Bayer Crop Science: Better Life Farming

India

September 2025

Credit: Bayer

Welcome To Your 60dB Results

We enjoyed hearing from 285 Better Life Farming (BLF) farmers in India, of whom, 124 grow direct seeded rice (DSR).

01

Headlines

About the Study

This study seeks to understand the impact of Better Life Farming (BLF) on rice farmers in Jharkhand and Uttar Pradesh. It also explores farming practices – particularly around soil health and water management.

Our sample consists of rice farmers growing both direct seeded rice (DSR*) and transplanted rice. An additional aim of this study is to assess the impact of DSR on labor and resource efficiency on the farm.

*Learn more about DSR here.

Between May and June 2025, 60 Decibels spoke to 285 BLF rice farmers in Jharkhand and Uttar Pradesh. Of these, 124 farmers grow direct seeded rice (DSR).

Lean Data Study	DSR	Non-DSR
Sample Size	124 farmers	161 farmers
Farmer Profile Demographics	✓	✓
Farmer Acquisition First Access + Alternatives	✓	✓
Impact Performance Quality of Life + Outcomes	✓	✓
Farmer Satisfaction Net Promoter Score + Challenges	✓	✓
DSR Impact Resource Efficiency + Labor	✓	
Water Management Sources + Conservation	✓	✓
Soil Management Testing + Chemical Use	✓	✓

Performance Snapshot

Satisfaction with BLF's offerings is high among farmers. There is scope to deepen impact over time.

Profile

2%

female farmers

Impact

30%

quality of life 'very much improved'

What Impact

46% report increased financial stability

24% talk about affording better food

24% say they can afford better education for their children

Way of Farming

41%

way of farming 'very much improved'

Net Promoter Score®

61

on a -100 to 100 scale

Challenges

22%

report challenges

Crop Production

30%

crop production 'very much increased'

Crop Income

19%

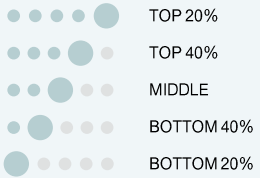
crop income 'very much increased'

Data Summary

BLF India Performance: 285 farmer phone interviews between May - June, 2025, in India.

Quintile Assessment compares Company Performance with 60dB's Agriculture, Information and Advisory Benchmark comprised of 87 companies, 20 countries, and 31,000+ farmers. Full details can be found in Appendix.

Performance vs. 60dB Benchmark



Top Actionable Insights (1/2)

1 BLF has a positive impact on rice farming practices, although the reasons vary between DSR and non-DSR farmers.

91% of all farmers report improvements in their way of farming because of BLF and this does not significantly vary between DSR and non-DSR farmers. DSR farmers – who typically grow on larger plots (median of 4 acres*) – attribute a majority of their farming improvements to the shift to direct seeded rice cultivation. A significant proportion (30%) of DSR farmers also cite reduced labor as a reason improved farming.

Non-DSR farmers (who grow on a median plot of 2 acres) are more likely to talk about inputs they receive from Bayer in the form of better-quality pesticides, fertilizers, and seeds.

See pages 14 - 15.

*Includes both DSR and non-DSR crop.

2 Non-DSR farmers report deeper increases in their rice production, income and quality of life, compared to DSR farmers.

38% of non-DSR farmers say that their rice production has 'very much increased' compared to 19% of DSR farmers. Nearly all farmers from both groups report that they increased production on the same farmland, indicating increased productivity of rice.

Non-DSR farmers are also more likely to report significant increases to their rice income compared to DSR farmers (24% vs. 13%). However, the reasons for this increase differ between the two groups: non-DSR farmers are also more likely to attribute increased income to receiving higher prices (49% vs 29%), while DSR farmers, attribute this to a reduction in costs (55% vs. 20%).

Similar to production and income, non-DSR farmers are more likely to say their quality of life has improved because of BLF compared to DSR farmers (91% vs. 74%). Both groups report increased financial stability and food security as their top self-reported drivers of quality of life.

See pages 16 - 20.

3 Farmer satisfaction with BLF is high. This can be further enhanced by addressing challenges.

BLF has an NPS of 61 which is excellent. Non-DSR farmers report higher satisfaction levels with BLF compared to their DSR counterparts (68 vs. 50). The top self-reported drivers of satisfaction include high-quality seeds or pesticides and increased farm production.

Lower NPS among DSR farmers may be explained by a higher challenge rate compared to non-DSR farmers (31% vs. 14%). DSR farmers are more likely to face challenges due to a lack of farm inputs and poor guidance from BLF, whereas non-DSR farmers are more likely to mention ineffective pesticides. Challenges around the quality and availability of inputs, along with the lack of training are also concerns voiced by Passives and Detractors. Addressing these can significantly increase overall satisfaction with BLF.

See pages 22 - 25.

Top Actionable Insights (2/2)

4 Farmers growing DSR report enhanced resource efficiency and are largely satisfied with the practice.

81% of DSR farmers report reduced water usage, and 91% say that the number of paid labourers hired has decreased as a result of adopting DSR. Despite direct seeded rice being more vulnerable to weeds, 71% say weed management has become easier because of DSR, however, for 19% this became more difficult. In total, 73% of farmers say their confidence to invest in their farms have increased because of DSR.

Most farmers are also likely to recommend DSR to others, resulting in it having an NPS of 58. Reduced labor, good yields and lower water usage compared to traditional methods are the top reasons cited by Promoters of DSR. On the other hand, Passives and Detractors want to see better weed management. Smaller scale DSR farmers (< 2 acres), report higher satisfaction levels with DSR and easier weed management compared to larger scale farmers (≥ 2 acres).

See pages 27 - 30.

5 Two-thirds of farmers do not receive formal training on soil, water, and pest management.

DSR farmers are more likely to receive training on pest and disease management, soil health and water management compared to non-DSR farmers. Among those who receive training, DSR farmers are also more likely to report they were able to apply 'all' of their learnings to their farm compared to their non-DSR peers (42% vs. 19%).

Requests for more training and guidance is a suggestion among 17% of all farmers. Since the majority of farmers already cite BLF agents as their primary source of formal training, leverage this reach to expand both the frequency of trainings and the variety of topics covered during trainings.

See pages 32 – 33 and 38.

6 4 in 10 farmers rely on rainfall for irrigation and the majority do not test their soil.

Besides rainfall, other sources of water on the farm include wells, and open-sources like rivers and canals. Farmers who rely on rainfall as their main water source are less likely to find this reliable compared to those rely on other sources (56% vs. 68%). Farmers manage water on their land through rainwater harvesting and pre-sowing irrigation, with these practices being more prevalent among farmers receiving formal trainings. 37% of all farmers also request for irrigation access from BLF, underscoring the dearth of good existing sources.

85% of farmers do not test their soil. DSR farmers are more likely to get their soil tested compared to non-DSR farmers (19% vs. 11%). However, there is strong appetite for soil testing among all farmers, with 41% requesting support from BLF around this practice.

See pages 34 - 38.

Farmer Voices

We love hearing farmers voices.

Here are some that stood out.

Impact Stories

84% shared how BLF services had improved their quality of life

“The paddy yield was very good, and with the earnings, I built my own house. Now, my children are studying in good schools, and I have also spent money on weddings.”

- Male, 32, DSR

“Bayer’s pesticide improved the yield and reduced the overall cost, resulting in savings. The stress related to farming has also decreased. Earlier, there were concerns about labor and water, but with DSR, those issues no longer arise.”

- Male, 50, DSR

“Earlier, we didn't do much farming, but now we are managing it well. Our food and nutrition have improved. Previously, we didn’t have enough to eat, but now we are able to take proper care of the child.”

- Female, 35, Non-DSR

“There has been a significant improvement in my life. Earlier, the yield was low, but now it has doubled. My daily routine is going well, and I am able to invest in my children's education.”

- Male, 30, Non-DSR

Opinions On BLF Value Proposition

64% were Promoters and were highly likely to recommend

“Using Bayer seeds results in a good yield. Bayer is a very good company. Farming using Bayer's methods require less expenses, while farming through other methods cost more.”

- Male, 51, DSR

Opportunities For Improvement

82% had a specific suggestion for improvement

“The agent from the company suggested that I use DSR with a machine, so I followed their advice. However, they failed to provide the appropriate seed on time, which resulted in a low yield.”

- Male, 40, DSR

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Detailed Results

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Demographics

The typical BLF rice farmer we spoke to is a 40-year-old male. 44% grow Direct Seeded Rice (DSR) on a portion of their land.

DSR farmers typically cultivate rice on larger plots of land compared to non-DSR farmers. On average, DSR farmers dedicate 65% of their total rice farming land specifically for DSR.

Based on data provided by Bayer, 86% of farmers in our sample are associated with BLF centers in Jharkhand, and 14% are from Uttar Pradesh. 83% of farmers from Uttar Pradesh grow DSR rice, compared to 37% of farmers from Jharkhand*.

Throughout the report, we have segmented the results between farmers growing DSR and farmers growing conventional rice. All statistically significant differences have been reported in the commentary.

About the BLF Rice Farmers We Spoke With

Data relating to farmer characteristics (n = 285; DSR = 124, non-DSR = 161)

	Total	DSR	Non-DSR
Proportion of Sample	-	44%	56%
Female (proportion)	2%	0%	4%
Median Age (in years)	40	42.5	37
Median Land Used for Rice Farming (in acres)	2	4 [includes DSR and conventional rice]	2
Median Land Used for DSR-Rice Farming (in acres)	2	2	-

*This is the result of contacts received from Bayer in each state. The Uttar Pradesh contacts were filtered to focus on DSR farmers, while the Jharkhand farmers include a list of all BLF farmers in the state.

First Access and Alternatives

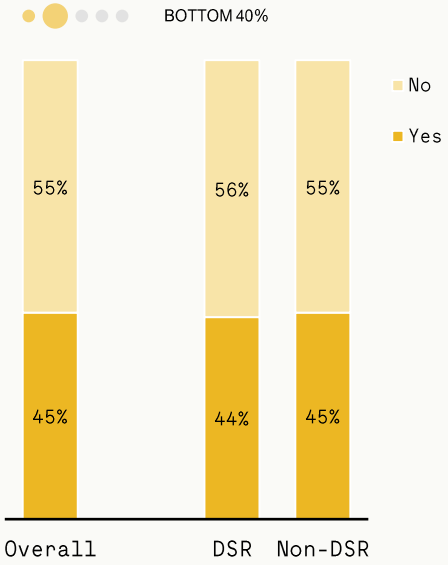
55% of farmers say they did not have prior access to services like the ones provided by BLF. However, 63% can easily find a good alternative to BLF.

While 55% of farmers did not have prior access to a service like the one provided by BLF, 63% can currently find a good alternative to BLF. This implies that over time, more farmers may have access to comparable services similar to BLF.

Farmers from Jharkhand are more likely to report having access to good alternatives to BLF compared to their counterparts in Uttar Pradesh (65% vs. 48%). These state-wise differences may explain why non-DSR farmers are slightly more likely to find good BLF alternatives (since a greater proportion of non-DSR farmers in our sample are from Jharkhand).

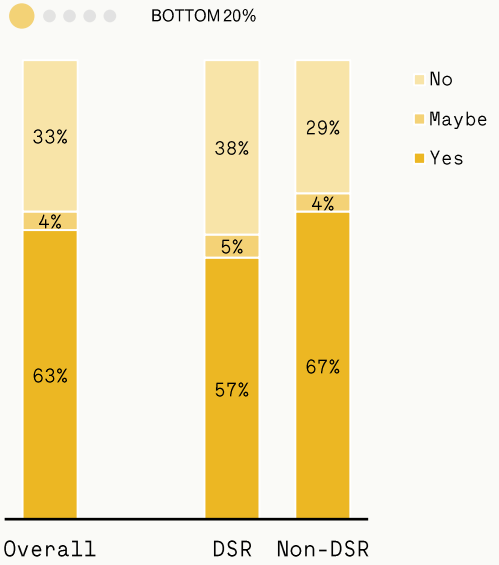
First Access

Q: Before BLF, did you have access to a product / service like BLF provides? (n = 285; DSR = 124, non-DSR = 161)



Access to Alternatives

Q: Could you easily find a good alternative to BLF? (n = 285; DSR = 124, non-DSR = 161)



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Way of Farming

2 in 5 farmers report their way of farming to have ‘very much improved’ because of BLF.

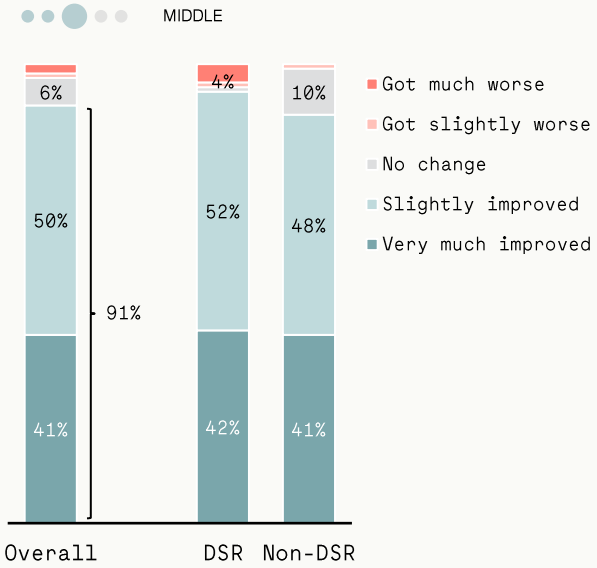
Both DSR and non-DSR farmers are equally likely to say that their farming practices have improved, and they report similar levels of depth in this improvement.

Among those who do not report improvements in their farming practices, non-DSR farmers are more likely to report ‘no change’ compared to DSR farmers (10% vs. 1%), whereas a greater proportion of DSR farmers report that their practices have gotten worse than non-DSR farmers (5% vs. 1%).

Improved farming practices are driven by different factors for DSR and non-DSR farmers. Learn more about the top drivers for each group on the next page.

Perceived Way of Farming Change

Q: Has your way of farming changed because of Better Life Farming?
(n = 285; DSR = 124, non-DSR = 161)



“Earlier, we used to farm by transplanting, but now we use the DSR method. We no longer employ laborers for weeding, as we use pesticides to control weeds. Previously, weeds had to be removed manually by laborers.”
- Male, 55, DSR

“I now use drip irrigation. Earlier, I was transplanting, but now I use a machine to plant seeds directly. I also use fertilizers and improved seeds, and a tractor for planting.”
- Male, 45, DSR

Way of Farming: Top Outcomes

DSR farmers report shifting to direct seeded rice cultivation as their top practice improvement, while non-DSR farmers primarily talk about using better fertilizers and pesticides.

Farmers were asked to describe how their way of farming had changed because of BLF. The top positive outcomes are shown on the right, split by the type of rice cultivated.

Unsurprisingly, DSR farmers are more likely to mention the switch to DSR and the accompanying changes it has brought to their farming as their top improvements.

Among the 6% of farmers who reported 'no change' in their way of farming, most talk about their preferences for traditional practices (13 farmers), and only using BLF for input purchase (3 farmers). Farmers whose way of farming got worse (3%) primarily cite poor yields with DSR (4 respondents).

Top Outcomes for 91% of Farmers Who Say Way of Farming Improved

Q: Please explain how your way of farming has improved. (n = 261, DSR = 144, non-DSR = 117). Open-ended, coded by 60 Decibels.

DSR Farmers

67% mention **shifting to direct seeded rice**
(63% of all DSR farmers)

30% talk about **labor reduction***
(28% of all DSR farmers)

24% report **use of better-quality fertilizers and pesticides**
(23% of all DSR farmers)

Non-DSR Farmers

65% mention **use of better-quality fertilizers and pesticides**
(58% of all non-DSR farmers)

38% talk about the **use of hybrid seeds**
(34% of all non-DSR farmers)

11% talk about **labor reduction due to mechanization**
(9% of all non-DSR farmers)

*Refers to responses talking about labor reduction through mechanization, as well as general reduced labor resulting from the shift to DSR.

Crop Production

85% of farmers report an overall increase in rice production because of BLF. Nearly all of them achieved higher yields from the same land, indicating improved productivity.

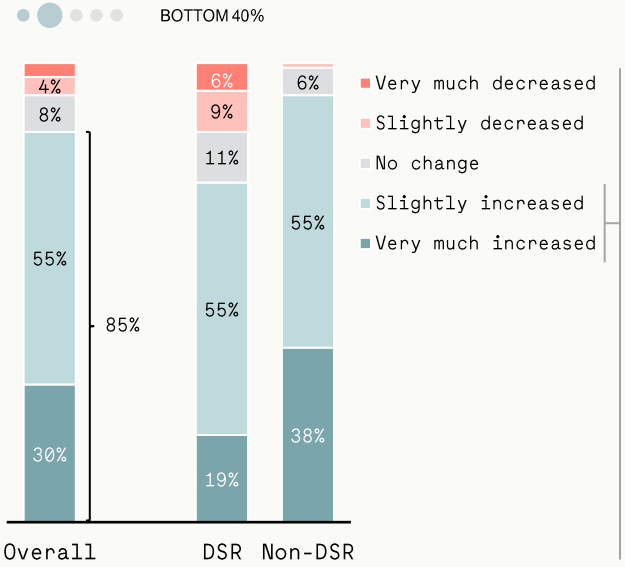
Non-DSR farmers are more likely to report that their rice production has ‘very much increased’ because of BLF compared to DSR farmers.

Larger scale DSR farmers (≥ 2 acres of DSR production) are more likely to report significant increases to their production compared to smaller scale DSR farmers (24% vs. 10%). At the same time, larger scale DSR farmers are like more likely to report decreased production compared to their smaller scale peers (19% vs. 4%). This suggests that while farming more DSR land may be profitable for some, it also carries a greater risk for reduced production.

DSR farmers from Jharkhand are significantly more likely to report very much increased production compared to their counterparts in Uttar Pradesh (24% vs. 3%).

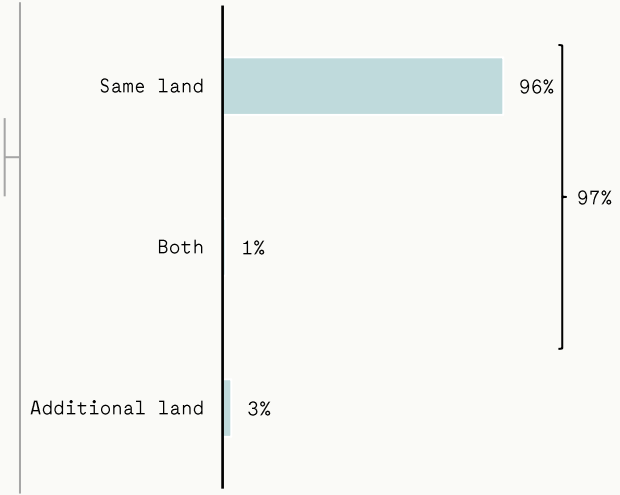
Impact on Production

Q: Has the total production from your rice changed because of Better Life Farming? (n = 285; DSR = 124, non-DSR = 161)



Reasons for Increase in Production

Q: Was this increase because you planted additional land or was it from the same amount of land? (n = 241)



Crop Income

83% of farmers report an increase in their rice earnings because of BLF. This is primarily driven by an increase in the volume of rice sold.

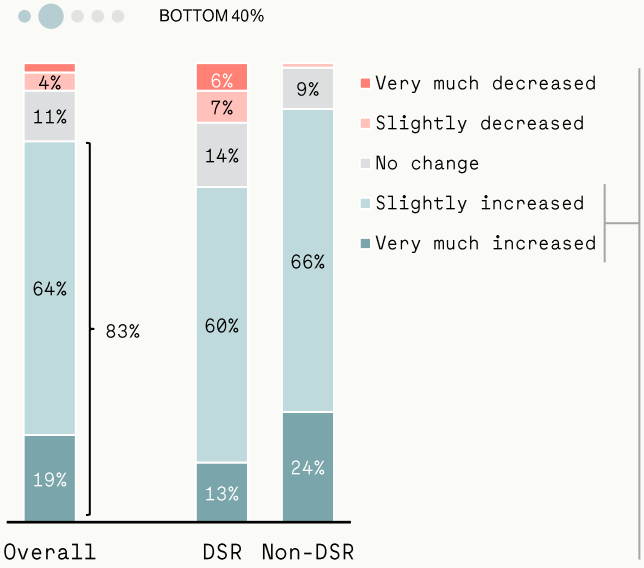
Non-DSR farmers are more likely to report that their income 'very much increased' because of BLF compared to their DSR counterparts (24% vs. 13%). They are also more likely to attribute increased income to receiving higher prices (49% vs 29%), compared to DSR farmers, who are more likely to attribute this increase to a reduction in costs (55% vs. 20%).

DSR farming lowers operational costs, through reduced labor and water requirements (see page 28). However, these cost savings may be counterbalanced by slightly lower productivity and the risk of lower production.

Farmers who report a decrease in money earned (6%) primarily attribute this to a decrease in the volume of rice sold (14 farmers).

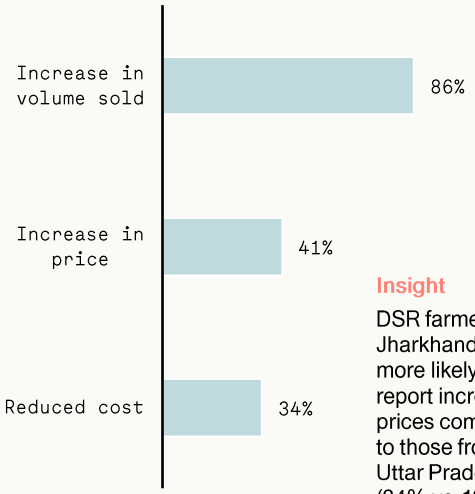
Impact on Income

Q: Has the money you earn from your rice changed because of Better Life Farming? (n = 285; DSR = 124, non-DSR = 161)



Reasons for Increased Income

Q: What were the main reasons for the increase in money earned? Select all that apply. (n = 235)



Insight

DSR farmers from Jharkhand are more likely to report increased prices compared to those from Uttar Pradesh (34% vs. 10%).

Quality of Life

30% of farmers report that their quality of life has ‘very much improved’ because of BLF.

Similar to production and income, non-DSR farmers are more likely to say their quality of life has improved because of BLF compared to DSR farmers (91% vs. 74%).

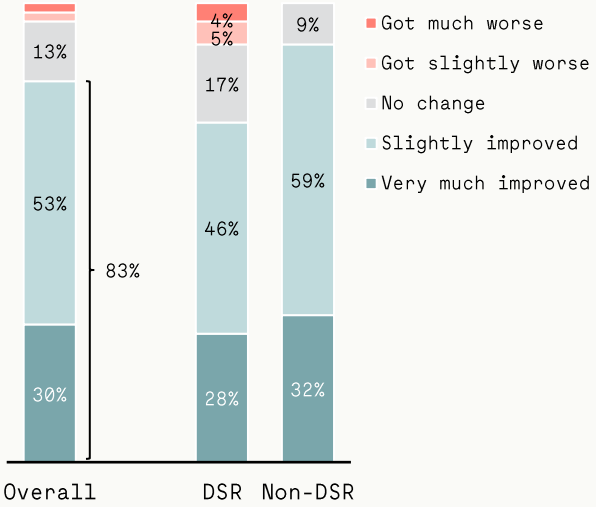
Smaller scale DSR farmers (< 2 acres of DSR production) are more likely to report improvements to their quality of life compared to larger scale DSR farmers growing on 2 acres or more (92% vs. 63%).

While larger scale DSR farmers are more likely to report significant increases in production (see page 16), the higher likelihood of losses faced by these farmers have a greater impact on their overall quality of life.

Perceived Quality of Life Change

Q: Has your quality of life changed because of Better Life Farming’s offering?
(n = 285; DSR = 124, non-DSR = 161)

MIDDLE



“Now I have purchased two tractors and invested some money in them because my income from farming has increased. My lifestyle has improved significantly.”
- Male, 33, DSR

“With direct sowing, the cost has significantly reduced. Now, I’m able to use the saved money for my children’s education and household expenses.”
- Male, 38, DSR

Quality of Life: Top Outcomes

Financial stability because of increased income is the top self-reported outcome among farmers reporting improved quality of life.

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

- Acquiring assets (23%)
- Farming cost reduction (11%)

DSR farmers are more likely to report farming cost reductions, as a driver of improved quality of life compared to non-DSR farmers (20% vs. 5%). This is consistent with findings from page 17, which show DSR farmers being more likely to attribute reduced costs as a driver of increased income compared to their non-DSR counterparts.

Farmers who report no change or worsened quality of life cite lower crop yields as their top reason.

Top Outcomes for 83% of Farmers Who Say Quality of Life Improved

Q: Please explain how your quality of life has improved. (n = 238). Open-ended, coded by 60 Decibels.

55% mention **financial stability due to increased income**
(46% of all respondents)

"With the DSR method, the cost of farming has decreased, which has increased my savings and profits."
- Male, 45, DSR

29% report **better ability to afford food**
(24% of all respondents)

"Now, I don't have to worry about food. Earlier, there were difficulties in managing meals, but now I can even buy clothes on time. This is because of Bayer."
- Male, 60, DSR

29% talk about **better education for their children**
(24% of all respondents)

"Because of the better yield from Bayer's rice, we are able to sell it for a good price. With that income, we are building our house and providing good education to our children."
- Male, 36, Non-DSR

Trends by Type of Rice Grown

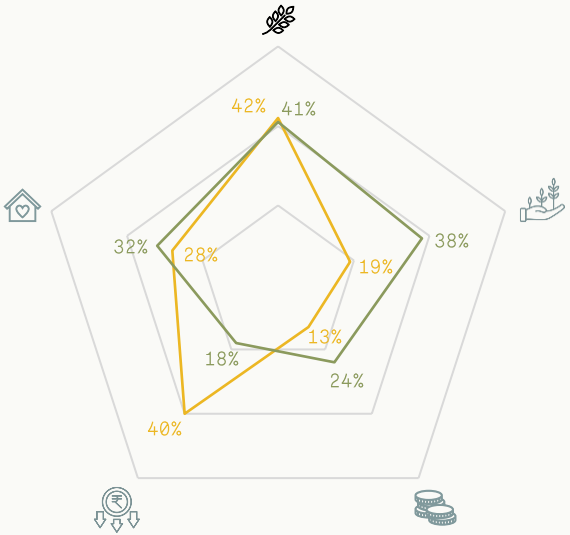
Non-DSR farmers are more likely to report deeper impact in their crop production and income because of BLF, compared to DSR farmers. However, impact among DSR farmers is driven by reduced costs.

All key metrics reported to the right have been segmented to show differences between farmers growing direct seeded rice compared to those growing transplanted rice. Statistically significant differences have been shown as green icons.

Both groups are equally likely to have prior access to services similar to BLF. However non-DSR farmers – particularly from Jharkhand – are more likely to have access to good alternatives to BLF compared to the DSR farmers (67% vs. 57%).

Deeper farming impact reported by non-DSR farmers may be explained by higher satisfaction levels with BLF and lower challenge rate compared to DSR farmers. Find out more about farmer satisfaction in the next section.

Trends by Type of Rice Grown



Key

DSR
n = 124

Non-DSR
n = 161

Way of Farming
% 'very much improved' way of farming

Crop Production
% 'very much increased' crop production

Crop Income
% 'very much increased' money earned

Reduced Costs
% 'reduced cost' as driver of money earned*

Quality of Life
% 'very much improved' quality of life

*reported as a percentage of all farmers.

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Net Promoter Score® (NPS)

BLF in India has a Net Promoter Score® of 61, which is excellent. Non-DSR farmers are more satisfied than their counterparts growing DSR.

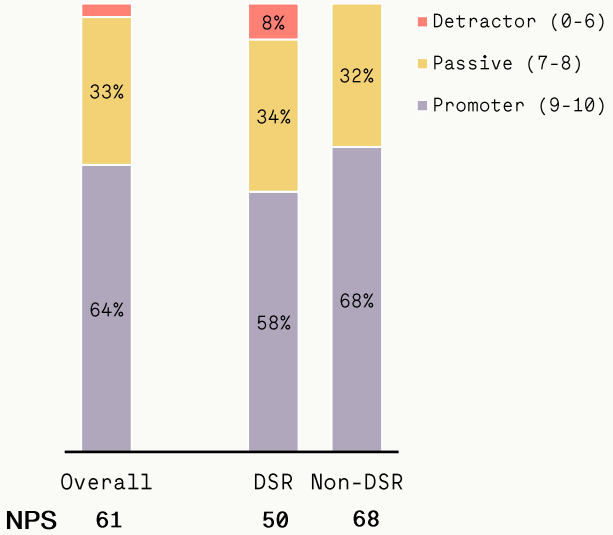
The Net Promoter Score® is a gauge of satisfaction and loyalty. Anything above 50 is considered excellent. A negative score is considered poor.

Non-DSR farmers have a significantly higher NPS compared to their DSR counterparts (NPS of 68 vs. 50). This is partly driven by a higher proportion of Detractors among DSR farmers compared to non-DSR farmers (8% vs. 0%).

Details on satisfaction and dissatisfaction drivers are on the next page.

Net Promoter Score®

Q: On a scale of 0 to 10, how likely are you to recommend the BLF services to a friend or family member, where 0 is least likely and 10 is most likely?
(n = 285; DSR = 124, non-DSR = 161)



Promoters

"The seeds provided by BLF was very good. The crop yield increased with lower input costs. Expenses on transplanting were also saved." - Male, 48, DSR

Passives

"Although the BLF seeds themselves are of good quality, the crop yield suffers because the weeds spoil the quality." - Male, 60, DSR

Detractors

"Bayer's weed-killing products effectively remove weeds, but they do not work against a paddy disease called rice blast." - Male, 35, DSR

NPS Drivers

Promoters and Passives value the access to high-quality seeds or inputs as well as increased farm production since working with BLF.

64% are Promoters

They love:

1. Access to high-quality seeds
   (54% of Promoters / 35% of all respondents)
2. Increased yield because of Bayer products
   (49% of Promoters / 32% of all respondents)
3. Access to effective pesticides
   (41% of Promoters / 26% of all respondents)

"Bayer's seeds give good production, and the paddy ears are of good quality and do not dry out. The taste of the rice is also good, and farming requires very little irrigation." - Male, 41, Non-DSR

Insight:

Among Promoters, non-DSR farmers are more likely to talk about increased yield and improved crop quality. DSR farmers talk about other drivers like lowered costs and access to trainings.

33% are Passives

They like:

1. Access to high-quality seeds
   (45% of Passives / 15% of all respondents)
2. Access to effective pesticides
   (34% of Passives / 11% of all respondents)

They want to see:

1. More support from agents
   (25% of Passives / 8% of all respondents)

"Bayer is a good company, and the paddy seeds do germinate well. However, the panicles tend to dry up and turn white. Still, due to Bayer's seeds, there is good crop growth." - Male, 45, DSR

Insight:

Among Passives, non-DSR farmers are more likely to appreciate the access to high quality seeds while DSR farmers are more likely to request for cheaper inputs.

3% are Detractors

They want to see:

1. Better quality inputs
   (6 respondents)
2. Better communication from BLF agents*
   (5 respondents)
3. Timely availability of inputs
   (3 respondents)

"Bayer's pesticide, Adora, which was supposed to control weeds in the field, had no effect at all. It was a very poor-quality pesticide." - Male, 40, DSR

Insight:

Detractors entirely comprise of DSR farmers (8% of all DSR farmers).

*around provision of inputs, loans and machinery.

Challenges

22% of farmers report facing a challenge with BLF. DSR farmers are significantly more likely to face challenges compared to non-DSR farmers.

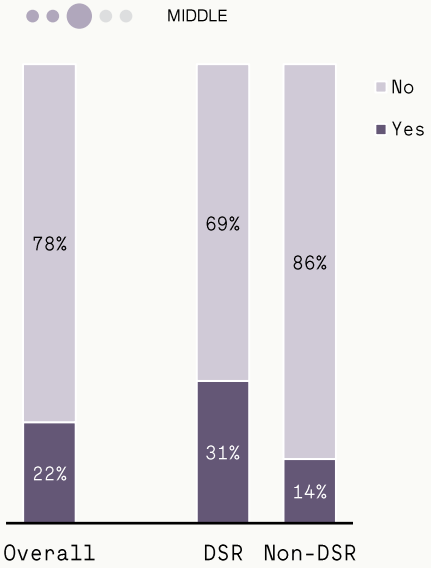
Farmers who report facing challenges have a significantly lower NPS compared to those who do not face any challenges (NPS of 78 vs. -2).

Greater challenge rate among DSR farmers may explain the lower NPS among this group compared to non-DSR farmers.

Farmers facing challenges are more likely report decreased rice production because of BLF compared to those who do not face a challenge (23% vs. 3%). These farmers - primarily growing direct seeded rice - are also more likely to report decreased income from rice (19% vs. 3%).

Farmers Reporting Challenges

Q: Have you experienced any challenges with BLF? (n = 285; DSR = 124, non-DSR = 161)



"After using Bayer inputs, the crop got ruined, there was a heavy pest infestation, and there was no yield at all." - Male, 70, DSR

"Despite using Bayer's seeds and following their guidance, the yield of my crop decreased." - Male, 32, DSR

"The agents are very rude and do not provide proper guidance."
- Male, 46, DSR

Challenges: Top Issues

DSR farmers are more likely to face challenges due to a lack of farm inputs and poor guidance from BLF agents, whereas non-DSR farmers are more likely to mention ineffective pesticides.

The top challenges are shown on the right, split by the type of rice cultivated. Others include:

- High cost of inputs
- Mismatched expectations around yield

Many of the challenges reported by DSR farmers are discussed in the context of harvest losses they have faced. Such farmers talk about having been promised higher yields by switching to DSR, but actual yields not meeting these expectations.

Farmers also reported not receiving adequate guidance from BLF agents, which may have contributed to lower yields. In other cases, agents were unavailable when farmers sought advice.

Top Issues for 22% of Farmers Who Say They've Experienced a Challenge

Q: Please briefly explain the challenge you have faced. (n = 62, DSR = 39, non-DSR =23) Open-ended, coded by 60 Decibels.

DSR Farmers

26% talk about **unavailability of inputs** (10 DSR farmers)

26% report **poor guidance from BLF agents** (10 DSR farmers)

21% mention **ineffective pesticides** (8 DSR farmers)

Non-DSR Farmers

43% mention **ineffective pesticides** (10 non-DSR farmers)

26% talk about **poor seed quality** (6 non-DSR farmers)

22% report **poor guidance from BLF agents** (5 non-DSR farmers)

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Weed Management and Water Use

46% of farmers say weed management has become ‘much easier’ because of DSR, and 31% report ‘very much decreased’ water usage since growing DSR.

To better understand satisfaction with DSR and its impact on resource efficiency, we asked farmers how DSR has affected their farm management.

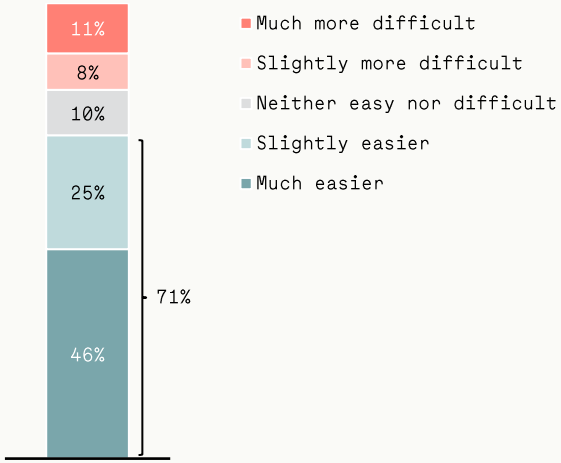
Farmers who say their way of farming has ‘very much improved’ are more likely to find weed management on their farms to be ‘much easier’ compared to others (58% vs. 38%).

We also see that smaller scale DSR farmers are more likely to say their weed management has become ‘much easier’ compared to larger farmers (56% vs. 39%). This may influence their overall satisfaction levels with DSR. Find out more on page 29.

While DSR may be more vulnerable to weeds – especially on larger farms – farmers are likely able to mitigate this challenge through proper training and sufficient access to herbicides.

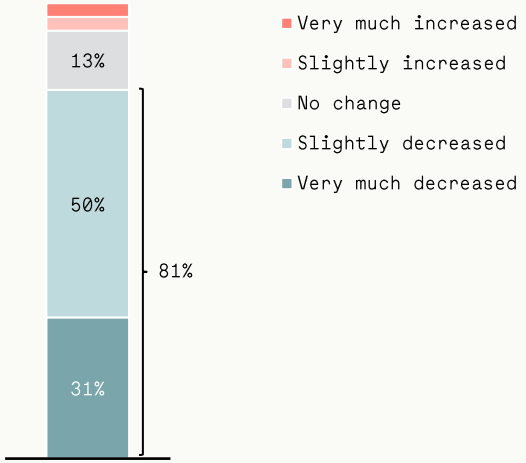
Weed Management

Q: How has weed management on your farm changed because of direct seeded rice? (n = 124*)



Water Use

Q: Has the amount of water required for your farm changed since growing direct seeded rice? (n = 124*)



*Asked only to DSR farmers.

Farm Labor and Investment in Agriculture

65% of farmers report a significant decrease in the number of paid laborers hired and 36% say their confidence to invest on their farm has ‘very much increased’ because of DSR.

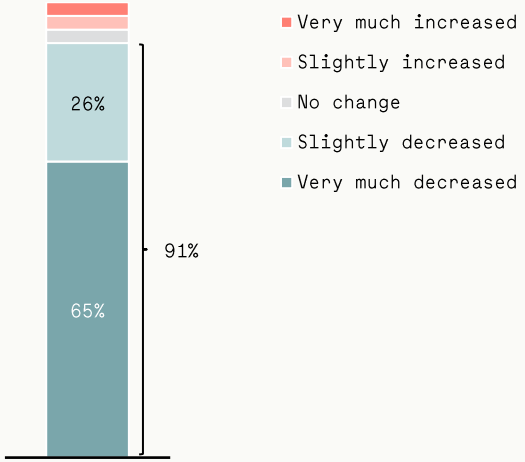
Farmers who say that the number of paid laborers has ‘very much decreased’ are more likely to report significant improvements in their way of farming, rice production, and income.

This suggests that growing DSR enables farmers to sustain increased production and income, while reducing labor dependency.

Farmers who report decreased confidence to invest are significantly more likely to also report decreased rice production (33% vs. 13%) and income (33% vs. 10%) compared to others.

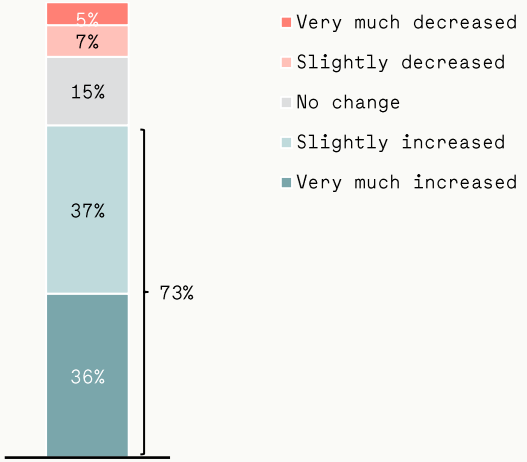
Change in Paid Labor

Q: Has the number of paid laborers you hire for your farm changed because of direct seeded rice? (n = 120*)



Change in Confidence in Farm Investment

Q: Has your level of confidence in investing in your farm changed because of DSR? (n = 124*)



*Asked only to DSR farmers.

Net Promoter Score® For DSR

Most farmers recommend growing DSR. The practice has a Net Promoter Score® of 58, which is excellent.

Of the 12% of DSR farmers who are Detractors (i.e. would not recommend DSR), 47% also said they would not recommend BLF. This highlights the strong link between dissatisfaction with DSR and perceptions of BLF as a whole.

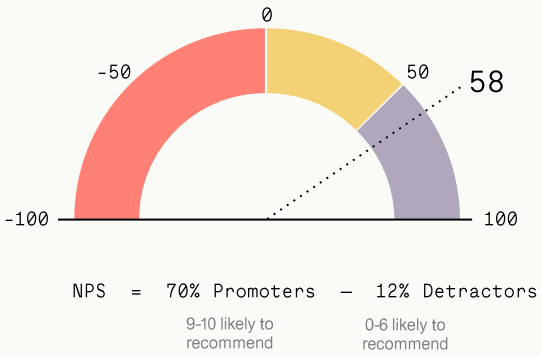
Smaller scale DSR farmers report higher satisfaction levels with the practice compared to larger scale DSR farmers (NPS of 71 vs. 50).

We also see that farmers who find weed management to be 'much easier' are more likely to be satisfied with DSR compared to others (NPS of 82 vs. 37).

Easier weed management is one of the top areas for improvement voiced by Passives and Detractors. Find out more on the next page.

Net Promoter Score® for DSR

Q: On a scale of 0-10, how likely are you to recommend growing direct seeded rice to a friend or family member, where 0 is not at all likely and 10 is extremely likely? (n = 124*)



*Asked only to DSR farmers.

Promoter

"With direct sowing, less labor is needed. Transplanting took more time, but now my time is saved." - Male, 32, DSR

Passive

"This method of farming requires minimal labor. However, weeds tend to increase in this method, and if the correct pesticide isn't applied, the crop can be ruined." - Male, 45, DSR

Detractor

"This method is not successful, as it may work for small farms, but it is not suitable for large fields due to excessive weed growth." - Male, 75, DSR

NPS Drivers for DSR

Reduced labor, good yields and lower water usage compared to traditional methods are the top reasons cited by Promoters of DSR. Passives and Detractors want to see easier weed management.

70% are Promoters

They love:

1. Reduced use of labor
   (66% of Promoters / 46% of all DSR farmers)
2. Improved farm production
   (52% of Promoters / 36% of all DSR farmers)
3. Reduced water usage
   (24% of Promoters / 16% of all DSR farmers)

"With DSR, costs are lower, earnings are higher, and production has improved. Previously, labor was needed for plowing, transplanting, and sowing, but now labor is only required for direct sowing."

- Male, 42, DSR

18% are Passives

They like:

1. Reduced use of labor
   (50% of Passives / 9% of all DSR farmers)
2. Improved farm production
   (36% of Passives / 6% of all DSR farmers)

They want to see:

1. Easier weed management
   (50% of Passives / 9% of all DSR farmers)

"The cost is low, it requires less money, and the yield is good. There is no trouble once the crop is sown; you just need to do weeding. Labor costs are low."

- Male, 52, DSR

12% are Detractors

They want to see:

1. Easier weed management
   (5 DSR farmers)
2. Higher yields
   (4 DSR farmers)
3. Greater resilience to climate / soil conditions
   (4 DSR farmers)

"Due to excessive weeds, farming gets badly affected and the paddy quantity has reduced significantly. The crop matures very quickly, and if water is not available, it spoils very fast."

- Male, 58, DSR

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Training: Access and Sources

A third of farmers receive formal training on topics around soil, water and pest management. Nearly 8 in 10 received this training from BLF agents.

We asked farmers whether they receive formal training around topics related to their soil, water, and pest management.

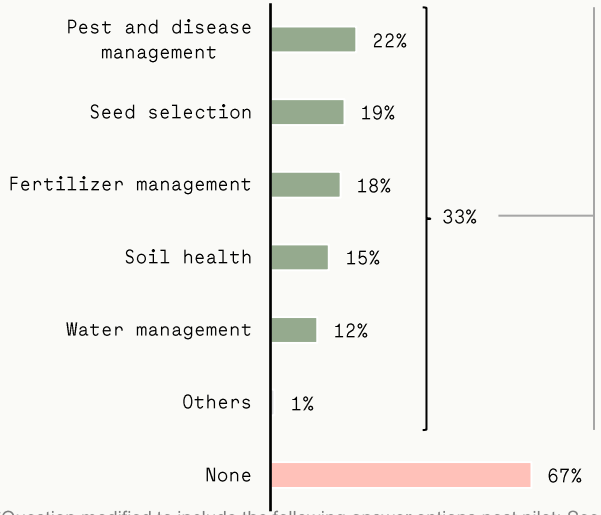
DSR farmers are more likely to receive training on the following topics compared to non-DSR farmers:

- Pest and disease management (28% vs. 18%)
- Soil health (23% vs. 9%)
- Water management (19% vs. 7%)

Farmers who receive any kind of training are more likely to report increased rice production (94% vs. 82%) and income (92% vs. 80%) compared to those who receive no training.

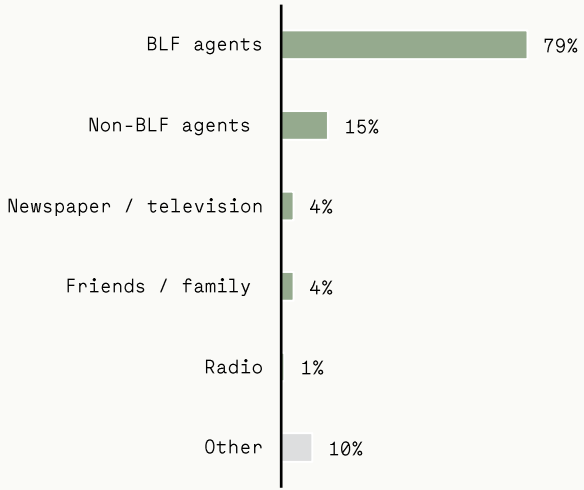
Access to Training

Q: Have you received any education or training on any of the following topics? Select all that apply. (n = 255*)



Source of Training

Q: Where did you receive this education or training from? Select all that apply. (n = 84, DSR = 36, non-DSR = 48)



*Question modified to include the following answer options post pilot: Seed selection, fertilizer management, pest and disease management.

Application of Training

62% of farmers report being able apply ‘all’ or ‘most’ of the training received to their farming practices.

We find that the extent of training application does not vary by the type of training received by a farmer.

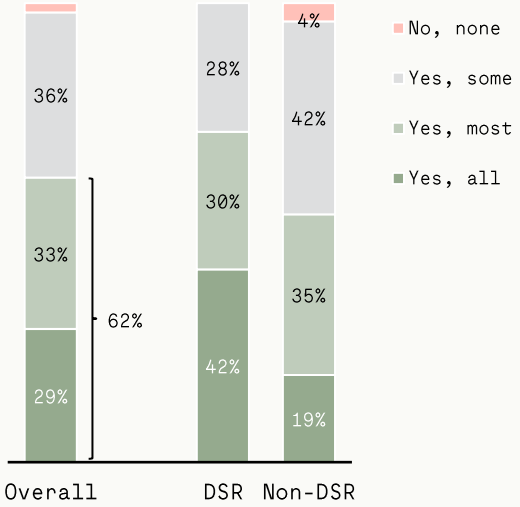
DSR farmers are more likely to report they were able to apply ‘all’ of their learnings to their farm compared to non-DSR farmers (42% vs. 19%).

Farmers who applied ‘all’ or ‘most’ of their training are significantly more likely to say that their way of farming has ‘very much improved’ compared to those who applied ‘some’ or ‘none’ of their training (52% vs. 25%).

Similarly, DSR farmers who applied ‘all’ of the training are more likely to say that the number of paid laborers they hire has ‘very much decreased’ compared to others (73% vs. 38%), suggesting a link between training application and resource efficiency.

Training Application

Q: How much of this training did you apply to your farming practices?
(n = 84; DSR = 36, non-DSR = 48)



“I received training from the company, and they visit occasionally to conduct inspections and ensure the timely spraying of pesticides.”
- Male, 48, DSR

“I have taken training and liked it. Earlier, I didn't know about the DSR system of farming, so production was lower. Now, I follow Bayer's farming techniques, like doing transplanting and require less labor.”
- Male, 30, DSR

Main Source of Water and Reliability

41% of all farmers report rainfall as their main source of water for farming. 93% of them find their main source of water to be reliable.

To better understand how farmers manage water, we asked a series of questions about their water sources, irrigation methods, and management practices.

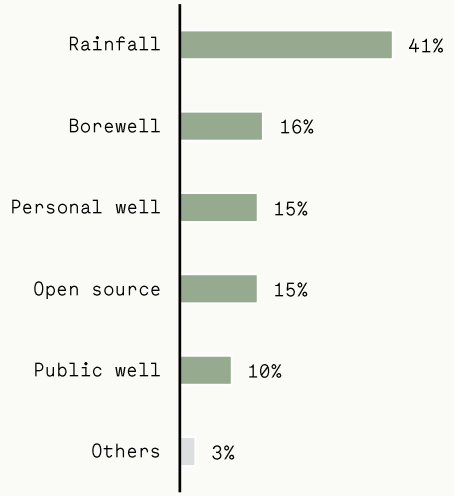
Farmers who rely on rainfall as their main water source are less likely to find this 'very reliable' compared to those depend on other sources (56% vs. 68%).

However, irrespective of their main water source, DSR farmers are significantly more likely to find this to be 'very reliable' compared to non-DSR farmers (72% vs. 57%).

Find out about more about how farmers irrigate their land on the next page.

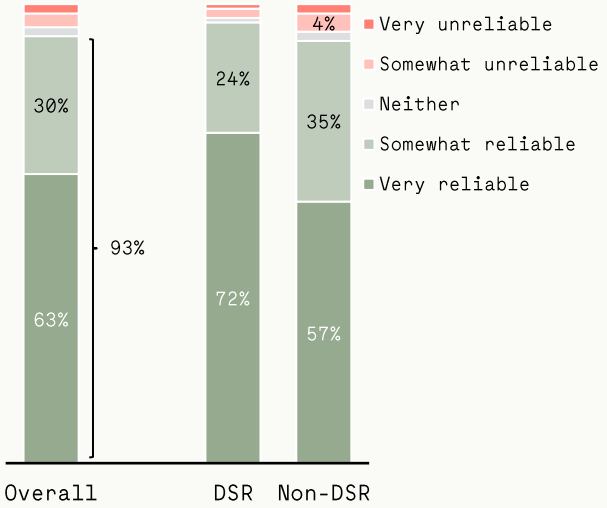
Main Source of Water

Q: What is your main source of water for your farming? (n = 285)



Reliability of Main Water Source

Q: In the last 12 months, how reliable was your main source of water for your farming? (n = 285; DSR = 124, non-DSR = 161)

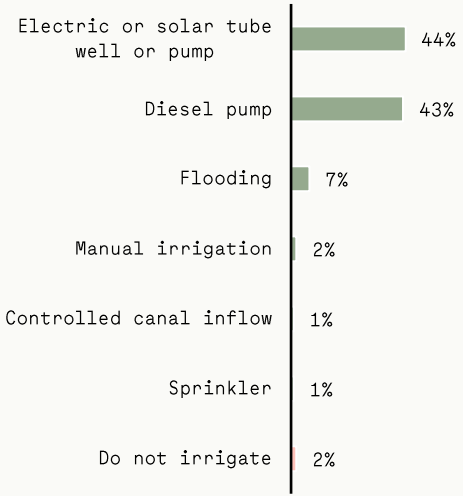


Irrigation and Water Management

The majority of farmers irrigate their land using a water pump and decide when to irrigate based on the appearance of the crop or the moisture of the soil. Two-thirds practice rainwater harvesting.

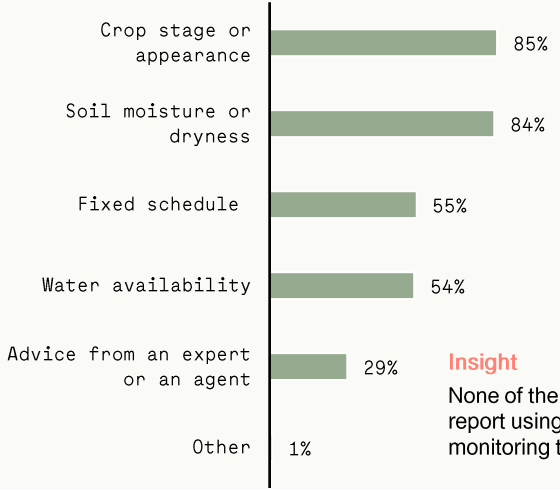
Method of Irrigation

Q: How do you irrigate your farming land? Only main method to be selected. (n = 285)



Irrigation Frequency Determinants

Q: Which of the following factors do you use to decide when to irrigate your crops? Select all that apply. (n = 285)

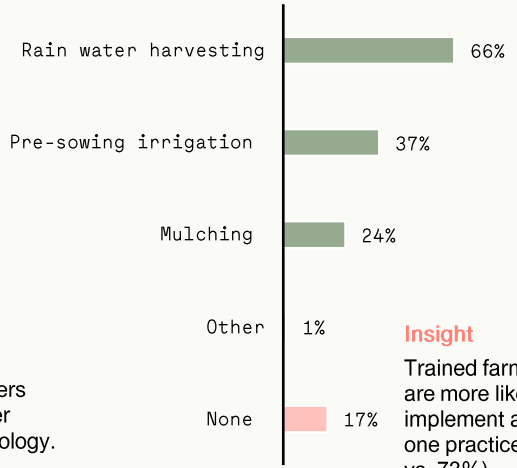


Insight

None of the farmers report using water monitoring technology.

Water Management Practices

Q: Which of these do you use to manage water on your farm? Select all that apply. (n = 285)



Insight

Trained farmers are more likely to implement at least one practice (94% vs. 73%).

Soil Health and Testing

89% of farmers recycle organic matter and 86% practice dry tilling. 15% of all farmers conducted soil testing on their farms.

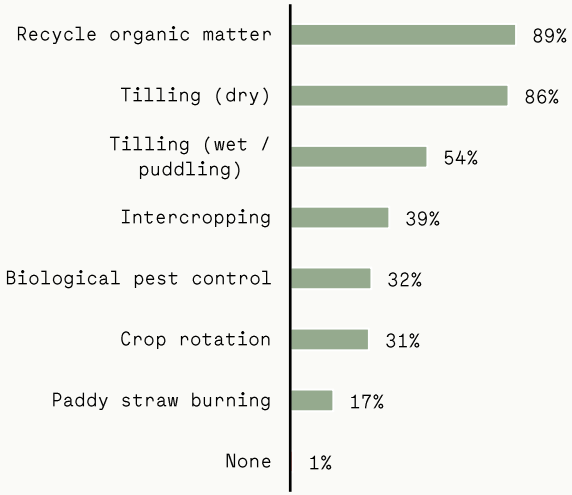
To better understand soil health, we asked farmers about the practices they use, their access to testing, and the types of fertilizers and pesticides they apply.

Unsurprisingly, DSR farmers are less likely to report wet tilling or puddling their soil compared to non-DSR farmers (44% vs. 63%) since this practice is more applicable to transplanted rice.

DSR farmers are more likely to get their soil tested compared to non-DSR farmers (19% vs. 11%). Farmers who tested their soil are more likely to report significant improvements in their way of farming as compared to farmers who have not tested their soil (56% vs. 39%).

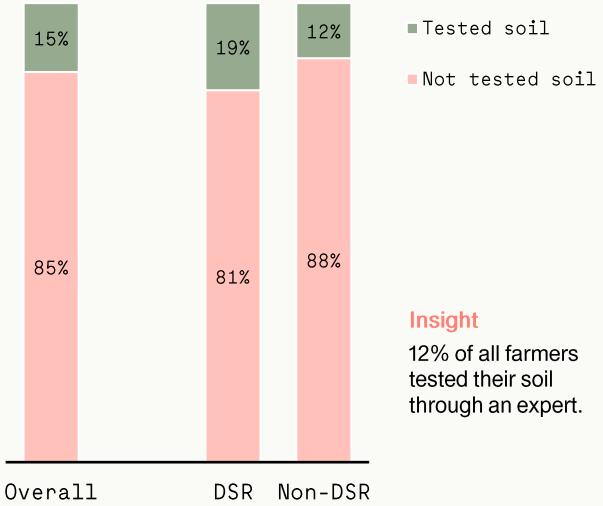
Soil Health Practices

Q: Which of the following did your household do in the past 12 months? Select all that apply. (n = 285)



Soil Testing

Q: Did you test your soil in the last 12 months? (n = 285; DSR = 124, non-DSR = 161)



Insight

12% of all farmers tested their soil through an expert.

Fertilizer and Pesticide Use

Nearly all farmers use urea and diammonium phosphate on their farms.

DSR farmers are more likely to use post-emergence herbicides, whereas non-DSR famers report greater use of pre-emergency herbicides.

Larger-scale farmers (≥ 4 acres of total rice grown) are more likely to use NPK (nitrogen, phosphorus, and potassium) blends compared to those farming on less than 4 acres (56% vs. 39%).

Farmers from Uttar Pradesh are also significantly more likely to apply micronutrients compared to those from Jharkhand (90% vs. 42%).

Fertilizer and Pesticide Use

Q: Do you use any of the following on your rice farm? Select all that apply.
(n = 285; DSR = 124, non-DSR = 161)

	Overall	DSR	Non-DSR
Urea	**98%**	98%	98%
Diammonium phosphate	**97%**	96%	98%
Muriate of potash	**62%**	60%	64%
Herbicides (post-emergence)	**53%**	65%	44%
Micronutrients	**49%**	52%	46%
Single super phosphate	**46%**	45%	46%
NPK blends	**45%**	49%	41%
Herbicides (pre-emergence)	**40%**	35%	45%
Other	**2%**	2%	2%

Represents statistically significant differences

Suggestions for Improvement

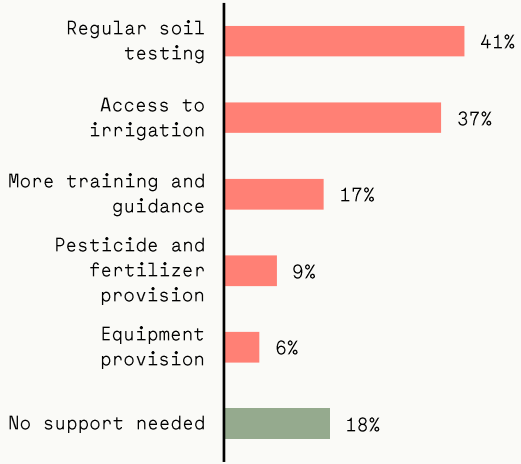
82% of farmers seek additional support from BLF through regular soil testing and greater access to irrigation to improve water management and soil health.

DSR farmer are more likely to ask for more training and guidance from BLF compared to non-DSR farmers (22% vs. 14%). Appetite for training among DSR farmers may be higher, as they may be less familiar with the new planting method. Consider increasing targeted support for such farmers as they scale up uptake of DSR farming.

On the other hand, non-DSR farmers are more likely to request for support with irrigation compared to their DSR peers (43% vs. 30%) since that they are less likely to find their main sources of water to be reliable (see page 34).

Support Required from BLF

Q: What kind of support from BLF would help you improve your water management and soil health practices? (n = 285). Open-ended, coded by 60 Decibels.



"Soil testing should be conducted to identify nutrient deficiencies, and the results should be shared by the BLF team. Additionally, arrangements should be made for a public well."
- Male, 54, DSR

03

Appendix

Detailed Benchmarking Comparison

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.

Information on the benchmarks is found below:

BLF India Data
farmers 285

60dB Global Agriculture Benchmark:
companies 171
farmers 99,884

60dB Agriculture, Agri Information and Advisory Benchmark:
companies 87
farmers 31,711

Comparison of BLF India's Performance to Selected 60dB Benchmarks

Dimension	Indicator	BLF India	60dB Global Agriculture Benchmark	Agriculture Information and Advisory Benchmark
Who	% female	2	28	28
	% first time accessing services	55	74	66
	% saying no access to alternatives	33	75	72
How Much	% reporting 'very much improved' way of farming	41	38	40
	% reporting 'very much increased' crop production	30	38	39
	% reporting 'very much increased' crop income	19	30	31
	% reporting 'very much improved' quality of life	30	34	33
Risk	% experiencing challenges	22	24	22
Experience	Net Promoter Score	61	41	41

Summary Of Data Collected

285 phone interviews completed between May – June 2025.

Initially, we began with a sample frame of 297 contacts of BLF farmers growing direct seeded rice in Jharkhand. However, we faced low response rates due to wrong numbers, lack of recall of BLF, and inconsistent uptake of DSR.

As a result, we pivoted to include BLF farmers who grow either DSR or non-DSR. We received an additional contact base of 95 DSR farmers associated with BLF centers in Uttar Pradesh, along with the full list of 8,958 farmers associated with BLF centers in Jharkhand. The final sample represents farmers associated with centers in both regions, growing either DSR or non-DSR.

Methodology

Survey mode	Phone
Country	India
Language	Hindi
Dates	May – June 2025
Sampling	Random sample of 285 farmers associated with BLF. Sampled from a database of 9255 contacts from Jharkhand and 95 from Uttar Pradesh.
Response rate	24%
Average time p/interview	23 mins

Responses Collected

DSR Farmers	124
Non-DSR Farmers	161

Accuracy

Confidence Level	~90%
Margin of error	~5%

Research Assistant Gender

Female	6
Male	0

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, brings customer-centricity, 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!

Acknowledgements

Thank you to Constance Spitzer and Ravi Kumar for their support throughout the project.

This work was generously sponsored by Bayer Corporation.

When the crop yield is good, there is enough food to eat, the household runs happily.

Because of BLF I get,

>good seeds

>good yield

>few pests

>less expenses

Ramiro Rejas
Jacob Thamarappally
Malavika Rangarajan
Akanksha Singh
Krupakar Reddy
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