

Impact Assessment Report

“Project Shodhan”

Zero crop residue burning

FY- 2023-24

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1. Project Overview.

“**Shodhan- Crop residue management initiative**” is the stellar project of Birlasoft Ltd., initiated to address the critical issue of crop residue burning. Its primary objective is to advocate for sustainable agricultural practices and discourage open burning through initiatives such as behavior change programs, machinery support, training sessions, and awareness campaigns. As per the Impact Assessment report, Project Shodhan has enhanced agricultural productivity, fostered economic empowerment, and contributed to environmental conservation by controlling air pollution.

Project Duration: 1 July 2023 to 31st January 2024

State: Punjab

District: Sangrur

Block: Dhuri

Financial Nature: Fully Funded

Project Budget: 0.58 Cr.

Target Beneficiaries: 1,834 Farmers, 16 Villages.

SDG's Targeted: SDG 3- Good Health and Well Being, SDG 12- Responsible Consumption and Production, SDG 13- Climate Action, SDG 15- Life on Land.



2. Impact

1) 78% area adopted sustainable farming practices. (neither complete burning nor partial burning)

2)

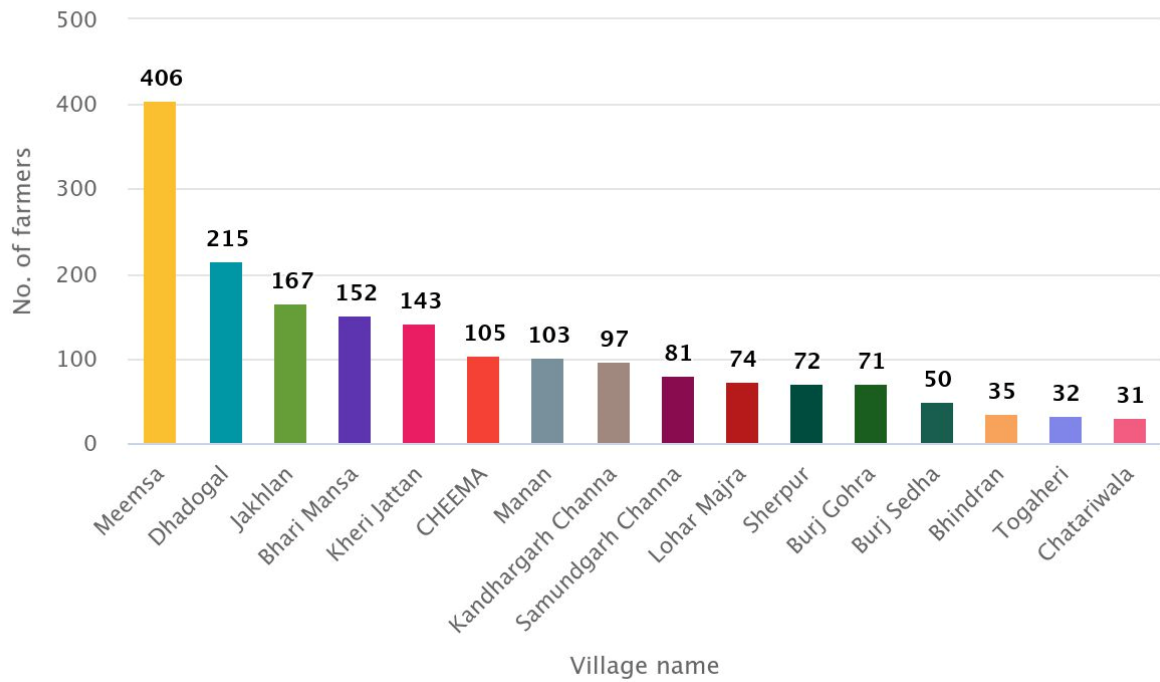
Straw managed from being burnt		89%	%age
Straw managed from being burnt		168614	tonnes
Avoided Air Quality Impacts*	Fine Particulate Matter (PM 2.5)	717.0	tonnes
	Volatile Organic Compunds (VOCs)	872.8	tonnes
	Ammonia (NH3)	511.2	tonnes
	Oxides of Nitrogen (NOx)	243.1	tonnes
	Sulphur Dioxide (SO2)	36.2	tonnes
Avoided Global Warming Impacts*	Carbon Dioxide (CO2)	152161.8	tonnes
	Methane (CH4)	1197.0	tonnes
	Black Carbon (BC)	79.8	tonnes

3) Water Saving= 6.87 billion litres

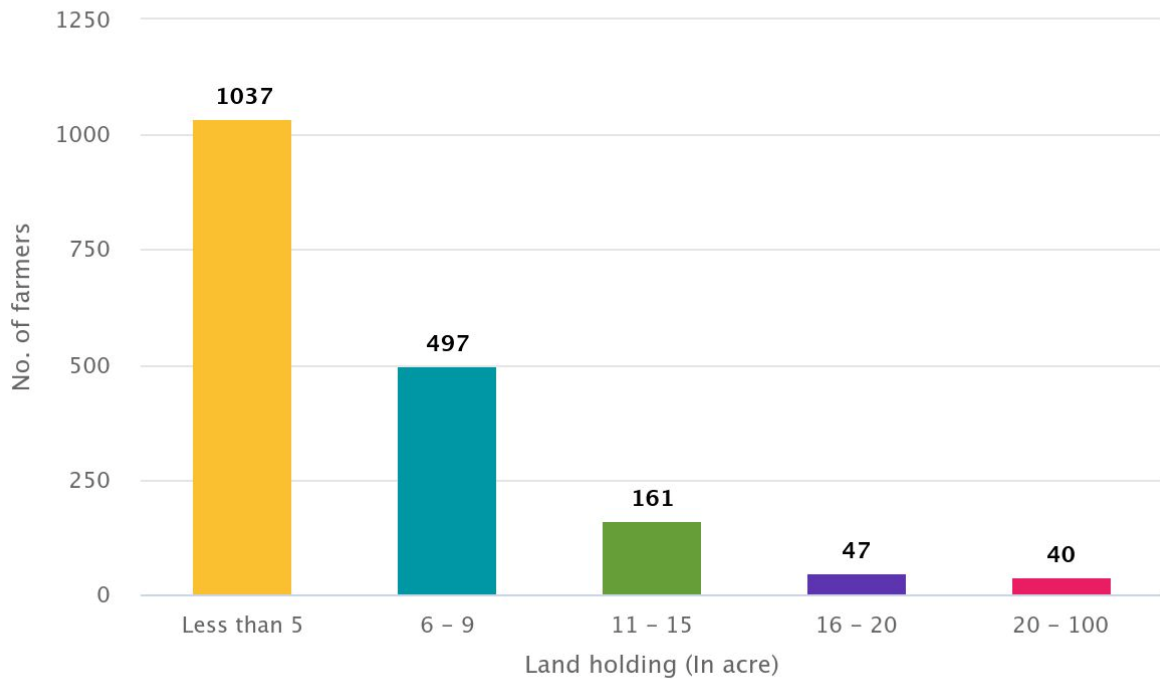
4) Around a 3-5% yield increase in non-burned fields compared to burned fields.

5) Around a 5-8% decrease in fertilizer costs in non-burned fields compared to burned fields.

Number of Farmers Per Village



Land holding



3. Testimonials

3.1:

Name- Manpreet Singh

Age- 27

Gender- Male

Village- Cheema

"My name is Manpreet Singh, and I am a farmer from Cheema village, Block Dhuri, district Sangrur. Firstly, I would like to express my gratitude to Birlasoft and CII Foundation for providing numerous agricultural machines such as super seeders, Rotavators, Smart seeders, etc., to solve the issue of stubble burning in our area. Due to a shortage of these necessary tools or the high rent prices charged by private owners, many farmers, including me, did not have viable solutions to this problem, and unwillingly, we had to burn the crop residue in the past.

But now, with the support of Birlasoft and CII Foundation, our village has easier access to these agricultural equipments at reasonable rent prices, and several farmers are benefiting from using it. This has resulted in significant improvements in soil health and germination due to the retention of organic matter, as well as contributing to the reduction of air pollution.

Due to project Shodhan, we were able to get the necessary tools and training from volunteers and agricultural scientists for which we are incredibly grateful. We learnt about the project and its services through the announcement made by the awareness van and the volunteers in our village. In the end, these kinds of positive steps result in drastic improvements in our area and motivate a lot of farmers, including myself, to not burn the residue of our crops".



3.2:**Name-** Gurwinder Singh**Age-** 34**Gender-** Male**Village-** Cheema

“I have been farming for many years and have used the burning method since I started. I have 5 acres of land and without knowing the negative impacts, I used to burn the stubble every year. But when I saw other big farmers exercising the non-burning method by using advanced machinery, I reviewed and compared my results with these farmers, it intrigued me to switch to non-burning due to yield differences. But when I switched, the primary issue I encountered after transitioning to zero burning was the unavailability of machinery at the required time. I had been thinking of buying CRM machinery for two years but had been unable to do so due to the high cost and maintenance requirements, hence I had no other option than to adopt the burning method. But when the Shodhan project was introduced in my village and Birlasoft provided the required machinery, I was able to obtain the same machinery from them at a far lower cost than private vendors, and it was in good working order.



The project also provided me with knowledge and training which helped me a lot I have been able using the non-burning method to manage my crop residue and it helped me save money and time. In comparison to other service providers, the rent is far less expensive, which benefits small landowners like me who cannot afford expensive machinery. My overall financial investment has been reduced. Earlier, I used to spend around 3300 rupees per acre and now it has been reduced to around 2600 rupees. I am thankful to Birlasoft and CII foundation for providing the machinery and technical training to the farmers like us.”

3.3:**Name-** Manpreet Singh**Age-** 39**Gender-** Male**Contact-** 985550xxxx**Village-** Dhadogal

My name is Manpreet Singh, and I am a resident of Dhadogal village in Dhuri block, Sangrur district. I have 5 acres of agricultural land in my village, which I have been using for farming for many years. As a modest farmer with 5 acres of ancestral land, I initially resorted to stubble burning like my father. This resulted in yield decline and increased costs owing to urea usage, increase in water consumption, etc. We had a lot of trouble sowing the wheat as the Co-operative society lacked the necessary equipment. I had been using the method of stubble burning for many years, which was harmful to both the land and the environment. I continued farming with old sowing methods until some volunteers from the Birlasoft's Shodhan initiative came to our village and introduced us to new sowing methods, such as the Super Seeder. We were unable to afford these types of machines, and therefore continued with stubble burning.



However, with the help of the Birlasoft's Shodhan initiative, these machines are now readily available at our village cooperative society at very affordable prices. These machines have proven to be very beneficial for our land and the environment. The volunteers have consistently provided feedback on the usage of the equipment. I would like to thank and appreciate the work done by Birlasoft and the CII Foundation for the welfare of society and the environment."

4.Gallery



5. Annexures

5.1 Beneficiary List (Description)

Farmer List				
S.no.	Society	Village	Total Acre	Farmers
1	Cheema	Cheema	800	105
2	Cheema	Chatriwala	550	31
3	Cheema	Bhari Mansa	1100	152
4	Cheema	Bhindran	600	35
5	Cheema	Togaheri	400	32
6	Cheema	Burj Seda	400	50
7	Cheema	Burj Gohra	400	71
8	Meemsa	Meemsa	2000	406
9	Meemsa	Sherpur	500	72
10	Meemsa	Jakhlan	750	167
11	Meemsa	Maana	500	103
12	Dhadogal	Dhadogal	1200	215
13	Dhadogal	Kheri Jattan	800	143
14	Dhadogal	Lohar Majra	600	74
15	Kandhargarh Channa	Kandhargarh Channa	500	97
16	Kandhargarh Channa	Samundgarh Channa	500	81
Total			11600	1834

5.2 Project budget

<p><u>Planned Amount</u></p> <p>Rupees</p> <p>58,06,500/-</p>	<p><u>Disbursed Amount</u></p> <p>Rupees</p> <p>58,06,500/-</p>	<p><u>Utilized Amount</u></p> <p>Rupees</p> <p>58,35,813/-</p>	<p><u>Unutilized Amount</u></p> <p>0</p>
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5.3 Project Budget Utilization: List of Supporting documents.

Sr. No.	Invoice/Receipt/Bill Submitted
1	Equipment Procurement Receipt
2	Capacity Building
3	Research, Impact Evaluation and Dissemination
4	Behaviour Change Campaign at village level
5	Travel and Monitoring cost
6	Baseline Research and Impact Evaluation
7	Cost of community mobilisation
8	Research Assistant
9	Project Coordinator
10	Sector Expert
11	Project Admin Cost (CIIF)

5.4 Due Diligence Checklist-

Name of the Document	Status (Yes/No/N.A.)
CSR Form 1	Yes
80 G Certificate	Yes
12 A Certificate	Yes
PAN Card	Yes
FCRA Certificate	Yes
Project MOU	Yes
Audited UC	Yes
80 G Receipts	Yes

6. Summary

The project aims to address the critical issue of crop residue burning. Its primary objective is to advocate for sustainable agricultural practices and discourage open burning through initiatives such as behavior change programs, machinery support, training sessions, and awareness campaigns. According to a third-party impact assessment report, Project Shodhan has enhanced agricultural productivity and fostered economic empowerment. The project has also contributed to environmental conservation by controlling air pollution. The project was implemented in accordance with the existing rules and laws pertaining to the Corporate Social Responsibility Act, and all compliance matters have been met for this project.