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Boosting Sustainability in Indian Agriculture:

A Compendium of Impactful Private Sector led Initiatives













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Message - FICCI



Rising temperatures, erratic weather, and resource degradation threaten food security and ecosystems. Agriculture, the backbone of a nation, must adapt to meet the needs of humanity and the planet. Sustainable agriculture becomes crucial in this background.

In India, agriculture is not just an economic activity but a way of life for millions, employing over 42% of the population and contributing 18.2% to GDP. Despite achieving a 4.18% average annual growth over the past five years, the sector must align growth with environmental sustainability to ensure resilience.

To address challenges like soil degradation, water scarcity, and climate risks, FICCI launched the Sustainable Agriculture Awards in 2021, recognizing transformative initiatives. This Compendium of Best Practices highlights inspiring efforts from awardees over four years, showcasing scalable models that enhance farmer incomes, promote sustainable sourcing, and foster partnerships for resilience.

Sustainable agriculture requires collective action, innovation, and ecological stewardship. These case studies are not just blueprints for success but a call to action for stakeholders to ensure farming thrives in harmony with the environment.

Congratulations to all awardees for their visionary contributions. Let this compendium guide us toward a sustainable and prosperous agricultural future.

Jyoti Vij
Director General
FICCI

Foreword - YES BANK



For a country as diverse and agri-focused as India, agricultural sustainability needs to transition from being an aspiration to an essential objective. With a growing population, and the escalating impact of climate change, the need for robust, sustainable food systems has never been more urgent. Studies project that in the absence of adoption of adaptation measures towards climate change, rainfed rice yields in India will reduce by 20% in 2050 and 47% in 2080 while irrigated rice yields are projected to reduce by 3.5% in 2050 and 5% in 2080 scenarios. Impact of climate change on wheat is projected to reduce its yield by 19.3% in 2050 and 40% in 2080 scenarios with significant spatial and temporal variations. Indian agriculture is therefore tasked with the challenge of ensuring food security, safegaurding natural resources, supporting rural economies, and building resilience against climate change.

The Government of India has launched several groundbreaking programmes including the National Mission for Sustainable Agriculture (NMSA), Pradhan Mantri Krishi Sinchai Yojana (PMKSY), Paramparagat Krishi Vikas Yojana (PKVY), Soil Health Card Scheme to encourage more resilient, eco-friendly, and economically viable farming practices. Complementing these efforts are a range of initiatives and investments by India's private sector, which has emerged as a strong partner in advancing agricultural sustainability. Private companies are actively investing in innovations in plant nutrition, pest management, precision agriculture, digital farming platforms, agri marketing and promoting sustainable consumption. These companies are also spearheading sustainable supply chains, integrating fair and ethical sourcing and trade practices, so as to ensure that farmers benefit directly from their efforts.

Moreover, collaborations between the government and private sector are fostering a more integrated approach to sustainable agriculture development in India. Government policies provide the foundational support needed to reach smallholder farmers, while private sector innovations bring in technological expertise and market access that enhance the sustainability and profitability of farming practices.

This compendium of select farm level initiatives focused on boosting sustainability in Indian agriculture, developed by FICCI and YES BANK, showcases a diverse range of case studies highlighting sustainability efforts by private sector corporations and non-government organisations. It documents the convergence of government and private sector actions in driving a meaningful and impactful change. The initiatives featured in this compendium have been recognised by FICCI for their innovative approaches, measurable impacts, and contributions to the sustainability of agricultural systems. By showcasing these private sector led efforts, this compendium aims to facilitate knowledge sharing and inspire sustainability focused action.

It is my sincere belief that by learning from, scaling up and building upon these initiatives, we can create robust and sustainable agricultural ecosystems that not only feed the world but also sustain numerous future generations to come.

Sincerely,

Prashant Kumar
Managing Director & CEO
YES BANK



1. INTRODUCTION

As the world confronts the severe challenge of rapidly changing climate, the need for promoting sustainable agriculture has never been more urgent than it is today. Traditional farming practices, heavily reliant on intensive resource use, have pushed the environment to its brink. Soil health is deteriorating, groundwater levels are depleting, and natural ecosystems are under increasing threat. Rising temperatures, shifting weather patterns, and extreme events like droughts, floods, and storms are already disrupting agricultural productivity worldwide. With every passing year, the pressures of climate change become more tangible, affecting livelihoods of millions of farmers and threatening food security.

In addition to climate concerns, global population growth is placing unprecedented stress on food production. By 2050, the world population is expected to reach nearly 10 billion people, requiring a 60-70% increase in food production. Achieving this, without intensifying environmental harm will be one of the defining challenges of this century.

In a world that relies so heavily on agriculture, the sustainability of agricultural practices is no longer just a concern—it is a critical imperative for our future. Governments, private sector players, and civil society will need to collaborate to create policies, incentives, innovations and an eco-system that supports stakeholders in adopting sustainable approaches to farming, post- harvest handling of farm produce as well as consumption.

Going forward, the need for sustainable agricultural solutions will continue to grow and action oriented strategies will become increasingly urgent to ensure the long-term viability of farming practices, especially in India, where agriculture remains the key livelihood activity for more than 50% of the population and the sector is dominated by smallholders, who remain most vulnerable to external forces. Actualizing sustainable agriculture development would require deep commitment and collaborative efforts by multiple stakeholders. While the Indian Government is championing the sustainability agenda, numerous corporates as well as non-government organizations are also playing a pivotal role in driving sustainable development of the Indian agricultural ecosystem through responsible practices, sustainable investments, newgen technologies and meaningful partnerships. These responsible and forward-looking enterprises have come up with outstanding innovations and interventions that address the challenges of agricultural sector holistically. Such interventions need to be recognized and adopted on a larger scale.

With a view to provide a national platform for recognizing and showcasing outstanding "Sustainability focused farmer engagement programs" in India, FICCI launched the "Sustainable Agriculture Awards" in 2021. The objective of these awards is to identify and facilitate outstanding farmer engagement programs that promote sustainable agriculture development while focusing on improving farmers' income and the acknowledgements are given under 4 award categories (refer Exhibit 1). Over the past 4 years, recognition has been awarded to 63 Corporates, Not-For-Profit Organizations, Corporate CSR arms and Foundations that focus on developing and implementing programs that enhance farmer income, promote climate resilience and efficient natural resource management, facilitate in decarbonization through agriculture, and promote farm level sustainability in their agri-produce sourcing catchment.

This compendium of "Boosting Sustainability in Indian Agriculture - Impactful Private Sector led Initiatives" puts together these diverse range of initiatives in the form of case studies, offering insights into the strategies and technologies that have been successfully implemented to address the complex challenges agriculture is facing today. These initiatives not only demonstrate the potential of sustainable practices but also serve as models for replication and scaling in different contexts and regions.

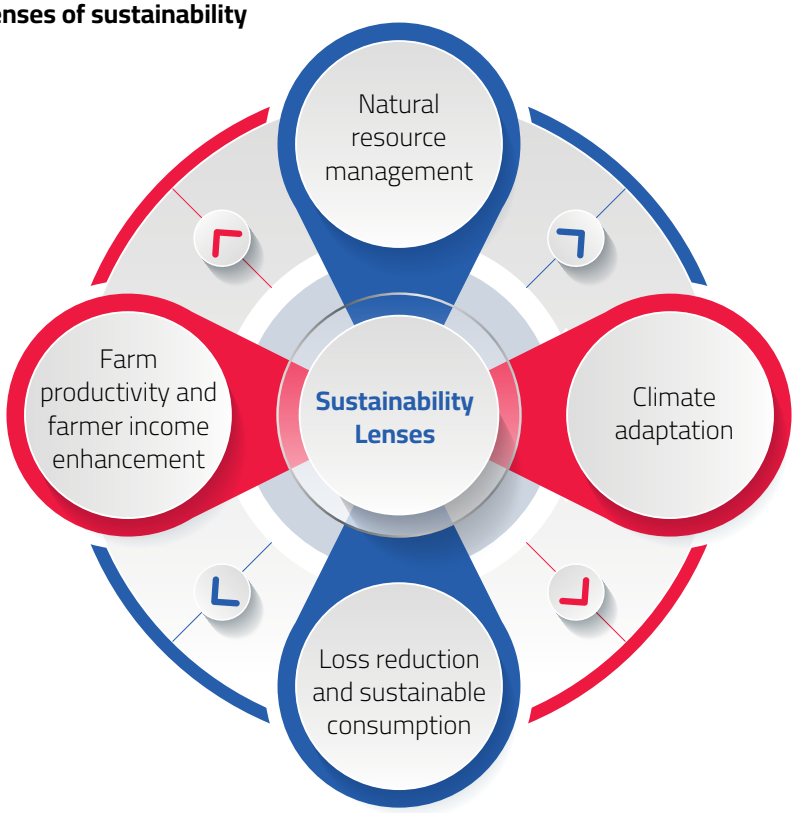
Exhibit 1: FICCI Sustainable agriculture award categories 2024

Category 1: Sustainable Farmer Income Enhancement Program	▪ To recognize outstanding programs contributing towards sustainable income enhancement of farmers through innovative farmer extension and development programs ▪ To showcase programs enabling increase in farmer income with sustainability in long term
Category 2: Farm Level Sustainability Initiatives while Sourcing	▪ To recognize organizations implementing sustainability initiatives at farm level while sourcing agricultural raw material ▪ To exhibit programs resulting in farmer income enhancement, preservation of bio-diversity, reduction of carbon foot print and conservation of natural resources
Category 3: Program on Natural Resource Management and Climate Resilient Agriculture	▪ To recognize best technologies/products/services with reference to climate resilient, smart agriculture, soil or water resource conservation ▪ To showcase innovative interventions promoting sustainable agriculture development to tackle adverse impact of climate change
Category 4: Initiatives on Agri based Decarbonization	▪ To recognize programs utilizing agricultural practices and farming ecosystems for decarbonization ▪ To emphasize initiatives facilitating farmers' access to carbon credit market

Source: FICCI, YES BANK

These varied initiatives in agricultural sustainability can be viewed from four key lenses namely Improving farm productivity and farmer income, enhancing natural resource management, promoting climate adaptation and promoting loss reduction & sustainable consumption (refer exhibit 2).

Exhibit 2: Four key lenses of sustainability



Source: YES BANK Analysis

The first lens, namely – Improving farm productivity and farmer income remains very critical in the Indian agricultural context. Farm productivity in India stands much lower than the global average in a number of agri-commodities. This is largely driven by the fact that agriculture is predominantly carried out by small and marginal farmers under rainfed conditions. Any initiative that is taken up to improve their access to various factors of production, including access to knowledge, information, quality farm inputs and markets that improve yields and increase farm level income, directly contribute to sustainable development. However, technologies and products developed for this purpose need to go through the prism of environmental and ecological safety and preservation, such that they not just improve productivity but also are safe to use and have no negative impact on natural resources and the environment.

The second lens of sustainable agriculture development is preservation of Natural resources. Their management and conservation are critical for enhancing productivity sustainably. Unsustainable farming systems are responsible for rapid depletion of natural resources such as soil, water and bio-diversity, that are critical for sustainable agricultural ecosystems. Apart from sustainably managing these natural resources, there is a need for sustained focus on harnessing renewable energy resources to decrease pressure on use of conventional energy (leading to lowering of carbon footprint). Efforts made by the private sector when augmented with the policies instituted by the Government can have significant positive impact on enhancing sustainable use of natural resources.

> India uses more than 4 billion liters of diesel (13% of total diesel consumption in India) and around 85 million MT of coal per annum (19% of total coal consumption in India) to support water pumping for irrigation. If 50% of these diesel pumps were replaced with solar PV pump sets, diesel consumption could be reduced by about 225 Mn liters/year (7.5% of total diesel consumption in India).[1]

The impact of third lens- climate adaptation on agriculture cannot be understated. As per various forecasts, the average temperature across India is projected to rise in the range of 2.4°C to 4.4°C by 2100[2]. Increased incidence of localized extreme precipitation events has increased flood risks and projections show increase in flood intensity and occurrence in the Indus, Ganges, and Brahmaputra River basins. Studies project that in the absence of adoption of adaptation measures towards climate change, rainfed rice yields in India will reduce by 20% in 2050 and 47% in 2080 while irrigated rice yields are projected to reduce by 3.5% in 2050 and 5% in 2080 scenarios. Impact of climate change on wheat is projected to reduce its yield by 19.3% in 2050 and 40% in 2080 scenarios with significant spatial and temporal variations.[4] Substantial investments in adaptation of new practices and technologies will be required to maintain current yields while decreasing ecological footprint. This can be primarily done by focusing on two key areas which include introducing and promoting initiatives that lead to climate resilience and increasing focus on carbon sequestration to manage the carbon footprint. Role of private sector and local community institutions will be critical in mitigating the impact of climate change.

> As per estimates by Ministry of Environment, Forest and Climate Change (2020), 32% of the land in India is considered degraded and 25% of it is undergoing desertification.[3]

> As per the assessment of Indian Council of Agricultural Research (ICAR) in 2016, about 3.9% to 6% cereals, 4.3% to 6.1% pulses, 2.8% to 10.1% oilseeds, 5.8% to 18.1% fruits, and 6.9% to 13% vegetables were lost during activities such as harvesting, post-harvesting activities, handling and storage.[5]

The fourth lens- Loss reduction and sustainable consumption focusses on reducing losses in the agricultural production ecosystem as well as at the point of consumption which remains vital in the path of facilitating nutritional security and enabling sustainable consumption. All initiatives that result in efficient food waste reduction as well as sustainable and responsible consumption of food have a direct impact on sustainable agriculture development.

Exhibit 3 is a snapshot of various initiatives than contribute to the four key lenses of sustainability and the SDGs impacted through these initiatives.

[1] https://www.weforum.org/agenda/2015/11/how-can-solar-energy-help-indias-farmers/
[2] Global Food Policy Report, 2022
[3] https://wotr.org/2022/06/17/action-points-india-global-land-outlook-report-2022/
[4] Press Release: Press Information Bureau
[5] https://www.researchgate.net/publication/289637983_Assessment_of_Quantitative_Harvest_and_Post-Harvest_Losses_of_Major_CropsCommodities_in_India

Exhibit 3: Initiatives that contribute to four sustainability lenses and respective SDGs impacted

Sustainability lenses	Initiatives	SDGs impacted
Farm productivity and farmer income enhancement productivity and farmer income enhancement	▪ Sustainably improving farm productivity ▪ Promoting farmer collectives to improve economies of scale ▪ Improving post-harvest efficiencies ▪ Unlocking digital technologies for improving farmers' access to inputs and markets ▪ Capacity building and skill development of farmers	
Natural resource management	▪ Soil conservation ▪ Water conservation ▪ Tapping renewable sources of energy ▪ Promoting sustainable farming practices & systems ▪ Biodiversity conservation	
Climate adaptation	▪ Building climate resilience ▪ Carbon sequestration ▪ Agroforestry practices	
Sustainable consumption	▪ Loss reduction ▪ Promoting sustainable consumption	

Source: YES BANK Analysis

1.1 Government Efforts to Promote Sustainable Agriculture

India is strongly committed to achieving the SDG targets by 2030. The vision 2030 for SDG 2 positions 'sustainable agriculture' as a fulcrum in the overall strategy to end hunger, improve nutrition, and achieve food security. The government has been actively developing comprehensive policies for the agriculture and food sector at the national and state levels with the goal of improving the agri-food sector's sustainable growth by integrating research, innovations, finance and technology. Currently there are several policy initiatives and developmental schemes formulated by the Government of India to help realize the sustainability vision across the four sustainability lenses. An indicative list of various such initiatives is captured in Exhibit 4.

Exhibit 4: Indicative list of various initiatives by the Government of India across the four sustainability lenses

Schemes focusing on farm productivity and farmer income

- Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)
- Pradhan Mantri Kisan Maan Dhan Yojana (PM-KMY)
- Pradhan Mantri Fasal Bima Yojana (PMFBY)
- Modified Interest Subvention Scheme (MISS)
- Formation & Promotion of new 10,000 FPOs
- National beekeeping and Honey Mission (NBHM)
- Market Intervention Scheme and Price support Scheme (MIS-PSS)
- Namo Drone Didi
- Krishonnati Yojana
  - Sub-Mission on Seed and Planting Material (SMSP)
  - Mission for Integrated Development of Horticulture (MIDH)
  - National Bamboo Mission (NBM)
  - Integrated Scheme for Agriculture Marketing (ISAM)
  - Sub-Mission on Agriculture Extension (SMAE)
  - Digital Agriculture

Schemes for natural resource management

- Rashtriya Krishi Vikas Yojana
- Soil Health Card (SHC)
  - Rainfed Area Development (RAD)
  - Per Drop More Crop (PDMC)
  - Micro Irrigation Fund (MIF)
  - Paramparagat Krishi Vikas Yojana (PKVY)
  - Crop Residue Management
- Krishonnati Yojana
  - Mission Organic Value Chain Development for North-Eastern Region

Scheme for promoting climate adaptation

- National Mission on Sustainable Agriculture
- Rashtriya Krishi Vikas Yojana
  - Agro-forestry

Schemes focusing on loss reduction and sustainable consumption

- Agriculture Infrastructure Fund (AIF)
- Rashtriya Krishi Vikas Yojana
  - Sub-Mission on Agriculture Mechanization (SMAM)
- Krishonnati Yojana
  - National Food Security Mission (NFSM)
  - National Mission on Edible Oils (NMEO)-Oil Palm

Source: Ministry of Agriculture & Farmers Welfare, YES BANK Analysis

To ensure sustainable development, Indian policy makers have consistently taken proactive steps to combat climate change and build climate resilience across the agriculture sector. The government launched National Mission for Sustainable Agriculture (NMSA) in 2014-15 which derives its mandate from Sustainable Agriculture Mission, one of the eight missions outlined under the National Action Plan on Climate Change (NAPCC) adopted by Government of India. NMSA aims to advance sustainable agriculture by implementing adaptation measures that focus on ten critical dimensions of Indian agriculture including improved crop seeds, livestock and fish cultures, water use efficiency, pest management, improved farm practices, nutrient management, agricultural insurance, credit support, markets, access to information and livelihood diversification. Within NMSA, Rainfed Area Development is a component focusing on Integrated Farming System which promotes supplementary farm-based livelihood support activities apart from crops/cropping system (animal husbandry, forestry etc.) to provide greater resilience & sustenance to farmers in the wake of extreme climatic events. To promote agro-forestry as a farming system, National Agro-forestry Policy has been formulated by Government of India.

Similarly, the Mission Organic Value Chain Development for Northeastern Region (MOVCD-NER) promotes holistic, organic farming, which aims at development of end-to-end organic value chains, thereby conserving biodiversity in the North East Region of India. The Department of Agriculture Cooperation & Farmers' Welfare is also implementing 'Per Drop More Crop' component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY- PDMC). The PMKSY-PDMC focuses on enhancing water use efficiency at farm level through Micro Irrigation technologies viz. Drip and Sprinkler irrigation systems.

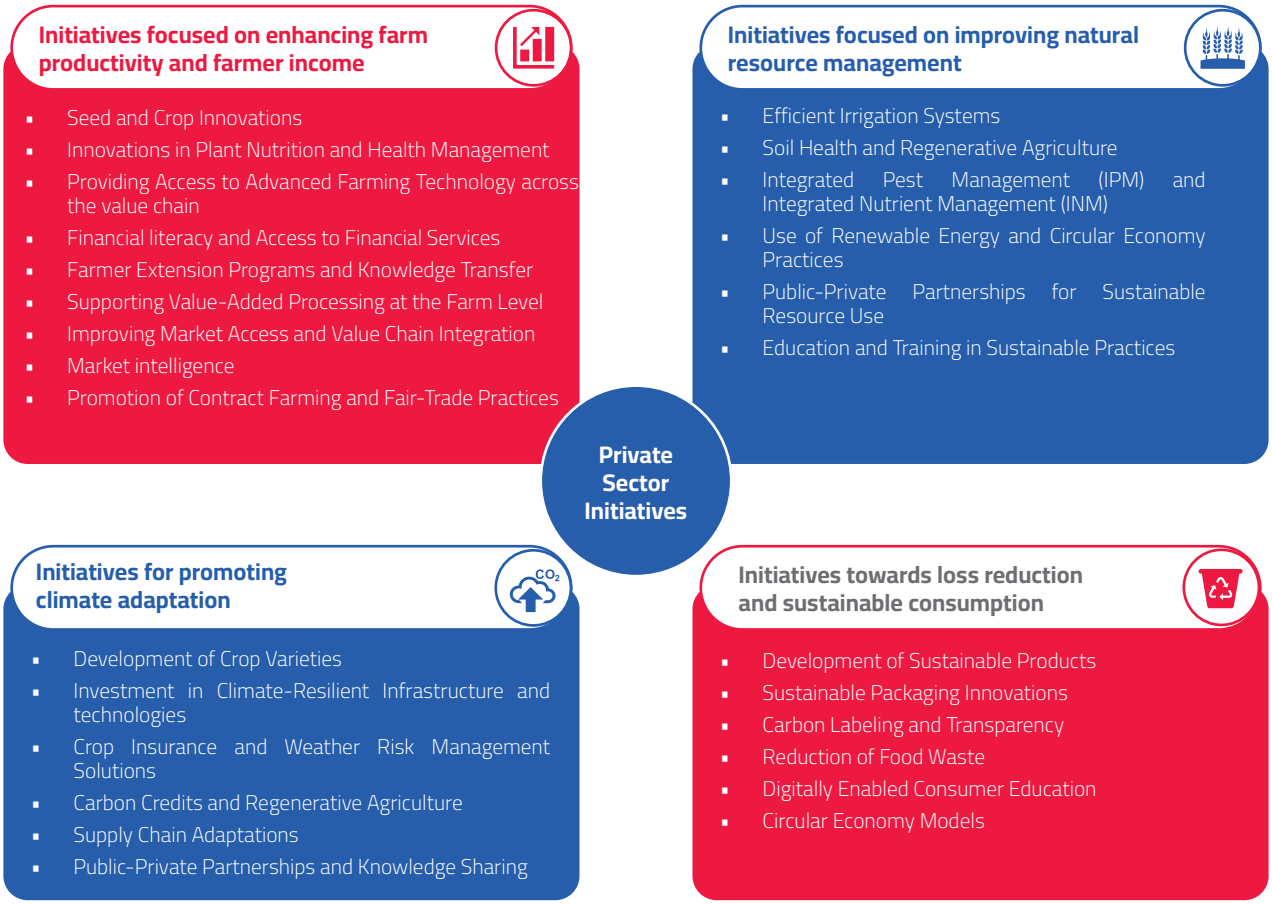
ICAR under the Ministry of Agriculture and Farmers' Welfare launched a flagship network project 'National Innovations in Climate Resilient Agriculture' (NICRA) during 2011 to develop climate resilient technologies through short term and long-term research, and also to demonstrate the existing technologies on farmers' fields for enhancing the resilience across vulnerable areas of the country. ICAR has also prepared District Level Contingency Plan and a district level climate vulnerability atlas for undertaking location specific adaptation activities both by public, private and non-governmental sector.

Apart from these, the Government is also working towards developing the Agriculture Transformation Index which is intended to measure the state-wise performance across six pillars of inputs, sustainability, productivity and diversification, policy, preservation, processing and exports, and farmers' income and welfare. This is an effort towards sustainable intensification and farmer livelihood enhancement.

1.2 Role of Private Sector

Numerous private sector players and non-government organisations have efficiently complimented the efforts of the Government of India on the sustainable development front through diverse initiatives. Businesses have been identifying their dependencies on the sustainability components of the ecosystem in which they operate and have strategized interventions to deliver products and solutions that advance their commercial interests while also aligning to the overall sustainable agriculture development agenda. Many far-sighted agribusiness companies have utilized the "SDG lens" to act as change agents to support large scale sustainability focused growth and transformation in the agricultural ecosystem. Some key initiatives that have been undertaken by private sector players across the four SDG lenses are elaborated herewith. A snapshot of these activities is highlighted in Exhibit 5.

Exhibit 5: Indicative list of various initiatives by the private sector across the four sustainability lenses



Source: YES BANK Analysis, Compilation based on work being done by various private sector companies towards sustainability

Private sector initiatives focused on enhancing farm productivity and farmer income

Agribusinesses in India are deeply involved in initiatives aimed at boosting productivity and enhancing farmer incomes through activities ranging from crop innovation to financial literacy, enhancing market linkages and providing access to technology among others. These companies play a vital role in building economically viable and resilient farming communities. By leveraging technology, financial innovation and market access, they help farmers achieve higher yields, reduce costs, and maximize profit potential. Select initiatives taken up by the private sector that are creating significant impact includes:

- **Seed and Crop Innovations**: Agribusinesses invest in developing high-yielding, drought-resistant, and pest-resistant crop varieties, which enable farmers to grow more resilient crops under adverse conditions. Companies are also working towards development of hyper localized crop varieties and tailor-made crop plans for specific areas to minimize risks for stakeholders across the value chain.
- **Innovations in Plant Nutrition and Health Management**: The private sector has been investing radically in development of advanced nutrition and plant protection solutions, their delivery mechanisms, data analytics driven farm advisory services and capacity building programs for more efficient and effective deployment of solutions.
- **Providing Access to Advanced Farming Technology across the Value Chain**: Companies offer technologies like GPS-guided tractors, advanced irrigation solutions, drones, and IoT sensors that help farmers manage resources more precisely. These tools enable efficient use of water, fertilizers, and pesticides, leading to higher productivity and cost savings.

- **Financial Literacy and Access to Financial Services**: By Promoting financial literacy amongst stakeholders, companies are empowering smallholders to move away from unregulated financial channels. Companies are also collaborating with banks, fintech, and insurance companies to make financial products available to smallholders at the right time to access funds to purchase quality seeds, fertilizers, and equipment.
- **Farmer Extension Programs and Knowledge Transfer**: Agribusinesses keenly invest in providing farmers with trainings on best practices for soil health, pest control, and crop rotation to maximize yields. These training programs often cover sustainable practices like IPM, INM, Organic cultivation etc. Companies have also initiated dissemination of Gender-smart training tools and programs, thus empowering women and promoting inclusivity in farming communities. Efforts are not only made towards skill building for agriculture, but also beyond, for activities like handicrafts, pollen production etc.
- **Supporting Value-Added Processing at the Farm Level**: Some agribusinesses help farmers set up processing facilities for value-added products like dried fruits, preserved foods, or oils, allowing farmers to capture a greater share of the final product value. This approach diversifies income sources and reduces dependency on crop sales.
- **Improving Market Access and Value Chain Integration**: By creating platforms or partnerships for direct market linkages, through farm gate purchases and transparent quality assessment, companies have enabled a greater realization of the profit share by the farmers. In addition, numerous enterprises are working on facilitating formation of farmer collectives so as to improve farmers' bargaining power as well as work on achieving economies of scale. Many companies have also invested in cold storage, transportation, and logistics to help farmers preserve and deliver perishable products, reducing post-harvest losses and ensuring higher income. Agribusinesses have also created digital marketplaces where farmers can buy inputs, sell their produce, and connect with other stakeholders, fostering more competitive pricing and efficient transactions.
- **Market Intelligence**: Many companies offer market intelligence through digital platforms for real-time information on weather, market prices, pest alerts, and farming tips. This information empowers farmers to make timely decisions that improve productivity and profitability.
- **Promotion of Contract Farming and Fair Trade Practices**: Companies enter into contracts with farmers to grow specific crops for a guaranteed price, ensuring a stable income. This approach also provides farmers with technical support and inputs, boosting productivity and reducing risks. Many agribusinesses support fair trade certification, which offers farmers premium prices for adhering to sustainable and ethical practices. This increases income for farmers while aligning with consumer preferences for ethically sourced products.

Private sector initiatives focused on improving natural resource management

Many private sector led programs are increasingly focused on natural resource management to address sustainability and long-term productivity issues. By investing in resource-efficient practices, companies contribute to preserving soil health, water quality, and biodiversity, which are crucial for sustainable agriculture. This approach not only helps farmers but also ensures long-term resilience in food systems and contributes to global sustainability goals. Some key initiatives and approaches that agribusinesses are working upon include:

- **Efficient Irrigation Systems**: Companies promote micro irrigation systems and water monitoring technologies that reduce water wastage and improve crop water efficiency. These systems ensure that water is only used where and when needed, minimizing losses. Companies are also investing in rainwater harvesting and water recycling technologies to create a sustainable water supply, especially in areas prone to drought.
- **Soil Health and Regenerative Agriculture**: Agribusinesses encourage practices like cover cropping and crop rotation to improve soil fertility and prevent erosion. These techniques enhance soil structure and nutrient cycling. Many companies are also promoting regenerative agriculture practices such as no-till farming and the application of compost and biofertilizers, which improve soil health, sequester carbon, and support biodiversity.
- **Integrated Pest Management (IPM) and Integrated Nutrient Management (INM)**: Agribusinesses promote IPM and INM strategies, which include using natural predators, beneficial insects, and bio-nutrients. Companies help farmers create nutrient management plans that optimize fertilizer application, minimizing excess runoff

into water bodies. This improves water quality and reduces the environmental impact of agriculture. Digital Platforms for Resource Monitoring and Management and technologies like drones, IoT sensors, and AI-driven analytics are also being promoted that enable precise nutrient and pest monitoring and targeted interventions, reducing chemical use and minimizing environmental impact.

- **Use of Renewable Energy and Circular Economy Practices**: Many companies invest in solar, wind, or bioenergy systems on farms as well as manufacturing units, reducing dependency on non-renewable energy sources and cutting greenhouse gas emissions. Companies also repurpose agricultural waste, such as crop residues or animal manure, into bioenergy or organic fertilizers, creating a circular economy that minimizes resource extraction and pollution.
- **Public-Private Partnerships for Sustainable Resource Use**: By collaborating with governments, NGOs, and research institutions, agribusinesses support large-scale resource management initiatives such as watershed management, reforestation, and soil conservation programs. These partnerships help pool resources and expertise to address environmental challenges effectively.
- **Education and Training in Sustainable Practices**: Many agribusinesses offer training programs including e learning modules that teach farmers about resource-efficient techniques, including composting, nutrient management, and water-saving practices (like DSR for rice). This education helps farmers adopt sustainable practices, benefiting both their productivity and the environment.

Private sector initiatives for promoting climate adaptation

In the face of climate change, the private sector plays a critical role in driving climate adaptation initiatives. Their contributions range from investing in climate smart infrastructure to developing technologies that help farmers manage changing environmental conditions. Select initiatives towards climate adaptation include:

- **Development of Crop Varieties** that are more resilient to heat, drought, and other climate-related stresses; helping farmers secure yields under extreme conditions. Companies are also promoting climate smart crops like millets and are supporting the entire value chain.
- **Investment in Climate-Resilient Infrastructure and technologies** like advanced irrigation systems to help farmers use water more efficiently, technology for real-time data collection, such as soil moisture and nutrient levels, which help farmers make informed decisions, advanced analytics and AI-driven models providing accurate, hyperlocal weather forecasts etc.
- **Crop Insurance and Weather Risk Management Solutions**: Agribusinesses and financial firms have collaborated to offer crop insurance products tailored to climate-related risks. Companies leverage satellite data to create products, which offer quick payouts based on specific weather conditions or losses, helping farmers to recover faster from climate-related shocks.
- **Carbon Credits and Regenerative Agriculture**: Private sector initiatives include supporting regenerative agriculture practices, which can restore soil health, increase carbon sequestration, and reduce greenhouse gas emissions. By promoting carbon credit markets, companies offer incentives for farmers to adopt sustainable practices that contribute to both climate mitigation and adaptation.
- **Supply Chain Adaptations**: Companies are also working on making their supply chains more climate-resilient. This involves diversifying sourcing regions to avoid dependency on areas vulnerable to climate impacts or investing in local sourcing to reduce transportation emissions and support community resilience.
- **Public-Private Partnerships and Knowledge Sharing**: Collaboration between private agribusinesses, governments, and non-profits enables knowledge sharing and resource pooling, which can accelerate the implementation of climate adaptation strategies. Public-private partnerships also encourage policy changes that support resilient farming systems.

Private sector initiatives towards loss reduction and sustainable consumption

Consumer choices impact environmental health and resource use. Recognizing this impact, the private sector is playing an influential role in promoting sustainable consumption. Companies are addressing sustainability across production, packaging, and distribution to reduce losses and encourage eco-conscious consumer behavior. A few

initiatives are:

- **Development of Sustainable Products**: Agribusinesses are increasingly focusing on products with lower environmental footprints. This includes organic, non-GMO, and locally sourced products that appeal to eco-conscious consumers. Companies are also investing in plant-based and alternative protein products that require fewer resources than traditional meat, dairy, or other animal-based products.
- **Sustainable Packaging Innovations**: To minimize plastic waste, many companies are shifting to biodegradable, recyclable, or compostable packaging materials. They are also reducing overall packaging or using materials with lower carbon footprints, such as recycled paper or lightweight plastics.
- **Carbon Labeling and Transparency**: Companies are adopting carbon footprint labeling, which shows consumers the greenhouse gas emissions associated with a product. This transparency helps consumers make informed choices that align with their values and support sustainable products. Providing detailed information about product sourcing, environmental impact, and sustainable practices builds consumer trust and encourages demand for eco-friendly options.
- **Reduction of Food Waste**: Innovations in processing, packaging, and supply chain management are helping extend the shelf life of products, reducing spoilage and waste both during transport and on store shelves.
- **Digitally Enabled Consumer Education**: Companies are using digital platforms to educate consumers about sustainable consumption and food choices. This might include sharing recipes that reduce food waste, suggesting ways to store products longer, or highlighting seasonal and local choices.
- **Circular Economy Models**: Some agribusinesses are adopting circular economy practices, such as upcycling food by-products into new products or using renewable materials in packaging. By repurposing waste and minimizing resource extraction, these companies promote a model of consumption that reduces waste and conserves resources.



2. Sustainable Agriculture Award Winning Initiatives 2024





2.1 Farmer Income Enhancement Initiatives

S No.	Award Winner	Program Name	P. No.
1	TAFE Ltd.	AGaaS (Agriculture as a Service)	23
2	LDC India Pvt. Ltd.	Project Jagruti – A Step Towards Sustainable Cotton Farming	24
3	Mahadhan AgriTech Ltd. (a 100% subsidiary of Deepak Fertilisers and Petrochemicals Corporation Ltd.)	Balanced Nutrition Drive for Sustainable Crop Production & Enhanced Farmer Income	25
4	YARA Fertilisers India Pvt. Ltd.	Hyper Local Crop Plan for Farmer Prosperity	26
5	Corteva Agriscience India Pvt. Ltd.	Salibro – The True Nematicide : Elevate your soil , Elevate your Harvest	27
6	Sucden Coffee India Pvt. Ltd.	Sustain Project	28
7	Nedspice Processing India Pvt. Ltd.	Nedspice Farmers Partnership Program (NFPP)	29
8	TAFE Foundation	JFarm Services	30
9	Syngenta Foundation India	Income Enhancement of Small and Marginal Farmers through Agri Entrepreneurship Program	31
10	Jubilant FoodWorks Ltd.	Dairy Farmer Development Program - Project Unnati	32
11	End Poverty India	Mission Shwetdhara	33

AGaaS (Agriculture as a Service)

Area of operation: **North, Northwest, West, East, Central-South, and Southern India**

Crops covered: **Paddy, Cotton, Maize, Sugarcane, Tapioca, Millet, Mustard, Chilli, Watermelon and Other Vegetable Crops**

Total area covered (ha): **40,000+**

Number of farmers associated: **2700+ unique farmers**

Average landholding of farmers associated with program (ha) – **3.64**

Details for year 2023-24

Program Impact

INR 11,500 per hectare farmers' income enhanced



Training given to college students on water and chemical reduction that can be achieved using Drone Spraying over conventional spraying as an effort to improve entrepreneurship



AGaaS Team honored by the Minister of Industries and Commerce – Tamil Nadu for their services in 2024

SDGsimpacted



TAFE Ltd.

About the Program

AGaaS (Agriculture as a Service), a flagship program of TAFE, focuses on delivering advanced agricultural services, particularly drone spraying for pesticides and fertilizers. The program's key value lies in its ability to save time and labor, reduce input costs, and enhance the effectiveness of agricultural inputs, ultimately leading to better crop yields and higher farmer incomes.

The initiative is driven by a skilled team of over 50 professionals, all trained in-house, supported by a market development team that maintains strong connections with farmers to sustain business growth. Field teams also collaborate with agricultural stakeholders, such as local retailers, to further promote adoption. Over the past two years, AGaaS has experienced significant growth, with an increase in the number of drones in operation, a marked expansion in the regions served across multiple geographical zones, and a substantial increase in the size of its field team, reflecting its rapid development and impact.

Looking ahead, AGaaS plans to strengthen its presence in southern India and other key regions, leveraging its established sales network to drive consistent business. Alongside its work with individual farmers, the program is also focusing on expanding its partnerships with agricultural enterprises to boost its business-to-business segment. Beyond drone spraying, AGaaS has launched its Rice Transplanter Business this year and has ambitious plans to diversify further into additional advanced agricultural services. These initiatives reflect its ongoing commitment to delivering modern, technology-driven solutions for farmers.



AGaaS Team with farmers on field after the completion of a Drone Spraying Demonstration

For further details, contact us on

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Project Jagruti – A Step Towards Sustainable Cotton farming

LDC India Pvt. Ltd.

Area of operation: **Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Telangana, Andhra Pradesh, Karnataka, Orrisa, Madhya Pradesh**

Crops covered: **Cotton**

Total area covered (ha): **31,747**

Number of farmers associated: **24,234**

Average landholding of farmers associated with program (ha) – **1.31**

Details for year 2023-24

Program Impact

INR 11,144 per hectare farmers' income enhanced



Scientists and officials from the Agriculture Department are educating farmers on Pink Bollworm (PBW) and management practices in a workshop organised by LDC



The LDC team is educating farmers on how to identify Pink Bollworm (PBW) during the flowering stage of the crop by recognizing rosette flowers.

SDGs impacted



About the Program

In 2022, Louis Dreyfus Company (LDC) launched 'Project Jagruti' in India with a mission to uplift local cotton farmers by promoting sustainable farming practices. This initiative was prompted by a pink bollworm outbreak in late 2021, which severely impacted yields due to inadequate pest management knowledge among farmers.

Recognizing the critical need for intervention, LDC organized a comprehensive series of educational workshops across several states including Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Telangana, Karnataka, Andhra Pradesh, and Orissa. These workshops were designed not only to educate farmers about the threats posed by pests like the Pink Boll Worm (PBW) and White Fly, but also to impart practical pest control measures and better farming practices. Experts provided technical guidance, demonstrating specific methods aimed at minimizing yield losses during pest outbreaks. As part of its commitment, LDC distributed over 1,18,900 pheromone traps and conducted field demonstrations to facilitate effective pink bollworm management, thereby enabling farmers to achieve higher yields. To date, Project Jagruti successfully trained over 24,234 farmers from more than 85 villages.

Buoyed by the positive response and impact, LDC plans to scale up its efforts in 2024, scheduling 83 additional workshops across India to educate 26,100 more farmers. The initiative involves collaboration with various stakeholders including LDC's research and regional teams, NGO partners like AFPRO, Welspun Foundation, Arvind, and governmental bodies such as KVK, SAU Scientists, and ATMA Trainers.

Looking forward, LDC remains committed to supporting sustainable agriculture in India. Beyond pest management, future plans under Project Jagruti include expanding training programs to cover aspects of sustainable cotton cultivation and other agricultural practices. This initiative signifies just the beginning of LDC's broader commitment to empowering rural communities and enhancing livelihoods across India.

For further details, contact us on

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Balanced Nutrition Drive for Sustainable Crop Production & Enhanced Farmer Income

Area of operation: **Maharashtra, Gujarat, Karnataka**

Crops covered: **Cotton, Onion, Sugarcane**

Total area covered (ha): **2,77,886**

Number of farmers associated: **3,63,143**

Average landholding of farmers associated with program (ha) – **< 2.0**

Details for year 2023-24

Program Impact

INR 21,000 per hectare cotton farmers' income enhanced

INR 36,000 per hectare sugarcane farmers' income enhanced

INR 67,500 per hectare onion farmers' income enhanced

SDGsimpacted



Mahadhan AgriTech Ltd.

Mahadhan AgriTech Limited
(100% subsidiary of Deepak Fertilisers and Petrochemicals Corporation Limited)

About the Program

Mahadhan has developed an innovative crop nutrition solution, "Mahadhan Croptek", powered by Nutrient Unlock Technology (NUT). Its unique Nutrient Unlock Technology improves the use efficiency of the nutrients and enhances uptake of nutrients already available in soil by the crops. It is the only complex fertilizer in the world which has essential primary, secondary and micronutrients required by the crop to provide nutrition in a balanced manner. It stimulates active root development and helps in vigorous growth and improves crop productivity.

Mahadhan has introduced Croptek in two variants, Mahadhan Croptek 8:21:21 for onion & cotton and Mahadhan Croptek 9:24:24 for sugarcane crop. Unlike generic straight and complex fertilizers, Mahadhan's NPK products are fortified not only with micronutrients but also with additives that enhance Nutrient Use Efficiency (NUE). Agronomic performance trials, conducted in collaboration with ICAR institutes & Agriculture universities across various agroclimatic regions, confirmed that these innovative products significantly increase crop productivity, improve the quality of the produce and optimizes usage of fertilizer.

For further details, contact us on

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Crop Nutrition Solution Demonstration



Farmer Meeting

Hyper Local Crop Plan for Farmer Prosperity

YARA Fertilisers India Pvt. Ltd.

Area of operation: **Jammu and Kashmir, Haryana, Punjab, Himachal Pradesh, Bihar, Uttar Pradesh, West Bengal, Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Karnataka, Kerala, Tamil Nadu**

Crops covered: **Banana, Sugarcane, Maize, Wheat, Soybean, Grape, Tomato, Potato, Pomegranate, Apple, Litchi, Cardamom**

Total area covered (ha): **41,96,405**

Number of farmers associated: **3,26,000**

Average landholding of farmers associated with program (ha) – **0.7**

Details for year 2023-24

Program Impact

INR 1,77,489 per hectare farmers'income enhanced



Nathalie Skovholt, Head of Strategic Marketing & Capability Building felicitates Yara's progressive grape farmer, Hemant Brahmecha, for his commitment to implementing Yara's Hyper Local Crop Plan leading to substantial increase in farm productivity

SDGsimpacted



About the Program

Yara India, a subsidiary of Yara International, has been delivering tailor made, hyper localized crop plans to its farmer network, focusing on optimizing farming practices based on the specific conditions of a particular farm/field. The comprehensive approach involved several key steps:

a. The first step to defining a customized crop plan was to assess the soil health status. Yara India through its dedicated soil testing laboratory in Uttar Pradesh analyzed the soil samples. This evaluation assessed soil fertility by measuring the nutrient levels such as the NPK and any other nutrients required for optimal plant growth.

b. Secondly, company identified specific nutritional needs of crops in each region, considering factors such as crop type and the growth stage. This information guided the agronomy recommendation to farmer's field.

c. The third step was to create a balanced nutrition strategy. Company provided plants with the right and balanced nutrients, ensured they received what was necessary for optimal growth and high yields.

d. Yara India also considered the end use of the crops whether they were intended for further processing or direct consumption. This consideration ensured the crop plan aligned with the intended end use, adding an additional layer of customization to optimize outcomes. Yara India, extended these customized crop solutions to farmers across India, empowering them with result driven strategies for agricultural success.



Yara agronomist educating farmers on soil health



Educating farmers through cultural shows



Yara agronomist with satisfied farmer on his sugarcane demo plot

For further details, contact us on

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The program was also awarded in 2023

Salibro – The True Nematicide : Elevate your Soil, Elevate your Harvest

Area of operation: **Maharashtra, Karnataka, Tamil Nadu, Rajasthan**

Crops covered: **Tomato, Capsicum, Cucumber, Brinjal**

Total area covered (ha): **4,000**

Number of farmers associated: **13,500**

Average landholding of farmers associated with program (ha) – **0.5**

Details for year 2023-24

Program Impact

INR 2,00,000 per hectare farmers'income enhanced

SDGs impacted



Corteva Agriscience India Pvt. Ltd.

About the Program

Root Knot is a serious problem in fruits & vegetables causing yield loss from 10-50%. The current solutions don't give required results but also effect soil health. Salibro, a nematicide from Corteva is a solution that effectively controls the harmful root knot nematodes and works in collaboration with soil microorganisms to improve the soil health. "Elevate your Soil, Elevate your Harvest" is the theme on which Corteva empowered farmers to fight the menace of root knot nematode. For this, more than 300 value demonstrations were done in 4 states in the last 3 years which were exposed to 13,000+ farmers. Also, regular trainings of the product were done. Apart from this, digitally an informative video on You- tube & a microsite was developed, with chatbot in regional language to empower farmer to learn about nematodes, its harms to crops and how to effectively manage it.

For further details, contact us on

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Farmer training



Results on farmers field



Value demonstration result

Sustain Project

Area of operation: **Karnataka**

Crops covered: **Coffee and Pepper**

Total area covered (ha): **445**

Number of farmers associated: **234**

Average landholding of farmers associated with program (ha) – **1.90**

Details for year 2023-24

Program Impact

INR 34,876 per hectare farmers 'income enhanced

SDGsimpacted



Sucden Coffee India Pvt. Ltd.

About the Program

- Established 18 demo farms and provided training on good agricultural practices. These demo farms supported 217 cluster farmers, who benefitted from knowledge, guidance and project resources.
- Collaborated with Central Coffee Research Institute, Coffee board of India to provide training on sustainable cultivation practices while reaching 3,500 farmers in the entire Kodagu district of Karnataka.
- Established 2 community planted areas of 4 acre where 700 native fruit varieties were planted and maintained.
- Under diversification program, fruit seedlings (1,00,000) were distributed to farmers to increase their income.
- Human elephant conflict mitigation program - With the collaboration with SNEHA NGO, trainings were provided to rapid response team of forest department. Early warning system was activated to inform people of elephant's movement through SMS, pre recorded voice calls. LED GSM boards displayed elephant movement in the highly affected areas. Camera traps capture movements in the elephant corridor which were followed by an early warning system.

For further details, contact us on

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Community planting at coorg



Distribution of free seedlings



Human animal conflict mitigation program



Training of the farmers to reach 3500 farmers in the region

Nedspice Farmers Partnership Program (NFPP)

Area of operation: **Rajasthan, Kerala, Andhra Pradesh**

Crops covered: **Cumin, Turmeric, Fennel, Fenugreek, Coriander, Nutmeg**

Total area covered (ha): **14,066**

Number of farmers associated: **1,921**

Average landholding of farmers associated with program (ha) – **Cumin -10.59, Turmeric-0.85, Fennel-1.80, Fenugreek-1.18, Nutmeg-0.84**

Details for year 2023-24

Program Impact

INR 38,500 per hectare farmers' income enhanced



NFPP App: Used for Geotagging, field data collection, pest and diseases information, etc

SDGsimpacted



Nedspice Processing India Pvt. Ltd.

NEDSPICE

About the Program

The Nedspice Farmers Partnership Program (NFPP) is dedicated to fostering sustainable agriculture practices and enhancing the livelihoods of farmers in India. Focusing primarily on seed spices such as cumin, fennel, coriander and fenugreek in Rajasthan, as well as turmeric in Andhra Pradesh and nutmeg in Kerala, the NFPP aims to increase farm productivity and produce high-quality, safe spices.

Since its inception with 44 farmers in 2013/2014, the program has expanded significantly, now engaging 1,921 NFPP farmers in Rajasthan, Andhra Pradesh and Kerala collectively producing 4,621 MT of sustainable spices. This growth can be attributed to the committed team of project officers and field executives who provided continuous training and on-farm support to improve farming practices sustainably. The program emphasized the implementation of Good Agricultural Practices (GAP), safe pesticide usage, and waste management. Regular supervision and monitoring were conducted to maintain these standards, ensuring that the harvested produce is of high quality and traceable from farm to fork. To support farmers, the NFPP offered a Package of Practice, which included detailed guidelines on seed treatment and nutrient application during each crop stage. Additionally, the program promoted cashless transactions, transferring the amount to farmers' accounts within a day, to enhance farmers' financial safety and convenience.



On farm training of farmers by Agriculture Scientist



Native Tree Plantation: Nedspice Biodiversity Park, Sangad Jaisalmer

For further details, contact us on

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JFarm Services

TAFE Foundation

Area of operation: **Assam, Bihar, Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, West Bengal.**

Crops: **All crops**

Total area covered (ha): **65,00,000**

Number of farmers associated: **1.25 Crores (till 2023-24)**

Average landholding of farmers associated with program (ha) – **0.83**

Details for year 2023-24

Program Impact

INR 1,800 per hectare farmers' income enhanced





JFarm Services aims at creating awareness and providing access to high-tech farm machinery to all farmers

SDGs impacted



About the Program

JFarm Services is a phygital farmer-to-farmer platform which connects small and marginal farmers with equipment owners ready to rent out their tractors and implements. Farmers in need of farm equipment on rent can conveniently book the rental order through any suitable channel- a mobile app or toll-free call-center. Also, machinery owners interested to become entrepreneurs can list their tractors and implements, which will be available for hiring by farmers. As per the modus operandi, the rental orders booked by farmers are broadcasted to entrepreneurs nearby through their backend engine. The renter entrepreneurs who accept to service the rental orders are then connected with the concerned farmers. Being a CSR initiative, no listing fee or commissions are charged from the users. The respective rental amount is paid by the farmer to service provider directly.

Through this intervention, farmers have easy access to the required farm equipment resulting in improved yield, thereby taking the farmers forward towards enhancing their income as envisioned by the Government of India. Further, the aggregated demand for mechanization provides immense entrepreneurship scope in rural space for shared economy business models.

To provide a comprehensive solution to farmers to enable better income realization, customized training programs are organized for farmers through JFarm Services platform on crop management and machinery maintenance. Further, JFarm Services platform support the farmers to decide the preferred channel of selling their farm produce.

For further details, contact us on

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The program was also awarded in 2022

Income Enhancement of Small and Marginal Farmers through Agri Entrepreneurship Program

Syngenta Foundation India

Area of operation: **Bihar, West Bengal, Jharkhand, Assam, Madhya Pradesh, Maharashtra, Odisha, Uttar Pradesh, Punjab, Andhra Pradesh, Telangana, Tamil Nadu, Manipur**

Crops covered: **Rice, Wheat, Sugarcane, Cotton, Soybean, Bengal Gram, Vegetables, Tea, Chilly, Corn**

Total area covered (ha): **12,42,744**

Number of farmers associated: **17,05,522**

Average landholding of farmers associated with program (ha) – **0.7**

Details for year 2023-24

Program Impact

INR 23,672 per farmer: farmers' income enhanced



Mangala Satone: Elevating agriculture, enhancing community livelihoods



SDGs impacted



About the Program

Agri Entrepreneurship training program was launched in 2014 with a goal to develop a network of 1,00,000 Agri Entrepreneurs (AEs) providing last-mile assistance to farmers. These AEs were trained and certified by Central Govt. bodies including NIAM- Jaipur, and MANAGE- Hyderabad, ensuring high-quality support to farmers.

Geographical Expansion: Initially launched in Maharashtra, the program has successfully expanded its reach to 13 states, encompassing 210 districts and 1,113 blocks. This widespread coverage has enabled the program to train 19,896 AEs, out of which 53% being women, significantly contributing to rural employment and empowerment.

Comprehensive Agricultural Services: The program provided 21 essential agricultural services including agri-inputs, farm machinery, digital banking, and market linkage etc, effectively bridging resource gaps for farmers through trained AEs.

Farmer Engagement and Education: Syngenta Foundation India (SFI) has conducted over 12,300 farmer meetings, engaging nearly 1.3 million farmers. These meetings focused on crop management, technology demonstrations, and Climate-Smart Agriculture (CSA) practices, ensuring that farmers were equipped with the knowledge to adapt to modern agricultural challenges.

Rural Youth Engagement and Income Enhancement: AE program has successfully involved unemployed youth in agriculture to serve as a link between quality services & farmers. Over 7,000 women AEs have been engaged out of which 84% reported an increase in their income. Beyond income enhancement, the program has significantly contributed to improving the livelihoods of rural youth & has positively impacted their socio-economic development.

CSA Training and Implementation: The program also emphasized sustainable agriculture through CSA practices. Over 25,000 farmers benefited from CSA capacity-building programs, and nearly 1,93,552 farmers participated in technology demonstrations, driving the adoption of sustainable farming techniques.

Widespread Impact: The program reached 1.7 million farmers, with 45% being women farmers, positively impacting over 2.9 million acres of agricultural land across India. This large-scale impact demonstrates the program's effectiveness in enhancing livelihoods, promoting sustainable agriculture, and addressing rural youth unemployment.

For further details, contact us on

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The program was also awarded in 2022 and 2023

Dairy Farmer Development Program - Project Unnati

Area of operation: **Maharashtra**

Crops/Commodity covered: **Milk**

Number of farmers associated: **7,240**

Details for year 2023-24

Program Impact

INR 1,37,051 per farmer farmers' income enhanced



Empowerment of Women Dairy Farmers through Best Dairy Practices



Better Cattle Breeds through Advanced Breeding Technologies

SDGs impacted



Jubilant FoodWorks Ltd.

About the Program

Jubilant FoodWorks Limited (JFL) initiated the Dairy Farmers Development Program in the year 2017 with 2 Cattle Development Centers (CDCs) and continues with an objective to provide scientific herd management techniques to dairy farmers, to enhance herd quality as well as improve the milk quality and yield for their dairying business.

In its efforts to support sustainable agricultural practices and enhance the livelihoods of rural farmers, JFL has established and is already supporting 35 Cattle Development Centers (CDCs) across four districts in Maharashtra. This initiative benefits approximately 40,000 cattle and more than 7,500 dairy farmers by providing them with training and resources to improve cattle health and milk production. By focusing on livestock management and veterinary care, JFL helps farmers increase their productivity and income, contributing to the economic stability of rural communities. Services provided as a part of program included advanced breeding technologies (Artificial insemination and Sex sorted semen), mineral mixture supplements, training / advice on herd management, healthcare services including ethno veterinary medicines & vaccination support for cattle, awareness on developing improved & low-cost fodder, setting up of Loose housing structures and silage units for the preservation of green fodder.

The program heavily emphasizes on the capacity-building part of the farmers. Knowledge dissemination takes place through diverse avenues on topics like biogas units, loose housing, chaff cutters, silage units, and more. Women empowerment was another essential part of this training; therefore, the women dairy farmers, referred to as Pashusakhi/Mahila Pashupalaks in the program, were encouraged to take part in the meetings and interact with the veterinarians, AI Technicians, and other subject matter experts without any hesitation.



Capacity Building Program for the Dairy Farmers.

For further details, contact us on

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Mission Shwetdhara

Area of operation: **Rajasthan**

Crops/Commodity covered: **Fodder, Silage, Seeds, Cattle Feed, Mineral Mixture, Liquid Calcium**

Total area covered (ha): **280 villages across Jaipur and Sikar District, Rajasthan**

Number of farmers associated: **11,850+**

Details for year 2023-24

Program Impact

- **INR 36,000** per farmer farmers' income enhanced
- **Reduced Inter-Calving Period:** From 16-18 months to 12-14 months.
- **Increased Child-Bearing Capacity:** From 6-7 to 8-9 calves per animal.
- **Improved Calf Immunity:** Stronger Shwetdhara calves with higher survival rates.
- Enhanced Milk Productivity:
  - 70% of farmers reported an increase of 3-5 liters per day.
  - Improved milk quality with higher fat and SNF levels.
- **Lower Expenses:** Reduced input supply cost and cattle health expenditure.
- **Behavioral Changes:** Better adoption of modern scientific animal husbandry practices among farmers.



Woman dairy farmer with her Shwetdhara cow, thriving with balanced cattle feed, better health, and enhanced milk production

SDGs impacted



End Poverty

About the Program

Shwetdhara Project

The Shwetdhara Project, an animal productivity enhancement program under End Poverty's Dairy Development Initiatives, supported by IDFC FIRST Bank, aims to improve farmer's incomes through dairy business.

By addressing key challenges across dairy value chain, the program ensures transparency, fairness and quality input services at the doorsteps of the farmers.

The Pillars of Shwetdhara are **Breed Improvement**, **Animal Health, Animal Nutrition and Training & Capacity Building.**

Program Components

1. Institution Building:
   - 280 Gram Sakhis
   - 7 Pashu Vikas Kendras (PVKs)
   - 1 Farmer Producer Organization (FPO) – Varini Milk Producer Company Limited
2. Operations:
   - Breed improvement through artificial insemination and advanced breeding practices
   - Comprehensive animal health services
   - Quality animal feed supply
3. Women Empowerment:
   - Supported more than 11,850 women dairy farmers so far.
   - Nurturing 280 Female Village Level Animal Health Worker (Gram Sakhis - Entrepreneurs)
   - 10 Female Board Members and 5,100+ shareholders of the Varini MPCL

Scalability of Shwetdhara

1. Definite Demand:
   - Over 8 crore dairy farmers in India, among them around 85% are small and marginal dairy farmers who need constant support to enhance cattle yield and breeding efficiency.
2. Proven Impact:
   - Over 10,000 dairy farmers have experienced improvements better animal productivity by adopting modern scientific dairy farming practices.
3. Historic Expansion:
   - Expanded from 3,200 farmers in 64 villages with 2 PVKs in 2018 to over 11,850 farmers across 280 villages and 7 PVKs in 2023.
4. Scalability Avenues:
   - Support from IDFC FIRST Bank (Donor)
   - Implementation by End Poverty (IA)
   - Engagement through Varini MPCL (FPO)

Sustainability of Shwetdhara

The sustainability strategy focuses on strengthening the FPC – Varini MPCL, ensuring robust operations that deliver input services to farmers at reasonable prices right at their doorsteps. With growing demand, more farmers and villages are joining, the institution is facilitating strong backward and forward linkages. The FPC achieved a turnover of ₹4 crores in FY 2023-24, reflecting steady growth and expanding impact.

For further details, contact us on

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2.2 Farm Level Sustainability Initiatives while Sourcing

S No.	Award Winner	Program Name	P. No.
1	ADM Agro Industries India Pvt. Ltd.	"Shashwat Sheti Upakram" which in Marathi Means: "Project for Phased Transition to Sustainable Farming"	35
2	LT Foods Ltd.	Sustainable Rice Production Program	36
3	Olam Food Ingredients India Pvt. Ltd.	Ofi Sustainable Spices Program (OSSP)	37
4	Mahindra Agri Solutions Ltd.	MASL Sustainable Grapes Sourcing Program	38
5	Indian Products Pvt. Ltd. (Jayanti Group)	Direct Farmer Sourcing Program	39
6	Food and Inns Ltd.	Sustainability Agriculture Initiative Program	40
7	ITC Ltd.	Sustainable Dairy Development Program	41

"Shashwat Sheti Upakram" which in Marathi Means: "Project for Phased Transition to Sustainable Farming"

Area of operation: **Maharashtra**

Crops covered: **Soybean**

Total area covered (ha): **36,500**

Number of farmers associated: **25,500**

Average landholding of farmers associated with program (ha) – **1.8**

Details for year 2023-24

Program Impact

Crop productivity enhancement to 1.8 MT/ Ha from 1.5 MT/Ha

Biodiversity conservation



International Women Day Celebration with focus on women empowerment & human rights



Intervention on Drone Technology

SDGs impacted



The program was also awarded in 2023

ADM Agro Industries India Pvt. Ltd.

About the Program

The project envisioned covering 25,500 farmers to adapt verifiable, traceable, certified sustainable production of soybean, including certified organic standards suitable for use in food/ food ingredient by leading food processing industries. The project covered interventions like supporting the small land holder farmers in soil & water conservation; assisting them in promoting biodiversity and environmental protection; improving the soybean yield by 20% by following technology driven good agricultural practices and provide consistent, transparent, and reliable direct marketing linkage to small land holder farmers.

Farmers were given hands on training for 10 Proterra principles which includes:

1. Compliance with law, international conventions and the Pro-Terra Standard
2. Human rights and responsible labor policies and practices
3. Responsible relations with workers and community
4. Biodiversity conservation, effective environmental management and environmental services
5. No use of genetically modified organisms (GMOs)
6. Pollution and waste management
7. Water management
8. Greenhouse gases and energy management
9. Adoption of good agricultural practices
10. Traceability and chain of custody



Farmer training on safe use of pesticides & waste disposal management

For further details, contact us on

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Sustainable Rice Production Program

LT Foods Ltd.

Area of operation: **Haryana, Uttar Pradesh, Madhya Pradesh**

Crops covered: **Rice**

Total area covered (ha): **11,322**

Number of farmers associated: **990**

Average landholding of farmers associated with program (ha) – **11.44**

Details for year 2023-24

Program Impact

SRP Standard Score – 98 (52,065 MT SRP verified paddy production)



Alternate Wetting and Drying Pipe (AWD)



Farmer's Pesticide Storage Room with Safe handling and use of Pesticide Instructions



On Field Farmer Training

SDGsimpacted



About the Program

LT Foods is at the forefront of promoting sustainable agricultural practices, driven by their commitment to not only the environment but also the social and economic well-being of farming communities. LT Foods Sustainable Rice Production program is a key example of this effort, where they focus on encouraging the adoption of Sustainable Rice Platform (SRP) standards across paddy fields. As a founding member of the SRP, LT Foods has set benchmarks in compliance and implementation.

The program adhered to 41 requirements across 8 key themes, covering areas such as water management, nutrient efficiency, and social well-being. The effectiveness of the program's approach was validated through annual audits by external parties, reflecting continuous improvement and outstanding results at the farm level. Farmers experienced the program benefits through enhanced savings and income growth. Expanding their sustainability initiatives, LT Foods collaborated with ICAR-NCIPM to train 10,000 farmers in Integrated Pest Management (IPM) techniques. This collaboration aimed to reduce dependency on chemical pesticides and promote ecological balance, benefiting both farmers and the environment.

They also drove innovation through Carbon Farming Project, which spanned 3,000 acres. This initiative was designed to enhance farmers' income while promoting sustainability by sequestering carbon in the soil. By improving soil health and reducing carbon footprints, this project aligned with global climate goals. In addition, through Sustainable Market Initiative Project, they promoted regenerative agriculture on 2,000 acres. This approach emphasized soil regeneration, biodiversity enhancement, and long-term resilience in farming systems. Through these projects, LT Foods is committed to fostering sustainable agricultural practices that not only improved farm productivity but also contributed to the overall development of rural communities. Their comprehensive approach to sustainability ensured that they lead the way in responsible farming, creating long-term value for farmers, consumers, and environment alike.

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Ofi Sustainable Spices Program (OSSP)

Olam Food Ingredients India Pvt. Ltd.

Area of operation: **Kerala, Andhra Pradesh, Karnataka, Telangana, Rajasthan, Tamil Nadu, Maharashtra**

Crops covered: **Chilli, Cumin, Turmeric, Coriander**

Total area covered (ha): **14,000+**

Number of farmers associated: **3,111**

Average landholding of farmers associated with program (ha) – **Chilli – 2, Turmeric – 1, Seed spices – 8**

Details for year 2023-24

Program Impact

Regenerative Agricultural Practices is helping farmers to grow the Spice crops in a sustainable manner and is helping to reduce the GHG Emissions.



Provision of Organic Inputs



Safe and Clean Drinking water to the Community- RO Water Units

SDGsimpacted



The program was also awarded in 2023

About the Program

Olam food ingredients (ofi) is working with around 3,111 spice farmers right from sowing to harvest through a dedicated agronomy team. Farmers were trained on Good Agricultural Practices (GAPs) to improve the quality and to reduce their cost of cultivation thereby to improve the farm profitability. The team conducted regular training programs and field visits to achieve the desired results in a focused manner, on Soil Management, Pest & Disease Management through IPM methodology, and Post-Harvest Management practices.

The team imparted knowledge on GAPs through training programs and field visits to achieve the desired results in a focused manner, covering the following:

- **Soil management**- Soil samples were collected for testing and fertilizers were recommended based on Soil Health Cards to use the right doses of manures & fertilizers.
- **Nutrient management**- Promoted green manuring, as a part of crop rotation with legumes to enhance the soil fertility, usage of Farmyard manure (FYM), sheep penning, organic manures to increase soil organic carbon content and to increase the microbial activity and to promote judicious use of synthetic fertilizers.
- **ICM**- Farmers were trained on Integrated Crop Management (ICM) practices to improve the yields, quality, and reduce cost of production there by to increase the farm profitability.
- **IPM**- Integrated Pest Management (IPM) practices with a focus on cultural, mechanical/physical, and biological methods to reduce the dependency on using chemicals.
- **Participation in community developmental activities in** a big way focusing on the health, hygiene and safety of the farmers and farm workers.
- **Food safety and quality** - Shade nets and tarpaulins were provided to farmers for drying the produce to avoid contact with soil and to avoid cross contamination of foreign/extraneous matter at farms. New jute bags were supplied having cloth tags where in farmer code and lot details were mentioned to maintain traceability.

For further details, contact us on

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MASL Sustainable Grapes Sourcing Program

Area of operation: **Maharashtra**

Crops covered: **Grape**

Total area covered (ha): **526**

Number of farmers associated: **273**

Average landholding of farmers associated with program (ha) – **2**

Details for year 2023-24

Program Impact

Water Usage Efficiency: Saved 1.2 billion liters of water.

Crop Yield and Quality Metrics: Increased grape yields from 4 to 8 tons per acre.



Acid Dosing Pump System at farm



Farmer Training By International Expert



Solar Water Pump installed at Farm

SDGsimpacted



Mahindra Agri Solutions Ltd.

About the Program

The MASL Sustainable Grape Sourcing Program, launched in 2018, is a comprehensive initiative to promote sustainable agriculture among grape farmers in India. The program enhances the exportable productivity, quality, and market readiness of grapes through advanced agricultural practices and direct market linkages. Operating in key grape-growing regions such as Nashik, Sangli, Pune & Solapur, MASL provides extensive training and support to farmers. The program employs precision agriculture techniques to optimize water and fertilizer usage, thereby increasing exportable yields and improving grape quality. Agronomists, along with international experts, work closely with farmers, offering hands-on guidance on pest management, water conservation, and adherence to global food safety standards, through endorsing package of climate resilient agricultural practices and supporting with implementation. We also provide access to technology, where we have supported installation of 421 weather stations and soil sensors and 30 acid dosing pumps for improving various soil parameters.

MASL's investment in state-of-the-art infrastructure, including a world-class packhouse in Nashik, ensures that grapes maintain their quality during packing and transportation. The packhouse, with a capacity of 7 containers per day, is equipped with the latest cold chain management technology. This infrastructure supports direct sourcing from farmers, promoting fair trade and better pricing for their produce.

The program has significantly boosted exportable grape yields and farmer incomes. Improved agricultural practices have led to yield increases from 4 tonnes per acre to up to 8 tonnes per acre. The program has also expanded market access through encouraging varietal adoption in farmers and popularize domestic grapes in international markets, with exports reaching Europe, Canada, Malaysia, and China, thereby stabilizing prices and reducing dependency on a single market. Our initiative led to increasing export share of non-European markets by 10% from FY19 to FY24.

MASL's "Saboro" brand is renowned for its consistent quality and premium grapes, achieved through a robust farmer extension services program called KSKT (Khet se Khalayan Tak). This program ensures that the market's quality requirements are met, fostering strong relationships with farmers, and providing them with the necessary resources and expertise. We customize our support for farmers based on a Change Management Program framework, where we categorize farmers basis of their behaviour attributes, their Quality Control scores and their farm productivity.

In addition to these efforts, MASL emphasizes sustainable practices such as using 100% recyclable packaging materials, promoting packaging circularity, and employing a majority women workforce in packhouses and processing facilities. These practices not only enhance the sustainability of the supply chain but also contribute to gender equality and social development.

Through these initiatives, MASL has created a resilient and productive grape ecosystem that benefits farmers, enhances export competitiveness, and promotes sustainable agricultural development. The program exemplifies the potential of private sector involvement in fostering resilient and productive agricultural practices, ultimately contributing to the socio-economic upliftment of rural communities.

For further details, contact us on

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Direct Farm Sourcing Program

Area of operation: **Karnataka, Andhra Pradesh**

Crops covered: **Chilli**

Total area covered (ha): **250**

Number of farmers associated: **280**

Average landholding of farmers associated with program (ha) – **1-2**

Details for year 2023-24

Program Impact

Gender inclusivity- 20-25 % women participation in all programs, meetings and activities

Waste recycling and safe disposal



Workshop on diet and nutrition



Training for on-farm health and safety

SDGsimpacted



Indian Products Pvt. Ltd. (Jayanti Group)

About the Program

Interventions promoted through Direct Farmer Sourcing program were:

1. Farmer capacity building: Knowledge sharing, training on standards and tools implementation and implementing environment & social protection.
2. Adaption of innovative and sustainable solutions: Seed treatment with natural bioagents, regular monitoring and early detection of risks by digital technology and achieving primary clean & safe produce post-harvest at farm gate.
3. Biodiversity enhancement: Introduction of local plants/ trees promoting native birds, biological control agents & pollinator species at farm level. Soil microbiome enrichment by composting and Farm Yard Manure (FYM) use.
4. Cost reduction or substitution: Introduction of mixed cropping & gardens to promote domestically consumable and commercially viable crops like vegetables, pulses, flowering & fruit bearing.
5. Women empowerment: Skilling of women to promote sustainable farming and environment friendly production. Capacitating to contribute for production and marketing decisions.
6. Direct global market linkage: Supporting farmers with third party certification for sustainable & ethical spice production. Price realization to farmers by better marketing strategy and recipient of direct income.

For further details, contact us on
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Sustainability Agriculture Initiative Program

Food and Inns Ltd.

Area of operation: **Maharashtra, Andhra Pradesh**

Crops covered: **Mango, Tomato, Guava**

Total area covered (ha): **7,757**

Number of farmers associated: **1,780**

Average landholding of farmers associated with the program (ha) – **2**

Details for the year 2023-24

Program Impact

Reduction in Greenhouse gases emission



From farm to factory, then back to farm



Innovative techniques accepted by young farmers



Inauguration of farmers' training program

SDGs impacted



About the Program

Foods and Inns (F&I) is expanding its direct and smallholder farmer base to optimise value chains and responsibly source raw materials via the program. This involves maintaining traceability, controlling hazardous chemical use, rejuvenating soil and ecosystems, and ensuring the quality of raw materials. Over the last few years, Foods and Inns have completed various customer-driven projects regarding sustainable sourcing and traceability, working with a clutch of smallholder farmers procured for specialised produce for one of the most prominent FMCG players and formalising ethical and human rights outreach programs, aligned via the UN SDGs. The key pillars of the program are:

Farmer profitability and resilience: F&I is building a bottom-up farm approach that encourages higher farm yields and leads to higher farm realisation and profits by training farmers with best farming practices. The objective is to increase the farmer's quantity, quality, and income. Additionally, the company encourages farmers to use pollinators, increasing cross-pollination and intercropping with other fruits, spices, and vegetables, yielding additional income throughout the year.

Farmer sustainability: The company focuses on controlling hazardous chemicals, which deteriorate food quality and lead to export restrictions due to strict pesticide controls in Indian and international markets. To address these issues, F&I supports farmers with integrated pest management techniques. To enhance its sustainability initiatives at the farm level, F&I implements soil and ecosystem health programs through training and demonstrations and distributes innovative agricultural equipment and informative materials to farmers.

Waste Management: F&I procures over 300,000 metric tons of fruits, vegetables, and spices, leading to waste after processing. F&I focuses on converting most of its waste, such as peels and stones, into briquettes (combustible biomass material) and organic compost, as well as generating pectin from the peels and mango butter from the kernels. They return the compost and mango seeds to their direct smallholder farmers and nursery plants, promoting a circular economy and protecting biodiversity.

Upcycling and creative reuse of waste: The company aims to repurpose waste into valuable finished products. These products include mango pectin (project Beyond Mango), compost manure, briquettes, and converted food waste used in boilers.

Carbon Emissions and Renewable Energy: In 2021, the company submitted its first GHG (Greenhouse Gas) inventory and carbon emission data to the Carbon Disclosure Project (CDP). Under the Science Based Targets Initiative (SBTi), the company has set a target to reduce its emissions by 50% by 2035.

For further details, contact us on

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Sustainable Dairy Development Program

ITC Limited

Area of operation: **Bihar, West Bengal, Jharkhand**

Crops/Commodity covered: **Milk**

Number of farmers associated: **43,212**

Details for year 2023-24

Program Impact

17% increase in milk yield

16% increase in farmer income

Reduction of 1,452 MT greenhouse gases emission per annum



Farmer Pouring

SDGs impacted



About the Program

The dairy related livelihoods initiative aimed to provide transparent milk collection, direct and timely payment, artificial insemination, preventive health care, door step treatment along with supply of cattle feed, feed supplements, fodder seeds to improve livestock farming methods and techniques. Providing chilling infrastructure at source improved the milk quality. Animal productivity enhancement, promotion of clean energy, supply chain re-engineering and installation of Biogas units helped in the reduction of greenhouse gases. The interventions done are listed below:

- Building Trust and Transparency in Milk Collection: Milk collection through automatic milk collection unit (AMCU), timely payment (Weekly/Bi-weekly), milk payment through Direct Benefit Transfer mode and digitization and entire milk value chain.
- Productivity Enhancement Program: Artificial Insemination, preventive health care service (deworming and vaccination), veterinary service (camp & treatment), nutrition service (cattle feed & fodder) and financial Inclusion (cattle loan/insurance).
- Cluster Based Milk Chilling and Chilling at Source & Supply Chain Reengineering: Milk chilling infrastructure at source, promotion of clean energy, and supply of milk directly to plants.
- Reduction in GHG emissions: Productivity enhancement, supply chain reengineering to reduce carbon footprints, Biogas installation at farms and promotion of high yielding perennial fodder crops.



Farmer Awareness & Training

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2.3 Natural Resource Management and Climate Resilient Agriculture Initiatives

S No.	Award Winner	Program Name	P. No.
1	ITC Ltd.	Climate Smart Village (CSV) Program	43
2	Olam Agri India Pvt. Ltd.	Better Rice, Better Life	44
3	Tata Coffee Ltd.	Natural Resources & Biodiversity Conservation, and Community Empowerment to Mitigate Climate Change	45
4	Axis Bank Foundation	Restoration of Livelihoods in Jharkhand, Telangana and Maharashtra - Implemented by Watershed Organization Trust (WOTR)	46
5	PANI- People's Action for National Integration	Climate Change and Natural Resource Management	47

Climate Smart Village (CSV) Programme

Spread and Coverage:

- 12 States (Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana and Uttar Pradesh)
- 6,755 Climate Smart Villages (CSV)

Crops covered:

- Cereals – Maize, Paddy and Wheat ; Millets – Jowar, Ragi and other minor Millets; Commercial crops – Chilly, Onion and Sugarcane; Oilseeds and Pulses – Red Gram, Green Gram, Mustard and Soyabean; Plantation crops – Arecanut, Banana and Coconut; Fruit crops – Mango, Guava and others; Vegetable crops and Other trees - Bamboo, Melia Dubia and Silver Oak

Average landholding of farmers associated with programme (acres) – 3 acres

Program Impact*

High Yield-High Resilience villages got doubled to 299 in 2023 as compared to 2019 baseline (Sample of 612 villages)

Impacts of the 4 Components, based on sample assessments:

- 10.5% yield improvement and 33% higher income in Rice due to DSR.
- 90% households having 2 crops per year, due to increased water availability.
- 1,090 million cu.m potential water savings from agri-water use efficiency / demand management.
- 64% improvement in Soil Organic Carbon (SOC), against baseline.
- 50% additional income for farmers from plantations, against baseline.
- 30% higher income from milk sale, compared to control.
- Rs.92,000/- turnover & Rs. 34,000/- net income per year per ABCs, in Maharashtra.
- Rs. 240 crores fund leverage from PM KISAN (scheme linkages).

*As documented by ICAR Institutions, Third Party Agencies & Farmer diaries



Farmer Field School training led by women farmers, Maharashtra

SDGs impacted



ITC Limited

Enduring Value

About the Program

Recognising that agriculture is most vulnerable to climate change and to address the challenges unique to Indian farmers, ITC has designed a Climate Smart Village (CSV) Programme, initially in partnership with Climate Change and Food Security Programme of CGIAR, and later further strengthened the same basis grassroot insights and also scaled-up. CSV is a holistic approach designed by integrating multiple initiatives into a single framework to adapt to the emerging climate risks. CSV's primary objective is to strengthen agrarian livelihoods by reducing losses in a bad year (Resilience) and improving yields (Yields) in a good year for the farmers.

Key components of CSV

Climate Smart Agriculture (CSA): Assessment of Climate risks using AI based models, develop crop specific Adaptation Toolkit with climate resilient practices, promote toolkit with farmers through Phygital capability building modes such as Farmer Field Schools, Pradarshan Khets, ITCMAARS and WhatsApp along with round the year engagement to help farmers in adopting the practices.

- In 2023-24, covered 28 lakh acres and 10.5 lakh farmers (including 1.95 lakh women farmers) under CSA, of which 19 lakh acres and 7.14 lakh farmers are part of the CSV villages.

Natural Resource Management (NRM): Conserve water, soil health and biodiversity, critical for agriculture.

- Till date, 54.26 million cu.m rainwater harvesting potential created, benefitting 16.38 lakh acres, 84.45 lakh tons of tank silt applied in fields to improve soil health and 4.7 lakh acres covered under biodiversity conservation.
- Demand management (More Crop per Drop) practices as part of CSA in 15 lakh acres.

Livelihood diversification: On-farm livelihood diversification through multi-purpose tree plantation like agro-forestry focusing on small landholder friendly models and Off-farm diversification through animal-based livelihoods (large and small ruminants) - 5 lakh acres plantation and 7 lakh animal households till 2023-24.

Institutional support to farmers: Formation and strengthening of farmer groups for collectivisation and facilitate Government scheme linkages for Credit, Insurance, Additional Income, Soil Health, and Pension.

- 2,810 FPOs and Agri Business Centers promoted, and 24.75 lakh scheme linkages facilitated till 2023-24.

Multistakeholder Partnerships:

- 60 Public Private Partnerships (PPPs) with Government for improving scale & coverage including two PPPs in MP state exclusively for replicating ITC's CSV model in the state.
- Knowledge Partnerships with reputed Indian Institutes from ICAR and Global Institutions like CGIAR, IWMI, WWF India and IUCN International for contemporary technologies and solutions.
- Partnerships with over 9,000 Community Institutions for ownership, contribution and sustenance.
- Partnerships with 50 Civil Society Organisations for grassroots execution.

For further details, contact us on

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Better Rice, Better Life

Olam Agri India Pvt. Ltd.

Area of operation: **Haryana, Punjab, Madhya Pradesh, Andhra Pradesh**

Crops covered: **Rice**

Total area covered (ha): **6,486**

Number of farmers associated: **7,922**

Average landholding of farmers associated with program (ha) – **0.76**

Details for year 2023-24

Program Impact

10,041 tons of CO2 eq reduction

Water saving of 177.5 billion litres



Krishi sakhis – the women extension agents trained on low carbon paddy cultivation practices, who in turn train farmers on the same

SDGsimpacted



The program was also awarded in 2021

About the Program

The program aimed to create the conditions and mechanisms for smallholder farmers across geographies in India, to grow rice more sustainably, by reducing GHG emissions & the water footprint associated with rice cultivation through use of climate-sensitive technologies and practices in cultivation while adopting a gender transformative approach. The program began with multiple stakeholders under its ambit- International Finance Cooperation, Bayer, Syngenta in Haryana & Punjab for capacity building, technical support; GIZ, International Rice Research Institute (IRRI), UN Women in Haryana, Madhya Pradesh & Andhra Pradesh for technical capacity building, measuring & validating low emission rice cultivation practices, helping create market linkages, all while focusing on improving the gender sensitivity in the operating areas. Economic incentives through new market linkages as well as the carbon market were also being explored for leading to agroecological transformation of smallholder business models.

Alternate Wetting and Drying (AWD) is one example for climate-friendly rice cultivation where the fields are flooded only periodically. The positive impact of AWD is scientifically proven and recognised by international standard setters. Additionally, climate-sensitive methods including use of biochar, crop residue management, reduction of nitrogenous fertilizer use, cover cropping, sequestration using Azolla, use of methanotrophic organisms etc are all promoted by the program. Afforestation of degraded land was also being carried out in Madhya Pradesh under the umbrella of the program (in 1,000 ha), which will be governed by the local tribal community engaged in paddy cultivation, thereby improving ecosystem services at the landscape level and adding climate resilience. Pilots of dynamic weather, pest & disease advisory to farmers via digital apps, digital traceability via apps were being carried out under the project. Market linkages where farmers were paid a premium for adopting sustainable practices have been created under the project in both basmati & non-basmati paddy, providing additional incentives for farmers to follow climate resilient agricultural practices. Carbon markets were also being explored for further incentivisation.

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Natural Resources & Biodiversity Conservation, and Community Empowerment to Mitigate Climate Change

Tata Coffee Ltd.

Area of operation: **Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Odisha**

Crops covered: **Coffee, Tea, Pepper**

Total area covered (ha): **12,700+**

Number of farmers associated: **8,400**

Details for year 2023-24

Program Impact

Total carbon sequestration of **59,76,700 tCO2e.**





Investing in our future: 1.6+ mn trees in the Tata Coffee plantations, a legacy for generations to come

SDGsimpacted



About the Program

The program is a comprehensive strategy to revitalize landscapes, empower communities, and mitigate climate change. By integrating reforestation, climate-smart agriculture, and robust community engagement, Tata Coffee aim to restore ecological balance, enhance food security, and drive sustainable economic growth. Through addressing the interconnected challenges of deforestation, unsustainable farming practices, and environmental degradation, they seek to create a resilient and prosperous future for generations to come.

Following are the initiatives under the program:

1. Increase in carbon sequestration.
2. Safeguarding natural resources and biodiversity,
3. Soil Conservation- Contour planting, renovation trenches, application of organic composts prepared in-house, planting of cover crops including Vetiver, soil-based nutrient management and providing slopes to restrict soil erosion.
4. Climate-Water Security Nexus.: With 275 irrigation tanks covering a total area of 120 ha, Tata Coffee stores 3.58 million cum of water across its plantations. This rainwater harvesting initiative ensures that no ground water is tapped for irrigation operations. Additionally, water usage efficiency was strengthened in planting operations through increased use of drip irrigation and high-efficiency sprayers in plantations. Environment-friendly eco-pulpers were used in coffee processing, resulting in 75% reduction in water usage.
5. Empower indigenous and vulnerable communities, and by extension, the larger plantation industry.

For further details, contact us on
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The program was also awarded in 2023

Restoration of Livelihoods in Jharkhand, Telangana and Maharashtra - Implemented by Watershed Organization Trust (WOTR)

Area of operation: **Jharkhand, Telangana, Maharashtra**

Crops covered: **Paddy, Pulses, Vegetables, Cotton, Groundnut, Sorghum, Finger Millet, Wheat**

Total area covered (ha): **8,163**

Number of farmers associated: **21,310**

Average landholding of farmers associated with program (ha) – **1.62**

Details for year 2023-24

Program Impact

201 million litres of water harvested through 244 water harvesting structures (tanks/ponds/phad/doha) created.

Enhanced agricultural production from 20 quintals to 35 quintals per acre in case of paddy and up to 20% enhancement in production for other crops.



Restoration of livelihoods in rural communities of Jharkhand

SDGs impacted



Axis Bank Foundation

AXIS BANK FOUNDATION

About the Program

Following are the interventions adopted under the program.

- **Capacity Building of Community Based Organizations (CBOs)**: Village Watershed and Water Management Committee, Forest Protection Committee etc. were formed and strengthened for management of natural resources.
- **Stakeholder Engagement Workshops**: Joint workshops together with government line departments and CBOs were conducted for rapport building facilitating collaborations and for leveraging government schemes and programs.
- **Watershed Development**: Land treatment through Soil and Water Conservation (SWC) measures were taken up to reduce soil erosion and conserve flowing rainwater from a Ridge to Valley approach.
- **Capacity Building of Jal Sevaks**: The CRPs (Jalsevaks) underwent capacity building and worked at cluster level to plan, facilitate and implement water budgeting and related activities.
- **Soil Health Management**: Climate Resilient Agriculture practices were introduced including soil testing, demonstrations, setting up community seed banks, promotion of local seed varieties, integrated pest management, ecological neutral pesticide/herbicides and organic farming.
- **Crop Demonstrations**: Demo vermicompost beds, farmers field schools, organic friendly and environment friendly agriculture practices, demonstration on compost culture, multilayer farming were done.
- **Weather Forecasts and Crop Specific Advisories**: Crop specific advisories were given to farmers in advance though SMS and Farm Precise App.
- **Non-Farm based Livelihoods**: Activities for additional sources of livelihoods such as goatery and poultry development were promoted to support vulnerable households.
- **Enterprise Development**: In collaboration with NRLM, groups were facilitated for bank linkages and directed towards setting up livelihood unit for income enhancement.

For further details, contact us on

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Climate Change and Natural Resource Management

Area of operation: **Uttar Pradesh**

Crops covered: **Wheat, Paddy, Groundnut, Pulses, Sugarcane, Vegetables**

Total area covered (ha): **81,656**

Number of farmers associated: **72,628**

Average landholding of farmers associated with program (ha) – **2.7**

Details for year 2023-24

Program Impact

278 billion litres of water saved
(As per the third-party assurance report by EY)



Zero Tillage Sowing



Video Dissemination Training of Community Resource Persons (CRPs)

SDGsimpacted



PANI- People's Action for National Integration

About the Program

At the inception stage of the program, a series of interventions were co-designed with supporting organizations to enhance agricultural productivity and livelihoods in the target communities. The key interventions are mentioned below.

Promotion of High-Value Agriculture: Marginal farmers received technical inputs and support to shift part of their land to high-value cash crops like potatoes and onions. The goal is to increase yields from the current 60 quintals per acre to 100 quintals per acre by adopting modern methods. Additionally, multi-layered (Machan) farming was introduced on a 500 sq.mt model, allowing year-round vegetable production and ensuring a continuous cash flow for families.

Intercropping with Various Crops: Intercropping was promoted to maximize land use and provide additional income, ranging from INR 15,000 to INR 25,000 per acre. This practice also contributed to soil fertility improvement, particularly when pulses were used as an intercrop.

Improving Productivity and Reducing Costs of Staple Crops: To increase cereal yields by 15-20%, better farming practices were promoted, including seed replacement, seed treatment, and the use of bio-fertilizers and foliar applications. These methods were aimed at improving productivity while reducing input costs.

Water Saving and Water Use Efficiency: Water-saving technologies were introduced to optimize water use. These included raised beds, ridge furrow cultivation, mulching, and water conveyance through pipes and tubes instead of open channels. Recharge structures and sprinkler irrigation systems were also promoted to enhance water use efficiency.

Development of Agriculture Entrepreneurs (AEs): A network of Agriculture Entrepreneurs was established to ensure the continuity of good practices and services. These AEs provided crucial agriculture services, including knowledge advisory, access to quality inputs, and provision of agricultural equipment. This initiative was supplemented by the formation of Farmer Producer Organizations (FPOs).

Strengthening Community Institutions: The capacity of district-level Farmer Producer Organizations (FPOs) was built to support farmers by addressing key gaps in value chains and business development. AEs, acted as the extended arm of FPOs at the village level, connected farmers with mainstream stakeholders and technical institutions. The project also focused on nurturing deeper linkages with community collectives like Self Help Groups (SHGs) and Producer Groups (PGs), integrating them into government livelihood interventions.

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2.4 Agri Based Decarbonization Initiatives

S No.	Award Winner	Program Name	P. No.
1	Corteva Agriscience India Pvt. Ltd.	Corteva AcreNext Program	49
2	YARA Fertilisers India Pvt. Ltd.	Sustainable Gherkin Production	50
3	Grow Indigo Pvt. Ltd.	Regenerative Agriculture for Farmer Income and Climate Impact	51
4	Nestlé India Ltd.	Manure Management at Dairy Farm through Anaerobic Biodigester	52

Corteva AcreNext Program

Area of operation: **Punjab, Haryana, Uttar Pradesh, Madhya Pradesh**

Crops covered: **Rice/Paddy**

Number of farmers associated: **7,844**

Details for year 2023-24

Program Impact

Total GHG emissions reduced during FY 23-24: 3,00,000 kg of GHG

Water saving of 1,224 m3 per acre: 14 cu.m water saving

Saving of overall 8,00,000 manhours (~68 manhours/acre)



Building human capital with Direct Seeded Rice knowledge dissemination



Farmer's pledge to adopt Direct Seeded Rice



Sharing Direct Seeded Rice Tech Know How Knowledge during Farmers' Group Meeting

SDGs impacted



The program was also awarded in 2021

Corteva Agriscience India Pvt. Ltd.

About the Program

Corteva's AcreNext initiative promotes sustainable farming practices through Direct Seeded Rice (DSR) technology. This approach enables farmers to transition from traditional transplanted rice to DSR, using technologically advanced hybrid seeds with higher yield potential. These seeds are better suited for mechanized direct sowing and compatible with highly efficient crop protection solutions. This approach not only reduces the labor-intensive process of rice transplantation but also significantly conserves water by eliminating the need for puddling – a high-energy requirement to hold water in the field, used in traditional rice planting methods. Corteva is also improving water quality by promoting better soil health and reducing greenhouse gas emissions. This solution demonstrates that sustainable agriculture practices are beneficial for the environment and economically viable for farmers, contributing to their socio-economic empowerment.

Key milestones achieved by the program include connecting with over 30,000 farmers and converting about 7,800 to DSR in 2023-24. Corteva has conducted nearly 4,500 field trainings and demonstrations for the same. The enabling mechanization network has provided access to 180+ machines, while agronomy assistance and advisory services have supported FPOs. Corteva's initiatives have been strengthened through partnerships with organizations such as the Water Resources Group, PRADAN, and IRRI. These collaborations aim to enhance the adoption of DSR technology, promote sustainable agriculture practices, and improve the livelihoods of farmers.

Advantages of direct seeding of rice

- No significant reduction of yield under optimal conditions.
- Savings on irrigation water by 12-35% under efficient water management practices.
- Reduces labour (30%) and drudgery by eliminating seedling uprooting and transplanting.
- Reduces cultivation time (7-10 days early), energy, and cost (INR 4,000 -5,000)
- No plant stress from transplanting.
- Lower GHG emissions (30-50% GHG).
- Mechanized DSR provides employment opportunities for youth through service provision business model.
- Increases total income by reducing cost of cultivation.

Corteva is committed towards DSR since last five years.

For further details, contact us on

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Sustainable Gherkin Production

YARA Fertilisers India Pvt. Ltd.

Area of operation: **Karnataka, Tamil Nadu, Andhra Pradesh**

Crops covered: **Gherkin**

Total area covered (ha): **2,400**

Number of farmers associated: **9,500**

Average landholding of farmers associated with program (ha) – **0.8**

Details for year 2023-24

Program Impact

Total GHG emissions reduced during FY 23-24: 1,416 tonnes

Total carbon content sequestered per hectare during FY 23-24: 0.59 (in tonnes equivalent of CO2



Lush green gherkin fields in southern Karnataka



Yara crop nutrition plan helps Gherkin crops thrive, leading to more flowers and enhanced productivity

SDGsimpacted



About the Program

Interventions of the programs include the following:

Assessment of current package of practice – Yara developed tailored crop programs for farmers supplying Gherkins to Global Green Pvt. Ltd and IAP. They began by analyzing the existing nutrient delivery systems used by these processors focusing on their package of practices to identify the key areas of improvement.

Developed customised crop nutrition plan – based on the crop nutrition requirement, developed a balanced crop plan tailored to crop stage requirements, integrating traditional practices with advanced water soluble and foliar applications for higher marketable yields and improved quality.

Optimized nutrient use efficiency – enhanced nutrient use efficiency by implementing Yara's balanced crop nutrition plan. This reduced consumption of Nitrogen by 32%, Phosphorous by 52% and Potassium by 49% due to higher nutrient use efficiency which led higher yields and improved crop quality.

Demonstrated enhanced crop performance – the effectiveness of Yara crop nutrition plan was demonstrated with a notable 16% increase in gherkin yields showcasing Yara balanced crop nutrition plan's positive impact on productivity and improved quality.

Empowering farmers with capacity building training programs – delivered 10 training programs for over 65 field technicians and over 9,500 farmers, equipping them with better understanding of the new protocols and practices.

Crop stage specific recommendation – Yara provided crop stage specific advice and guidance to both field technicians and farmers, ensuring they understood the benefits and practical implementation of new practices.

Implementing Custom Crop Solutions for Global Green and IAP –. Global Green and IAP are currently using Yara's custom protocol to suit their specific needs.



Empowering farmers with sustainable Gherkin harvests and profits

For further details, contact us on

rajiv.mishra@yara.com

Regenerative Agriculture for Farmer Income and Climate Impact

Grow Indigo Pvt. Ltd.

Area of operation: **Punjab, Haryana, Maharashtra, Madhya Pradesh, Uttar Pradesh, Gujarat**

Crops covered: **Wheat, Rice, Maize, Cotton, Sugarcane**

Total area covered (ha): **3,00,000**

Number of farmers associated: **39,797**

Average landholding of farmers associated with program (ha) – **7.5**

Details for year 2023-24

Program Impact

Total GHG emissions reduced during FY 23-24: 4,01,000 tCO2e.

Total carbon content sequestered per hectare: 1.6 tCO2e/ha/yr (about 1,92,000 tCO2e)

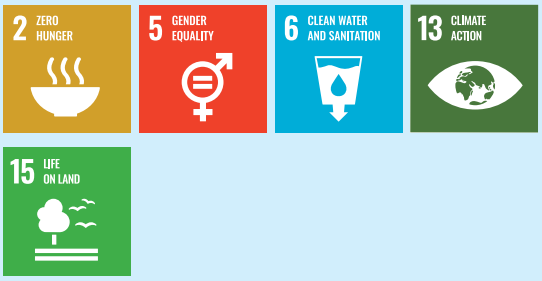


Hands on training on regenerative agriculture



Empowering women to thrive in agriculture

SDGs impacted



About the Program

Grow Indigo's Regenerative agriculture-based carbon projects aim to transform traditional farming by adopting sustainable methods focused on decarbonization. The program not only advances environmental goals but also provides substantial financial benefits to farmers, with up to 75% of credit sales returned to them, incentivizing the long-term adoption of sustainable practices. Key practices included DSR, ZT which reduced soil disturbance, and N fertilizer management, leading to enhanced soil health by aiding carbon sequestration. The project also promoted incorporation of crop residues into the soil instead of burning them, enriching soil fertility and water retention. Agroforestry integrated trees into farms, improving microclimates, supporting biodiversity, and sequestering carbon, significantly contributing to climate change mitigation.

To assist farmers in transitioning to regenerative agriculture, Grow Indigo deployed over 200 full-time Kisan advisors across project locations. These advisors provided ongoing education and support, equipping farmers with the knowledge and tools needed to adopt sustainable farming practices. A team of about 70 scientists and technicians employed remote sensing technology, biogeochemical modeling, agronomy support, and digital data collection tools to ensure the integrity of data collected from the fields. Collaborations with national and international research bodies further enabled the program in rigorous monitoring, measurement, and reporting. Ensuring the quality of the carbon unit is essential to establish credibility and fetch the highest price possible for farmers. To this end, their science and technology teams ensured that data quality and verification meet the strictest scrutiny.

Currently, Grow Indigo has four listed projects covering 13 states. The target crops include rice, wheat, maize, cotton, and sugarcane, along with agroforestry. The program's broader social impacts include reducing the drudgery for women and improving their health, enhanced air and water quality, improve living conditions and positively impact community health. The project aims to potentially boost farmer income by approximately 7-25%.

Grow Indigo's educational initiative, "Carbon Kaksha," is a series of short videos that educate farmers about carbon farming, building awareness and vocabulary around carbon and regenerative agriculture. By adopting these practices, farmers can earn additional income through the sale of carbon credits while also improving soil health and water use efficiency

For further details, contact us on

info@growindigo.co.in

Manure Management at Dairy Farm through Anaerobic Biodigester

Nestlé India Ltd.

Area of operation: **Punjab and Haryana**

Crops/Commodities covered: **Dairy**

Number of farmers associated: **3,000+**

Details for year 2023-24

Program Impact

- GHG emission reduction
- Renewable electricity generation (replacing fuel wood and LPG in households & generating electricity for large farms)
- Improved family well-being by reducing smoke hazard from fuel wood
- Generation of organic fertilizer



Small Biodigester

SDGs impacted



About the Program

The project aims to create a sustainable and environment friendly solution for manure management at dairy farms, significantly reducing GHG emissions and promoting renewable energy use. This holistic approach supports the long- term success and resilience of the dairy farming sector while contributing to environment conservation and community well-being. The primary objectives of the program are to mitigate methane emissions from manure by capturing and converting it into biogas through anaerobic digestion, reduce the overall carbon footprint of dairy farming operations, replacing non renewable energy sources with renewable energy sources. The biogas is being utilized to replace fuel wood and LPG at small backyard farms, and diesel/grid electricity at large farms. It will also reduce odour, pathogens, and nutrient runoff associated with traditional manure handling methods.



Large biodigesters installed at farms



Small Biodigester

For further details, contact us on

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3. Sustainable Agriculture Award Winning Initiatives 2023





3.1 Farmer Income Enhancement Initiatives

S No.	Award Winner	Program Name	P. No.
1	Corteva Agriscience India Pvt. Ltd.	Enhancing Mustard Farmer Income by Improving Quality & Ensuring Rightful Market Rates for their Quality Produce	55
2	Dhanuka Agritech Ltd.	Farmers/Krishi Mitra/Village Meetings	56
3	Lawrencedale Agro Processing India Pvt. Ltd.	LEAF Sustainable Agriculture Program	57
4	Rivulis Irrigation India Pvt. Ltd.	"SMALL FARMER LIVELIHOOD PROJECT" Supported by JICA (Japan International Cooperation Agency) Implemented by Rivulis Irrigation India Pvt Ltd under Jharkhand Rural Development Dept- Jharkhand Sustainable Livelihood Mission	58
5	Axis Bank Foundation	Augmenting Livelihoods and Strengthening Institutions in Rural Odisha – Implemented by Harsha Trust	59
6	Cohesion Foundation Trust	Mahila Khedut ni Wadi (Women Farmer's Farm/ Fruit Orchard)	60

Enhancing Mustard Farmer Income by Improving Quality and Ensuring Rightful Market Rates for their Quality Produce

Area of operation: **Haryana, Rajasthan, Uttar Pradesh, Madhya Pradesh**

Crops covered: **Mustard**

Number of farmers associated: **19,80,000**

Average landholding of farmers associated with program (ha) – **1.1**

Details for year 2022-23

Program Impact

INR 15,000 per hectare farmers' income enhanced



Farmer pre and post season agronomy meet

SDGs impacted



The program was also awarded in 2022

Corteva Agriscience India Pvt. Ltd.

About the Program

Corteva Mustard seed promised 10% higher yield and 1-2% higher oil content compared to any other Open Pollinated Variety (OPV)/ hybrid seeds under same growing conditions. In the last 5 years, a large shift from OPV to hybrids was witnessed, majorly driven by considerable yield improvement brought in by hybrids. Despite understanding the importance of Corteva hybrid seeds, farmers were unable to realize its monetary benefits, as access to oil testing facilities in rural areas/mandis was limited. Out of 89 high potential markets within the mustard area, only 13 had operational oil testing facilities. In the market yards where oil testing facilities were available, Corteva mustard farmer fetched up to INR 150-200 per quintal higher than other non-Corteva farmers.

To empower and enable mustard farmers, Corteva started the Oil Campaign.

1. **Running breeding program with focus on improving oil content in hybrid mustard seeds**- Corteva successfully developed four hybrids with oil content superior to previous ones. The latest hybrid, 45S47, had a 1-2% oil advantage over the previous hybrid.
2. **Training on right seed selection and Sulphur application** –Corteva trained 95,000 farmers on the benefits of Sulphur Bentonite as a basal dose for improving oil content and the application of Sulphur powder to save crops from frost.
3. **Empowering farmers via mobile oil testing facility**- The interventions enhanced farmer awareness through trainings and empowered them by providing accurate quality assessments. The mobile oil testing facility traveled to villages as well as market yards, where farmers got the oil content of their produce tested and received a certified report.

For further details, contact us on

ruchira.saini@corteva.com, arjun.rajput@corteva.com

Farmers/Krishi Mitra/Village Meetings

Area of operation: **Haryana, Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Gujarat, Himachal Pradesh, Jammu & Kashmir, West Bengal, Madhya Pradesh, Uttar Pradesh, Jharkhand, Karnataka, Maharashtra, Manipur, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Tripura, Uttarakhand**

Crops covered: **Fruits, Vegetables, Flowers other than Rose, Cereals, Pulses, Guar, Jute, Sesame, Groundnut, Sugarcane, Tea, Tobacco**

Total area covered (ha): **1,21,45,748**

Number of farmers associated: **9,80,042**

Average landholding of farmers associated with program (ha) – **2**

Details for year 2022-23

Program Impact

INR 95,215 per hectare farmers' income enhanced



Dhanuka Agritech Ltd provides training to the farmers on integrated disease and pest management with weed control during a farmer's training session at DART, Palwal.Equipping farmers with the knowledge to protect their crops from weeds, insect-pests and diseases while enhancing yield

SDGs impacted



Dhanuka Agritech Ltd.

About the Program

Dhanuka assisted farmers by providing them proper crop advisory to improve their incomes. The efforts resulted in a 10% to 50% increase in income for almost all farmers who worked closely with the organization. Farmers training programmes were conducted at Dhanuka Agritech Research and Technology Centre (DART Centre), Palwal, Haryana including other states of India. DART training centre helped farmers to understand agronomy best practices to access quality inputs such as:

- Management and control on weeds, insect - pests and diseases on several crops.
- Workshops and agronomical practices on Kharif and Rabi crops.
- Workshops on Integrated Pest Management (IPM), Integrated Disease Management (IDM) and Rabi crop management.
- Maize production technology and management strategies.
- Demonstrations with drones for precision spray.
- Development of agrochemical and biological formulations for farmers.
- Supplied weather stations and an instrument named as Nero which was linked to the mobile phones of the farmers - informed them about the right time of irrigation to the crops along with the other parameters.

New value chain development: Promoted new agricultural and allied income sources by identifying new income sources (transitioning farmers from traditional field crops to high value crops, horticulture, fishery, poultry, dairy). A training schedule was developed to enhance the skills of farmers on the identified new livelihood opportunities and to ensure proper certification for trained farmers. Developed market and input linkages. Market linkages for the final produce developed on the lines of the system developed for existing agricultural value chains. Promoted farmers to purchase drones as a group or in a FPO and coordinated for training to get them drone pilot license through various authorized institutions.

For further details, contact us on

ajeettomar@dhanuka.com

LEAF Sustainable Agriculture Program

Area of operation: **: Andhra Pradesh, Karnataka, Tamil Nadu**

Crops covered: **Carrot, Beetroot, Potato, Tomato, Okra, Capsicum, Cucumber, Ridge Gourd, Bottle Gourd, Bitter Gourd**

Total area covered (ha): **2,100**

Number of farmers associated: **5,300**

Average landholding of farmers associated with program (ha) – **0.5**

Details for year 2022-23

Program Impact

INR 3,40,000 per hectare farmers' income enhanced





LEAF team working with marginalized tribal farmers in Lambasingi region in remote Eastern Ghats

SDGsimpacted



Lawrencedale Agro Processing India Pvt. Ltd. (LEAF)

About the Program

This transformative program brought about significant improvements in the livelihoods of marginalized small-hold tenant farmers, driving sustainable agricultural practices and enhanced productivity.

Key impacts of the program include:

Climate-resilient agricultural education: The program educated farmers on climate-resilient and sustainable agricultural practices, equipped them with the tools and knowledge to adapt to environmental changes.

Drone technology for precision farming: By deploying drones using National Aeronautical Laboratory (NAL) licensed technology under NAL guidelines, the program introduced a controlled dispensing model, reducing harmful chemicals by 80% within the agricultural ecosystem. This innovative approach significantly improved farm input efficiency and reduced environmental impact.

Leveraging Artificial Intelligence (AI) and Machine Learning (ML): LEAF utilized a sophisticated network of satellite data, integrated with AI and ML technologies, to predict harvest quality and remotely monitor crops at scale. This proactive system empowered marginalized farmers to take timely actions, enhancing crop health and yield. Satellite-driven soil analysis further reduced fertilizer usage, leading to decreased N2O emissions and promoting sustainable practices.

The program's outcomes have been remarkable, with up to 30% savings in input costs, a 10% increase in yield, a 20% increase in marketable surplus, and an impressive increase in farmer income by up to 102%. These advancements not only bolstered the economic resilience of marginalized farmers but also contributed to a more sustainable and environmentally conscious agricultural future.

For further details, contact us on

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Small Farmer Livelihood Project

Area of operation: **Jharkhand**

Crops covered: **Vegetables (Eggplant, Cauliflower, Chilli, Bitter gourd etc.)**

Total area covered (ha): **344**

Number of farmers associated: **3,396**

Average landholding of farmers associated with program (ha) – **0.10**

Details for year 2022-23

Program Impact

Average income enhancement per beneficiary for 0.25 acres: **INR 59,063**

Average water saving due to use of drip per beneficiary for 0.25 acres: **918.50 m³**

The project successfully enabled women farmers to grow an additional crop during the rabi season by efficiently utilizing available water resources through drip irrigation.





Precise and uniform application of water and nutrients with Rivulis drip irrigation system

SDGs impacted



Rivulis Irrigation India Pvt. Ltd.

About the Program

As part of **Jharkhand's State Livelihood Program** (JSLPS), the Jharkhand Rural Development Department reached out to rural families living in poverty and connected them to sustainable livelihood opportunities. RIVULIS was a key partner in this initiative, aiming to empower underprivileged communities through sustainable farming practices, supported by the implementation of Drip Irrigation systems. In collaboration with JSLPS, RIVULIS addressed challenges faced by women farmers, helping them transition to year-round farming.

JSLPS provided financial support to these women farmers, enabling them to adopt drip irrigation systems on **0.25 acres** of land each. RIVULIS played a crucial role in the project by designing the systems, supplying materials, and overseeing installation on the beneficiaries' farms, thus promoting efficient and sustainable cultivation through drip irrigation technology. Starting from the year 2022, RIVULIS Drip Irrigation systems were installed across 3,396 farm plots, each spanning 1,000 square meters (0.25 acres).

This intervention delivered several key benefits to the growers:

- The available water resources, which were previously insufficient for crops during the rabi season, now allowed farmers to cultivate crops throughout the rabi season, including vegetables, which provided an additional crop cycle.
- The ability to sow an additional crop helped double farmers' incomes.
- While the national average for women's participation in agriculture stands at 32%, Jharkhand's women's share was below 12%. A significant achievement of this project was the empowerment of women farmers, providing them with a sustainable income and improving access to irrigation resources.

For further details, contact us on

marketing.india@rivulis.com

Augmenting Livelihoods and Strengthening Institutions in Rural Odisha – Implemented by Harsha Trust

Area of operation: **Odisha**

Crops covered: **Paddy, Ragi, Pigeon Pea, Green gram, Black gram, Maize, Vegetables**

Total area covered (ha): **46,209**

Number of farmers associated: **56,701**

Average landholding of farmers associated with program (ha) – **1.1**

Details for year 2022-23

Program Impact

INR 1,63,110 per hectare farmers' income enhanced



Building resilience and income opportunities for rural communities in Odisha

SDGs impacted



Axis Bank Foundation

AXIS BANK FOUNDATION

About the Program

Axis Bank Foundation (ABF) has been working in partnership with Harsha Trust (HT) since 2012, to enhance rural livelihoods in four districts of Southern Odisha, through farm-based and allied interventions. The program focused on institutional strengthening and knowledge transfer, working closely with Self Help Groups (SHGs), Cluster Level Forums (CLFs) and Farmer Producer Organisations (FPOs) to ensure sustained impact. The specific interventions under the program were:

- **Integrated Agriculture:** Households (HHs) were supported for improved agriculture practices under paddy, vegetables, and millet cultivation resulting in improved market linkages and higher cost realization, crop-diversification and yield enhancement.
- **Nutrition Gardens:** Households (HHs) were supported for setting up nutrition gardens across multiple cropping seasons. Nutrition gardens ensured steady supply of vegetables like tomatoes, brinjal, chilly, leafy vegetables etc. leading to improved food and nutrition security.
- **Integrated Livestock Development:** Interventions were taken up under Integrated Livestock Development Programme for improved livestock management.
- **SHGs and CLFs** – Supported CLFs which were formed by consolidation of 9 - 15 SHGs, leading to strengthening of institutions.
- **FPOs:** FPOs were strengthened through capacity building and by providing basket of services on agriculture and livestock to farmers.
- **Graduation of Ultra Poor Households**: Under the program, the ultra-poor households were provided with subsistence support (basic food or cash), productive assets (such as livestock), life coach (one per 100 households), awareness on health and nutrition and saving habits.

For further details, contact us on

foundation@axisbank.com

Mahila Khedut ni Wadi (Women Farmer's Farm/ Fruit Orchard)

Area of operation: **Gujarat**

Crops covered: **Mango, Turmeric, Ginger, Taro Root (Arbi), Chilly, Brinjal, Paddy, Marigold, Bitter Gourd, Sponge Gourd, etc.**

Total area covered (ha): **244**

Number of farmers associated: **711**

Average landholding of farmers associated with program (ha) – **1**

Details for year 2022-23

Program Impact

INR 1,13,666 per hectare farmers' income enhanced



Woman farmer harvesting Mandap crop (vertical cropping system)

SDGs impacted



Cohesion Foundation Trust

COHESION FOUNDATION TRUST
Striving for holistic development

About the Program

Interventions targeted women farmers who were small and marginal, had very poor knowledge and access to quality agriculture and horticulture resources and did not have access to forest land but had their own land. Specific elements that the project addressed included low income of small and marginal farmers, low productivity of land due to rising input costs, high debt, impact of climate change and women's role as decision makers for their land as it is restricted to labour work in their own farms. The project supported the development through economic and social empowerment of 1,500 tribal women.

To achieve the outcomes of women empowerment, strengthening activities for Ujas (women federation) were implemented. To achieve the outcomes related to women's rightful identity as Women Farmers, Wadi (fruit orchard) and Mandap (2 tier vegetable framework) were made. As the women were empowered, their access and control over resources increased and their rights on three axes, as women, as farmers and as tribals also strengthened. A unit land of 0.50 acre was considered for fruit orchard in which mango trees were proposed along with Mandap for vegetables in 0.15 acre.

For further details, contact us on
cohesionfoundation@gmail.com



3.2 Farm Level Sustainability Initiatives while Sourcing

S No.	Award Winner	Program Name	P. No.
1	LDC India Pvt. Ltd.	Coffee Sustainability Project	62
2	E.I.D Parry India Ltd.	Sustainable Sugarcane Cultivation in EID Parry Mills	63
3	Sresta Natural Bioproducts Pvt. Ltd.	Organic Farming - Farm to Fork Traceability	64
4	AVT McCormick Ingredients Pvt. Ltd.	Sustainable Interventions in Backward Integration Programs of AVT McCormick	65
5	Binsar Farms Pvt. Ltd.	Sustainable Agri and Dairy Program	66

Coffee Sustainability Project

Area of operation: **Karnataka, Kerala**

Crops covered: **Coffee**

Total area covered (ha): **3,800**

Number of farmers associated: **500 coffee farmers & up to 1,000 farm workers**

Average landholding of farmers associated with program (ha) – **7**

Details for year 2022-23

Program Impact

Social Well-being

Protecting the health of farmers and workers.

Conservation of Natural Resources

Soil fertility and water potability were monitored

Greenhouse Gas Emission Reduction.

GHG Nitrous oxide from fertilizers is reduced



Medical camp organized at coffee farms for workers handling agrochemical pesticides



Tarpaulin and Vermibed Distribution

SDGs impacted



Louis Dreyfus Company India Pvt. Ltd.

About the Program

A risk assessment conducted at coffee farm level identified the increase in the use of synthetic fertilizers as detrimental to soil fertility. In addition, issues were identified regarding occupational health and safety of coffee farm workers due to unsafe handling of agrochemical pesticides. In this regard, LDC implemented the following CSR activities to address these issues:

Soil fertility management at coffee farms:

- Soil samples were collected from coffee farms and tested for macronutrients to promote optimal usage of fertilizers.
- Tarpaulins were distributed to facilitate composting of on-farm organic wastes, thereby reducing the need to apply chemical fertilizers and protecting soil fertility.
- High Density Polyethylene (HDPE) vermi-beds were distributed, and farmers were trained to generate vermicompost by multiplication of earthworms.

Building capacities of coffee farmers to create safe working environment:

- Distributed safety display boards to prevent accidents at the workplace.
- Distributed first aid kits to provide emergency primary treatment in case of accidents at farm.
- Regarding agrochemical handling, safety equipment such as gloves, mask, goggles, jacket, and helmet were distributed to protect the pesticide applicator from poisoning.
- Medical camps with complete blood count were conducted at coffee farms for workers handling agrochemicals pesticides.

Promotion of sanitation and ensuring safe drinking water:

Prefabricated modular bath facilities were installed at farms, to be used by workers applying chemical pesticides, for bathing and change of clothes before returning to their home. Water potability test was conducted to ensure it is fit for consumption.

The program was classified as a farm-level sustainability initiative because it directly targeted agricultural practices, aimed to make them more sustainable while considering the well-being of farmers, environment, and local community.

For further details, contact us on

arun.sood@ldc.com

Sustainable Sugarcane Cultivation in EID Parry Mills

Area of operation: **Tamil Nadu, Andhra Pradesh**

Crops covered: **Sugarcane**

Total area covered (ha): **6,315**

Number of farmers associated: **8,477**

Average landholding of farmers associated with program (ha) – **1**

Details for year 2022-23

Program Impact

- Saving Rs. 15000 – 20000 / ha through seed material and planting
- Conservation of water by 15 Lakh liters / ha
- Reduced pesticide usage by 10 kg/ha.
- Reduced greenhouse gas emissions



Portray seedling centre

SDGs impacted



E.I.D. Parry (India) Ltd.

About the Program

Provided clean seed through Pro-tray seedlings produced by rural Entrepreneurs for sustainable sugarcane cultivation- A new technology of Single bud /Chip bud seedlings were introduced for planting sugarcane. Under this, only 0.8–1.0 MT of sugarcane was utilized for planting 1 acre ensuring seedlings at right age being planted in field. More than 56 rural entrepreneurs were trained for sourcing raw materials. Parry extended technical and financial support to them. The farmers were assured of getting additional 3-5 MTs/acre through synchronized tillering.

Managing sugarcane pests through ecofriendly Bio control agents without application of synthetic pesticide - EID Parry produced Trichogramma egg parasitoid through women entrepreneurs and distributed through field team to control the borer pests in sugarcane. EID parry worked with the farmers towards production and distribution of bio control agents and developing sugarcane ecosystem without any application of pesticides as part of integrated pest management.

Reduced water, fertilizer usage and additional chemical usage in sugarcane fields through sustainable farming- EID Parry trained farmers to promote sustainable cultivation through practice of trash shredding, and trash mulching; zero burning; optimized utilization of irrigation water using drip irrigation; optimized utilization of fertilizer and lower chemical usage and minimized their environmental impact; maintained healthy soil with practices such as crop rotation and cover cropping.

For further details, contact us on

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Organic Farming - Farm to Fork Traceability

Sresta Natural Bioproducts Pvt. Ltd.

Area of operation: **Rajasthan, Jammu and Kashmir, Madhya Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu, Karnataka, Telangana, Orissa, Gujarat, Uttarakhand, Kerala**

Crops covered: **Paddy, Wheat, Pulses, Millets, Oilseeds, Pulses, Fruits and Vegetables**

Total area covered (ha): **2,01,113**

Number of farmers associated: **35,843**

Details for year 2022-23

Program Impact

- Soil Organic Carbon (SOC) content enhancement
- Conservation of natural resources
- Traceability of farm produce
- Better net incomes. Lower financial risk



SDGs impacted



About the Program

The company stationed field associates at farm clusters who played a crucial role by training farmers, assisting in documentation procedures, providing technical support, and overseeing procurement of Organic certified materials. Procurement process eliminated intermediaries, and ensured that farmers dealt with company's procurement centers directly. The company also paid a premium over market prices to the farmers for their produce.

Tier 1: Social Control- All farms were geotagged and were organized into tight-knit organic clusters based on an Internal Control System (ICS) to ensure adherence to organic practices. This transformation typically spanned a period of 3 years.

Tier 2: Routine On-Site Visits-Field officers regularly visited the fields and were responsible for verifying compliance, offering timely remedies that facilitate organic farming practices, delivering training to farmers, and upholding the organic integrity of the crops.

Tier 3: Internal Audits- Teams were selected randomly to execute a comprehensive audit process in ICS clusters every season and covered factors such as potential cross-contamination, adherence to prescribed protocols, and objective of preserving organic authenticity.

Tier 4: Certification Agencies' Examination- Certified agencies undertook one on-farm inspection annually. These assessments encompassed a meticulous evaluation of farmers, soil quality, water sources, cultivation practices and testing representative samples of the produce.

Tier 5: Pre-Harvest Pesticide Residue Screening- Prior to procurement, inspections were being conducted to detect any pesticide residues in products, ensuring their purity. Field-based and laboratory assessments of randomly selected samples were done and then procurement process occurred at the dedicated Procurement Center situated within each cluster site, eliminating intermediaries, and enabling direct communication with farmers.

For further details, contact us on

rajseelam@srestaorganic.com

Sustainable Interventions in Backward Integration Programs of AVT McCormick

Area of operation: **Telangana, Andhra Pradesh, Karnataka, Tamil Nadu, Rajasthan**

Crops covered: **: Red Pepper, Cumin, Turmeric**

Total area covered (ha): **8,184**

Number of farmers associated: **1,320**

Details for year 2022-23

Program Impact

Savings of 6,896 million liters water

Afforestation Program with 1,950 saplings

70% inputs replaced with bio inputs



Drip cum fertigation- productivity and cost optimization initiative

SDGs impacted



AVT McCormick Ingredients Pvt. Ltd.

About the Program

The program aimed to sustainably source the products and provide a steady source of income to smallholder farmer groups by participating in a hybrid model that uses traditional wisdom and technology-enabled agricultural practices. Key features across each value stream:

1. **Care for Nature**- Increased yield and savings through improved water efficiency measures, integrated pest management & good agricultural and collection practices (GACPs) including pheromone traps, yellow sticky traps, training farmers on spot spray methodology, encouraging cultivation of trap crops as a natural pest control method, scientific techniques to reduce the pesticide load on environment, optimizing pesticide dosages, using chemicals that are safe to aquatic life and life on land, conforming to EPA and EU regulations. Backward Integration (BI) Programs used the FSA (Farm Sustainability Assessment) and the G4G (Grown for Good) Verification frameworks to engage farmers in assessing their environmental, social, and economic performance to enable them to adopt sustainable cultivation. Partnered with Fasal & MobiTech, to pilot precision agriculture interventions, real-time irrigation advisories using soil moisture captured through sensors, predictive advisories related to pest and disease management, and irrigation automation. Usage of agricultural drones for application of agri inputs on the crop.
2. **Community Resilience**- AVT McCormick and World Vision India jointly executed a Watershed project in Senkottaipatti village in Tamil Nadu, where restoration of an existing pond was done leading to the recharge the water table of this village and the irrigation wells. This project increased the area of cultivation and helped farmers practice multi-cropping.
3. **Enhancement of Living Incomes**- Provided farmers with access to agricultural education, training, and information about modern farming techniques to improve their productivity and income. Farmers were encouraged to diversify their crops or income sources to help reduce risk and improve resilience in the face of changing market conditions or climate-related challenges.

For further details, contact us on

mail@avtspice.com

Sustainable Agri and Dairy Program

Area of operation: **Haryana**

Crops covered: **Maize, Babycorn, Milk**

Total area covered (ha): **83**

Number of farmers associated: **50**

Average landholding of farmers associated with program (ha) – **1.5**

Details for year 2022-23

Program Impact

Farmer Income Enhancement

Reduction of GHGs

Conservation of natural resources



Farmer appreciation for milk quality by Binsar Farms NZ team



Engaging women in the program for women empowerment

SDGs impacted



Binsar Farms Pvt. Ltd.

BINSAR FARMS

About the Program

Binsar Farms has set up a unique vertically integrated model working with other dedicated farms to share knowledge and secure a reliable milk pool. The company developed a dedicated farm and working with agriculture farmers and other commercial-scale dairy farmers leading to establishment of a quality milk pool supporting up to 7,000+ strong loyal customer base.

Sustainable Agri and Dairy Program addressed the challenges of getting good quality fodder and milk, leading to income enhancement of dairy farmers. Under this program, farmers were trained to produce maize crop and baby corn crop as a cash crop instead of producing traditional crops like rice. This helped in getting an enhanced income by producing one extra crop in the year and also supported in reducing water usage as compared to rice and other crops. Through its silage production initiative, the program transformed maize and baby corn into valuable resource, providing dairy farmers with high-quality fodder and boosting milk production. Cow manure was also converted into vermicompost as a natural fertilizer for the fodder crops. This program also trained small scale dairy farmers on best practices for animal health and hygiene and gave them practical experience at the farm of the company which helped them in reducing cost of milk production and producing good quality milk. The overall dairy program helped in enhancing farmer income, maintaining biodiversity, and reducing carbon footprint.

For further details, contact us on

care@binsarfarms.com



3.3 Natural Resource Management and Climate Resilient Agriculture Initiatives

S No.	Award Winner	Program Name	P. No.
1	ITC Ltd.	Regenerative and Climate Resilient Wheat Value Chain Development	68
2	Kan Biosys Pvt. Ltd.	In Situ Rapid Incorporation of Rice Stubble using Speed Kompost	69
3	Dr. Reddy's Foundation	Action for Climate and Environment	70
4	SHODH	Akshay Krishi Project (Climate Smart Agriculture)	71

Regenerative and Climate Resilient Wheat Value Chain Development

ITC Ltd.

Area of operation: **Madhya Pradesh, Maharashtra, Uttar Pradesh, Bihar, Rajasthan, Punjab**

Crops covered: **: Wheat**

Total area covered (ha): **1,30,000**

Number of farmers associated: **41,546**

Average landholding of farmers associated with program (ha) – **3**

Details for year 2022-23

Program Impact

- Up to 16% yield improvement
- Saving in cost of cultivation up to 26% due to interventions such as zero-tillage, surface seeding, use of nano urea
- Reduction in overutilization of chemical fertilizers up to 30%



Zero till wheat sowing with residue management

SDGs impacted



About the Program

ITC Limited- Agri Business Division's Sustainable Wheat Development Program primarily aimed at increasing productivity and profitability of wheat, through popularization of latest sustainable and climate smart solutions, which included varietal and technological interventions.

As per the agronomical requirements of the geographies, the interventions were customized and promoted among the farmers. Village meetings and farmer interactions were conducted at all locations for transferring of scientific knowledge to farmers to promote better understanding and advanced agronomic practices involved. In 2022-23, 41,546 farmers were covered under the programme across 3,911 villages. 4,320 farmer interactions and village meetings were conducted benefitting 92,285 farmers across the states.

The program also focused to catalyze the widespread dissemination of new techniques, translating research strategies and capacity development, dynamic optimization of proposed new system of wheat cultivation, sharing experience and interaction among the farmers, develop awareness regarding slashing of labour, energy, water conservation, tolerance variety of cereal crops and futuristic intensified and diversified system in the field of farmers like selection of seed, seed treatment, sowing technique, and pest control methods.

For further details, contact us on

sachin.sharma@itc.in

In Situ Rapid Incorporation of Rice Stubble Using Speed Kompost

Area of operation: **Haryana, Punjab**

Crops covered: **Paddy (Rice)**

Total area covered (ha): **10,000**

Number of farmers associated: **25,000**

Details for year 2022-23

Program Impact

- Stopping of stubble burning - 100 % area
- Improvement of water use efficiency by 50%
- Improvement of soil organic carbon to the extent of 0.1%
- Reduction in pest attack by 70% in next crop



Farmer in Haryana applying SpeedKompost in paddy field for effective stubble management, paving the way for cleaner air and healthier soil

SDGs impacted



Kan Biosys Pvt. Ltd.

About the Program

Burning issue and need of technology- Every October, Delhi is affected by Smog caused by rice straw burning (over 4.4 million hectares) in Punjab and Haryana. Over 90% of this rice straw is burnt as it cannot be easily used, as it costs labour and return is not substantiated. Burning destroys the carbon in soil, soil microbes, fertility and thereby reduces the yields. To address this, farmers must incorporate rice straw to improve the soils and this must be done in a period of 15 days.

Technology- Kanbiosys developed a novel aerobic process for in situ incorporation of rice stubble using Speed Kompost. This technology can be a solution to above issues and simultaneously improve the soil fertility. Important features include economically feasible technology to incorporate stubble on farm, deterrent to climate change caused due to release of GHGs, rapid on farm utilization of straw in 15 days, improvement and maintenance of soil health, fertility and ensures increase in crop yields.

Immediate and long term benefits included improved germination, plant stand, profuse rooting and tillering of the wheat, improvement in fertilizer and water use efficiency, soil biodiversity resulting in reduced pesticide use, enhanced activity of biofertilizers and biopesticides, increased yield of wheat up to 10 - 28%, increased profits, reduction in cost of cultivation, build-up of soil carbon and fertility, and decline in health hazards,.



Farmer in Haryana applying SpeedKompost in paddy field for effective stubble management, paving the way for cleaner air and healthier soil

For further details, contact us on

exports@kanbiosys.com

Action for Climate and Environment

Area of operation: **Uttar Pradesh, Madhya Pradesh, Telangana, Andhra Pradesh**

Crops covered: **Cereals, Pulses, Oilseeds**

Total area covered (ha): **33,659**

Number of farmers associated: **37,533**

Average landholding of farmers associated with program (ha) – **0.62-1.12**

Details for year 2022-23

Program Impact

INR 5,000-8,000 per acre income enhanced

Reduction of 28,634 t CO2 eq



Climate-smart fields, abundant yields

SDGs impacted



Dr. Reddy's Foundation

DR. REDDY'S FOUNDATION

About the Program

The Action for Climate and Environment (ACE) program, initiated by Dr. Reddy's Foundation (DRF) in 2020, presents a comprehensive response to the complex challenges in the spheres of climate change, community, and biodiversity. The foundation is operating with a co-benefit approach across four states, as the program collaborates with farmers to implement a range of strategies addressing both the mitigation and adaptation aspects of climate change.

The primary goal of the program was to empower farmers with the necessary tools and knowledge to navigate the evolving climate landscape successfully. By promoting climate-responsive practices and integrating risk mitigation measures, ACE aimed to bolster farmers' resilience against the uncertainties arising from changing weather patterns and other climate-related disruptions. Through its interventions, the foundation focused on rejuvenating above and below-ground biodiversity to enhance productivity and livelihood by crop management and adoption of alternative practices like Napier cultivation.

One of the program's prominent visible outcomes was the adoption of modern farm mechanization techniques. This led to enhanced agricultural productivity, translating into increased yields and reduced labor inputs. The consequent impact was twofold - improved livelihoods for farmers and heightened food security for communities. Additionally, the program resulted in a decrease in input costs for farmers, encompassing expenses related to seeds, fertilizers, and water. By providing the farmers with facilities like site-specific nutrient plans and new-age soil health reports, the fertilizer usage was cut down and balanced soil-test-based recommendations were promoted. This reduction in costs contributed to improved economic viability, ultimately leading to enhanced profitability and financial stability for farmers.

Another significant visible outcome was the improved soil health resulting from the implementation of soil conservation practices and cover cropping. This directly impacted soil fertility, structure, and water retention, thereby fostering sustainable agricultural systems and minimizing soil degradation. In summary, the ACE program stood as a holistic strategy to uplift the livelihoods of small and marginal farmers while effectively addressing the multifaceted challenges posed by climate change.

For further details, contact us on

info@drreddysfoundation.org

Akshay Krishi Project (Climate Smart Agriculture)

Area of operation: **Andhra Pradesh, Uttar Pradesh**

Crops covered: **Millets**

Total area covered (ha): **18,211**

Number of farmers associated: **15,000**

Average landholding of farmers associated with program (ha) – **1.2**

Details for year 2022-23

Program Impact

- Created 2 Seed Bank of Millets, one in each region of Rayalseema and Bundelkhand
- Encouraging local consumption through awareness building – 48 trainings took place at village/ block/ district level
- Regular training of farmers – 1 per month in each Mandal/ Block = 48 in total
- Productivity increased through sustainable and natural farming methods. Increased by 2350 MT

SDGs impacted



Society for Human and Organizational Development in Harmony (SHODH)

About the Program

SHODH's Akshay Krishi project in Sri Sathya Sai and Kadapa districts worked with farmers in the area to encourage them to move to millet cultivation and provided support to them right from seed, growing millets to post harvest management and market linkage. The project successfully worked with more than 12,000 small and marginal farmers and organized many of them into Farmer Producer Groups (FPGs). Farmers started growing millets and sold their produce directly to processors and other buyers.

Some of the key strategies followed as part of the project were:

1. Increasing awareness on climate smart crops and agricultural practices
2. Increasing awareness on health benefits of millets and popularizing local recipes
3. Millet seed distribution and creation of seed banks
4. Technical support & training on growing millets
5. Linkage to processing centres and buyers
6. Creating a sustained demand for millets in the urban areas
7. Over the past one and half years, the project has successfully reached out to 15,000+ millet farmers and linked them to markets and processing centres. They have also conducted local events on millet tasting and have been serving millet-based food to farmers in all farmer meetings.

For further details, contact us on

ceo@shodh.org.in



I said YES to millets for climate resilience and sustainable agriculture



3.4 Agri Based Decarbonization Initiatives

S No.	Award Winner	Program Name	P. No.
1	Godrej Agrovet Ltd.	Sustainable Agriculture Land Management (SALM)	73
2	SML Ltd. (Formerly known as Sulphur Mills Ltd.)	BADLAV- Balanced Soil Nutrition through Sustainable Agriculture with Lower Fertilizer Dosage and Lower GHG Emissions through SML's Advanced Technology and Adding Value to Farmers' Produce	74
3	SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)	Decarbonization- The SeedWorks Way	75

Sustainable Agriculture Land Management (SALM)

Area of operation: **Karnataka, Madhya Pradesh**

Total area covered (ha): **5,200 till 2023**

Number of farmers associated: **3,557**

Details for 2022-23

Program Impact

Carbon content sequestered per hectare- 9.35 tonnes/ha

Total GHG emissions reduced – 49,584 tonnes

SDGs impacted



Godrej Agrovet Ltd.

About the Program

The project activity aimed at developing a carbon sequestration project funded by Godrej Agrovet Ltd. (GAVL) in the watershed areas of Barwani district, Madhya Pradesh and Magadi district of Karnataka, in collaboration with NABARD's Integrated Watershed Development Programme (IWDP).

Following farming practices were extended intensively in the project villages:

- Training and knowledge sharing to increase the diversity on farms and to decrease practices around mono-cropping.
- Increased tree cover by planting 4 lakh local species of plants through farm forestry, as well as common land plantations.
- Capacity building on promoting intercropping and mixed cropping system (including legumes and millets).
- Training and handholding on improved composting system to reduce the use of chemical fertilizers.
- Promoted conservation agriculture which includes three basic principles namely minimum soil disturbance, soil mulching, and crop rotation.
- Created watershed structures across the watershed area based on NABARD guidelines to improve water table and quality.

For further details, contact us on

ramnath.vaidyanathan@godrejinds.com



Water stewardship program

BADLAV- Balanced Soil Nutrition Through Sustainable Agriculture with Lower Fertilizer Dosage and Lower GHG Emissions through SML's Advanced Technology and Adding Value to Farmers' Produce

SML Ltd. (Formerly known as Sulphur Mills Ltd.)

Area of operation: **Punjab, Gujarat, Maharashtra, Tamil Nadu, Uttar Pradesh, Andhra Pradesh, Haryana, Karnataka, Telangana, Madhya Pradesh, Rajasthan, West Bengal, Bihar, Chhattisgarh, Uttarakhand**

Crops covered: **Paddy**

Total area covered (ha): **120**

Number of farmers associated: **50,000**

Details for year 2022-23

Program Impact

Carbon content sequestered per hectare- 28.07 tons/ha

Total GHG emissions reduced - Paddy 9.29 tons (N2O Emissions) & 4,852.4 tones (CO2 emission)



Farmer awareness program by SML team

SDGs impacted



About the Program

The most significant environmental concern associated with nitrogen fertilizers is the release of nitrous oxide (N2O), a potent greenhouse gas. N2O is released from agricultural soils when nitrogen fertilizers, particularly synthetic fertilizers like urea, are applied. N2O is a major contributor to climate change, with a global warming potential around 300 times that of carbon dioxide (CO2).

FERTIS® is a fast available, low dosage Sulphur fertilizer with high nutrient use efficiency, TECHNO Z® is a high nutrient use efficiency Zinc Fertilizer with Optimum Release technology which allows maximum benefit to the crop with low dose of Zinc, and Trackon Gold ® is a mix micronutrient that fulfills all the micronutrient requirements and increases yield.

The use of Fertis®, Techno Z ® and Trackon Gold ® fertilizers had not only significantly reduced emissions but also led to improved yields and enhanced crop quality and nutrition. These fertilizers play a vital role in sustainable agriculture by addressing environmental concerns while benefiting both farmers and consumers. It helped reduce emissions, increased crop yields, and enhanced the quality and nutritional value of harvested produce. This approach not only benefited farmers by improving their productivity but also contributed to a more sustainable and nutritious food supply for consumers.

For further details, contact us on

sml@sml-ltd.com

Decarbonization- The SeedWorks Way

Area of operation: **Odisha, Chhattisgarh, Karnataka, Telangana, West Bengal**

Crops covered: **Rice**

Total area covered (ha): **4,304**

Number of farmers associated: **5,711**

Average landholding of farmers associated with program (ha) – **0.75**

Details for year 2022-23

Program Impact

Carbon content sequestered per hectare- 3.75 tons/ha

Total GHG emissions reduced – 3,558.56 ton CO2.

SDGs impacted

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

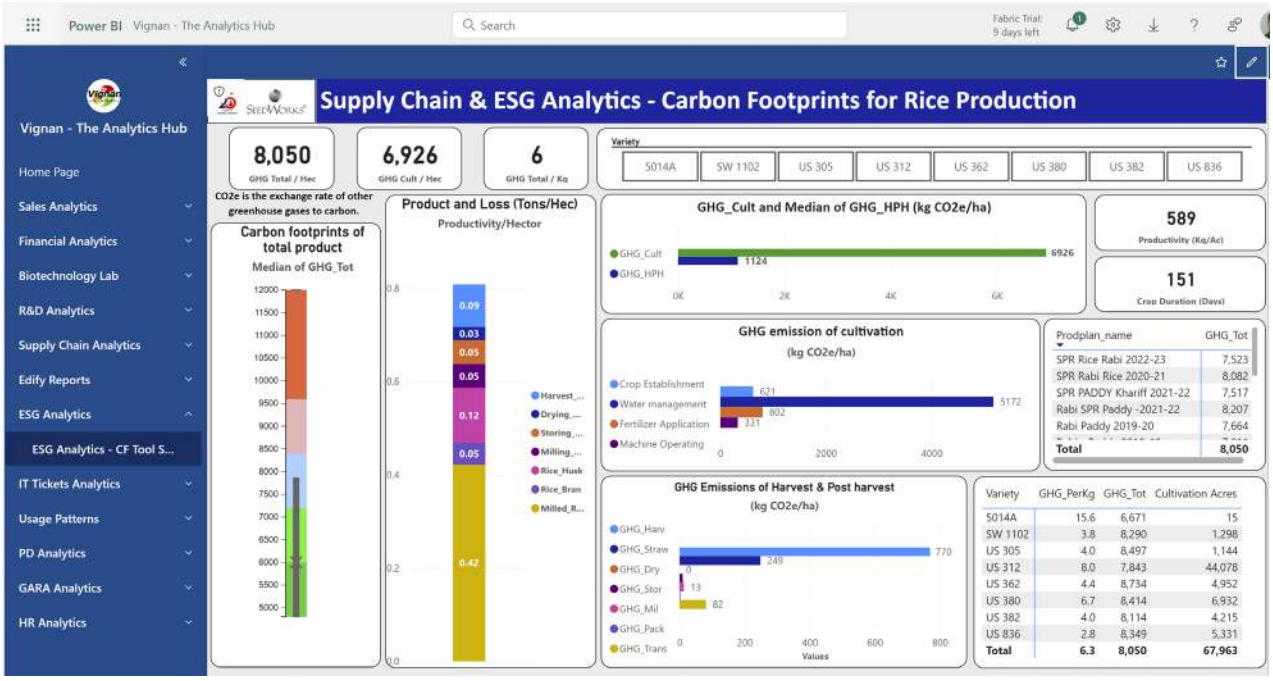
SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)

About the Program

The Project SRISHTEe addressed 6 smart pillars (weather, water, carbon, nitrogen, energy, and knowledge) in resource optimization, thereby reducing the carbon footprint. By implementing several initiatives across their entire value chain, including Energy Smart techniques and Nitrogen Smart techniques through the project SHRISTEe, SeedWorks has reduced their carbon emissions and saved valuable resources like water. These efforts led to a 50% reduction in emissions during rice production and the total savings of 3,558.56 tons of CO2. The company also made their own compost from crop waste, saving INR 2,000 per ton, and producing 1,44,000 tons annually. The company is revolutionizing the agri industry with their unique decarbonization innovation: the Carbon Footprint (CF) tool. The CF tool is a comprehensive tool to map the carbon footprint in each field where the seed production is done by the company.

For further details, contact us on

raja.vadlamani@seedworks.com



Supply chain and ESG Analytics- Carbon Footprints Dashboard

4. Sustainable Agriculture Award Winning Initiatives 2022





4.1 Farmer Income Enhancement Initiatives

S No.	Award Winner	Program Name	P. No.
1	ITC Ltd.	Backward integration Program for Crop Value Chain Development	79
2	Bayer Crop Science Ltd.	Small Holder Farming- Better Life Farming Alliance	80
3	JK Paper Ltd., Unit: JKPM	JKPM Farm Forestry Program	81
4	Vista Processed Foods Pvt. Ltd. (Part of the OSI Group Company)	Lettuce Iceberg Value Chain Development	82
5	Lawrencedale Agro Processing India Pvt. Ltd.	Sustainable Agriculture Development Program	83
6	Lupin Human Welfare and Research Foundation	District Development Program	84
7	Parachute Kalpavriksha Foundation	Parachute Kalpavriksha Foundation	85

Backward Integration Programme for Crop Value Chain Development

Area of operation: **Karnataka, Andhra Pradesh, Telangana, Rajasthan, Punjab, Gujarat, Tamil Nadu**

Crops covered: **Chilli, Turmeric, Cumin, Celery**

Total area covered (ha): **1,00,000**

Number of farmers associated: **12,500**

Average landholding of farmers associated with program (ha) – **1.5 for chilli and 3 for cumin**

Details for year 2021-22

Program Impact

INR 20,448 per hectare farmers' income enhanced



Sustainable chilli cultivation

SDGs impacted



ITC Limited

About the Program

ITC's Backward Integration Program was designed in such a way that the farmers followed "Produce the Buy" approach, where the farmers were benefitted through the right price plus a premium. Farmers were provided with various agri inputs right from seed to harvest. ITC also engaged in providing the crop advisory through ground team as well as through digital engagement center. Procedure for crop development and procurement of IPM chilli, cumin, and other seed spices through IPM Backward Integration involved:

1. Selection of area based on soil and agro conditions.
2. Selection of farmer based on their ability and willingness for adoption of IPM Program.
3. Selection of ground staff with effective communication, negotiating skills and be able to lead and convince group of farmers/field monitors.
4. Implementation of program.

a. Training, monitoring, and critical controls - Crop development manager conducted structured training programs for field staff and farmers before the commencement and during the program every season to appraise them on latest process, customer specifications and technical know-how, terms, and conditions etc. Regular visits and verifications were done by the monitoring executives, wherein if a farmer was found applying a non-recommended pesticide, that farmer was removed from the IPM program.

5. Procurement - Detailed periodic buy plans were prepared and forwarded to crop development manager to plan packaging materials, warehousing management etc.

For further details, contact us on

sachin.sharma@itc.in

Small Holder Farming- Better Life Farming Alliance

Area of operation: **Uttar Pradesh, Jharkhand**

Crops covered: **Tomato, Chilli, Paddy, Maize, Potato**

Total area covered (ha): **1,50,000**

Number of farmers associated: **3,50,000**

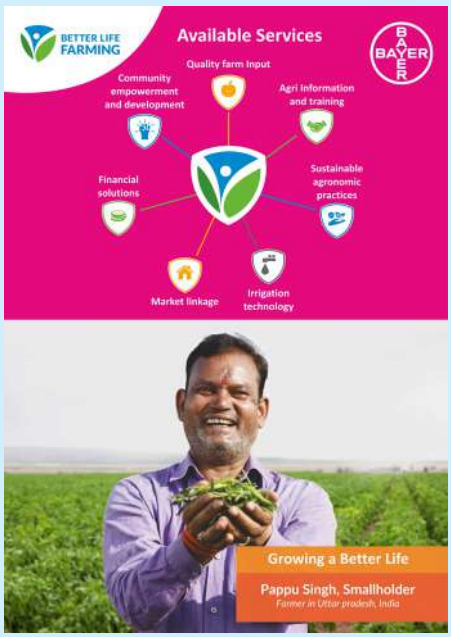
Average landholding of farmers associated with program (ha) – **0.4**

Details for year 2021-22

Program Impact

Farmers' income enhanced

- **INR 71,812** per hectare- Chilli
- **INR 87,495** per hectare- Tomato
- **INR 11,067** per hectare- Paddy
- **INR 6,000** per hectare- Maize



Ushering happiness in life of farmer through productivity improvement and income enhancement

SDGs impacted



Bayer Crop Science Ltd.

About the Program

Better Lifer Farming (BLF) is an alliance consisting of private and public partners working together to improve the livelihoods of rural smallholders and their communities. Its activities facilitated agricultural capacity building in rural areas. As such, BLF acted as a last-mile delivery solution to provide rural farmers with access to high-quality agricultural inputs, services and trainings needed to enable farmers' capacity building and develop rural entrepreneurship.

The program aimed to increase the productivity and profitability of smallholder farmers by providing training, access to resources, markets by partnering with public, private, and local organizations. Increased production and productivity led to higher incomes, more meals per day, new homes, better education and health for families.

BLF created ecosystems that enabled thousands of smallholders to build commercially viable and sustainable farming businesses. Inputs access, market linkage, and knowledge gained through the centers doubled yields and almost tripled incomes respectively, as for green chili in Uttar Pradesh & Tomato in Jharkhand during the BLF pilot project in 2016-21.

BLF enabled the empowerment of smallholder farmers with an explicit focus on women and youth, to increase food production and profit generation in rural farming communities and promoted good agricultural practices for a better ecological footprint of farming. It presented a "win-win" solution for rural farmers and the private partners involved, offering sustainable business opportunity and supporting the UN Sustainable Development Goals (SDG).

For further details, contact us on

ravi.kumar5@bayer.com

JKPM Farm Forestry Programme

Area of operation: **: Odisha, Andhra Pradesh**

Crops covered: **: Eucalyptus, Casuarina, Subabul**

Total area covered (ha): **9,509**

Number of farmers associated: **: 4,588**

Average landholding of farmers associated with program (ha) – **2.0**

Details for year 2021-22

Program Impact

INR 18,290 per hectare farmers' income enhanced

SDGs impacted



JK Paper Ltd., Unit: JKPM

About the Program

The company distributed seedlings and clonal plants of various species, such as Eucalyptus, Casuarina, and Subabul to the farmers/growers to grow on their waste/fallow lands under rainfed conditions, thereby generating employment opportunities for many of the people in the nearby areas and also helping to meet fuel wood requirement of the local people. The company also extended a buy back assurance for the pulpwood from its promoted plantations to growers. Additionally, harvesting and transportation services for harvested wood were offered to growers ensuring better prices for farmers.

The company obtained Forest Stewardship Council- Forest Management (FSC-FM) certification of plantations taken up by farmers ensuring better management and traceability of wood procured and has certified more than 35,000 ha area. The company also promoted popular agroforestry models, inter-cropping various agri crops with trees for enhancing the income of farmers.

The Plantation forestry operations of the JKPM (Rayagada) unit of JK Paper have been able to convert about 1,48,337 Ha of waste/fallow lands into plantations consistently since 1990 with the contributions from more than 92,000 dedicated farmers/growers (as on March 2022) across the states of Odisha, Andhra Pradesh, Chhattisgarh and West Bengal.

For further details, contact us on

bijoy@jkpm.jkmail.com



Kulunji Huika of Kaltiguda village, Rayagada (Odisha) of JK paper farm forestry programme

Lettuce Iceberg Value Chain Development

Area of operation: **: Haryana, Himachal Pradesh, Tamil Nadu, Maharashtra**

Crops covered: **: Lettuce Iceberg**

Total area covered (ha): **176**

Number of farmers associated: **: 458**

Average landholding of farmers associated with program (ha) – **0.38**

Details for year 2021-22

Program Impact

INR 35,000 per hectare farmers' income enhanced



Lettuce Iceberg Farm

SDGs impacted

8 DECENT WORK AND ECONOMIC GROWTH

Vista Processed Foods Pvt. Ltd. (Part of the OSI Group Company)

About the Program

Lettuce Iceberg is an exotic leafy salad crop and are mainly used in Burgers and star hotels for salad purposes and by other such Western Quick Service Restaurants (QSRs) in India.

A team of agricultural experts and agri-business managers were appointed by the company to develop a lettuce value chain in India for Western QSRs. The following locations were identified for the value chain:

1. North India Market: Haryana during the winter season (Dec to March), and Himachal Pradesh during the summer and rainy seasons (April to Nov). Farmers in this value chain were 250
2. West India Market: Nasik, Maharashtra from Dec to March and Ooty and Himachal Pradesh from April to Nov. No. of farmers in this value chain were 88
3. South India Market: Ooty, Tamil Nadu- 120 Farmers. Number of Farmers in this value chain were around 458

This value chain development started with the following points-

1. Centralized nursery production and distribution to the farmers.
2. Global Good Agricultural Practices (GAP)+ GLOBALG.A.P. Risk Assessment on Social Practice (GRASP) Audit (assurance of safe food to the customers). 100% buyback assurance.
3. Compensation payment (cost of cultivation) if crop is damaged due to natural calamities or non-picked quantities which happened during the COVID-19 pandemic.
4. Being a short-term crop of 60-65 days, it gives almost a rotation crop and good income (per acre expense – INR 45,000 and earning– INR 90,000 i.e.), 100% return on investment.

For further details, contact us on

bhoopendra@vista-osi-group.com

Sustainable Agriculture Development Program

Area of operation: **Tamil Nadu, Karnataka, Andhra Pradesh**

Crops covered: **Vegetables Crops (18)**

Total area covered (ha): **1,00,000**

Number of farmers associated: **2,50,000**

Average landholding of farmers associated with program (ha) – **0.5**

Details for 2021-22

Program Impact

40% reduction in cost of cultivation and 8-10% increase in crop productivity.

Financial access to marginalized farmers through partnering with financial institutions.

Scientific advisory and forward market linkages to farmers



LEAF team bringing in scientific solutions to enhance soil nutrition for marginalized tenant farmers

SDGs impacted



Lawrencedale Agro Processing India Pvt. Ltd.

About the Program

Marginalised small-holding tribal farmers in the remote regions of the Western Ghats in India, faced significant challenges. Farming in these hilly terrains was inherently difficult, with step farming, slope cultivation, limited access to irrigation, and pre- and post-harvest hurdles compounded by the lack of scientific inputs. Moreover, the absence of transactional records detailing what farmers bought and sold made it even more challenging for banking institutions to provide financial support. Lawrencedale Agro Processing India (LEAF) addressed these issues through an integrated approach under its Sustainable Agriculture Development Program, bringing multifaceted solutions to these small-hold farmers, enabling them to focus on agriculture and achieve long-term sustainability.

Key impacts of the program include:

- Reduction in cultivation costs by nearly 40% through on-farm technical support.
- An increase in productivity by 8-10%, enabling farmers to secure better market value for their produce.
- Partnerships with financial institutions that provide organised financial access, complemented by scientific advisories tailored to farming practices.
- A comprehensive model combining smart financial services, scientific farming guidance, and forward market linkages, which has ensured a sustainable livelihood for these marginalised farmers.
- At the heart of this initiative was advanced technology. With an ISO:22000 certified integrated system, the program reduced supply chain wastage and channels the gains to benefit both farmers and consumers. This holistic approach not only strengthened the agricultural practices of these farmers but also created a sustainable future for their communities.

For further details, contact us on

Raghu.Badrinath@lawrencedale.com

District Development Program

Area of operation: **Rajasthan, Maharashtra**

Crops covered: **: Paddy, Cotton, Mustard, Vegetables and Horticulture Plantations**

Total area covered (ha): **1,015**

Number of farmers associated: **: 2,705**

Average landholding of farmers associated with program (ha) – **2.03**

Details for year 2021-22

Program Impact

Increase in crop production, yield, soil fertility milk production along with overall increase in farmer's income.

Formation of FPO resulting in backward forward linkages & market access

Transformed 1,762 acres of rainfed land to irrigated land.



A check dam built to conserve water and recharge groundwater in Maharashtra

SDGs impacted



Lupin Human Welfare & Research Foundation

About the Program

The program aimed at uplifting identified poor families, above the 'Poverty Line' through various development interventions and investments. Trainings and capacity building was an integral part of the program effort. Major interventions undertaken under the program were as follows:

- Demonstration of yield enhancement and crop diversification practices amongst farmers, enabling the cultivation of vegetables, flowers, pulses, cereals, and oil seeds.
- Development of fruit orchards and diversification to horticultural cropping.
- Strengthening of crop-livestock nexus resulting in additional income gain from animal husbandry.
- Training and capacity building of women farmers to adopt improved agricultural practices.
- Reduction in capitalization gap by enabling the availability of working capital and purchase of productive assets, especially livestock assets.
- Soil fertility management through soil testing, organic fertilizer production, and balance fertilizer usage.
- Watershed development and river rejuvenation.
- Water resource development through group wells.



Farmers of the group well in Maharashtra

For further details, contact us on

infolhwrf@lupin.com

Parachute Kalpavriksha Foundation

Area of operation: **Tamil Nadu, Karnataka, Kerala, Andhra Pradesh**

Crops covered: **Coconut**

Total area covered (ha): **1,01,000**

Number of farmers associated: **60,000**

Average landholding of farmers associated with program (ha) – **1.68**

Details for 2021-22

Program Impact

15% increase in productivity for 60,000 farmers covering 1 lakh hectares.

Creation of 94 Cr liters of water saving potential by construction of 600 farm ponds & trench cum bunds

INR 12,700 per hectare farmers' income enhanced



Knowledge training to farmers

SDGs impacted



Parachute Kalpavriksha Foundation

About the Program

The CSR vision of Marico is anchored in its core purpose – to make a difference to the lives of their stakeholders. Farmers being a key stakeholder to Marico, Parachute Kalpavriksha Foundation was set up by Marico Limited to promulgate sustainable agriculture and help improve the livelihoods of Indian farmers. The Foundation operates with three key objectives – improve the yield of farmers, promote precision farming and impart scientific and sustainable farming techniques to boost productivity. As a part of this program, multiple interventions were undertaken, such as the Productivity Improvement Program (where 120+ field personnel visited farmers on a bimonthly basis and trained them on sustainable farm management activities), water conservation activities (cumulative impact of 94 Cr+ liters of water conservation potential created till date), Agri Business Centers (set-up 4 ABCs through which farmers availed farm care services), Knowledge Program (conducted mass & micro-trainings with experts online & offline) and Digital Initiatives (like Social media, Website, & Mobile App).

The enrolled farmers reported better control of pests and diseases as well reduction in cost of farming through budget-friendly recommendations and services like machineries, root feeding, fertilizer shops added to the same. The impact of these activities also led to increased productivity thereby contributing to income enhancement. Combining the impact of all the activities, a cumulative income enhancement of INR 94 crores for the farmers was generated. Sustainable usage of resources and soil health management boosted the environmental and social quotients of the program.

For further details, contact us on

arun.v@parachutekalpavriksha.org



4.2 Climate Resilient Agriculture Development Initiatives

S No.	Award Winner	Program Name	P. No.
1	Corteva Agriscience India Pvt. Ltd.	Pearl Millet as Climate Smart Crop	87
2	Nestlé India Ltd.	NESCAFÉ Plan and 4C Certified Sustainable Coffee	88
3	Acme Cleantech Solutions Pvt. Ltd.	Establishment of Green Hydrogen & Green Ammonia Plant at Bikaner	89
4	SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)	SeedWorks R & D Program on Climate Resilient Nutricereal Crop – Pearl Millet	90
5	Accion Fraterna Ecology Centre	Promoting Sustainable and Climate Resilient Agriculture in Drought Prone Anantapuramu District	91

Pearl Millet as Climate Smart Crop

Area of operation: **Rajasthan, Gujarat, Haryana, Uttar Pradesh, Madhya Pradesh**

Crops covered: **Pearl Millet**

Number of farmers associated: **28,00,000**

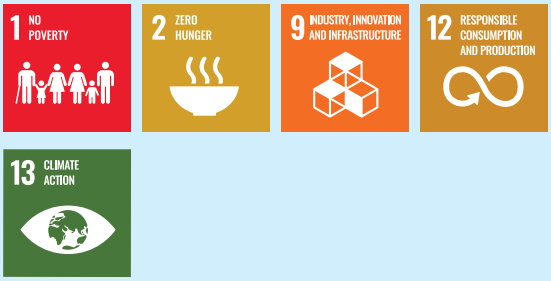
Average landholding of farmers associated with program (ha) – **1.1**

Details for year 2021-22

Program Impact

- Hybrid millet seeds resulted in 5%-10% higher yield
- Low disease pressure and high stress tolerance millet crops
- Market linkages to about 8.84 lakh small holder farmers

SDGs impacted



Corteva Agriscience India Pvt. Ltd.

About the Program

To overcome potential food shortages due to climate change in Rajasthan, Gujarat, Haryana and parts of Uttar Pradesh and Madhya Pradesh, Corteva, a major player in millet seeds, committed to continue its work in enhancing yield. The company developed hybrid millet seeds, resulting in 5%-10% higher yield, and provided low disease pressure, early maturity, and high stress tolerance.

The program aimed to help all farmers in improving their farm performance through leading agronomy, digital farming, and financial understanding. Corteva's millet proved helpful in more than doubling millet yields in India, despite year-on-year reduction of millet acreages.

The program engaged with farmers using a variety of conventional and digital tools and worked with them throughout the year, from seeding to crop harvesting. The trained farmers acted as change agent by educating fellow farmers and served as a point of contact for updates related to sowing, cropping trends, yield, grain prices, and so on. The company also made concentrated efforts to train farmers on the use of technology-driven solutions.

For further details, contact us on

ruchira.saini@corteva.com, arjun.rajput@corteva.com



Farmers realising incremental yield from new genetics hybrids launched by Corteva

NESCAFÉ Plan and 4C Certified Sustainable Coffee

Area of operation: **Kerala, Karnataka**

Crops covered: **Coffee**

Total area covered (ha): **15,000+**

Number of farmers associated: **2,400**

Average landholding of farmers associated with program (ha) – **5.7**

Details for 2021-22

Program Impact

- Reduction in water usage per hectare per year
- Farmers perform regular soil analysis and apply organic fertilizer
- Increase in productivity



A passionate NESCAFÉ Plan farmer nurturing sustainability in the heart of Coorg



SDGs impacted



Nestlé India Ltd.

About the Program

The NESCAFÉ Plan was initiated in 2012, as a tangible effort to Create Shared Value (CSV) in the coffee sector for farmers, communities and the planet, demonstrating the company's commitment to continuously support responsible sourcing and increasingly sustainable value chains. Through the NESCAFÉ Plan, the company assisted in ensuring a long term supply of quality green coffee by making coffee farming a more attractive activity for the present and future generations, as well as improving the environmental footprint. It was launched in India during 2012, along with the opening of the NESCAFÉ Demo Farm and Training Centre in Kodagu, at the epicenter of a coffee growing region. The demo farm and training center served as a model farm for demonstrating the good agricultural practices implemented, that can be undertaken in any farm and also to train the farmers.

Since the beginning, the company has worked collaboratively with other institutions like Coffee Board of India, Research Institutes, Agricultural universities etc., to improve coffee farming. The program encompassed three major pillars thatfocused on sustainable impacts:

- **Farmers** - Improved the livelihood of coffee farmers/ their families/the workers.
- **Community** - The resilience and prosperity of farming communities and the stakeholders across the value chain
- **Planet** - The sustainable management of landscapes linked to the value chain.

The program provides farmers with technical assistance and training, emphasizing the importance of sustainable farming methods. This included improving water management, enhancing soil health, and conserving biodiversity. By implementing these practices, farmers strengthened the resilience of their coffee farms. The NESCAFÉ Plan focused on key elements such as Soil, Water, Biodiversity, and Farmer Livelihood, which are integral to regenerative agriculture.

For further details, contact us on

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Establishment of Green Hydrogen & Green Ammonia Plant at Bikaner

Area of operation: **: Rajasthan**

Program Impact

Check on release of > 4400 tons/annum of CO_2 in atmosphere.

Reduction in Greenhouse Gas (GHG)

Details for 2021-22



Green Ammonia plant with storage tanks

SDGs impacted



Acme Cleantech Solutions Pvt. Ltd.

About the Program

To address climate change concerns, in Nov 2021, ACME set-up the world's first integrated 5 MTPD Green Ammonia plant at Bikaner, Rajasthan, India, a commercial cum pilot plant to showcase the renewable based Ammonia generation system. The concept was further developed by ACME for large scale Green Ammonia production.

ACME's green Ammonia projects have zero carbon emissions, which when fully implemented would result in > 5 million tons of CO_2 being saved annually from being released into the atmosphere, over its life cycle. Hence, ACME is working towards commissioning of the world's first integrated green hydrogen and green Ammonia plant at Bikaner, Rajasthan. The learnings from this Bikaner plant will be incorporated in the development of ACME's upcoming plants in Oman where Phase 1 of 0.1 Million Metric Tonnes Per Annum of Green Ammonia Project is under construction and in India two projects of 1.2 Mn MT annual capacity each at Odisha and Tamil Nadu.

Green Ammonia is the nomenclature for anhydrous ammonia produced from the synthesis of Nitrogen (separated from air using Air Separation Units (ASU) with Hydrogen produced from electrolysis of water using only renewable power (Green Hydrogen). The advantage of this method is that there are no Greenhouse Gas (GHG) emissions in the entire process making the product truly compliant to the GHG reduction commitments of countries and large industrial customers.

For further details, contact us on

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SeedWorks R & D Program on Climate Resilient Nutricereal Crop – Pearl Millet

Area of operation: **Rajasthan, Haryana, Uttar Pradesh, Andhra Pradesh, Gujarat, Telangana**

Crops covered: **Pearl Millet**

Total area covered (ha): **93,000**

Number of farmers associated: **3,50,000**

Average landholding of farmers associated with program (ha) – **0.26**

Details for 2021-22

Program Impact

Hybrid millet seeds resulted in 15%-20% higher yield.

Tolerance to major disease in the crop and pan India adaptability.

INR 1,020/quintal advantage in grain yield.



Revolutionizing Pearl Millet- Our robust research yields a cultivar with lodging tolerance, disease resistance

SDGs impacted



SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)

About the Program

SeedWorks invested INR 52 crore in 2019 and initiated a strong and robust research program on developing pearl millet cultivar. The developed variety provided lodging tolerance with more stay green fodder, tolerance to major diseases, PAN India adaptability and INR 1,020/quintal advantage in grain yield. Crop management and capacity building trainings were also provided.

Key activities were:

- Inbred line development by using conventional and molecular breeding tools.
- Rigorous product testing across India in Pearl Millet growing regions for ensuring adaptability, yield, reaction to biotic & abiotic stress in varied input management.
- Members of CGIAR-HPRC project for ensuring nutritional enhancement in Pearl Millet products.
- Screening of breeding lines and pipeline hybrids for iron & zinc content at ICRISAT to ensure nutritional content.
- Germplasm screening and product development for heat stress market for summer Pearl Millet growing farmers of Gujarat, Uttar Pradesh and Rajasthan.
- Participation in AICRP-Pearl Millet, ICAR for hybrid testing.

For further details, contact us on

raja.vadlamani@seedworks.com

Promoting Sustainable and Climate Resilient Agriculture in Drought Prone Anantapuramu District

Area of operation: **: Andhra Pradesh**

Crops covered: **Mixed cropping with Millets, Pulses, Oilseeds, Vegetables and Trees.**

Total area covered (ha): **30,000**

Number of farmers associated: **: 20,000**

Average landholding of farmers associated with program (ha) – **1.5**

Details for 2021-22

Program Impact

10,072 farmers harvested food grains worth INR 10,000 to 15,000/- each.

8,487 farmers had gone for relay crops and saved fodder costs up to INR 10,000 per year.

5,700 farmers adopted Natural Farming practices

SDGs impacted



Accion Fraterna Ecology Centre

About the Program

The program aimed at reviving rainfed agriculture and diversifying the income sources of small and marginal families through organizing 20,000 rainfed farmers into 950 Sasya Mitra Groups and federating them at Village Mandal and Project level. Accion Fraterna Ecology Centre (AFEC) developed 10 annual crop models suitable for Anantapuramu's conditions with low external inputs and promoted them among farmers, which ensured Food and Nutritional security in their families.

AFEC promoted 5 Rainfed Agroecological Landscapes (5 blocks) in 260 ha of rainfed land belonging to 150 small farmers in 4 villages. The extent of each landscape ranged from 60 to 115 acres consisting of 15 to 20 farmers who were formed into a Rainfed Farmers' Agroecology Cooperative (RFAC). The Agroforestry 5-layer tree model of Horticulture plantation with 3 to 4 species of fruit plants and 2 annual crops were being adopted in these blocks providing sustainable income to these farmer households.

AFEC also promoted relay cropping with 15,000 farmers in more than 30,000 acres. The program developed various innovative low cost, simple, affordable, location-specific drought and climate resistant agriculture practices and technologies for mitigating drought and sustaining Rainfed Agriculture. These technologies and crop models successfully replaced the groundnut mono crop which was the single largest crop grown in the district. Consequently, the farmers' ability to cope with droughts increased with adoption of these technologies.

For further details, contact us on

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Promoting healthy millet farming with women



4.3 Soil & Water Resource Conservation Initiatives

S No.	Award Winner	Program Name	P. No.
1	LT Foods Ltd.	Water Productivity (WAPRO)	93
2	DCM Shriram Ltd.	Meetha Sona Pariyojana	94
3	UPL Ltd.	Shashwat Mithaas – Join Initiative by UPL for Sustainable Sugarcane along with Shreenath Maskoba Sugar Mill, Pathethan, Pune	95
4	SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)	Soil & Water Resource Conservation	96
5	Rivulis Irrigation India Pvt. Ltd.	Precision and Smart Irrigation with RIVULIS: A Sustainable Solution for Increasing Water Productivity	97

Water Productivity (WAPRO)

Area of operation: **: Haryana**

Crops covered: **: Basmati Rice**

Total area covered (ha): **6,900**

Number of farmers associated: **: 3,921**

Average landholding of farmers associated with program (ha) – **4.70**

Details for year 2021-22

Program Impact

3,921 farmers registered under the program.

SRP standard disseminated to 300+ farmers.

Set up 30 water user groups.



Laser Leveling Practice



Alternate Wetting and Drying Pipe

SDGs impacted



LT Foods Ltd.

About the Program

Since its inception in 2019, the Water Productivity (WAPRO) program has significantly transformed basmati rice cultivation in Haryana. By implementing innovative and Sustainable Rice Platform (SRP) practices, the initiative significantly improved water use efficiency and provided greater economic benefits to farmers.

Program Achievements and Interventions

1. **Farmer Engagement and Capacity Building:**

   The program engaged 6,385 farmers, exceeding its initial target of 2,500 farmers. Also, 2,949 farmers successfully completed Sustainable Rice Platform (SRP) verification, effectively doubling the original target of 1,500.

2. **Water Use Efficiency:**

   Through the introduction of advanced techniques like laser leveling and the Alternate Wetting and Drying (AWD) method, farmers implemented precise irrigation schedules. This led to a remarkable 24% increase in water use efficiency in Kharif 2021.

3. **Yield and Income Enhancement:**

   The adoption of SRP practices has not only enhanced sustainability but also increased crop yields by 9% and net incomes by 26% for participating farmers in Kharif 2021.

4. **Technology and Knowledge Dissemination:**

   To facilitate informed decision-making, the program leveraged mobile applications to provide timely weather forecasts and agronomic advice. Moreover, SRP standards were communicated to over 6,000 farmers, encouraging the widespread adoption of best practices in rice cultivation.

For further details, contact us on

vikram.mehla@ltgroup.in

Meetha Sona Pariyojana

Area of operation: **Uttar Pradesh**

Crops covered: **Sugarcane**

Total area covered (ha): **1,77,000**

Number of farmers associated: **1,62,000**

Average landholding of farmers associated with program (ha) – **0.73**

Details for 2020-22

Program Impact

8,000 lead farmers were identified and trained across the 4 sugar mills.

Covered 1.62 lakhs farmers with capacity to reach 2.35 lakh farmers.

460 billion litres of water saved



Laser Land Leveller – for water use efficiency & productivity improvement

SDGs impacted



DCM Shriram Ltd.

DCM SHRIRAM
Growing with trust

About the Program

The program was based on following 3 'S' principles - to catalyze behavior change among farmers:

- Suitability: The agronomy and water-management practices were customized to suit local agro-climatic and socio-economic conditions.
- Sustainability: It was recognized that training and capacity-building should go beyond the life cycle of the project. The focus of the program was on 'train-the-trainer' and therefore, was useful in creating a cadre of project-trained extension workers to lead farmers who will continue to spread knowledge in the community even after the project ends.
- Scalability: The "train-the-trainer" approach focused on extension workers and lead farmers to ensure capacity building. About 8000 lead farmers were identified and trained across the 4 sugar mills. Together, these lead farmers and the extension support team of the company, have the capacity to reach out to a further 235,000 sugarcane farmers.

Total of 1.29 lakh hectares was under recommended practices like - trash mulching, trench planting, decomposed press mud application and laser levelling covering 1.62 lakh farmers. Practicing intercropping and involving farmers in dairy for additional income. Capacity building and mechanization aided to the improvement of sugarcane yield.

For further details, contact us on
karanjitsarkar@dcmshriram.com

The program was also awarded in 2021

Shashwat Mithaas – Joint Initiative by UPL for Sustainable Sugarcane along with Shreenath Maskoba Sugar Mill, Pathethan, Pune

Area of operation: **: Maharashtra**

Crops covered: **: Sugarcane**

Total area covered (ha): **100**

Number of farmers associated: **: 40**

Average landholding of farmers associated with program (ha) – **2**

Details for 2021-22

Program Impact

Approx. 1.5 million litres of water saved

Per hectare reduction in 125 kg of urea

Increase in yield by 7.5 MT/ha

SDGs impacted



For further details, contact us on

sonawanehp@upl-ltd.com

UPL Ltd.

About the Program

The program aimed at reducing the overall environmental impact of sugarcane production through minimizing water and fertilizer use while simultaneously generating additional income. UPL initiated sugarcane sustainable agronomical practices, provided ProNutiva (Complete Crop Protection + Nutrition Package) and Farm Mechanisation and Insurance Services. Digitalisation through Nurture. App and traceability and Zeba (a starch based superabsorbent which can absorb 450 times of water of its own weight, can hold it and releases it as and when needed by plant) also played a significant role. In 2022-23, UPL and Shreenath Mhaskoba signed an MOU to take this program to 10,000 acres. Quantum of intervention is mentioned below.

- Per hectare reduction in irrigation by 3 rounds with base line of 20 irrigation. Approx. 1.5 million litres of water savings from 8.5 million litres per hectare base line. (Saved 60 million litres water).
- Electricity saved @ INR 1,500 per hectare i.e. INR 60,000 saved on 40 hectares.
- Per hectare reduction in 125 kg of urea from baseline of 450 kg. Saved 5 MT of urea which was being used as basal fertilizer in pilot. Per hectare average yield was 85 MT in the Control Plot as base line where in UPL's initiative it was 92.5 MT per hectare, with additional output of 7.5 MT per hectare.
- Zeba technology also enabled an improvement of soil health by increasing its field capacity through improving the productivity of applied water and chemical fertilizer, making it porous.





Mr. Ashish Dobhal,CEO, UPL SAS Limited addressing the media on occasion of launch program of Shashwat Mithaas in Pune

Soil & Water Resource Conservation

Area of operation: **Odisha, Chhattisgarh, Karnataka, Telangana, Uttar Pradesh, Madhya Pradesh, Rajasthan, Maharashtra**

Crops covered: **Paddy, Cotton, Millet, Mustard and Vegetables.**

Total area covered (ha): **6,073**

Number of farmers associated: **8,200**

Average landholding of farmers associated with program (ha) – **0.74**

Details for 2021-22

Program Impact

Water saving of 14.35 bn litres/year.

Recharging underground water.

Soil conservation using drone spray, nano urea and accelerated composting methods

SDGs impacted



SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)

About the Program

The program focused on below mentioned interventions:

1. Rainwater harvesting using rainwater collection pond and water storage tanks at vegetable R&D farms.
2. Rainwater harvesting with borewell recharging system in vegetables and rice research farms.
3. Water conservation by using drone for pesticide spraying in R&D farms.
4. Installation of water meters in research farms.
5. Water saving by direct seeding of rice (DSR) method in rice multilocation trial farms.
6. Water saving by inch level monitoring and AWD system using acre-inch water measurement systems/ equipment.
7. Accelerated vegetable waste composting and using in our farms at Bangalore.

For further details, contact us on

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Water & soil conservation by using drone



Water meters for monitoring water consumption

Precision and Smart Irrigation with RIVULIS: A Sustainable Solution for Increasing Water Productivity

Rivulis Irrigation India Pvt. Ltd.

Area of operation: **: Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand**

Crops covered: **: Sugarcane, Potato, Cotton, Banana, Pomegranate, Coconut, Maize, etc.**

Total area covered (ha): **12,279**

Number of farmers associated: **: 9,651**

Average landholding of farmers associated with program (ha) – **1-2**

Details for 2021-22

Program Impact

Soil and water conservation in deserted and water stressed area like Kutch.

Rivulis drip technology in one year saved 1.26% of total water storage capacity of the largest dam, Bhakra Nangal Dam (267 TMC) in India.

40-60% Water saving ensuring proper balance of water and air in soil resulting in luxuriant growth of the crop



Rivulis Micro-irrigation products & services - Industry's most comprehensive portfolio

SDGs impacted



About the Program

The program ensured complete end to end design to harvest services in close cooperation with the business partners to do sustainable farming:

- Design and Planning: The team formulated system designs and irrigation schedules based upon the GPS survey and provided customized design for each field.
- Purchase, Logistics and Installation: The company is experienced in project management from logistics and delivery to installation and supervision.
- Agronomy and After Sales Services: Company's priority is in-field training and support to provide growers the confidence and knowledge to successfully operate and maintain their drip irrigation systems.
- Irrigation scheduling based on remote sensing technology: The company closes the loop with Manna Irrigation Intelligence, providing growers with site specific, dynamic irrigation recommendations in real time.

One of the success stories of the program is the development of drip irrigation project using modern irrigation technique for inter-cropping of Dragon Fruit with Date Palm in Reldi Village, Kutch District of Gujarat. Rivulis installed drip irrigation system with innovative and customised design enabling 800 Liters of water/day to Date palm and 50 liters of water/day for Dragon Fruit plant to fulfil crop water requirements as per local need. Through automation, it was possible to provide both these crops the desired quantity of water simultaneously. Fertilizers as well as nutrients required for the plant were injected into the system through Venturi Injector. Pressure compensated driplines ensured consistent supply of uniform water and nutrients to all the plants of the entire farm. The program interventions helped millions of growers in increasing productivity and thus enabled soil and water conservation directly.

For further details, contact us on

marketing.india@rivulis.com

4.4 Innovative Product/ Technology/Services Promoting Sustainable Agriculture Development




S No.	Award Winner	Program Name	P. No.
1	Sohan Lal Commodity Management Ltd.	AGRI REACH- Method for Real- Time Data Management & Assessment of Agri commodities	99
2	HarvestPlus	Biofortification	100

AGRI REACH- Method for Real- Time Data Management & Assessment of Agri Commodities

Area of operation: **: Across 20 states**

Crops covered: **: All Agri Commodities**

Total area covered (ha): **9500 warehouses and 36 Cold Storages**

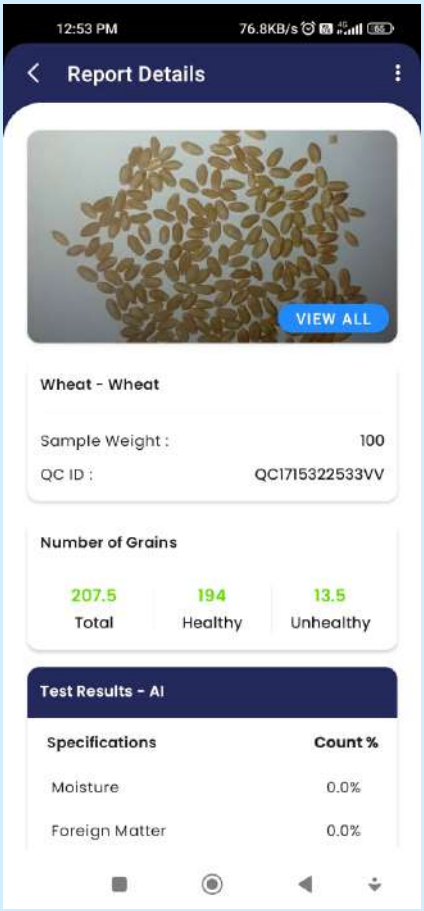
Number of farmers associated: **3,50,000**

Details for year 2021-22

Program Impact

Reduced Post-harvest losses from 10% to 0.5%

Reach of 3,50,000 farmers



Screenshot of Agri Reach Application

SDGs impacted



The program was also awarded in 2021

Sohan Lal Commodity Management Ltd.

About the Program

Typical storage losses for agricultural produce in the country account for approximately 10% of the entire production, factoring in only dry grains. Such post-harvest losses involving dry agri commodities can be substantially reduced to 0.5% through the deployment of "Agri Reach" process management system.

SLCM has devised an SOP that amalgamates technology with agriculture domain expertise and allows the company to operate any warehouse agnostic of infrastructure, location, weather condition across any kind of agriculture commodity.

"AGRI REACH" is a defined process for warehouse management by which multi-location and multi-layered operations are remotely managed by a team of technical experts based at the Corporate Office. Acclaimed patent from Government of India, the company provides technology enabled high quality modern warehousing services with real-time MIS framework for efficient tracking of the entire agri ecosystem. With this service 'Audit Inspectors' are equipped with GPS enabled handheld devices for real time monitoring, reporting and information flow. The company has integrated a biometric handheld device across all its locations. This device is a smart portable system that is configured to track and record data inventory for client on real-time basis. This distinctive technological innovation allows us to establish a new warehousing facility at one to two days' notice irrespective of the available infrastructure, weather or geography to provide a standard operational experience at all facilities even while maintaining the highest standards of quality control.

These applications can be pre-installed on phones during manufacturing platforms, comprising 60 items, the Agri Reach kit is portable and can be reached within 24 hours to the location where the warehousing facility is to be set up, or delivered as web applications using server-side or client-side processing to provide an "application-like" experience within a Web browser or Mobile App.

The Agri Reach umbrella of process management for monitoring of agri commodities in a warehouse is one of the most cost-competitive to be presently available not only in India but also globally. Also, to put things into perspective, users buy insurance based on the value at risk (VAR). The insurance premium is a fraction of the cost of the risk covered. Agri Suraksha is a preventive tool so that users understand that at a fraction of the cost, as compared to insurance, they now can get into a preventive mode that could deter an insurance event from triggering.

For further details, contact us on

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Biofortification

Area of operation: **Uttar Pradesh, Punjab, Bihar, Odisha, Rajasthan and Maharashtra**

Crops covered: **Zinc Wheat, Zinc Rice, Iron Pearl Millet**

Total area covered (ha): **3,00,000**

Number of farmers associated: **8,90,277**

Average landholding of farmers associated with program (ha) – **0.6**

Details for 2021-22

Program Impact

Biofortified crop reach-out to roughly 4.5 million people.

Produced 2,100 tons of zinc fortified wheat seed in Bihar in collaboration with Bihar State Seed Corporation

In 2021, nearly 6000 MT of biofortified seeds were produced in partnership with various private & govt. bodies.



Iron- Pearl Millet: Boosting Women's Health in Maharashtra

SDGs impacted



HarvestPlus

About the Program

HarvestPlus developed the following food-system focused value chain approach:

1. Crop Development: Supported national and international government bodies in breeding, testing and releasing of zinc wheat, zinc rice and iron pearl millet. In 2021-22, roughly 4.5 million people benefited from the consumption of these crops.
2. Seed Production and Commercialization: HarvestPlus worked with private and government seed companies to develop quality-controlled seeds. In 2021, nearly 6000 MT of biofortified seeds were produced by these partners.
3. Demand Creation and Seed Distribution to farmers : HarvestPlus collaborated with public institutions like National Rural Livelihood Mission, private organizations and NGOs like Syngenta Foundation India, Grameen Foundation India, IFFCO Kisan.
4. Food Processing and Value Addition : Partnerships with small and medium-sized food processing companies to develop sweet and savory food made from biofortified crops like flour, biscuits, vermicelli, noodles etc.
5. Advocating for Policy and Program Integration : Through advocacy efforts with partners, Bihar State Seed Corporation started producing 2100 tons of certified zinc wheat seed using its own resources. HarvestPlus is working on the inclusion of biofortified grains and food products in government schemes like Mid-day Meal Program to reach communities with nutritious crops.



For further details, contact us on

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5. Sustainable Agriculture Award Winning Initiatives 2021





5.1 Farmer Income Enhancement Initiatives

S No.	Award Winner	Program Name	P. No.
1	ITC Ltd.	Baareh Mahine Hariyali Programme	103
2	ADM Agro Industries India Pvt. Ltd.	Building Non-GMO Organic Supply Chain in Maharashtra & Karnataka and Value Chain Development in Oilseeds (Soybean/Sunflower) under PPP-IAD Project in Karnataka	104
3	Mondelez India Foods Pvt. Ltd.	COCOA Life Program	105
4	AVT McCormick Ingredients Pvt. Ltd.	Red Pepper Backward Integration Program	106
5	Lawrencedale Agro Processing India Pvt. Ltd.	Livelihood Improvement of Tribal Small-Holder Farmers	107
6	Gramin Vikas Trust	Natural Resource Management	108
7	Participatory Rural Development Initiatives Society	Better Cotton Initiative Program & Sustainable Spices Initiative	109
8	Centre for microfinance	Enhancing Food Security and Cash Incomes of 4,000 Women Small-Holder Farmers in Tonk (Rajasthan)	110

Baareh Mahine Hariyali Programme

Area of operation: **Uttar Pradesh**

Crops covered: **Paddy/Rice, Wheat, Moong (Green Gram)**

Total area covered (ha): **26,546**

Number of farmers associated: **2,00,000**

Average landholding of farmers associated with program (ha) – **0.39**

Details for year 2020-21

Program Impact

INR 70,556 per hectare farmers' income enhanced



SDGs impacted



ITC Ltd.

Enduring Value

About the Program

The 'Baareh Mahine Hariyali Programme (BMH)' was founded on a 360-degree, multi-pronged model to raise farmer incomes. The key program interventions included

Integrated Farming Model–

a. **Increased Cropping Intensity:** Interventions in Kharif-Paddy through short-duration varieties had enabled early harvest of Paddy and timely sowing of Wheat in Rabi, further aided by Zero-till and turbo happy seeder sowing of Wheat. This allowed a third crop – Moong during summer generating additional income.

b. **Productivity Enhancement:** Location specific improved seed varieties coupled with context specific agronomical practices like seed treatment, balanced crop nutrition with leaf colour charts, irrigation scheduling, terminal heat ameliorating sprays for pest/ disease management demonstrated through Choupal Pradarshan Khets. These interventions resulted in cost saving, improved yields, conserving natural resources.

c. **Market Linkages:** ITC provided market access through farm gate purchases at cluster level buying points, wherein transparency in quality assessment, pricing and weighment were assured. ITC incentivized quality produce, thereby aiding in improved adoption of best production practices.

Crop Diversification and Value Addition –

a. **Horticulture Crops:** Promoted Banana and Pink Guava plantation by providing seedlings prepared through Banana tissue culture and Lalit variety of Pink Guava.

b. **Perishable Cargo Centre (PCC) in Ghazipur:** ITC supported PCC which provided storage, chemical free ripening and market yard facilities to local farmers which helped in minimizing post-harvest losses and sell their produce to distant markets, thus enabling better price discovery. The center was also involved in extension activities.

Income Diversification-

a. **Agarbatti Rolling:** Provided additional source of livelihood to women in rural areas.

For further details, contact us on
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Building Non-GMO Organic Supply Chain in Maharashtra & Karnataka and Value Chain Development in Oilseeds (Soybean/Sunflower) under PPP-IAD Project in Karnataka

Area of operation: **Maharashtra, Karnataka**

Crops covered: **Soybean, Sunflower, Chana**

Total area covered (ha): **33,740**

Number of farmers associated: **18,186**

Average landholding of farmers associated with program (ha) – **1.86**

Details for year 2020-21

Program Impact

INR 2,075 per hectare farmers' income enhanced



SDGs impacted



ADM Agro Industries India Pvt. Ltd.

About the Program

ADM was involved in Public Private Partnership for Integrated Agricultural Development (PPP-IAD) for value chain development in soybean with the Government of Maharashtra and Karnataka. Some of the activities driven by ADM included:

- Trained farmers in organic cultivation practices, resulting in the production of certified organic products that conform to NPOP/NOP standards.
- Incentivized farmers during the conversion period of initial 3 years by way of providing higher prices to compensate the drop in yields.
- Helped farmers improve the quality of their home-grown seeds, encouraged self-reliance and circular sourcing by participating in own seed production under seed certification program.
- Formulated farmers' groups and provided community-based sorting and grading equipment.
- Reduced post-harvest losses via training on proper storage practices and provided storage protection material (tarpaulins) to store the harvested material.
- Provided an assured direct market linkage by ADM to farmers by setting up rural procurement centers closer to the farmers without any intermediaries.
- Trained farmers on environmentally responsible agricultural practices, such as improving soil health, promoting water conservation techniques, and maintaining ecological balance.
- More than 2,50,000 farmers in Maharashtra and Karnataka were registered as vendors.

The company supported growers through the process of certifying their farms for organic produce. ADM ensured that farmers received an assured premium price. By paying the premium from the beginning of the conversion of soybean crop, ADM incentivized farmers to continue their production of organic soybean.

For further details, contact us on

anjali.ritu@adm.com

COCOA Life Program

Area of operation: **Andhra Pradesh, Kerala, Tamil Nadu, Karnataka**

Crops covered: **Cocoa**

Total area covered (ha): **52,000**

Number of farmers associated: **4,000 per year**

Average landholding of farmers associated with program (ha) – **0.54**

Details for year 2019-20

Program Impact

INR 56,000 per hectare farmers' income enhanced



Training in Sustainable GAP



View of Cocoa Nursery

SDGs impacted



Mondelez India Foods Pvt. Ltd.

Mondelēz International
SNACKING MADE RIGHT

About the Program

Cocoa Life India was an initiative by Mondelēz aimed at enhancing the sustainability of the cocoa supply chain. Cocoa Life program in India focused on the holistic development of cocoa farming community in which it operated and addressed five key areas of Farming, Community, Livelihood, Youth and Environment. The Cocoa Life program in India supplied quality planting materials through its widespread network of cocoa nurseries to farmers and provided technical guidance, encouraged economic development which in turn-built prosperity in this region. The program in India reached nearly 1,00,000 cocoa farmers and added >4,000 new cocoa farmers every year through an exclusive cocoa extension program with a specialized cocoa technical team on the ground.

Cocoa Life supported the cocoa farmers by training them on Good Agriculture Practices (GAP) through the dedicated technical team undertaking individual and group interactions at farm level. An exclusive Cocoa Manual which included all the scientific cultivation methods for cocoa growing was prepared in local languages and circulated to the farming communities by Cocoa Life.

To avoid the middlemen and to ensure that the farmers received the maximum price for their produce, Mondelēz undertook direct procurement of the cocoa from the farmers. Farmers were also trained on the correct methods of primary processing of cocoa beans enabling value addition at farm level and ensuring the best price for their produce. The program also explored the adoption of new innovative technologies for farmer reach and communication program and created a mutually beneficial ecosystem of increasing productivity, quality, and thereby improved income.

For further details, contact us on

roopak.bhat@mdlz.com

Red Pepper Backward Integration Program

Area of operation: **Telangana, Andhra Pradesh, Karnataka, Tamil Nadu**

Crops covered: **: Red Pepper**

Total area covered (ha): **2,674**

Number of farmers associated: **: 1,052**

Average landholding of farmers associated with program (ha) – **2.54**

Details for year 2020-21

Program Impact

INR 97,336 per hectare farmers' income enhanced



Micro irrigation-productivity driving initiative

SDGs impacted



AVT McCormick Ingredients Pvt. Ltd.

About the Program

The program aimed to sustainably source dried red pepper from smallholder farmers and provide them with a steady source of income. This enabled the farmer community to realize higher incomes by participating in a hybrid model that used traditional wisdom and technology-enabled agricultural practices across the value chain, from pre-sowing to post-harvest. In addition, the company undertook and implemented social programs to improve the standard of living and support the livelihood needs of the farmer community.

AVT McCormick created added value for the farmers across three areas:

1. Consistent above-market revenues for meeting stringent export-ready standards. This included compliance to regulatory standards of importing countries, food safe and sustainably certified produce, farm-gate procurement support, high - value variant.
2. Progressive reduction in cost of cultivation through water usage optimization, good agricultural practices, Integrated Pest Management (IPM), inputs cost reduction, scientific advisory, quick payments/reduced dependency on informal credit system.
3. Livelihood support programs through community engagement.

For further details, contact us on

mail@avtspice.com

Livelihood Improvement of Tribal Small-holder Farmers

Area of operation: **Andhra Pradesh, Tamil Nadu**

Crops covered: **Carrots, Beetroots, Okra (Ladies Finger), Broccoli**

Total area covered (ha): **650**

Number of farmers associated: **45,000**

Average landholding of farmers associated with program (ha) – **0.8**

Details for year 2020-21

Program Impact

INR 1,50,000 per hectare farmers' income enhanced

SDGs impacted



Lawrencedale Agro Processing India Pvt. Ltd.

About the Program

With the robust support of the Andhra Pradesh Government's Horticulture Department and Tribal Welfare Department, the livelihoods of tribal farmers have seen significant improvement following the incorporation of the LEAF Lambasingi Farmers Producer Company (FPC).

Traditionally, these farmers cultivated native varieties of vegetables, relying on age-old cultivation practices and selecting crops based on generational knowledge or mutual consultation with fellow farmers. However, with rapidly evolving consumer preferences and changing consumption patterns driven by modern lifestyles, the potential for cultivating high-demand vegetables was harnessed by LEAF Lambasingi FPC. This was achieved through heightened awareness, market support, and technical interventions such as enhancing soil quality, providing on-farm technical assistance, and establishing shade net nurseries.

LEAF also played a pivotal role in building the capacity of tribal farmers through method demonstrations, state-level exposure visits, and front-line demonstrations. Ongoing training equipped these farmers with modern agricultural techniques, including integrated pest management, new crop selection, market intelligence, and best practices in grading and sorting. Exposure visits offered them hands-on experience and the opportunity to learn innovative methods from other farmer groups, further empowering them to elevate their livelihoods and adopt more sustainable farming practices.

For further details, contact us on

raghu.badrinath@lawrencedale.com





LEAF team working with marginalized tribal farmers in Lambasingi region in remote Eastern Ghats

Natural Resource Management

Gramin Vikas Trust

Striving for improved & sustainable livelihood

Area of operation: **Madhya Pradesh, Odisha, Chhattisgarh, Jharkhand, West Bengal, Gujarat, Rajasthan, Uttar Pradesh, Bihar, Jammu and Kashmir, Himachal Pradesh**

Crops covered: **: Maize, Pigeon pea, Chickpea, Soya bean, Paddy, Barley, Ashoka 200F (BVD 109), Ashoka 228 (BVD 110), Mustard, Mushroom, Fruit crop (Mango, Apple, Apricot, Guava, Papaya, Lemon), Sugarcane**

Total area covered (ha): **2,18,159**

Number of farmers associated: **1,09,000**

Average landholding of farmers associated with program (ha) – **1.5**

Details for year 2019-20

Program Impact

INR 18,000 per hectare farmers' income enhanced

SDGs impacted



About the Program

WADI (Wasteland Area Development Initiative) project focused on the development of small fruit orchards and restoration of denuded land through ecological interventions and soil conservation measures.

Farmers who previously grew only maize, wheat and soybean in their farm were made aware about the WADI project and were brought into practice after several meetings about fruit plantations which included mango, pomegranate, lemon, etc. Farmers were trained to prepare organic manure from the farm waste, whereas fertilizers and pesticides were provided at subsidized rates. Small irrigation systems were developed in which eligible farmers in convergence with the schemes of the Agriculture Department were provided with the pipeline sets. Watershed development in various areas recharged the water levels and made the infertile lands fit for farming again. Village committees were provided with higher quality seeds and inputs for the cultivation of various climate resilient crops.

The trust has been guiding and supporting farmers through Agri-Dairy project interventions, which has provided the farmers with a continuous flow of resources and income, resulting in an increase in their annual income by 40%.

For further details, contact us on

sonakshi@gvtindia.org





Happy farmers with better yield and profits earned through scientific farming techniques by Gramin Vikas Trust

Better Cotton Initiative Program & Sustainable Spices Initiative

Area of operation: **Telangana, Andhra Pradesh**

Crops covered: **Cotton, Chillies**

Total area covered (ha): **33,768**

Number of farmers associated: **46,750**

Average landholding of farmers associated with program (ha) – **1**

Details for year 2019-20

Program Impact

INR 20,000 per hectare farmers' income enhanced

Improvement of soil health

Promotion of Biodiversity

Quality of produce



Visit of PRDIS staff to Better Cotton Initiative demonstration

SDG s impacted



Participatory Rural Development Initiatives Society (PRDIS)

About the Program

PRDIS, since its inception, has been focusing its attention on sustainable agricultural development programs majorly on productivity, income enhancement initiatives with eco-friendly technologies in different crops operating in various states in India and also in African countries, benefitting about 2 lakhs farm families directly and about 10 lakhs farm families indirectly.

The organization has been implementing productivity enhancement program in cotton with IPM and INM technologies using Farmer Field Schools (FFS) approach since 2002 with support from FAO, Solidaridad, Syngenta Foundation and State Government. Interventions were undertaken for reducing cost of cultivation through efficient seed usage, fertilizer management, pesticide management and following best practices of water management, plant population for getting higher yields. Better Cotton Initiative program has contributed to sustainable agricultural development and income enhancement by reduction in costs and increasing the yield besides adoption of eco-friendly agricultural practices by the farmers to get additional net income of Rs 20,000 on an average per hectare in rainfed areas and about 30,000 per hectare in wetland areas. In addition, farmers who have practiced intercropping also got additional income.

For further details, contact us on

prdis.hyd@gmail.com, sarvareddy@yahoo.com

Enhancing Food Security and Cash Incomes of Women Small Holder Farmers

Centre for Microfinance

Area of operation: **Rajasthan**

Crops covered: **: Groundnut, Black gram, Pearl millet, Mustard, Wheat, Vegetables**

Total area covered (ha): **1,432**

Number of farmers associated: **: 2,354**

Average landholding of farmers associated with program (ha) – **0.56**

Details for year 2020-21

Program Impact

INR 25,638 per hectare farmers' income enhanced

SDGs impacted



About the Program

In January 2020, the Louis Dreyfus Foundation (LDF) and Centre for Microfinance (CmF) embarked on a two-year program which aimed to support small and marginal women farmers of Tonk district, Rajasthan in improved agriculture practices (IAPs) that can contribute to higher productivity and incomes. Major objectives of program included:

- Increasing the productivity of existing food and cash crops grown by farmers by 35 to 60% against baseline, generating surplus food grains to meet food requirement of 3-4 months of a household.
- Increasing the farmers' income by additional amount of INR 25,000 to INR 35,000 per annum through improved practices in major food crops.
- Promotion of INM & organic practices which improves the soil health

Encouraging results were witnessed in farm productivity improvement in key crops along with farm income enhancement. Women farmers became confident to adopt vegetable cultivation and fruit plantation for further augmentation of income.

For further details, contact us on

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Harvesting Happiness





5.2 Climate Resilient Agriculture Development Initiatives

S No.	Award Winner	Program Name	P. No.
1	MUKTI	Sustainable Agriculture Movement	112
2	S M Sehgal Foundation	Promoting Climate Resilient Agricultural Practices	113

Sustainable Agriculture Movement

Area of operation: **West Bengal**

Crops covered: **: Organic Vegetables, Rice, Pulses**

Total area covered (ha): **4,505**

Number of farmers associated: **: 4,300**

Average landholding of farmers associated with program (ha) – **1**

Details for 2020-21

Program Impact

Over **4,300** farmers practiced sustainable agriculture practices. Over 2,000 farmers practiced organic farming. 1,000 ha land converted to organic land. 350 farmers are PGS certified

500 farmers linked with the market for better price.

Water pollution reduced drastically. More than **1,500** ponds rejuvenated and newly digged. Reduced ground water extractions for agriculture significantly.



Farmers taking oath to do organic farming

SDGs impacted



Mukti

About the Program

The project was undertaken in the year 2010 to address land reclamation after cyclone Aila in Suderban, West Bengal. The cyclone damaged hectares of agricultural land, forests and the rich mangrove population which affected the productivity of the land leading to decrease in overall income of the farmers. The farmers were forced to migrate to other places as their land became unsuitable for cropping. Mukti planned to implement the Sustainable Agriculture Movement (SAM) on a long-term basis to have a comprehensive outcome in the field of agricultural production and sustainable livelihood opportunities with an emphasis on checking massive migration and poverty-alleviation just after a devastating cyclone and flood.

Since food supply became uncertain, expensive, and non-varied, Mukti partnered with some organizations and Development Research Communication & Service Centre (DRCSC), to train families in raising organic kitchen gardens to supplement and enrich their nutritional intake. Even landless families were able to raise gardens in broken pots, jute bags and bamboo baskets. Since long MUKTI is working to advocate and promote SAM in different parts of Sundarbans. In November 2012, MUKTI formed an autonomous body of volunteers, namely MOFA (MUKTI Organic Farmers Association) to establish the ethics of SAM. To facilitate the farmers to sell out their fresh organic produces, Mukti started a retail initiative call Mukti Fresh (www.muktifresh.in) for supplying fresh healthier foods to the urban consumers and providing 20-30% higher markup of the local rates to the farmers. The input cost of the farming was reduced for the farmers by using techniques of natural farming and producing the manures at home at cheaper cost. As a result, benefits from agriculture increased for those farmers practicing Sustainable Agriculture at the coastal part of Sunderban over the decade.

For further details, contact us on

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info@muktiweb.org

Promoting Climate Resilient Agricultural Practices

Area of operation: **Andhra Pradesh, Bihar, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Telangana, Uttar Pradesh**

Crops covered: **Rice, Vegetables**

Total area covered (ha): **5,012**

Number of farmers associated: **6,000**

Average landholding of farmers associated with program (ha) – **0.7-0.8**

Details for year 2020–21

Program Impact

- Zero Tillage: 6,374 acres
- Laser Leveling: 6,616 acres
- Kitchen Garden Demos: 6,986
- Soil Tests: 23,430
- Crop Demonstrations: 81,257
- Solar Pump Irrigations: 1,198
- Drip/Sprinklers: 1,890
- Field Training Days: 9,066



A farmer standing in the field of pearl millet, in Rajasthan.

SDGs impacted



S M Sehgal Foundation

About the Program

Promotion of sustainable livelihoods encompassed building the capacities of farmers, including women producers, on improved agricultural practices and new technologies. The team worked with smallholder farmers in rain-fed and irrigated areas to facilitate adoption of improved and advanced agricultural practices that incorporated soil health management, crop production management, input-use efficiency, small farm mechanization, water-efficient irrigation techniques, horticultural development, livestock management, and the use of information and communication technology (ICT) in agriculture.

A learn-by-doing approach was used to build the capacities of farmers to maximize their crop productivity and manage soil health. The team conducted crop demonstrations to teach farmers about the importance of soil testing, quality seeds, appropriate seed rates, seed-sowing methods, essential micronutrients and macronutrients, correct quality and quantities of plant protection chemicals, pest management, weed management, use of compost, and other advanced techniques. In addition, the use of biofertilizers was promoted to improve soil microbial activity. This knowledge helped farmers improve crop productivity while maintaining their soil quality. Results were demonstrated on the farmers' own fields with side-by-side control and treated fields.

Key interventions implemented included improving soil health through balanced nutrient application, promoting salinity tolerant crops, water-saving agri technique such as DSR, micro irrigation, mulching, laser leveling, and promoting renewable energy. Other pilot initiatives implemented in some areas were introduction of subsurface irrigation that uses buried diffuser to supply water directly to root zones of the crops within sheltered structure for favorable growing conditions.

For further details, contact us on

smsf@smsfoundation.org



5.3 Soil & Water Resource Conservation Initiatives

S No.	Award Winner	Program Name	P. No.
1	Tata Coffee Ltd.	Conservation of Natural Resources (Soil and Water)	115
2	Bayer Crop Science Ltd.	Sustainable Rice Project	116
3	Krushi Vikas va Gramin Prashikshan Sanstha	Jalsamruddhi	117

Conservation of Natural Resources (Soil and Water)

Area of operation: **Karnataka**

Crops covered: **: Coffee**

Total area covered (ha): **3,732**

Number of farmers associated: **: 400**

Details for year 2020-2021

Program Impact

Harvested **34 lakh** cubic meter of water. Zero tapping of ground water for plantation operations

Produced **6,000 MT** of compost annually and incorporated into the soil. **11.6 %** of area was deficient in available phosphorus in 2016 and during 2019 it went up to 17.1%

SDGs impacted



For further details, contact us on

tcl.sustainability@tataconsumer.com

Tata Coffee Ltd.

TATA COFFEE LIMITED

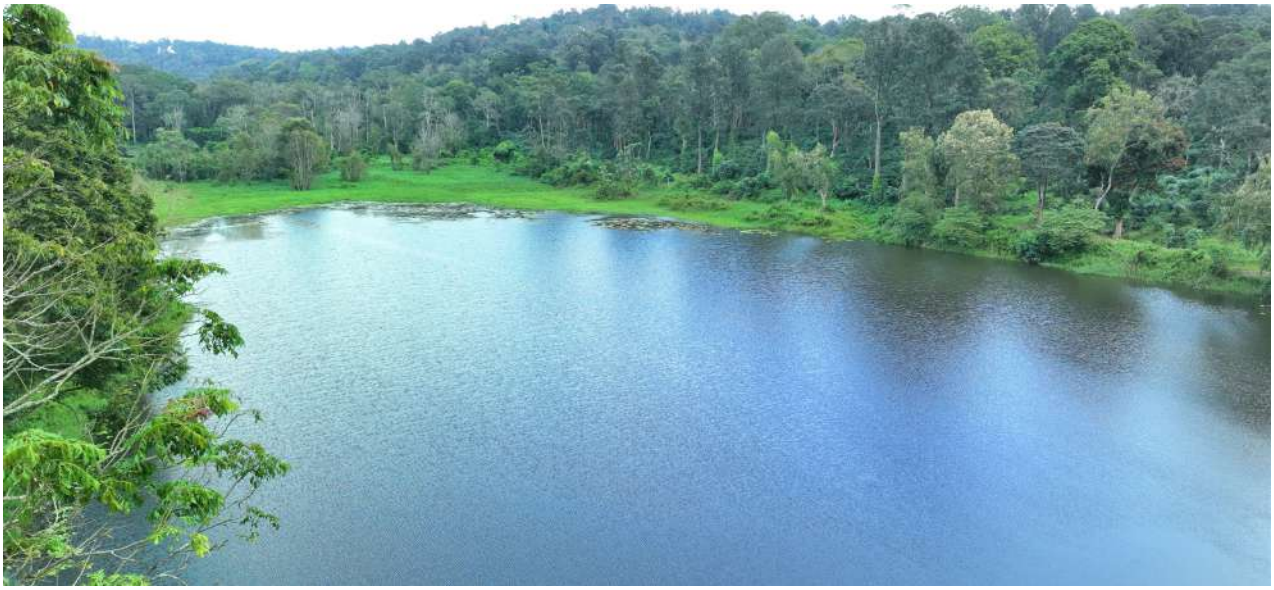
About the Program

Tata Coffee's plantations are located along the Western Ghats, widely known for its rich and diverse biodiversity. Soil and water are the most crucial natural resources pertinent to Tata Coffee, and to address the challenges posed by climate change, including water scarcity, the company implemented comprehensive water conservation measures.

The programme on water conservation was initiated specifically to augment water resources / infrastructure to harvest rainwater to mitigate soil and water erosion. Based on topographical and soil data, 274 rainwater harvesting tanks were constructed, totaling 3.4 million cubic meter of storage capacity. These tanks were strategically placed to capture and store excess runoff, mitigating soil erosion and ensuring a reliable source of water supply.

To maximise water efficiency, the company adopted advanced agricultural practices such as scientific spraying techniques and eco-friendly pulping methods. These measures reduced water consumption for processing operations by up to 70%. Additionally, it focused on improving soil health through canopy management and mulching, enhancing the soil's water retention capacity.

As a result of these initiatives, Tata Coffee was able to meet up to 95% of water requirements for plantation operations through rainwater harvesting, reducing reliance on groundwater sources. This sustainable approach not only ensured the long-term viability of their plantations but also contributed to the preservation of the region's precious natural resources.



Watering our future: Rainwater harvesting to ensure zero groundwater usage for our irrigation operations

Sustainable Rice Project

Area of operation: **Andhra Pradesh, Bihar, Chhattisgarh, Haryana, Karnataka, Maharashtra, Odisha, Punjab, Telangana, Uttar Pradesh**

Crops covered: **Rice**

Total area covered (ha): **2,950**

Number of farmers associated: **1,500**

Average landholding of farmers associated with program (ha) – **1.9**

Details for year 2020-21

Program Impact

Saving of 30% water

Reduction in 6,000 MT of CO_2e



Between traditional and sustainable rice farming practices, there is no significant yield difference

SDGs impacted



Bayer Crop Science Ltd.

About the Program

Bayer's Sustainable rice project aimed to reverse the negative impact of rice cultivation to the environment along with focus on water conservation. The project explored innovative approaches and models to improve sustainability of rice production and leveraged networks and support integrated stakeholder platforms.

The objectives of this initiative were achieved by analyzing and identifying suitable varieties of seeds, promoting the optimal use of crop protection with a focus on weed management in non-flooded rice areas, encouraging ecologically efficient irrigation and farm operations, leveraging agronomic tools, promoting best practices for water and ecological management, collating latest insights and advancing latest practices and exploring carbon farming feasibility (credits/ markets/footprints).

The program encouraged farmers to switch from transplanting of rice to direct seeding of rice, alternate wetting and drying (implemented by IRRI) and conservation tillage to reduce GHG emission and saving of water by 30-40%.

For further details, contact us on

suhasr.joshi@bayer.com

Jalsamruddhi

Area of operation: **Maharashtra**

Crops covered: **Onion, Green gram, Cotton, Horticulture crops, Soybean**

Total area covered (ha): **2,500**

Number of farmers associated: **636**

Average landholding of farmers associated with program (ha) – **1.24**

Details for year 2020-21

Program Impact

Additional **200 tcm** water supported 617 acres of land enabling farmers to take second season crops. Farmers promoted water saving technologies like micro-irrigation on 100 acres.

38 acres of land cultivated through climate resilient cropping methods.





Jalsamruddhi: Preserving Nature – Shaping Livelihoods

SDGs impacted



Krushi Vikas va Gramin Prashikshan Sanstha

Krushi Vikas
Preserving Nature, Shaping Livelihoods

About the Program

The target villages were suffering from drought in the year 2018 and therefore, interventions were proposed to overcome this situation. Water scarcity was the major issue and uneven demographic structure of the topography made communities suffer a lot. In turn, communities could not also sustain the traditional methods of preserving water in this locality. As a result, communities were migrating, and livelihood options were devastated in the region. The Jalsamruddhi programme raised a ray of hope among the communities to regain the prosperous situation in their habitations. Following strategies were adopted under the program.

- Village development plans were prepared in sync with the Gram Panchayat and the Gram Sabha's to carry out watershed works in revenue boundaries of project villages.
- Comprehending the undulating topography, technical inputs like promotion of farm ponds, farm bunding, deepening of existing Nalha were undertaken. Along the lines, community support structures in the form of water user associations, water user groups etc. were also promoted to look after these structures for the maintenance, appropriate water use and for further strengthening.
- Dormant institutions were rejuvenated to bring in the collective and as per the need further groups/ institutions were promoted. These collective groups also helped form a Farmer Producer Organization (FPO) which help farmers get associated with each other and cohesive planning took place on using the natural resources in the project villages.

For further details, contact us on

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5.4 Innovative Product/ Technology/Services Promoting Sustainable Agriculture Development




S No.	Award Winner	Program Name	P. No.
1	SML Ltd. (Formerly known as Sulphur Mills Ltd.)	Fertis and Techno Z - Innovative Nutrients for Sustainable Agriculture Development	119
2	SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)	Digital Initiatives @SeedWorks	120
3	Kay Bee Bio Organics Pvt. Ltd.	Certified Organic Bio-Pesticide Based on Botanical Formulations	121
4	Rivulis Irrigation India Pvt. Ltd.	MANNA Irrigation Intelligence - Sensor-free, Software Solution that Provides Site-Specific Irrigation Recommendations	122
5	Collectives for Integrated Livelihood Initiatives	Poly House Nursery Enterprise Enabling Lakhpati Kisan in Central Indian Tribal Belt	123

Fertis and Techno Z - Innovative Nutrients for Sustainable Agriculture Development

Area of operation: **Maharashtra, Gujarat, Rajasthan, Punjab, Haryana, Uttar Pradesh, Bihar, Madhya Pradesh, Chhattisgarh, West Bengal, Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Kerala**

Crops covered: **: Rice, Wheat, Groundnuts, Vegetables, Chilli**

Total area covered (ha): **1,20,00,000**

Number of farmers associated: **33,00,000**

Details for year 2020-21

Program Impact

FERTIS® has increased yield across crops (11% across range of crops).

SDGsimpacted

2 ZERO HUNGER

SML Ltd. (Formerly known as Sulphur Mills Ltd.)

SML Transforming Agriculture

About the Program

Sulphur and Zinc deficiencies in soil are a known fact in India. The products available in the market have low nutrient use efficiency, leading to overuse in the soil. Optimum judicious use of Sulphur helps in increasing the response of NPK fertilizer there by offering a potential reduction in Nitrogenous fertilizer use. The current Sulphur usage practices use high amount of Sulphur which is necessary but not available to the plant at required crop stages. The current Zinc products tend to leach and pollute the water bodies creating challenge for aquatic animals. Low availability of Sulphur and Zinc to the plants impacts the yield, does not provide adequate nutrient in the produce thereby leading to malnutrition challenges across.

The challenge was to offer a product which must be safe to environment, applicable in low doses and available throughout the crop season. SML Limited research team worked over a period of years to identify need gap and innovated a new product called Fertis and Techno Z. SML, through its technology, introduced Fertis & Techno Z, which have high Nutrient use efficiency by lowering the dose rates to a sustainable level. Fertis and Techno Z products are water dispersible formulations which are innovative in Sulphur fertilizers globally. Fertis and Techno Z can be used in basal application, top dressing by broadcasting and with seed drill also. Due to its water dispersible technology, Fertis and Techno Z can be used in Micro Irrigation like Drip and Sprinkler irrigations. The company's WDG formulation technology provides season long and sustainable release of nutrient throughout crop life. Fertis and Techno Z use results into higher and quality yield, across all crops.

For further details, contact us on

sml@sml-ltd.com



Farmers with increased crop yield using SML solution

Digital Initiatives @SeedWorks

Area of operation: **Across 17 states**

Crops covered: **Millet, Mustard, Hybrid Rice, Cotton and Vegetables**

Total area covered (ha): **9,000**

Number of farmers associated: **45,000**

Average landholding of farmers associated with program (ha) – **0.2**

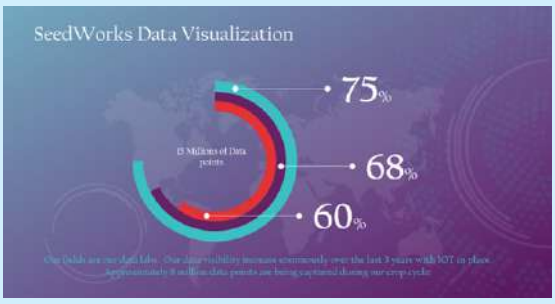
Details for year 2020-21

Program Impact

15 million data points over a period of 6 years enabling productivity improvement by 10% through ABA prescriptions

Roughly **25,000** farmers covered through training programs for improved agricultural practices.

Water conservation and resource optimization by **10%** through Acre Inch methodology and ADW track through our digital devices



SeedWorks Data Visualization

SDGs impacted



SeedWorks International Ltd. (Formerly SeedWorks International Pvt. Ltd.)

About the Program

SeedWorks implemented an array of digital initiatives to build farmers' capacity, such as:

- Siddhi, Targeted advisory for hybrid seed growers using data Insights and customized acre by acre prescription modelling.
- Margadarshan, End-to-end traceability for the farmers in the wake of fake & spurious seeds (Anticounterfeiting).
- eSampark, Live Broadcasting for knowledge dissemination to the farmer.
- VRudhi, Virtual Reality based farm guidance experience in COVID era.
- Jigyasa, Product genuity and on-demand product information, package of practices using Augmented Reality.
- MySeedWorks, A one stop solution for all farmers essential tangible and intangible needs for enabling a highly profitable cultivation.

SeedWorks most important stakeholder group is the multitude of smallholder farmers in India and elsewhere. With a dedicated team of 474 members, SeedWorks IT initiatives has impacted the lives of 45,000+ grower farmers within its value chain and empowered 2.3 million others through sales.

For further details, contact us on
raja.vadlamani@seedworks.com

Certified Organic Bio-Pesticide Based on Botanical Formulations

Area of operation: **Maharashtra, Madhya Pradesh**

Total area covered (ha): **8,000**

Number of farmers associated: **20,000**

Details for year 2020-21

Program Impact

Increase in farmers income

Increase in Agriculture Productivity

SDGs impacted



Kay Bee Bio Organics Pvt. Ltd.

About the Program

The intervention was meant to ensure consistent and reliable food safe produce for consumers around the world. This was achieved by developing certified organic bio-pesticides based on botanical formulations post rigorous in-house R&D of 10+ years. With disciplined and structured efforts, the company managed to identify the optimal combination of botanical extracts that offer satisfactory mortality levels at manageable costs. The range of bio-pesticides was strongly differentiated from regular chemical-based pesticides and of higher quality that are explained in the below listed points:

- Formulations were "multi-action" and were effective against all the different life-cycles of a targeted pest or disease.
- Unlike other synthetic rivals, there was no resistance developed even after regular usage.
- Being organic, these formulations offered phyto-tonic effects instead of phyto-toxic effects of synthetics.
- The organic formulations ensure Zero-day PHI (Pre-harvest interval). The product was safe to harvest immediately after a spray is taken. For synthetics, this ranged from 7 to 15 days or even more before which the harvested product was considered safe to consume.
- The formulations were also extremely safe to handle. There was a Zero day re-entry period, which meant a sprayed farm was safe to enter immediately after a spray unlike a waiting period of 1 to 3 days for synthetics.
- The formulations were based on synergistic effects of a lot of marker compounds.
- The company's formulations were guaranteed to be made from only botanical inputs and were also standardized.
- The bio-pesticides were certified organic by Ecocert, an international certification agency.

For further details, contact us on

sakshi@kaybeeexports.com

MANNA Irrigation Intelligence - Sensor-Free, Software Solution that Provides Site-Specific Irrigation Recommendations

Area of operation: **Andhra Pradesh, Bihar, Maharashtra, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh**

Crops covered: **25 key crops including Cotton, Citrus, Maize, Sugarcane, Mango**

Total area covered (ha): **3,116**

Number of farmers associated: **1,431**

Average landholding of farmers associated with program (ha) – **1-2**

Details for year 2020-21

Program Impact

Increase in farmer's income by 30% and agriculture productivity by 25-50%

Reduced water consumption up to 50% against conventional method and saved electricity usage by 30% and increased water use efficiency up to 70% over conventional method

Reduction in number of spray (insecticides and pesticides) by taking preventive spray prior to infestation of the crop. Prevented leaching of nutrients due to over irrigation by 10%



Remote sensing based irrigation water management

SDGs impacted



Rivulis Irrigation India Pvt. Ltd.

Rivulis

About the Program

Manna Irrigation is a leading Israeli company and is backed by Rivulis Irrigation which is one of the world's leading micro irrigation company. Manna Irrigation offers irrigation intelligence software to individual farmers using remote sensing techniques and agronomy. Manna offers irrigation intelligence solutions to help growers decide when and how much to irrigate. Cloud based Irrigation Intelligence Software is an app which delivers information on site-specific irrigation recommendations such as how much to irrigate, when to irrigate. Main features are its sensor-free, software-only approach leveraging high resolution, frequently refreshed satellite data and hyper-local weather information to deliver highly affordable and accessible solutions for site-specific irrigation recommendations.

- Manna empowered growers to make irrigation decisions easily and confidently by providing them with irrigation intelligence solutions specific to their individual crops and environments.
- No hardware requirement and high-resolution, integrated view of the entire field rather than readings from isolated, disparate locations.
- With Manna's affordable and user-friendly software, growers had access to dynamic, crop and site-specific irrigation recommendations anywhere and anytime.
- The solution can be used by any small farmer having area of 0.8 Hectares or more, it can cover wide range of farmers.
- The software is available in 6 regional Languages i.e. Tamil, Marathi, Hindi, Telugu, Kannnada, Gujrati and English.
- The software is very easy to use, and farmer also received software output as a WhatsApp Message.

For further details, contact us on

marketing.india@rivulis.com

Poly House Nursery Enterprise Enabling Lakhpati Kisan in Central Indian Tribal Belt

Area of operation: **Odisha, Jharkhand, Gujarat, Maharashtra**

Crops covered: **Vegetables**

Total area covered (ha): **2,300**

Number of farmers associated: **20,000**

Average landholding of farmers associated with program (ha) – **0.4-0.6**

Details for year 2019-20

Program Impact

Increase in area under commercial vegetable cultivation - **20%**

Increase in area under drip and mulch integration - **10%**

Small holder farmers becoming Lakhpati Kisan through commercial vegetable farming



Soil less seedlings - Agripreneur serving smallholders

SDGs impacted



Collectives for Integrated Livelihood Initiatives

CInI
An Initiative of TATA TRUSTS

About the Program

In areas of Central India, which lately got into commercial vegetable farming, raising good quality planting material was the first big challenge. This service led model was developed to avoid the associated risks in community-based nursery like competing labor requirements - particularly with paddy, diligent rearing and care of the nursery and timely transplanting in rainfed conditions. The technology is an outcome of Indo-Israel collaborative project for reducing risk of commercial vegetable farmers during the nursery stage of the vegetable crops. Till now, more than fifty such units have been established across locations which are doing business independently and selling more than two crore seedlings per year.

Value add to Farmers

- Convenience- When needed, seedlings were available.
- Unplanned requirement can be attended to – planned, but dropped plan or now wants to do based on rainfall and crop performance.
- Risk shifted from smallholder to the nursery entrepreneur.
- Hassle free: readymade seedlings.
- Enabling farmers to take crops early, when they were not able to take it in usual circumstances.
- Prospects to add new technology (grafted vegetable seedlings) in the area.



For further details, contact us on

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6. Acknowledgement

FICCI and YES BANK would like to acknowledge the support of the esteemed Jury Chair and Jury Members for their efforts and dedication in evaluating and selecting the winners of Sustainable Agriculture Awards over the last four years. We would like to express our sincere gratitude to

Jury Chairman- **Mr Siraj Hussain,** Advisor - Food Processing, FICCI and Former Secretary Ministry of Agriculture & Farmer's Welfare & Ministry of Food Processing Industries, Government of India

Jury members over the years

Jury for 2024

Dr. Harsh Bhanwala, Chairman, Governing Board of MCX ; Former Chairman NABARD

Dr. PK Joshi, National Member, NAHEP External Advisory Panel and Former Director, South Asia, IFPRI

Dr. B B Pattanaik, Former Chairman WDRA & Former MD Central Warehousing Corporation

Dr. VV Sadamate, Agriculture Extension Specialist & Former Advisor Agriculture, Planning Commission, GOI

Ms. Shalini Bhutani, National Consultant, UN FAO

Dr. Ajith Radhakrishnan, Senior Specialist, World Bank

Mr. Arindom Datta, Former Executive Director, Rabobank

Dr. Meenakshi Singh, Chief Scientist, Technology Management Directorate , Council of Scientific & Industrial Research, Ministry of Science & Technology

Ms. Kaveree Bamzai, Author, columnist and Independent Journalist

Ms. Mansi Chaturvedi, Head - Private Partnerships', WFP India Country Office

Mr. Harvir Singh, Editor-in-Chief, RuralVoice.in

Ms. Ishira Mehta, Agriculture Specialist, IFC and World Bank

Dr. S Baskar Reddy, Advisor - Agriculture, FICCI

Jury for 2023

Dr. Harsh Bhanwala, Chairman, Governing Board of MCX ; Former Chairman NABARD

Dr. V V Sadamate, Agri Extension Specialist & Former Advisor Agriculture Planning Commission, GoI

Mr. Arindom Datta, Former Executive Director, Rabo Bank

Ms. Meera Mishra, Country Co-ordinator, IFAD India

Dr. S Baskar Reddy, Advisor - Agriculture, FICCI

Jury for 2022

Mr. Samuel Praveen Kumar, Joint secretary, Ministry of Agriculture & Farmers Welfare, Government of India

Mr. Harsh Bhanwala, Chairman, Governing Board of MCX ; Former Chairman NABARD

Mr. Arindom Datta, Executive Director- Rural & Development Banking/Advisory, Rabo Bank

Ms. Ruchi Pant, Head - Climate Change, Resilience, Biodiversity and Chemicals Management, United Nations Development Programme (UNDP)

Ms. Meera Mishra, Country Program Officer, IFAD India

Jury for 2021

Mr. T Nanda Kumar, Ex-Secretary, Agriculture, GoI

Dr. Ashok Dalwai, CEO,NRAA, Ministry of Agriculture & Farmers Welfare, GoI

Dr. Harsh Bhanwala, Chairman, Governing Board of MCX ; Former Chairman NABARD

Dr. P K Joshi, Ex Director, International Food Policy Research Institute (IFPRI)

Dr. Rashid Sulaiman, Director, Centre for Research on Innovation and Science Policy

Mr. Harish Damodaran, National Rural Affairs & Agriculture Editor, The Indian Express

We also extend our sincere appreciation to all the corporates, NGOs, and Foundations who participated in the awards application process showcasing their exemplary work in sustainable agriculture.

NOTES



Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

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