Customer Benchmark comprised of 33 companies, 11 countries, and 7,700+ farmers. Full details can be found in Appendix.

### Performance vs. 60dB Benchmark



BOTTOM 20%

### Top Insights

While farmers report improved harvests at the follow-up, changes in their way of farming and quality of life have remained consistent.

At the follow-up, farmers report harvesting 178 boxes of tomatoes on average, compared to 161 at the baseline. 90% of farmers recognize Ansal's contribution to increased production (vs. 78% at baseline). However, 61% of farmers report way of farming improvements, which is a decrease from 73% at the baseline. There are no significant changes in the proportion of farmers reporting higher earnings, reduced stress, or improved quality of life over time. See pages 11, 14, 16 to 19.

Farmer satisfaction with Ansal has diminished over time, but so has the challenge rate.

Due to a higher proportion of Passives, Ansal Tomatoes has a Net Promoter Score (NPS) of 39 at the follow-up which, while favorable, is lower than the baseline NPS of 48. The top value drivers are improved production and resistance to pests or diseases. At the same time, fewer farmers report challenges at the follow-up compared to the baseline (35% vs. 51%). While this is an improvement over the past year, this still ranks in the bottom 20% of the 60dB Agriculture Benchmark. See pages 24 to 27.

Absolute wastage and decay durations are comparable over time. Farmers continue to perceive Ansal's role in minimizing losses.

On average, the proportion of harvest wastage has remained consistent over time, with the majority saying they waste less than a quarter of their yield. Similarly, farmers report that their tomatoes go bad after an average of 16 days, which is comparable to the baseline. In line with the baseline findings, 80% of farmers say that their harvest wastage would be worse without Ansal Tomatoes, and 83% of say the same about their decay durations.

See pages <u>12</u> and <u>13</u>.

Although farmers are now more aware of Ansal's environmental benefits, there is room to improve their preparedness in the face of climate shocks.

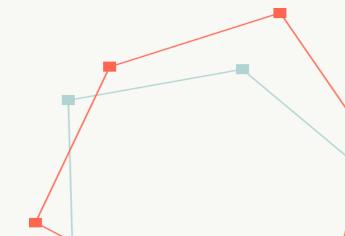
52% of farmers at the follow-up say that working with Ansal has environmental benefits (vs. 30% at the baseline). While they are aware of these benefits, more than half of all farmers are still recovering from a climate shock and say that Ansal had 'no effect' on their current recovery or preparedness in the case of future shocks. Resilience and recovery-focused trainings are good avenues to drive deeper impact among farmers.

See pages <u>30</u> to <u>36</u>.

3 in 10 farmers received trainings over the past year. They report deeper impact compared to others.

The majority of farmers who received trainings report field visits by Amiran or Seminis as the top sources. 81% of trained farmers say that they could apply 'all' or 'most' of the information to their farm and are generally experiencing better outcomes across impact indicators such as way of farming, production, as well as preparedness to deal with future climate shocks.

See pages <u>22</u> and <u>23</u>.



We love hearing farmers' voices. Here are some that stood out.

### **Impact Stories**

94% shared how Ansal Tomatoes has improved their quality of life

"Farming Ansal Tomatoes has changed a lot in my life. I come from a community of pastoralists, and we measure our wealth in terms of the number of cattle we own. With the profits from Ansal, my home is filled with cows, sheep and goats. I also serve as an example to other people in my community that we can also farm to make money rather than just keeping cattle." - Male

"I have become more financially stable and have been able to start a secondary business using the money I earned from selling the tomatoes. I have also been able to buy a plot of land." - Female

### **Changes in Farming**

61% of report that their way of farming has improved because of Ansal Tomatoes

"We have reduced the amount of chemicals we spray on our tomatoes because Ansal is more resistant to diseases. I am spraying but only a little. I also try to get seeds that are disease-resistant for planting." - Female

"An agronomist from Amiran had visited my farm and advised me on how to use pesticides when it rains and what to do when there is no rain. Additionally, I space my crops so that it can have enough lighting and the tomatoes can also grow big." - Female

### **Opinions on Value Proposition**

46% were Promoters and highly likely to recommend

"Ansal seeds perform better on the farm because they produce high yield, their fruits are durable, and their plants produce fruits for more than two months after the first harvest. My customers like them more because they last longer when stored well." - Female

"Since I discovered Ansal tomatoes, I have not planted any other variety because they produce fruits for a long time and the tomatoes grow to be very big."

- Female

### **Opportunities for Improvement**

35% faced challenges with Ansal Tomatoes

"Bacterial wilt reduces my harvest. My leaves also become yellow when they don't get enough sun. They are also affected by blight occasionally." - Female

"The seed variety I used most recently gave me very poor yield. I went from 700,000 KES in sales to 200,000 KES. My production reduced drastically." - Male

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"Ansal taught me how to implement correct spacing while farming. This ensures that the plants get enough space to produce a lot of

fruits." - Male

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- > Challenges
- > Value Perception
- Climate Resilience
  - > Environment Benefits
  - > Climate Shocks and Recovery
  - > Preparedness for Shocks

### Demographics

The follow-up study sample consists of ~50% of the farmers we spoke to at the baseline. Data related to farmer age, tenure, and household size have been sourced from the baseline study.

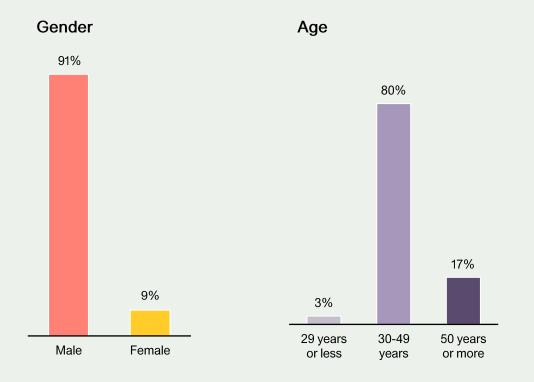
Overall, the demographic breakdown of the follow-up sample resembles that of the baseline. The proportion of female farmers has somewhat reduced compared to the baseline (9% vs. 18%). However, the average age has remained consistent (42 vs. 41), and so has tenure after accounting for the gap in time between the two rounds.

Note: Results in this report have been segmented by baseline and follow-up. Statistically significant differences have been reported. The N value signifying sample size may vary based on the survey logic and the number of farmers who chose to skip a question or were unable to answer it.

The majority of farmers we spoke to at the follow-up are male. More than half have been working with Ansal Tomatoes for longer than 3 years.

### About the Ansal Tomatoes Farmers We Spoke With

Data relating to farmer characteristics (n = 211)



### Tenure of Engagement

- Less than 3 years (45%)
- 3 or more years (55%)

### Average Household Size

5.2

### Region

- Central (42%)
- Eastern (24%)
- Rift Valley (14%)
- Others (20%)

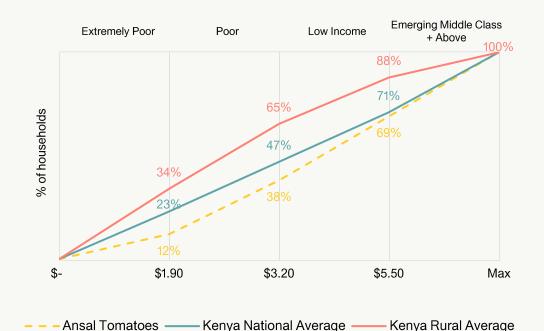
Kenya is classified by The World Bank as a lower-middle income country, so the \$3.20 line is considered the poverty line. Ansal Tomatoes is serving relatively well-off farmers compared to the national and rural population.

At the follow-up, Ansal Tomatoes has a national Inclusivity Ratio of 0.77, which is slightly higher than the 0.72 recorded at the baseline.

Ansal Tomatoes is reaching relatively higher income households compared to the Kenyan national average.

### Income Distribution of Ansal Tomatoes Relative to Kenya

% living below \$xx per person / per day (2011 PPP) (n = 210)



### **Inclusivity Ratio**

Degree that Ansal Tomatoes is reaching lowincome farmers in Kenya.

0.77

- BOTTOM 40%

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

1 = parity with national population

> 1 = over-serving

<1= under-serving

See Appendix for calculation.

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"I practice crop rotation to let the soil settle because tomatoes get affected by more soil diseases with regular soil use." - Male

### Farmer Profile

> Demographics

### Impact Performance

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- > Income Change
- > Livelihood Stress
- > Quality of Life

### Farmer Experience

- > Training Experience
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- > Challenges
- > Value Perception

### Climate Resilience

- > Environment Benefits
- > Climate Shocks and Recovery
- > Preparedness for Shocks

# Harvest Productivity: Overview

On average, farmers at the follow-up harvested 178 boxes of tomatoes in the most recent season. 76% say it's 'much more' than what they would have harvested without Ansal.

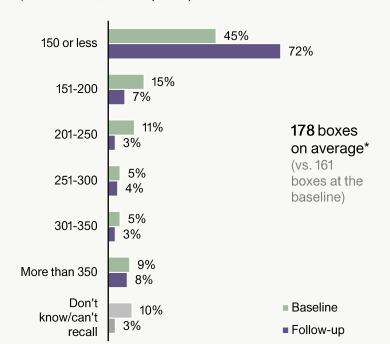
While the average boxes of tomatoes harvested is higher at the follow-up, the variation in yield has reduced i.e. most farmers report harvesting 150 boxes or lesser. This is due to a higher proportion of farmers at the follow-up reporting the exact number of boxes harvested, compared to the baseline, where most farmers reported ranges.

When comparing farmers reporting exact numbers\*\* in the baseline and follow-up, we see a significant increase in production at the follow-up (173 vs. 81 boxes). This is mirrored by follow-up farmers being are more likely to say that their harvest is 'much more' compared to what it would be without Ansal (76% vs. 57%).

This indicates that, over time, both absolute yield and perception of productivity have seen improvements.

### Harvest Productivity

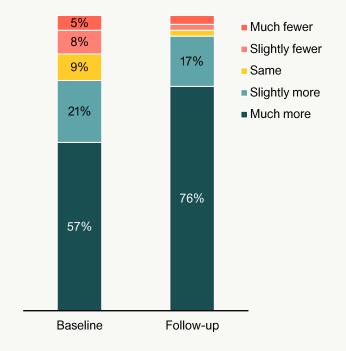
Q: How many boxes of tomatoes (1 flat box = 100kg) did you harvest in the last planting season? (Baseline = 418, Follow-up = 211)



### \*Average calculated based on mid-points of ranges.

### **Change in Harvest With Ansal**

Q: Was this more, less or about the same as what you would do without Ansal Tomatoes? (Baseline = 415, Follow-up = 206)



# Harvest Productivity: Waste

Across the baseline and follow-up, the majority of farmers report wasting less than 25% of their harvest. Similarly, the proportion of farmers who say that their waste is lower than what it would

Among those who were able to report their exact percentage of wasted harvest\*\*, farmers at the follow-up report 9% of waste, compared to 6% at the baseline.

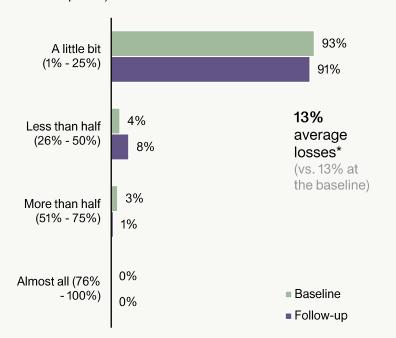
be without Ansal has stayed the same.

16% of farmers at the follow-up say that their wastage is higher than what it would have been without Ansal, which is also an increase since the baseline. This suggests that wastage potentially increased for some farmers at the follow-up or perhaps their expectations about wastage have shifted.

Similar to the baseline, on average, farmers at follow-up report losing 'a little bit' of their most recent harvest. 54% say that this is 'much lower' than what they would have wasted without Ansal Tomatoes.

### **Harvest Waste**

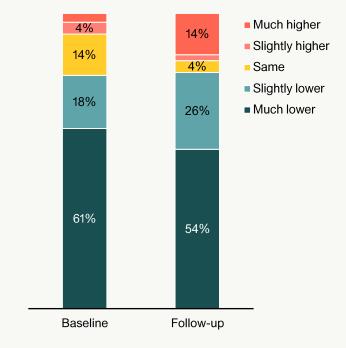
Q: Think about the last batch of tomatoes you harvested. Roughly what proportion (%) of it was wasted – that is, it could not be sold or consumed? (Baseline = 418, Follow-up = 211)



### \*Average calculated based on mid-points of ranges.

### Change in Wastage With Ansal

Q: Was this proportion higher, lower, or about the same as what you would have seen without Ansal Tomatoes? (Baseline = 415, Follow-up = 206)



# Harvest Productivity: Decay

When farmers were asked to compare the decay duration to what it would be without Ansal, 67% of farmers at the follow-up say that the window is much

longer with Ansal, compared to 63% of

farmers at the baseline.

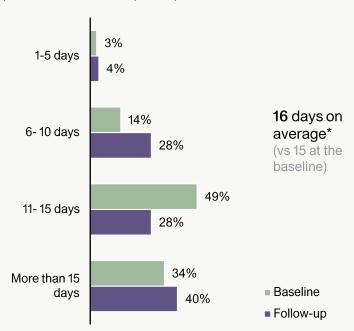
Despite some farmers at the follow-up potentially expecting longer decay windows with Ansal (12%), the results still show a positive trend.

External factors such as bad weather or drought could alter outcomes and thereby, farmer perceptions.

On average, farmers say that their tomatoes went bad after 16 days of harvest, which is similar to the baseline. 67% say this is longer than what it would be without Ansal.

### **Days Before Loss**

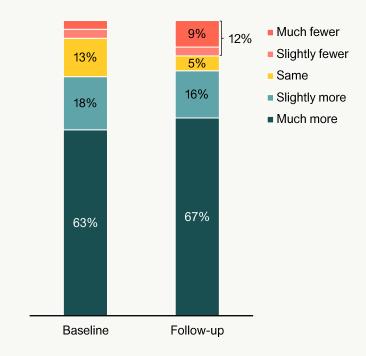
Q: Think about the last batch of tomatoes you harvested. Roughly how many days after harvest did these tomatoes go bad, that is, they were not fit for eating or selling? (Baseline = 418, Follow-up = 207)



### \*Average calculated based on mid-points of ranges.

### Comparison to Loss With Ansal

Q: Were these more, less or about the same as what would happen without Ansal Tomatoes? (Baseline = 414, Follow-up = 203)



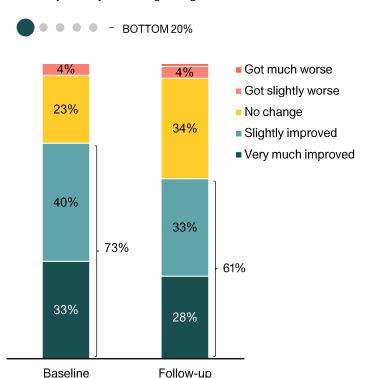
# Way of Farming: Overview

Compared to the baseline, a higher proportion of farmers at the follow-up report 'no change' in their way of farming (34% vs. 21%). Farmers may be already implementing practices that they learnt when they first adopted Ansal. Hence, the incremental improvements by sustaining current practices may not be as tangible.

Farmers who received training on Ansal in the last 12 months are more likely to report that their way of farming has 'very much improved' compared to farmers who have not received trainings (38% vs. 24%). At the follow-up, 61% of farmers report improvements in their way of farming, which is slightly lower than the baseline (73%).

### Perceived Way of Farming Change

Q: Has your way of farming changed because of Ansal Tomatoes? Has it: (Baseline = 418, Follow-up = 211)



### Very much improved:

"I apply smaller amounts of fertilizer and more manure to reduce soil acidity. I spray my farm twice a month to avoid over spraying. I also space my crops well to increase flowering and production." - Male

### Slightly improved:

"I space my tomatoes better for higher yield and leave them with ample room for flowering. I experience better germination and growth rates." - Male

### No change:

"I have not received any training from Ansal [in the last 12 months]. I rely on my own knowledge and experience." - Male

# Way of Farming: Top Outcomes

Farmers were asked to describe how and why their way of farming had changed because of Ansal Tomatoes.

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

- Reduced chemical usage (19%)
- Lower fertilizer usage (10%)
- Improved crop rotation (9%)

Farmers who report their way of farming to have gotten worse mainly attribute this to increased pesticide and fertilizer usage (10 farmers).

Improved pest and disease management is the top way of farming improvement. Farmers reporting no change in their practices are resistant to modify their current methods.

### **Top Reasons for Improvements**

Q: Please explain how your way of farming has improved. (n = 128). Open-ended, coded by 60 Decibels.

30%	mention improved pest and			
	disease management			
	(18% of all farmers)			

# report practicing better crop spacing (16% of all farmers)

talk about improved application of fertilizers (14% of all farmers)

"I now know how to apply pesticides and I spray twice a week with better outcomes. I get less fungal diseases." - Male

### Top Reasons for No Change

Q: Please explain how your way of farming has improved. (n = 73). Open-ended, coded by 60 Decibels.

37%	are unwilling to change			
	existing methods			
	(13% of all farmers)			

36% lack knowledge of new methods (12% of all farmers)

mention limited training and guidance from Ansal (10% of all farmers)

"I farm the same way I always do. I use the same skills. Moreover, Ansal hasn't provided me with training."
- Male

# **Crop Production**

At the follow-up, 92% of farmers report increased crop production. 61% realized the increase using the same land, suggesting an increase in productivity.

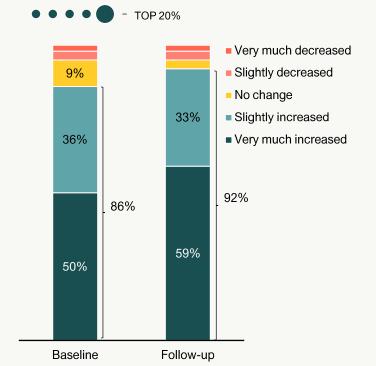
Compared to the baseline, a higher proportion of farmers at the follow-up report an increase in their total production because of Ansal (92% vs. 86%).

Farmers who received trainings from Ansal are more likely to say that their production has 'very much increased', compared to farmers who were not trained in the last 12 months (70% vs. 55%).

Despite fewer farmers at the follow-up reporting way of farming improvements (see <u>page 14</u>), a perceived increase in production since the baseline indicates that farmers may be reaping the benefits of changes made to their farming practices a year ago.

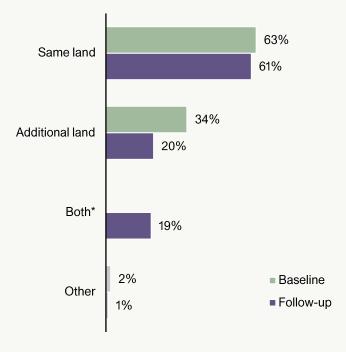
### Impact on Production

Q: Has the total production from your crop changed because of Ansal Tomatoes? (Baseline = 418, Follow-up = 211)



### Reasons for Increase in Production

Q: Was this increase because you planted additional land or was it from the same amount of land?\* (Baseline = 362, Follow-up = 194)



### Income Change

Similar to the baseline, 90% of farmers report an increase in their crop earnings. Nearly all of these farmers mention an increase in volume sold as the top reason for this change.

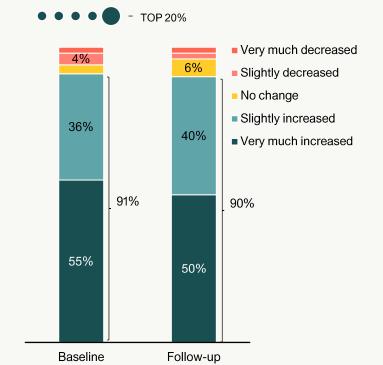
When asked to explain what drove improved earnings, nearly all farmers across the baseline and follow-up talk about increase in volume sold.

However, fewer farmers at the followup mention increased price and lower cost. This may explain why the extent of improvement has marginally decreased at the follow-up.

Farmers who reported no change in their incomes largely attributed this to bad prices received for their produce.

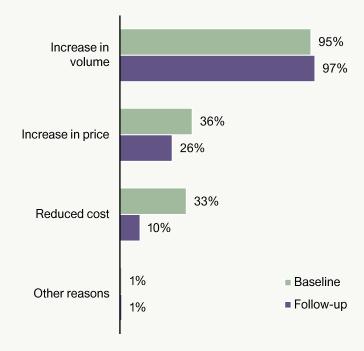
### Changes in Income

Q: Has the money you earn from your crop changed because of Ansal Tomatoes? (Baseline = 418, Follow-up = 211)



### Reasons for Increased Returns

Q: What were the main reasons for the increase in money earned? Select all that apply.
(Baseline = 379, Follow-up = 188)



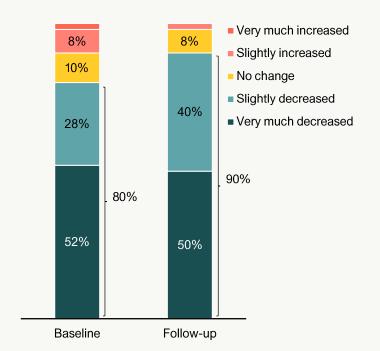
Farmers who report the following improvements are more likely to say their livelihood stress has 'very much decreased' compared to others:

- > Higher harvest productivity because of Ansal: (52% vs. 14%)
- > Decay lower because of Ansal (80% vs. 46%)
- > Extended longevity with Ansal (69% vs. 47%)

90% of farmers say their level of stress about meeting their family's basic needs has decreased because of Ansal Tomatoes, which is a slight improvement since the baseline.

### Impact of Ansal Tomatoes on Livelihood Stress

Q: Has how stressed you feel about meeting you family's basic needs changed because of Ansal Tomatoes? (Baseline = 418, Follow-up = 211)



"I have been able to take my kids to school because of Ansal. I also eat well and dress well now. We even built a house with the money we earned." -Female

"I bought land, built a home, educated my kids, took care of my family all while investing in farming and other businesses." - Male

"I gave been able to sell more tomatoes because they are of great quality. I was able to expand my farming and lease more land to do more tomato farming." - Male

# Quality of Life: Overview

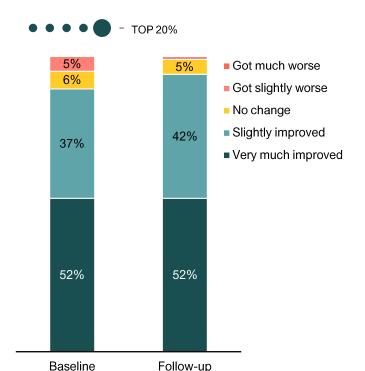
With improvements in production and lower livelihood stress, Ansal farmers are experiencing meaningful quality of life improvements.

Ansal Tomatoes ranks in the top quartile of 60dB's Global Agriculture Benchmark for quality of life. Find out more about what farmers had to say on the <u>next page!</u>

52% of farmers at the follow-up say that their quality of life has 'very much improved' because of Ansal Tomatoes, which is consistent with the baseline.

### Perceived Quality of Life Change

Q: Has your quality of life changed because of Ansal Tomatoes? Has it: (Baseline = 413, Follow-up = 211)



"Ansal Tomatoes has helped me uplift my life! I have now opened a furniture shop which is giving me additional income." - Male

"I bought 3 acres of land for farming as well as plenty of livestock for rearing and sustaining my family: 5 cows, 30 goats and over 100 chickens. I sell these livestock when there is excess and earn extra income. I now have a consistent income that takes care of my family."

- Female

The top quality of life outcomes are shown on the right. Others include:

- Ability to afford a house / property (31%)
- Improvements in income (25%)

Among the farmers reporting 'no change' in their quality of life, the majority talk about poor harvests due to issues faced with Ansal seeds.

The 2 farmers who report that their quality of life got worse cite increased farming costs due to expensive seeds.

Farmers talk about better farming outcomes and the ability to afford education as the top drivers of improved quality of life.

### Top Outcomes for 94% of Farmers Who Say their Quality of Life Improved

Q: Please explain how your quality of life has improved. (n = 198). Open-ended, coded by 60 Decibels.

43%	talk about improved farming
	outcomes or higher yield
	(41% of all respondents)

"The more I harvest, the more income I make. I was able to buy a generator and lease extra land for farming because of income from Ansal." - Male

mention their ability to better 40% afford education

(37% of all respondents)

"I can comfortably pay school fees for my children. One has even cleared university with the school fees raised from the sale of Ansal tomatoes. I am truly grateful for the great production levels." - Male

can afford household bills 35% and other basic needs (33% of all respondents)

"I live a more comfortable life since I can buy most things I need. For instance, I can easily buy furniture when it is needed in my house." - Male

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"I would recommend the Ansal Tomato seeds because the plants do not wilt and they are resistant to a lot of tomato diseases." -Female

### Farmer Experience

- > Training Experience
- > Farmer Satisfaction
- > Challenges
- > Value Perception

30% of farmers at the follow-up say that they were trained on Ansal Tomatoes in the last 12 months. The majority of them are being trained through Amiran and Seminis.

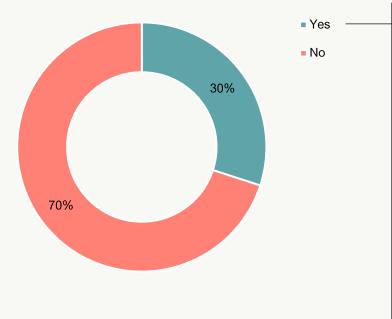
Compared to the baseline, fewer farmers at the follow-up report receiving trainings on Ansal in the last 12 months (30% vs. 49%).

To understand training sources, we asked farmers an open-ended question about how they received their training. Their responses were then categorized into distinct themes, as shown to the far right.

The majority of farmers at the follow-up receive training through farm visits, field days, and demonstrations. This is in contrast with the baseline, where a majority of farmers were trained through word of mouth from other farmers.



Q: Have you received a training on Ansal Tomatoes in the last 12 months? (n = 211)



### **Sources of Training**

Q: How did you receive training/information on Ansal Tomatoes? (n = 63)



# Training Experience: Application

At the follow-up, 59% of farmers who received trainings were unable to apply all of it, primarily due to lack of funds.

To better understand the applicability and relevance of Ansal's training, we asked farmers about the extent to which they applied the training information to their farming practices.

While 41% of farmers say that they could apply all of the information, 62% of those who could not apply all of it identify lack of funds or relevant material and equipment as a barrier to training application. Supporting farmers in procuring the recommended equipment can enhance training application.

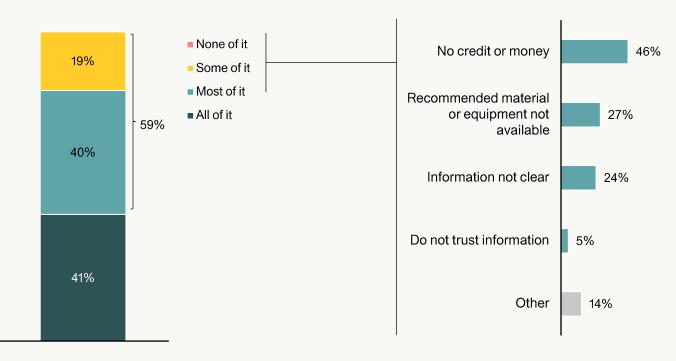
We find that there are no meaningful differences in training application by the source of training, or farmer demographics.



Q: How much of this training information did you apply to your farming practices? (n = 63)

### **Barriers to Application**

Q: Would you mind sharing with me what prevented you from applying all of the training information? Select all that apply. (n = 37)



# Farmer Satisfaction: Overview

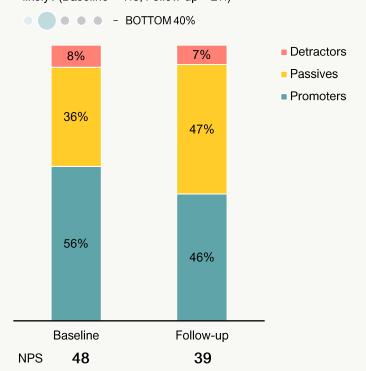
Ansal Tomatoes has a Net Promoter Score® of 39, which is good, but lower than the baseline.

It is worth noting that the lower NPS at the follow-up is driven by a greater proportion of Passives\* (47%).

Farmers who receive trainings from Ansal Tomatoes report higher satisfaction compared to farmers who did not receive training (NPS of 52 vs. 35). This underscores the importance of supplementary services such as trainings in sustaining satisfaction levels.

### Net Promoter Score® (NPS)

Q: On a scale of 0-10, how likely are you to recommend Ansal Tomatoes to a friend, where 0 is not at all likely and 10 is extremely likely? (Baseline = 418, Follow-up = 211)



### **Promoters**

"It has been three years since I started planting Ansal seeds and I can attest to their quality. They can grow anywhere; the sizes of the fruits are big, and they have hard skin. I also like Ansal because it always has a ready market." - Male

### **Passives**

"The seeds used to produce big tomatoes but nowadays, they produce smaller tomatoes. However, the production is still high. As for pests and diseases, Tuta absoluta has been a big problem. Even the crop inputs we were told to use have not helped." - Female

### **Dectractors**

"Ansal should ensure that its plants stop turning yellow. At first it was very good, but now it seems like they have lowered the quality of seeds." - Male

<sup>\*</sup>Farmers providing a rating of 7 or 8 out of 10 when asked about their likelihood of recommending Ansal to others. Find out more about how NPS is calculated in the Appendix.

# Farmers Satisfaction: **NPS Drivers**

Promoters and Passives value the higher tomato yields because of Ansal. Detractors complain about the inconsistent quality of seeds.

### 46% are Promoters : )

### They love:

- 1. Higher tomato yields (48% of Promoters / 22% of all farmers)
- 2. Resistance to pest & diseases (40% of Promoters / 19% of all farmers)
- 3. Long shelf life without spoilage (39% of Promoters / 18% of all farmers)

"Ansal produces a larger quantity of fruits compared to other local seeds. The fruits stay fresh for more than six weeks after harvesting without getting spoilt. The seeds also produce very big fruits." - Female

### 47% are Passives : \

### They like:

- 1. Higher tomato yields (61% of Passives / 28% of all farmers)
- 2. Long shelf life without spoilage (34% of Passives / 16% of all farmers)
- 3. Thick-skinned, durable fruits (29% of Passives / 14% of all farmers)

"It is durable and has a very long shelf life without interference from birds or pests. It has a good dark red shade that does well in the market and attracts buyers. It ripens evenly and has no patches." - Male

### 7% are Detractors

### They want to see:

- 1. More consistent yields (71% of Detractors / 5% of all farmers)
- 2. Longer harvesting spans (36% of Detractors / 5 farmers)
- 3. Larger tomato fruits (36% of Detractors / 5 farmers)

"I used to like Ansal's seeds because their plants hardly get sick. However, the recent batch of seeds did not grow well. Less than 100 seedlings germinated. On top of this the prices for Ansal seeds have also gone up." - Male

# Challenges: Overview

Despite a drop in NPS, a much lower proportion of farmers at the follow-up report challenges with Ansal Tomatoes

compared to the baseline (35% vs. 51%). It is possible that farmer satisfaction is less likely to be impacted by challenge

rates and driven by other factors instead (such as sustained production).

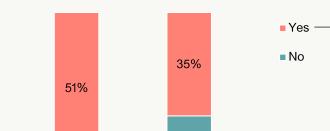
At the follow-up, the proportion of farmers experiencing challenges with Ansal does not significantly vary by region.

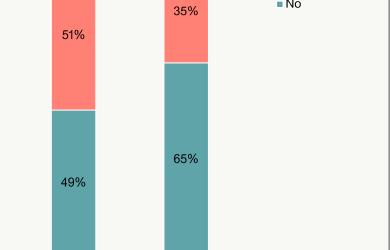
35% of farmers at the follow-up report experiencing a challenge with Ansal Tomatoes. Of this group, only 14% have had their challenges resolved.

### **Farmers Reporting Challenges**

BOTTOM 20%

Q: Have you experienced any challenges with Ansal Tomatoes? (Baseline = 418, Follow-up = 211)



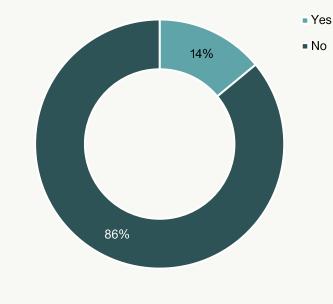


Follow-up

Baseline

### **Challenge Resolution**

Q: Has your challenge with Ansal Tomatoes been resolved? (n = 73)



# Challenges: Top Issues

We asked farmers to describe – in their own words - the challenges they have experienced with Ansal Tomatoes.

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

- Counterfeit seeds (12%)
- General vulnerability to pests (12%)
- Susceptibility to Tuta Absoluta (10%)

Compared to the baseline, fewer farmers at the follow-up report the infestation by pests as a key challenge.

More than half of all farmers reporting challenges from the Central region complain about blight, which is higher than other regions.

Of those who experienced a challenge with Ansal Tomatoes, the most common issues mentioned are yellowing of tomato plants and inconsistent yield.

### Most Common Issues for 35% of Farmers Who Experienced a Challenge

Q: Please briefly explain the challenge you have faced. (n = 73). Open-ended, coded by 60 Decibels.

43%	report yellowing of plant or	"Yellow leaves have been too much. Once it
4370	blight	attacks the plant, it either bears small
	(15% of all respondents)	tomatoes or stops bearing any and dries up.
		- Female

26%	mention inconsistent yield	"After the harvest, the plants deteriorate very
	(9% of all respondents)	quickly instead of yielding again." – Male

	(9% of all respondents)	quickly instead of yielding again." - Male
15%	talk about high prices of Ansal seeds (5% of all respondents)	"The price we pay for Ansal seeds is very high. At first, we used to get the five-gram sachets at KES 3000. Now, we only find the ten grams sachets at KES 7000." - Male

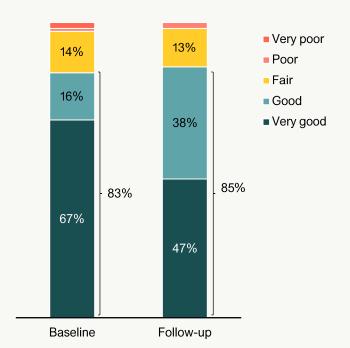
Improvements in way of farming are positively linked to value perception. Farmers who say that their way of farming has 'very much improved' are more likely to find the value offered by Ansal to be 'very good' as compared to others (73% vs 37%).

Similarly, farmers who recognize Ansal Tomatoes' environmental benefits are more likely to perceive the value offered as 'very good', compared to those who don't recognize these benefits (56% vs. 27%). Find out more about farmers' perception of environmental benefits on page 30.

Similar to the baseline, 85% of farmers at the follow-up find the value offered by Ansal Tomatoes to be 'very good' or 'good'.

### **Value Perception**

Q: Do you think the value offered by Ansal Tomatoes is...? (Baseline = 418, Follow-up = 211)



"Since Ansal is resistant to some diseases, I do not have to spray pesticides which have a negative effect on the soil. During crop rotation, other crops will do well where Ansal was because the soil is not contaminated." - Male

"When I rotate crops on my piece of land where I had planted Ansal Tomatoes, I have noticed both maize and beans grow better, it's like the soil becomes more richer after planting Ansal Tomatoes." - Female

### **Table of Contents**

"Ansal seeds have high resistance to pests and this really assists in reducing the damage from a pest infestation." - Male

### Climate Resilience

- > Environment Benefits
- > Climate Shocks and Recovery
- > Preparedness for Shocks

# Environmental Benefits: Overview

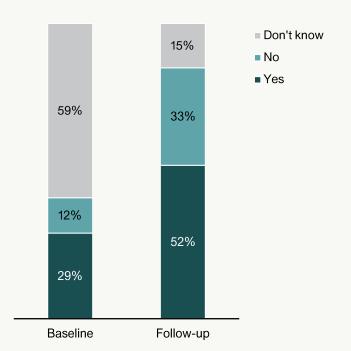
At the follow-up, 52% of farmers say that working with Ansal has environmental benefits, which is significantly higher than at the baseline.

Farmers who report 'very much improved' way of farming are more likely to recognize Ansal's environmental benefits compared to others (63% vs. 47%).

Only 28% of farmers who recognize Ansal's environmental benefits report being trained in the last 12 months. While Ansal's campaigns have potentially strengthened farmers' awareness of benefits, there is room to disseminate climate information more formally via specialized trainings, considering the majority of farmer households were affected by at least one climate shock in the last 2 years. Find out more on page 32.

### Perceptions on Environmental Benefits

Q: Does working with Ansal Tomatoes have any environmental benefits? (Baseline = 418, Follow-up = 211)



"I don't water my tomatoes as much which allows me to conserve it for more dire days. Due to the flowers, my plants attract bees and helps with cross pollination which benefit many other crops on farms around me." - Male

"There is nothing much in my environment that has changed because of farming Ansal tomatoes. We are still using inorganic fertilizers which are considered bad for the soil if we use it for a long period of time."

- Male

# Environmental Benefits: Deep-Dive

Farmers who report positive environmental benefits often talk about these in the context of improved farming practices, such as reduced usage of fertilizers or water conservation, rather that expected outcomes such as drought-resistant tomato plants or minimal post-harvest spoilage. Perhaps farmers view environmental benefits as a positive

Farmers who report no environmental benefits lack tangible evidence of improvements in their farm despite using Ansal.

externality resulting from the improved

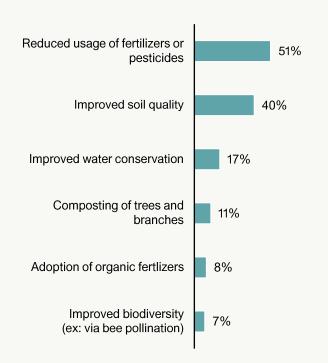
farming practices that Ansal has

encouraged.

51% of farmers who recognize Ansal's environmental benefits talk about reduced usage of fertilizers and pesticides. Those who do not perceive benefits say there is no tangible change in their farm outcomes.

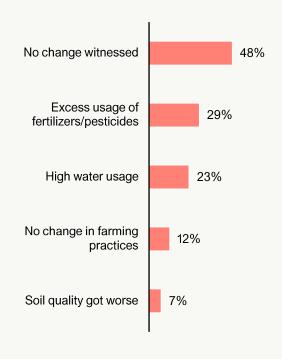
### **Perceived Environmental Benefits**

Q: Could you please describe these benefits? Open-ended, coded by 60 Decibels. (n = 109)



### Reasons for No Benefits

Q: Could you please describe why not? Open-ended, coded by 60 Decibels (n = 69)



# Climate Shocks: Overview

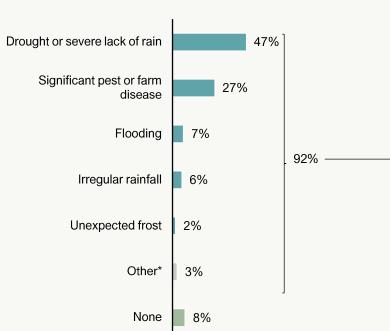
We asked farmers a series of questions to understand their resilience to climate shocks and whether their involvement with Ansal Tomatoes has had any impact in their ability to prepare for, adapt to, and recover from these shocks.

The most significant shocks experienced by farmer households in the last 24 months include drought, farm disease, and flooding. 56% of farmers are either still recovering or are no longer recovering from the shock.

92% of farmers say that their household was affected by climate shocks in the past 2 years, most commonly by a drought. Of those affected, more than half are still recovering.

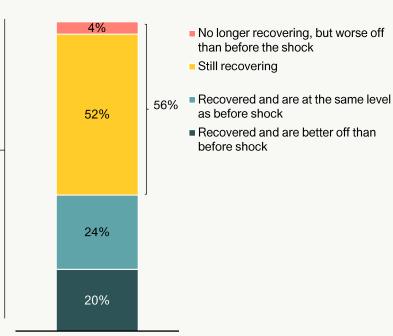
### Shocks Experienced By Households

Q: Which of these events affected your household the most in the last 24 months, if any? Select all that apply. (n = 211)



### **Extent of Recovery from Shocks**

Q: To what extent was your household able to recover from this event? (n = 193)



# Climate Shocks: Realized Resilience

41% of farmers say that Ansal had a positive effect on their recovery from climate shocks. 32% of this group attributes this to higher yields enabled by Ansal despite the shock.

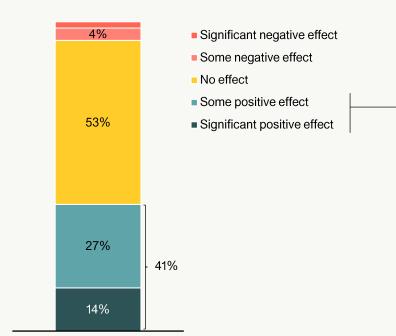
More than half of all farmers who faced a climate shock say that Ansal had 'no effect' on their recovery.

Farmers who said that Ansal played a positive role in their recovery were asked a follow-up question requesting them to explain their answer.

We find that consistent harvests of Ansal Tomatoes despite a climate shock plays a key role in farmers' recovery. Farmers who report that their production has 'very much increased' are significantly more likely to report that Ansal had a positive effect on their recovery compared to others (52% vs. 26%).

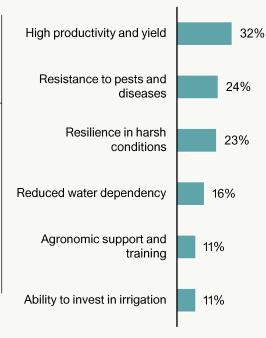
### Impact of Ansal Tomatoes on Recovery

Q: Did your involvement with Ansal Tomatoes have a positive, negative, or no effect on your recovery? (n = 193)



### Reasons for Positive Impact on Recovery

Q: In what ways did Ansal Tomatoes have a positive effect on your recovery? Open-ended, coded by 60 Decibels. (n = 79)



# Climate Shocks: Perceived Resilience

62% of farmers say that Ansal Tomatoes has not changed their level of preparedness to deal with future shocks while 32% say that they feel more prepared.

We asked all farmers whether their preparedness for a future shock has changed because of Ansal Tomatoes.

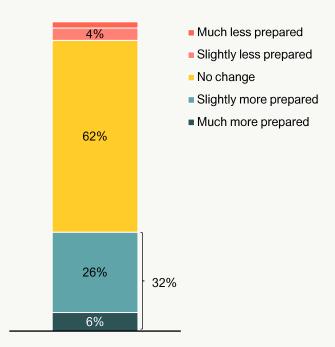
Farmers who received trainings on Ansal are significantly more likely to feel more prepared to deal with future shocks compared to those who did not receive any training (50% vs. 23%).

Reaching farmers via targeted climatefocused trainings is a potent way of improving farmers' preparedness to cope with shocks in the future.

Find out more about what farmers had to say on the next page!

### **Preparedness for Future Shocks**

Q: Has Ansal Tomatoes affected how prepared you feel for such a shock? (n = 208)



"Ansal seeds are resistant to diseases and pests. I spray my crops once every 3 weeks and that aids recovery and helps the crop bounce back faster." - Male

"Ansal doesn't require too much water to produce fruits. This is favorable during a drought, and it will help me recover faster." - Male

"It would be nice if Ansal visited us once in a while and we knew where their offices are so that we could go to them when we face weather-related challenges." - Male

# Climate Shocks: Resilience Changes

Farmers reporting increased preparedness for future shocks attribute it to the usage of improved seeds, while those reporting no change cite a greater need for training on climate-smart practices.

### Reasons for Change in Preparedness

Q: Can you please explain your answer? Open-ended, coded by 60 Decibels. (n = 208)

32% Re	port	Increased	Preparedness	
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mention good quality seeds (13% of all respondents)

talk about agronomic 23% support and training (7% of all respondents)

report improved water 20% management (6% of all respondents)

"Ansal Tomatoes will improve my chances of getting through pest attacks because the seed can defend itself." -Male

### 62% Report No Change in Preparedness

mention need for trainings 41% (25% of all respondents)

talk about reliance on past 12% experience (8% of all respondents)

report limited engagement with 11% **Ansal** beyond seed provision (7% of all respondents)

"Ansal hasn't offered me any trainings on how to navigate weather changes. I rely on what I already know." - Male

### **6% Report Lesser Preparedness**

mention heavy reliance on water 69% (9 farmers)

talk about lack of support in 23% pest management (3 farmers)

report lack of financial 15% support

(2 farmers)

"The crop requires lots of water which is scarce when there's a drought. Without water, it burns at the bottom." - Male

# Climate Shocks: **Recovery Duration**

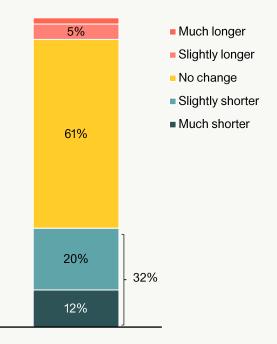
Similar to preparedness for future shocks, farmers who receive trainings from Ansal are significantly more likely to say that their recovery duration would be shorter in case of a future shock, compared to farmers who do not receive any trainings (48% vs. 25%).

In addition to trainings on climatesmart practices, consider disseminating allied strategies that enable quicker recovery, such as savings, crop insurance, and maintaining a resilient livelihood mix, to name a few.

61% of farmers say that Ansal Tomatoes has not changed the duration it would take for their household to recover from a climate shock. 32% say they would recover faster.

### **Expected Duration of Recovery from Future Shocks**

Q: Has Ansal Tomatoes changed the amount of time you would expect your household would need to recover from such a shock? (n = 207)



"Through the recommendations I got from the Amiran agronomist, I am able to prepare well by setting money aside for the right crop inputs. Preparing for a shock becomes easier because I know which pesticides I am going to buy." -Male

"Ansal should help prepare for and manage climate shocks. We do not get such teachings from anywhere else, and it would be helpful if they provided us with insights on how to recover fast." - Female

# Appendix

# Benchmarking Summary

Comparison to benchmarks can be useful to identify where you are underor over-performing versus peers, and help you set targets. Information on the benchmarks is found below:

### **Ansal Tomatoes**

# farmers 211

### 60dB Global Agriculture Benchmark:

# companies 85+ # farmers 17,000+

### 60dB Farmer as Customer Benchmark

# companies 33 # farmers 7,700+

### 60dB Eastern Africa Agriculture Benchmark

# companies 52 # farmers 11,000+

		Ansal Tomatoes	60dB Global Agriculture Benchmark	60dB Farmer as Customer Benchmark	60dB East Africa Agriculture Benchmark
Profile					
% female respondents		9	27	25	29
% way of farming 'improved very much'		28	36	46	35
% production 'increased very much'		59	33	38	33
% money earned 'increased very much'		50	27	31	26
% quality of life 'improved very much'		52	32	37	35
Net Promoter Score®		39	40	47	38
% reporting challenges		35	20	20	25

- Above benchmark
- 0-10% under benchmark
- >10% under benchmark

<sup>\*</sup> With respect to the 60dB Farmer as Customer Benchmark

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

All 418 farmers from the baseline were contacted. We were unable to reach 34% of these farmers either because the respondent was unavailable, the number was unreachable or they refused to be interviewed. Our enumerators made a minimum of 5 call attempts per respondent.

Additionally, 16% of our sample frame was ineligible for the follow-up. The majority of these farmers had stopped planting Ansal in the past 12 months.

211 phone interviews completed in October 2023.

Methodology

Survey mode Phone

Country Kenya

English, Swahili Language

Dates October 2023

All 418 farmers from the baseline Sampling

17 mins

were contacted.

Response rate 62%

Average time per

interview

**Accuracy** 

Confidence Level ~90%

Margin of error ~4%

Research Assistant Gender

Female 3

Male

**Responses Collected** 

211 Farmers

With Us!

Thank You For Working

Lean Data Insights For Bayer Crop Science

Let's do it again sometime.

# 41

### **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, brings farmercentricity, speed and responsiveness to impact measurement.

60 Decibels has a network of 830+ trained Lean Data researchers in 70+ 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.

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 Spitzer and Elizabeth Mranda for their support throughout the project.

This work was generously sponsored by Bayer Crop Science.

I	can	now	easily	take	care	of	my	family.
The	demand	for	Ansal	tomatoes	is	always	high.	
I	harvest	a	lot	of	tomatoes	now.		

There are more cases of:

- > better yields
- > increased income
- > more produce

after interacting with Ansal Tomatoes.

Ramiro Rejas

Malavika Rangarajan

Jacob Thamarappally

Charles Kibigo

Brenda Wafula

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