

Solidaridad

ANNUAL REPORT

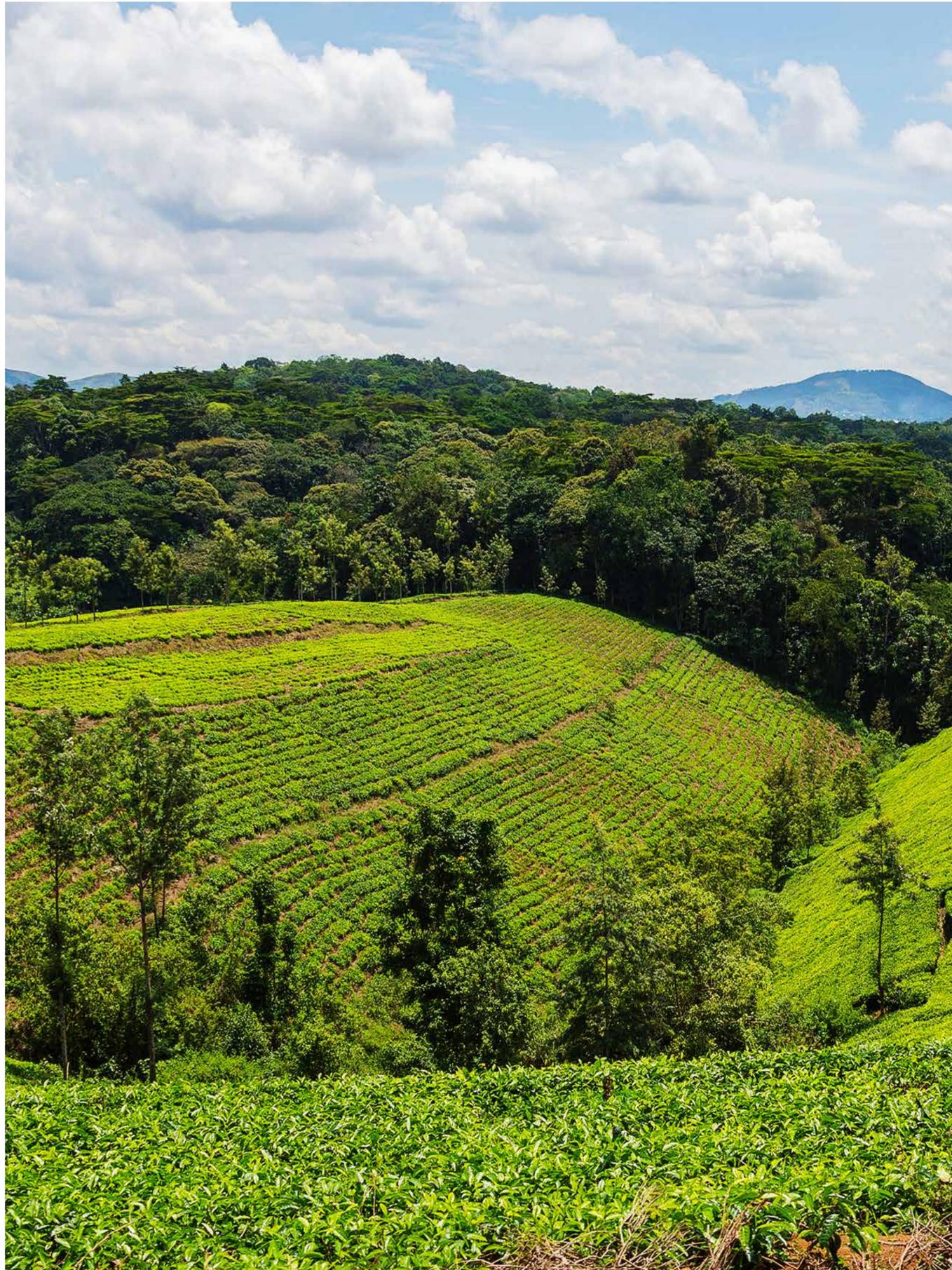
Solidaridad Regional Expertise Centre

2018-2019



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FOREWORD

Dear Friends,

It is my pleasure to present the 2018-2019 Annual Report for Solidaridad Regional Expertise Centre–India. The report depicts the many ways we support work in India to make the sustainable development agenda work for farmers, workers and miners.

Farmers, workers, miners and their families continue to be at the wrong end of global supply chains and not sufficiently rewarded by the markets. They also suffer more than most from climate change and have little say in the policies that determine their future. However, over the last year, we experienced that such a position could be changed. The right kind of training, digital knowledge and a supportive market ecosystem have directly empowered more than 57,000 small farmers and 87,000 hectares of agricultural land in India.

The Solidaridad team also addressed three fundamental developmental challenges facing India.

First, it provided innovative methods of implementing ‘more crop per drop’ principle in sugarcane, cotton, soy and castor while increasing productivity. This, in turn, has increased the farm income for farmers in rural India.

Second, Solidaridad pioneered the leaf-to-cup traceability for tea smallholders through its disruptive TRINITEA programme, covering 50 per cent of all tea smallholders of India. The TRINITEA application helped in scaling up technical training for a large number of tea producers across India. More importantly, the leaf-to-cup traceability application is helping the Indian tea and its producers create an identity of their own.

Third, we created one of the model public-private partnerships in the leather sector to address the issue of water pollution. The project is steered towards reducing the volume and pollution level of the effluents released from the tanning sector. The immediate beneficiaries of the project would include 250,000 workers in the regional tanning and leather industry (30 per cent women) as well as the 30,000 smallholder farmers who depend on the re-use of the wastewater for their agricultural production (crops and dairy).

Around the world, women are achieving visible progress and empowerment. This year we supported women to claim their right to equal treatment in different agricultural commodities they are involved in. We assisted them in drawing on the power of innovation and technology and in becoming leaders through entrepreneurship.

Solidaridad India is extremely grateful to our donors, including the Dutch Government, European Union, Government of India and many Indian companies as well as Indian foundations that support us. We are thankful that they share our vision and place their trust in us. This trust gives confidence to our staff in India to serve in the remotest corners of the country.

I wish you a delightful read.



DR. SHATADRU CHATTOPADHAYAY
Managing Trustee of Solidaridad Asia

CHANGE THAT MATTERS...



MISSION AND VISION

Solidaridad envisages a world in which all we produce and consume can sustain us while respecting the planet, each other and the next generations.

Our mission is to work together with supply chain actors and engage them through innovative solutions in building a sustainable and resilient socio-economic framework that maximises benefit for all and ensures environmental harmony.

Solidaridad seeks to combat structural poverty the sustainable way. Poverty is often known to have its roots in low agricultural productivity among others. Low volume of agricultural produce leads to an imbalance between demand and supply that subsequently results in increased food prices, which pushes the poor, especially in rural areas, into further destitution, failing to meet the basic means of living. Rising demand for food, feed, fibre and fuel not only outbalances food prices, adding to the penury of a large number of people in rural areas, but also compounds the pressure on lands, threatening biodiversity and carbon rich natural landscapes.

By 2050, it is estimated that the world will have nine billion mouths to feed and a proportionate (and increased) number of people to support with basic subsistence. The need to produce more food with same amount of land and water has captured the attention of both private and public entities. In India, major local and global businesses in the agriculture supply chain have responded to the clarion call by Solidaridad towards responsible and sustainable agriculture and trade — the only possible way to mitigate environmental depletion and ensure social, economic and environmental balance.

With a population running into billions, employment, food security, food safety along with prevention of environmental depletion are some of the pressing issues concerning India. Good and sustainable agricultural practices are therefore critical in manifesting changes in the social, economic and ecological frameworks of the country, especially its rural economy. Lack of access to inputs, poor planting material and rapid environmental degradation along with limited or no access to markets due to logistical or quality constraints are some of the predominant issues plaguing the farmers, especially smallholders, in rural India. Better farming condition is therefore key to creating a more inclusive and sustainable supply chain in the agriculture sector. Solidaridad has been a frontrunner in sustainable economic development, keeping up its pace with changing times. Recognising markets as pivotal to realise positive changes in the society and environment, Solidaridad looks at public-private partnerships as an increasingly important mechanism for testing innovations, speeding up change and taking success to scale. With improved scale and speed, Solidaridad aims to create a pervasive impact in society towards a more inclusive, climate-resilient and sustainable economy.

FACT FILE

57,000+

farmers, including women, brought under good agricultural practices

100+

entrepreneurs trained/promoted

87,000+ ha

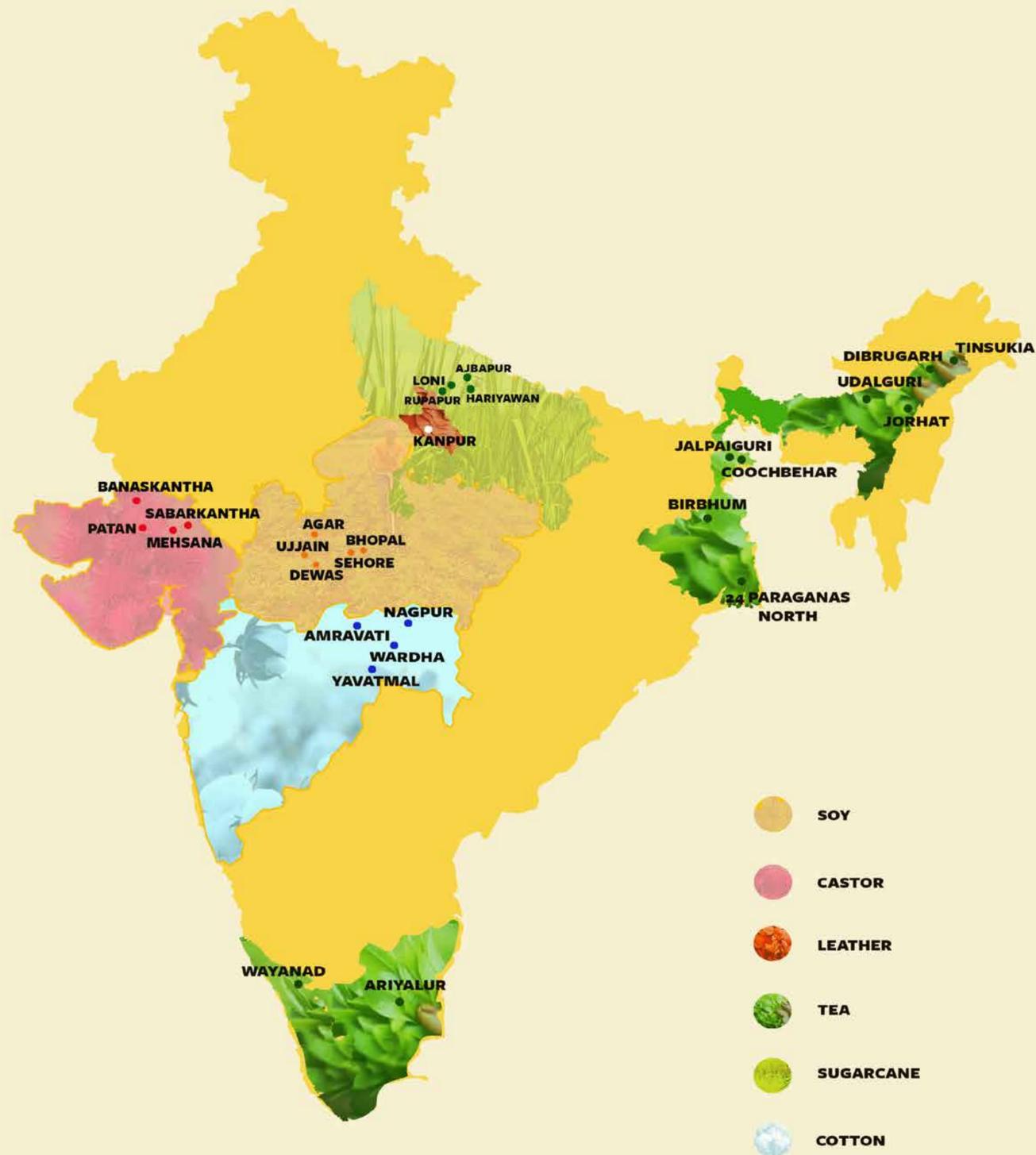
of land brought under good and sustainable agriculture practices

5

technologies tested and scaled on water and pollution reduction



OUTREACH OF SOLIDARIDAD REGIONAL EXPERTISE CENTRE



During 2018-2019, Solidaridad focused on several innovation areas in digital solutions, gender inclusivity and climate and landscapes.

- Solidaridad's Sustainable Soy Programme in Madhya Pradesh worked on soil health improvement, which translates into better yield assurances despite adverse effects of climate. As a part of good agricultural practices (GAPs), it also addressed another important need of the hour: water-use efficiency practices in soybean production. The programme also focussed on women farmers, empowering them with knowledge and insights on soy farming. Solidaridad trained 'Nutri Sakhis' ('friends for nutrition') under the programme to create awareness among the local women on nutrition, health and ways of addressing health and nutrition-related issues of their families.
- Through the Sustainable Castor Initiative, Pragati, Solidaridad pioneered the globally aligned sustainability standard: Sustainable Castor Caring Environmental & Social Standard (SuCCESS). The programme provided castor growers in Gujarat the means to improve their economic, social and environmental performance and helped the farmers achieve compliance with the principles. The programme was designed and implemented by Solidaridad Regional Expertise Centre in collaboration with Arkema, BASF and Jayant Agro.
- The leather programme in Kanpur, Uttar Pradesh, was primarily focussed on reducing the pollution load discharged from the tanneries to the holy river Ganges. The programme also aimed at minimising water consumption in its operations.
- The TRINITEA programme's self-assessment framework is a digital application by the same name, available in the form of a simple android application in local languages. The digital services fully integrated into D3S system help in channelising targeted support to farmers with scarce resources. It also collects data to build strategies and technical assistance models for maximum impact. The programme is designed to scale up interventions in the Indian tea sector, especially for small tea growers (STGs), and facilitate sectoral transformation.
- Solidaridad's sugarcane programme, Meetha Sona Unnati (MSU), was firmly based on the belief that good agricultural practices (GAPs) start with scientific and efficient land preparation. Solidaridad introduced the sugarcane farmers of Uttar Pradesh to several progressive practices, including land levelling, furrow irrigation, trash mulching and soil sampling techniques, to ensure water-use efficiency, soil improvement and women engagement along with better cane productivity and quality.
- Solidaridad's cotton programme was mainly focussed on organic cultivation, farmer collectivisation, water conservation and moisture preservation. Solidaridad conducted several trainings on adopting organic practices and market linkages. The programme also included the introduction of non-GMO seeds and capacity building of farmer producer organisations (FPOs). As part of the efforts, Solidaridad together with partners organised the organic summit to provide visibility to organic practices and discuss challenges on ground.



Attempt to Alleviate Adversity



CLIMATE CRISIS LOOMING LARGE

Climate change is likely to have a substantial impact on soybean production. Several studies and reports from the ground have shown how increase in temperature reduces grain yield significantly. Soybean seed yield and yield components have been reported to be affected by temperature and enhanced CO₂ concentration. Decreased productivity is also attributed to poor adoption of improved practices and technologies by farmers as well as issues related to non-availability of new and improved seed varieties. Under such circumstances, helping farmers adopt sustainable agricultural practices was of immense importance as lives of thousands of farmers in Madhya Pradesh are tethered to soy cultivation.

The Sustainable Soy Programme aimed at training 30,000 farmers in five districts of Madhya Pradesh: Agar-Malwa, Ujjain, Dewas, Bhopal and Sehore. With the goal of improving productivity through sustainable agricultural practices, and thereby, enhancing income and livelihoods of farmers, Solidaridad decided to focus on leveraging institutional support for technology dissemination, involving a cadre of lead farmers in dissemination of good agricultural practices (GAPs) and undertaking on-field front line demonstrations (FLDs) on climate-smart practices. Besides, we also aimed at empowering women farmers with knowledge and skill on agriculture and nutritional aspects of soybean.



UPSKILLING FARMERS



EMPOWERING COMMUNITY-OWNED INSTITUTIONS



STRENGTHENING STAKEHOLDERS' NETWORK

AN ATTEMPT TO ALLEVIATE ADVERSITY

The Sustainable Soy Programme was designed to focus on some of the thematic areas that Solidaridad has been working on for the last few decades. In the following pages, we demonstrate how the programme helped locals work on soil health improvement, which translates into better yield assurances despite adverse effects of climate. As a part of GAP, we also addressed another important need of the hour: water-use efficiency practices in soybean production. All this while, we did not lose sight of gender-inclusivity. Through this programme, we empowered women farmers with knowledge and skill on agriculture and nutritional aspects of soybean.

Customised trainings

Solidaridad trained farmers on GAPs to produce more with fewer inputs, efficient use of land and water for improving their livelihood, enhancing better societal relations and encouraging an ecologically sound supply chain with continual improvements towards inclusive and sustainable sector transformation. The customised training programme for key crops such as soybean, wheat and gram involved detailed lecture sessions on a package of practices.



Front line demonstrations (FLDs)

In order to take the proven climate-resilient production practices from the lab to land and help a large number of farmers adopt the practice through their own experiences, Solidaridad conducted frontline demonstrations with over 150 lead farmers in Kharif season of 2018 for soybean and 75 each for wheat and gram in Rabi season of 2018. This year FLDs were undertaken on distribution of biopesticides and micronutrients, such as sulphur, molybdenum and bio-fertilisers, high yielding variety of seeds etc.

Promotion of enriched compost and water-use efficiency practices

More than 2,000 lead farmers and rural associates were given a first-hand demonstration on preparation and application of decomposer culture on farm yard manure (FYM). It is a cost-effective solution and speeds up the process of composting. It improves the soil health, texture, moisture content, productivity and fertility. Besides, 55 farmers were oriented towards water-efficiency practices in soybean.

Demonstration of new seed varieties

The challenge of newly researched seeds not reaching the rural markets has been persistent. Following the recommendation of Indian Institute of Soybean Research (IISR) and Indian Agricultural Research Institute (IARI), Indore, we introduced new varieties of soybean and wheat seeds suitable for the project areas. By hosting interactive discussions and experience sharing sessions with subject experts, farmers were provided training on doing germination test and using vigorous and healthy seeds with 85 per cent germ inability in case of wheat and 70 per cent in case of soybean.





SEASON	SEED	VARIETIES
Kharif	Soybean	JS 20-29, JS 20-34, JS 20-69, and RVS 2001-04
Rabi	Wheat	HI 1605, HI 1544, HI 8737, GW 322, GW 273, HD 4728

Training of FPOs and Rural Entrepreneurs

Like in other parts of the country, farmers in Madhya Pradesh face challenges in terms of accessing quality inputs, extension services and optimum price realisation of their produce. Farmer Producer Organisations (FPOs) are primarily meant to collectivise smallholder farmers for backward linkages like inputs, seeds, fertilisers, credit, insurance, knowledge and extension services, and forward linkages such as collective marketing, processing and market-led agriculture production. In 2018, Solidaridad hosted a day-long roundtable discussion among the stakeholders — government, financial institutions, seed industries, input suppliers, eNAM and board members from FPOs — over the key issues with FPOs, sustainability challenges, successful models on supply chain being executed, governments programmes and schemes for FPOs, and explore possibility of developing new avenues of collaboration among stakeholders that work with FPOs for future engagement.

To bridge the gap between farmers and extension services, market access, input supply and to create a link between the FPOs and the farmer, Solidaridad adopted an innovative approach: creating rural entrepreneurs and service providers. Two rounds of intensive trainings were given to a batch of 30 potential and interested entrepreneurs from the target project villages at Jawaharlal Nehru Krishi Vishwa Vidyalaya, a technical partner of Solidaridad. They were oriented on the idea behind entrepreneurship, FPO products and services and scope for a sustainable enterprise development in those locations. They were provided knowledge on agricultural inputs, including seed, biopesticides, biofertilisers, HYV seeds, production technology, pest and disease management etc.

OUR BOOTS ON THE GROUND

Solidaridad’s Sustainable Soy Programme conducted several activities and events to further the knowledge and horizon of farmers through active engagement with agronomists, experts and other farmers during different crop intervals — pre-sowing, post sowing and post harvesting.

450+ TRAININGS

Solidaridad organised more than 450 trainings for farmers and farmer communities. These sessions were conducted by the trained project extension teams as well as scientists and experts from research institutes and Krishi Vigyan Kendras (KVKs), with the objective of getting more and more farmers engaged in good agricultural practices.

FARMERS’ FIELD DAY

Innovative and interactive approaches in the form of games and field events were adopted to engage with farmers. Solidaridad organised several ‘Farmers’ Field Day’ events to promote new practices and bring recognition to successful farmers and agriculture workers across the five regions under the programme.

EXPOSURE VISITS

Solidaridad organised ‘exposure visits’, focussed on expanding the horizon of farmers through knowledge sharing. A visit to Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur, Madhya Pradesh, was organised. Topics such as FPO concept, e-marketing, ongoing government schemes for farmers, crop insurance etc were taken up for training and discussion by the scientists.



CELEBRATING WOMEN FARMERS



Solidaridad recognised the efforts of women leaders and entrepreneurs in rural sector and encouraged rural women in agriculture on International Women's Day 2018.



HARNESSING WOMEN POWER

Resource Centre for Women in Agriculture (RCWA) set up in Sehore, dedicated to women farmers for capacity building on GAPs, nutrition, organic methods among others.

50+ 'Nutri Sakhis' trained on soy food processing, GAPs, bio-based inputs, nutrition and nutrition garden to inspire community women on health and social awareness.



40+ trainings and demonstrations conducted on topics like nutrition garden, soy food processing with women farmers.

INCREASE IN YIELD

With the support of our esteemed partners — Central Institute of Agricultural Engineering (CIAE), Indian Institute of Soybean Research (IISR) and Vippy Industries Ltd — the programme managed to help almost 25,600 farmers, including women, build their capacity, thereby, bringing more than 28,111 ha area under good and sustainable agriculture practices.

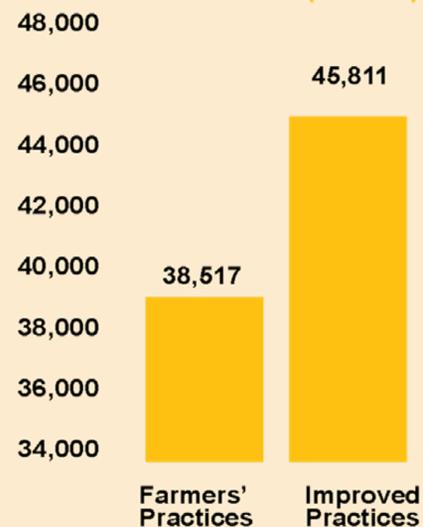
Due to adoption of improved practices by trained farmers, the team observed around 19 per cent increase in soy yield during FLDs. The yield reported in demonstration plots was over 13.47 quintals/ha as compared to 11.32 quintals/ha. The highest yield recorded was 15 quintals/ha. Customised package of practice — designed with the support of IISR and CIAE on soybean, wheat and gram — helped raise the production and productivity of the crop. Besides increasing yield, the programme helped in improving soil health and agroecology.

The farmers who adopted improved practices realised almost 19 per cent increase (INR 7,294) in gross return per ha and a 25 per cent increase (INR 4,966) in net returns in comparison with the farmers who did not follow improved practices.

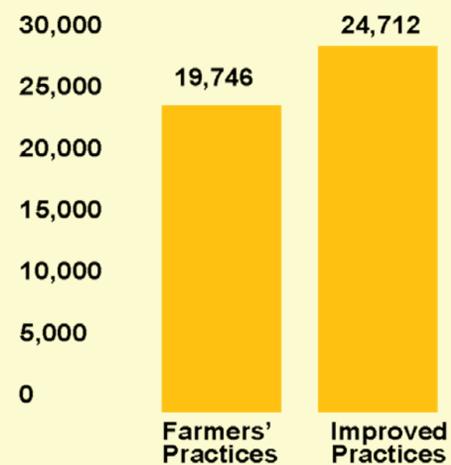
YIELD KG/HA: FARMERS' PRACTICES V/S IMPROVED PRACTICES



GROSS RETURNS (INR/HA)



NET RETURNS (INR/HA)





KEEPING THE SPIRIT OF ENTREPRENEURSHIP ALIVE

REKHA CHOUHAN

Diligence and guidance can go a long way in shaping an individual's growth trajectory. Rekha Chouhan from Agar Malwa district of Madhya Pradesh is a shining evidence. Hers is a story of an agriculture labour reeling under financial distress, but overcoming adversities with help of a mentor, Solidaridad. The on-field trainings on better crop production, which she received from Solidaridad, inspired her to mobilise more women farmers for such meetings. To help women farmers reduce dependency on money lenders and create a system of inter-lending within the group, she led the creation of a self-help group (SHGs).

Through the SHGs, Rekha was able to borrow money from a bank, which, she invested in floriculture and well digging. The income generated from flower cultivation was invested on vermicompost unit, which proved beneficial. She was able to produce garlic, onion, soybean, wheat, gram and vegetables without using any chemical fertiliser. Her input cost reduced and the quality and quantity of produce improved.

“

All this would not have been possible without the support of my family and Solidaridad, who provided hand-holding support and guidance at every stage of my journey.

”



CASTOR

Pioneering Sustainable Castor Initiative



FACT FILE



2,730

farmers trained



2,730

farmers awarded sustainability certificates



5,623 tonne

of castor seeds certified



2,000 ha

of land certified under SuCESS principle



5

demonstration plots set up to establish GAP



LACK OF STANDARDISATION IN PRODUCTION AND PRACTICES

Castor is one of the most favoured crops for cultivation in India, owing to its low cost of production with minimum risk from drought. Grown predominantly in the western part of the country, in Gujarat, the crop has turned out to be a potential alternative to petroleum-based chemicals. While the demand for castor and its derivatives is ever increasing, the production has not been up to the mark to meet the growing demand. The crop is grown largely by small and marginal farmers in Gujarat who own meagre areas of lands and therefore, do not produce enough. In addition, the absence of standardisation in castor production and supply chain has failed to meet the demand for sustainably-produced castor derivatives.

A rapid assessment conducted by Solidaridad indicated that the interest of the farming community involved in castor cultivation was declining. Key production-level issues that came to the fore included:

- Climate-related concerns like inadequate rainfall
- Infrastructure-related concerns like lack of irrigation facilities
- Inadequate knowledge of good agricultural practices, leading to reduced yield
- Limited access to inputs like good quality seeds
- Unpredictable and non-transparent pricing, as it depends on moisture and oil content, percentage of broken seeds and other general quality aspects; moreover, prices fluctuate substantially during the season, mainly due to decreased yields as a result of seasonal and weather influences, stock availability, yield in other countries and prices of substitute oils
- Market-related factors like absence of premiums for quality castor production disincentivising the need for investment in quality

PIONEERING A PRINCIPLE

When the Sustainable Castor Initiative project, Pragati, was designed in 2016, no principles existed for sustainable castor cultivation in India. There were no defined quality standards, which could be used for benchmarking and pricing. This created a huge bottleneck in working with small and marginal farmers and the labourers engaged in castor cultivation — to certify them as being involved in sustainable farming while incentivising the process for adhering to principles.

Hence, a process was initiated for designing the castor sustainability principles. This was supported by the Castor Steering Committee — an informal assembly of key Indian castor industry stakeholders committed to working together, specifically to enhance accountability and credibility of the castor programme. The committee, comprising members from Jayant Agro, BASF and Arkema, designed the SuCCESS (Sustainable Castor Caring Environmental and Social Standards) principles with inputs from castor experts, universities, suppliers and local stakeholders. With a focus on inclusion, the principles also accounted for small and marginal farmers involved in the process.

Farmer-centric initiatives

Engaging with farmers for improved knowledge and adoption of best practices has been at the heart of Solidaridad's Sustainable Castor Initiative. Solidaridad mobilised 30 farmer groups with each group having 100 farmers, including four lead farmers. A total of 120 lead farmers were identified and imparted training on various aspects of castor farming with a focus on compliance with sustainability principles related to crop protection methods, usage of personal protective equipment during pesticide use, waste management, storage of chemicals etc. These were complemented by specialised training by the castor experts in knowledge institutes and through demonstration plots. The farmer support centres (FSCs), another capacity building effort of the programme, were set up to provide technical support on the field, identify bottlenecks for adopting sustainable production for smallholders and offer tailor-made solutions.



OVERCOMING HURDLES

The programme adopted a multi-stakeholder approach with sustainability at the core, working with producers to improve their output and productivity, and with ecosystem players who were interested in castor cultivation and castor oil production. The interventions ensure improved output and increased net margins for the producers.

Pragati was implemented in four districts in Gujarat, namely Banaskantha, Patan, Mehsana and Sabarkantha. It aimed to improve productivity and sustainability in the castor supply chain, enhancing economic self-sufficiency and livelihoods of smallholder producers. One of the major goals has been to develop sustainability principles for castor seeds to give global market exposure to the castor producers.

Initiatives related to environmental changes

Soil and water test: Soil and water tests were carried out in all the 45 villages. The tests revealed sulphur and zinc deficiency in majority of areas and phosphorus deficiency in some areas. To address the deficiency of these nutrients, the farmers were advised to apply organic manure in the fields. This helped in improving the nutrient content and organic matter content of the soil, which resulted in better yields.

Waste management: Continuous trainings were organised in order to highlight the different methods of disposing wastes such as punching holes at the base of the empty containers; flattening of the containers before disposal so that they cannot be used for other purposes or burying empty containers in non-agricultural land to avoid further misuse.

Initiatives related to economic changes

Cost reduction: The cost of production decreased due to optimum use of fertilisers and allocation of expenses oriented farmers towards appropriate irrigation methods. Break-up of the major cost categories suggested that the farmers had reallocated their budgets and had majorly reduced spending on fertilisers and land preparation costs.

Input distribution: The programme linked the farmers with various companies supplying certified seeds at discounted costs. This contributed to reduction in the cost of production.

Incentivisation of farmers: The programme worked with the market players to provide a premium to the farmers engaging in sustainable castor production.

Initiatives related to social changes

Health camps: Health camps were conducted in every village. They covered testing for hemoglobin, blood pressure and sugar levels. The importance of undergoing regular health check-ups and maintaining a composite history of all clinic visits was also underlined in these camps.

Promotion and distribution of personal protective equipment (PPE) kits: Use of PPE during cultivation by the farmers and labourers has been a mandatory criterion as per the principles. Hence, to ensure compliance, kits consisting of face masks, hand gloves and safety goggles were distributed to all the registered farmers through the programme period. On-field trainings were also conducted to help them understand how to use them.

Distribution of storage drums: Accidents involving spills or leakages can have serious health and environmental consequences, especially since farmers stored chemicals in their homes. To address this, storage drums were distributed and regular trainings were organised to create awareness on safe storage and use of pesticides.

PRAGATI IN SUSTAINABLE

Solidaridad's Sustainable Castor Initiative sets out on a path to improve the socio-economic status of the castor farmers who face challenges due to low income from castor production. In view of the results, it can be said that Pragati has, to some extent, been able to improve the economic condition of castor farmers, who witnessed an increase in their net income following the programme guidelines and principles. A reported decrease in cost of production and increase in yield contributed largely to the rise in farmers' income. The programme also worked with the market players to provide a premium to the farmers engaging in sustainable castor production.



CASTOR INITIATIVE

ECONOMIC

50%

increase in overall yield

39%

increase in income from 2016 to 2019

SOCIAL

3,000

safety kits and storage drums distributed

45

villages covered under organised health camps

ENVIRONMENTAL

13,410 tonne

of sustainable castor seeds produced

5,200 ha

of land covered under GAP

402 KL

of water saved by promoting and using better irrigation methods





THE CHANGEMAKER

KNOWLEDGE-LED TRANSITION TO INCREASED YIELD AND INCOME

RAZAKBHAI ISMAILBHAI SHAIKH

There is no substitute for knowledge, which is a guiding force for farmers irrespective of what they grow. Razakbhai Ismailbhai Shaikh, a 34-year-old farmer from Talepura village, is a story on its own. Despite having been involved in castor farming for the last 10 years, his knowledge on good practices was limited. Owing to this, he used to harvest his crop four to five times a year. After enrollment into the Solidaridad-led sustainable castor programme, he was trained on proper harvesting techniques, the schedule and benefits of following the same.

The result was for all to see. He started harvesting seven to eight times a year. He got new fruits, and there was a spike in castor yield. He also adopted other good practices like the use of PPE etc. This reduced the incidence of adverse health conditions among his family members and the labourers.



LEATHER

A Transformation in the Making



FACT FILE



1,000
workers and tanners
sensitised on cleaner
technologies



25
tanneries engaged
with the project



275
farmers sensitised on
good agricultural and
dairy practices



5
technologies tested and
scaled on water and
pollution reduction

50 small-scale tanneries in Jajmau, Uttar Pradesh, to use waterless chrome tanning technology. Solidaridad, in partnership with Central Leather Research Institute (CLRI) experts, will build capacities of tannery workers to use this technology. CLRI to reduce the licensing fees of this technology from INR 250,000 to INR 60,000 per tannery.

DECADES OF UNHOLY MESS

An erstwhile formidable market in India, mainly for export of its leather products, the Kanpur-Unnao region has been in constant social, political and environmental conundrum for its contribution to pollution, especially in the river Ganga, which runs through Kanpur in Uttar Pradesh. After the launch of the Government of India's ambitious 'Namami Gange' programme in June 2014, which aims at abating pollution in Ganga and restoring its vitality, the leather industry in the region has come under stricter lens from both the central and state pollution control boards and other regulatory bodies.

The inability to adhere to statutory environmental compliances as set by the regulatory bodies has led to a prolonged closure of tanneries as ordered by the National Green Tribunal (NGT). This crackdown on the tanneries is a huge blow to their revenue and has rendered many workers jobless.

The nature of work in the tanneries exposes the workers to harmful chemicals, which compromises their safety conditions, leading to poor occupational health. Also, the farming communities downstream of the Ganga are significantly affected due to the polluted water released from the upstream industries. Despite the installation of common effluent treatment plants (CETPs), the water reaching downstream has remained laden with toxic effluents affecting crops and livelihoods downstream. The agriculture and dairy productions have seen a sharp decline over the past decade in the region.

Adoption of advanced and clean technologies to comply with the pollution norms has become essential for the survival of tanneries. The Kanpur-Unnao leather cluster in Uttar Pradesh is particularly mired in pollution issues. Solidaridad, under this project on strengthening value chain of the Kanpur-Unnao leather cluster, aims at not only reducing the pollution load discharged from the tanneries, but also reducing its water consumption in its operations.



A TRANSFORMATION IN THE MAKING

Solidaridad's Clean Ganga project addresses the key challenges of agriculture and industrial sectors for potential future interventions, taking cognisance of the existing opportunities created through the National Mission for Clean Ganga.

Demonstration of eco-friendly technologies in tanneries

The CSIR-Central Leather Research Institute (CSIR-CLRI) has introduced a technology called waterless chrome tanning, which increases the chromium uptake and reduces the chrome discharged in the wastewater stream. Solidaridad has signed an agreement with the CLRI to implement this technology in 50 small-scale tanneries in Jajmau, Uttar Pradesh, wherein the CLRI has agreed to reduce the licensing fees of the technology from INR 250,000 to INR 60,000.

Building capacities of workers on occupational health and safety (OHS)

The production processes in tanning industry pose many hazards to the health of its workers due to their exposure to toxic chemicals such as hydrogen sulphide, chromium, bleaching agents, disinfectants, dyes, physical agents and biological agents among others. Solidaridad, with a group of subject matter experts, is working on building capacities of tannery workers on occupational health and safety through a series of shop floor trainings on chemical safety and handling, first aid trainings, nutrition trainings etc.

'LERIG' for good practices

The CSIR-CLRI organises Leather Research Industry Get Together (LERIG) every year to deliberate and disseminate information on new technologies, extend trends and policy-related support for leather, leather products and allied sectors. This event generally sees participation from almost all the leather industry stakeholders. Solidaridad co-sponsored LERIG-2018 and showcased the project's key mandates and the package of good practices and proven technologies that will be demonstrated and implemented in the Kanpur-Unnao leather cluster.

TRAININGS ON GOOD AGRICULTURE AND DAIRY PRACTICES

The farming communities in the villages downstream of Kanpur-Unnao cluster are at the receiving end of tannery wastewater. They use the same for agriculture and feeding their cattle, which has led to agriculture and dairy production plummeting in these villages. With the help of experts from the Indian Veterinary Research Institute and Kanpur Agriculture University, local volunteers and staff, Solidaridad conducted several training programmes for farming communities in the downstream.

GOOD DAIRY PRACTICES

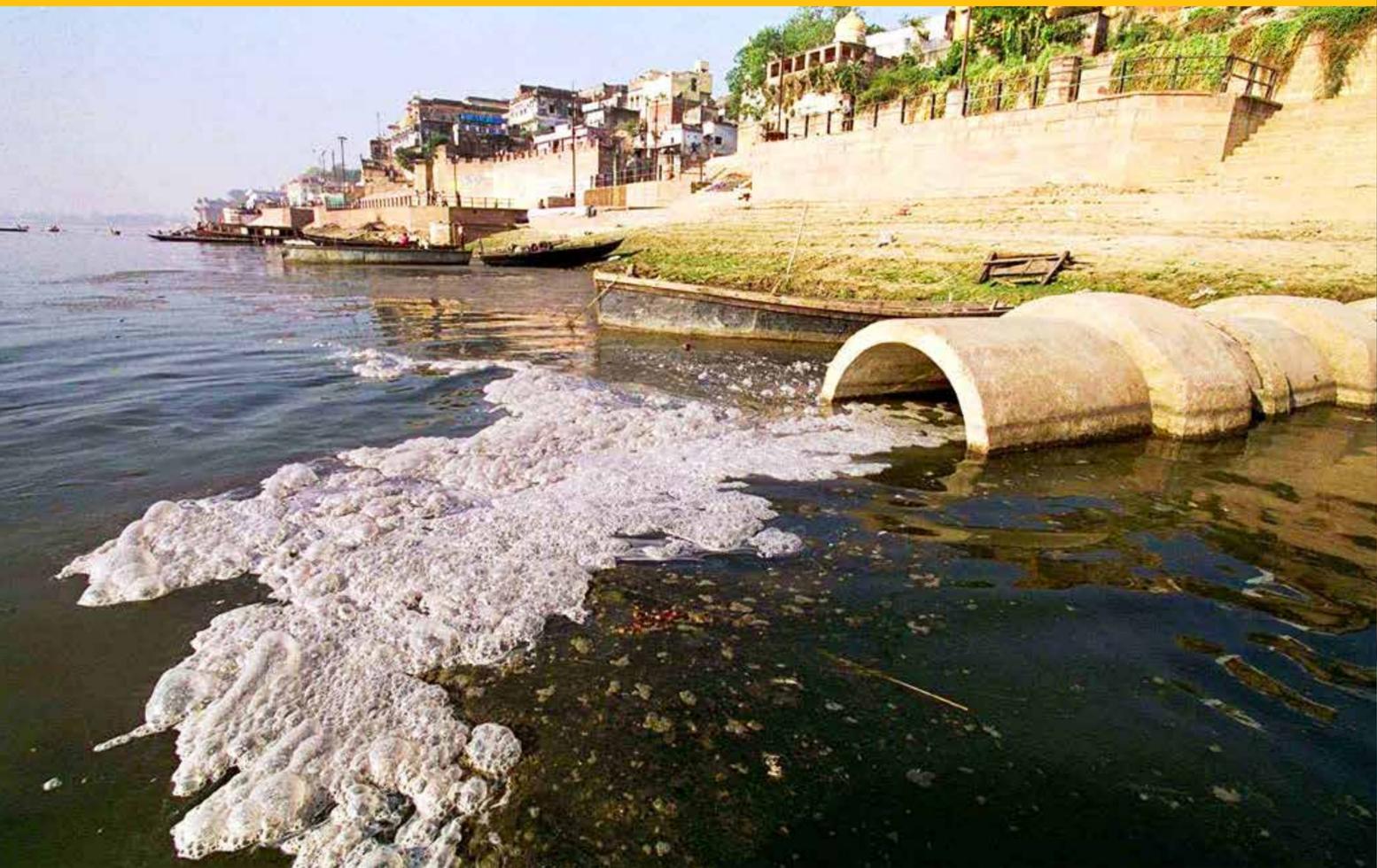
CATTLE REARING PRACTICES

REGULAR HEALTH CHECK-UP FOR ANIMALS

EDUCATION ON BALANCED CATTLE FEEDING TO SAVE INPUT COST AND INCREASE PRODUCTIVITY



PROMOTION OF FODDERS LIKE NAPIER GRASS FOR DAIRY ANIMALS TO INCREASE MILK PRODUCTIVITY



AN IDEAL APPROACH FOR A CLEANER GANGA



-GOVERNMENT OF THE NETHERLANDS



In 2018, the Dutch Minister for Water and Infrastructure, Ms. Cora van Nieuwenhuizen, cited Solidaridad-led Tannery Project for Clean Ganga as the ideal approach towards a cleaner river. She added, “It is a very special PPP model, and I like the ambitious nature of this project. I had an opportunity to briefly share about this project during my meeting with Mr Nitin Gadkari, Minister for Shipping and Water Resources, River Development and Ganga Rejuvenation, Government of India. Solidaridad’s tannery project around Ganga is one of the first tangible deliverables towards our bilateral MoUs. I am proud, as a part of the Dutch government, to be associated with this project”.

ON A POSITIVE NOTE

The National Mission for Clean Ganga has recognised Solidaridad’s efforts in the Kanpur-Unnao Leather cluster, wherein they acknowledged Solidaridad as their sustainability partner and asked for replication in other clusters across the Ganga basin.

There are around 75 large-scale tanneries and around 300 medium and small-scale tanneries in Kanpur. These tanneries currently use 40 to 45 litres of water per kilo of skin or hide processed. Solidaridad through its package of cleaner technologies and best practices has a vision to reduce the fresh water use by 30 per cent.



TEA

Strong Focus on Small Tea Growers



FACT FILE



2,422
tea farmers assessed as per TRINITEA



25
smallholder groups (SHGs) reached out for seasonal training on GAP



5
tea estates covered under good agricultural practices (GAPs)

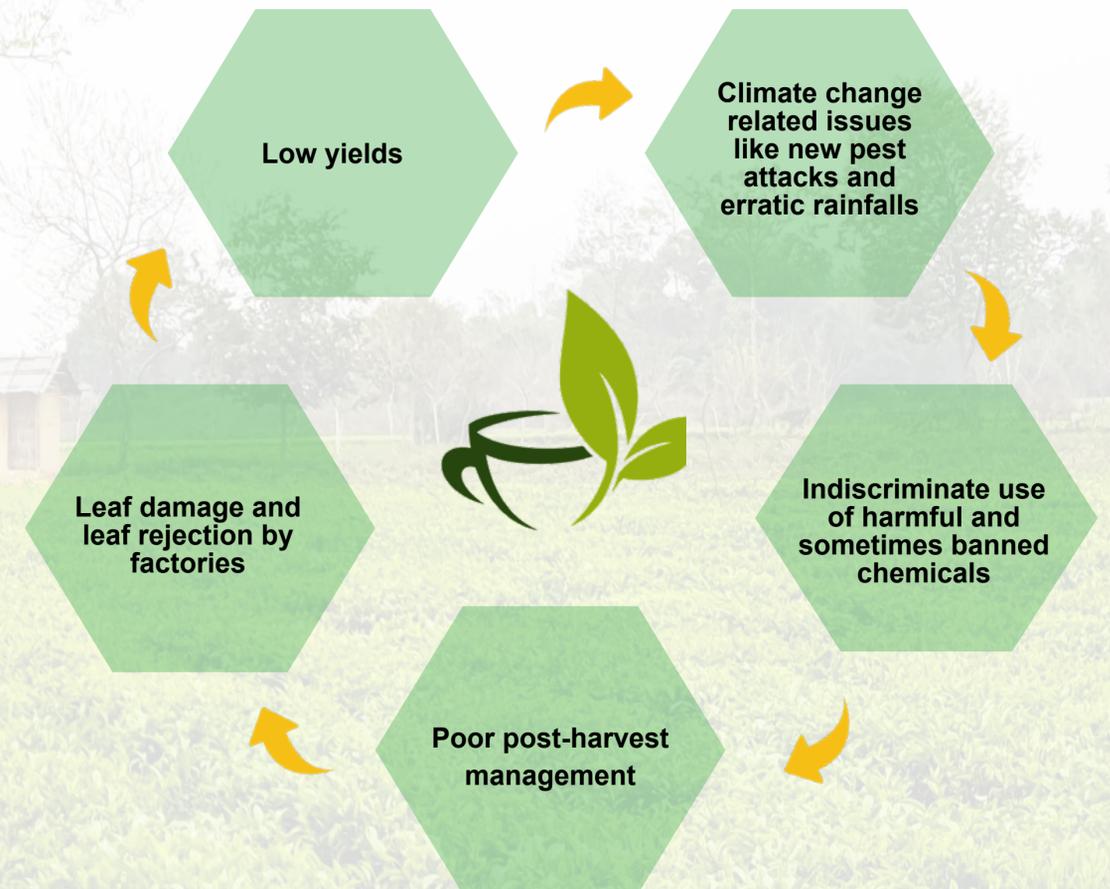


BATTLE WITH NON-REMUNERATIVE PRICING AND POOR PRACTICES

Tea is one of the most consumed beverages in India that brings with it a host of health benefits, besides acting as a stimulant and improving our mood. While the consumption of tea in India has seen a steady rise over time, the non-remunerative pricing has been a consistent issue in the industry. The producers, especially small tea growers (STGs), perpetually suffer from a low ROI against the rising cost of production. In addition, a looming climate change threatens the yield and quality of produce — heavy rainfall proves costlier for growers who are forced to use more fertilisers and pesticides to maintain soil fertility, adding to their cost burden.

On Farm: Low yield and poor quality of tea, along with susceptibility to climate change-related issues like new pest attacks and erratic rainfalls, lead to indiscriminate use of harmful and sometimes banned chemicals and ecologically harmful practices. Poor post-harvest management leads to leaf damage and leaf rejection by the factories.

Off Farm: Inability to aggregate inputs and outputs makes cost of production high and price realisation remains low. There are absolutely no market linkages.



STRONG FOCUS ON SMALL TEA GROWERS

Trainings on agricultural practices: TRINITEA works with the existing tea smallholders' organisations, and supports their efforts to accelerate adoption of improved agriculture practices. This approach involves (a) participatory identification of content, (b) local production of low-cost videos, (c) group discussion using the videos as a basis for mediated instruction, (d) follow-up farm visits and (e) data collection through TRINITEA application.

TRINITEA: HERALDING TRANSFORMATION IN INDIA'S TEA SECTOR

The TRINITEA application is an android-based self-assessment framework, available in local language so that farmers can participate in virtual trainings. The programme is designed to bring Solidaridad's interventions to scale and facilitate transformation in Indian tea sector. The aim is to support farmers with scarce resources across large geographical areas and gather necessary data to build programme strategies and technical assistance models. Collected data and the development of next generation programme strategies will encourage engagement of upstream supply chain actors. It is expected to bring improved governance of smallholder groups and better policy implementation by the Tea Board of India.



Digital supply chain development: The TRINITEA traceability application allows analysis of what goes well or wrong and assesses the efficiency of the entire supply chain process with data management and analytics, right up to the point of sale, the consumer and beyond.

Strengthening small tea growers' associations: The potential of these existing groups was analysed and further strengthened as per the requirements of the programme through key activities like strengthening efficient governance, improving technical capacity on agricultural practices, providing quality service, ensuring adaptability to changing market and implementing new techniques.

Slew of trainings and workshops

The project has been developed in partnership with the Indian Tea Association (ITA), Quality Council of India (QCI), United Planters' Association of Southern India (UPASI) and small tea growers' (STG) associations of Assam, North Bengal and South India. Smallholders and their associations have been oriented on TRINITEA framework and self-assessment requirements. They identified gaps as per the TRINITEA framework and are in the process of gradual bridging of those gaps.

- Two-day orientation training programme was organised during 4-5 October 2018 at farm support centre (FSC) at Tinsukia for the officers stationed in Assam and North Bengal.
- One-week technical training was organised during 19-23 November 2018 at Tea Research Association, Jorhat, for the officers stationed in Assam and North Bengal.
- Four-day training on TRINITEA framework and assessment for Solidaridad South India team during 3-6 December 2018 in collaboration with UPASI was organised.
- Four-day workshop was organised on the usage of TRINITEA framework during 7-10 January 2019 at Kolkata for the officers stationed in Assam, North Bengal and South India.

The TRINITEA framework stands for gender equity and equality. The project intervention is promoting and inspiring gender-just and equitable practices across all targeted tea growing farmers and estates.



WORDS OF HOPE & ENCOURAGEMENT



Mamata Banerjee
Chief Minister of West Bengal

West Bengal, alone, has around 30,000 registered small tea growers. Working for the development of such a huge number of small tea growers with a global organisation like Solidaridad that has sustainable solutions in mind and scalability as an objective can lead to a major enhancement in the livelihoods of (hundreds of thousands) people dependent on this sector.



Suresh Prabhu
Former Union Minister of Commerce & Industry and Civil Aviation

The tea industry in India is a very important and old industry, which has a very unique way of linking with the plantation, manufacturing, services, exports and domestic market. All the key components of economic activities are linked to this industry. We are fully committed to making the Indian tea industry a growing and world-class industry, which will occupy a key position in the world community and look forward to working with all of you.



Arijit Raha
Secretary General, India Tea Association

TRINITEA marks a new beginning in the history of ITA, because for the first time, the small growers are being involved and integrated into the sector. We are extremely grateful to Solidaridad Asia, particularly Dr. Shatadru Chattopadhyay, who has conceptualised TRINITEA, which is giving shape to the endeavour that ITA has started with the small growers. I am also thankful to all other stakeholders, including India Tea Board, and Central and State governments.



Jshrang Boro
President, All Bodoland Small Tea Growers' Association

TRINITEA has been a big help for us when it comes to adopting good agricultural practices. We have received positive results from the trainings, and we hope, in the coming days, these trainings will immensely benefit small growers.



Bijoy Gopal Chakraborty
Jalpaiguri Small Tea Growers' Association

The TRINITEA programme will be the changemaker not only for the small tea growers in this region, but also across India, because it provides the much-needed support for our survival, which was hitherto absent.





SUGARCANE

Moving Towards Progressive Approaches



FACT FILE



farmers trained on land preparation, seed selection and treatment, wide row plantation, intercropping etc



farmers adopted GAP



total land under sustainable management



soil health cards distributed to farmers



women farmers trained



increase in average yield



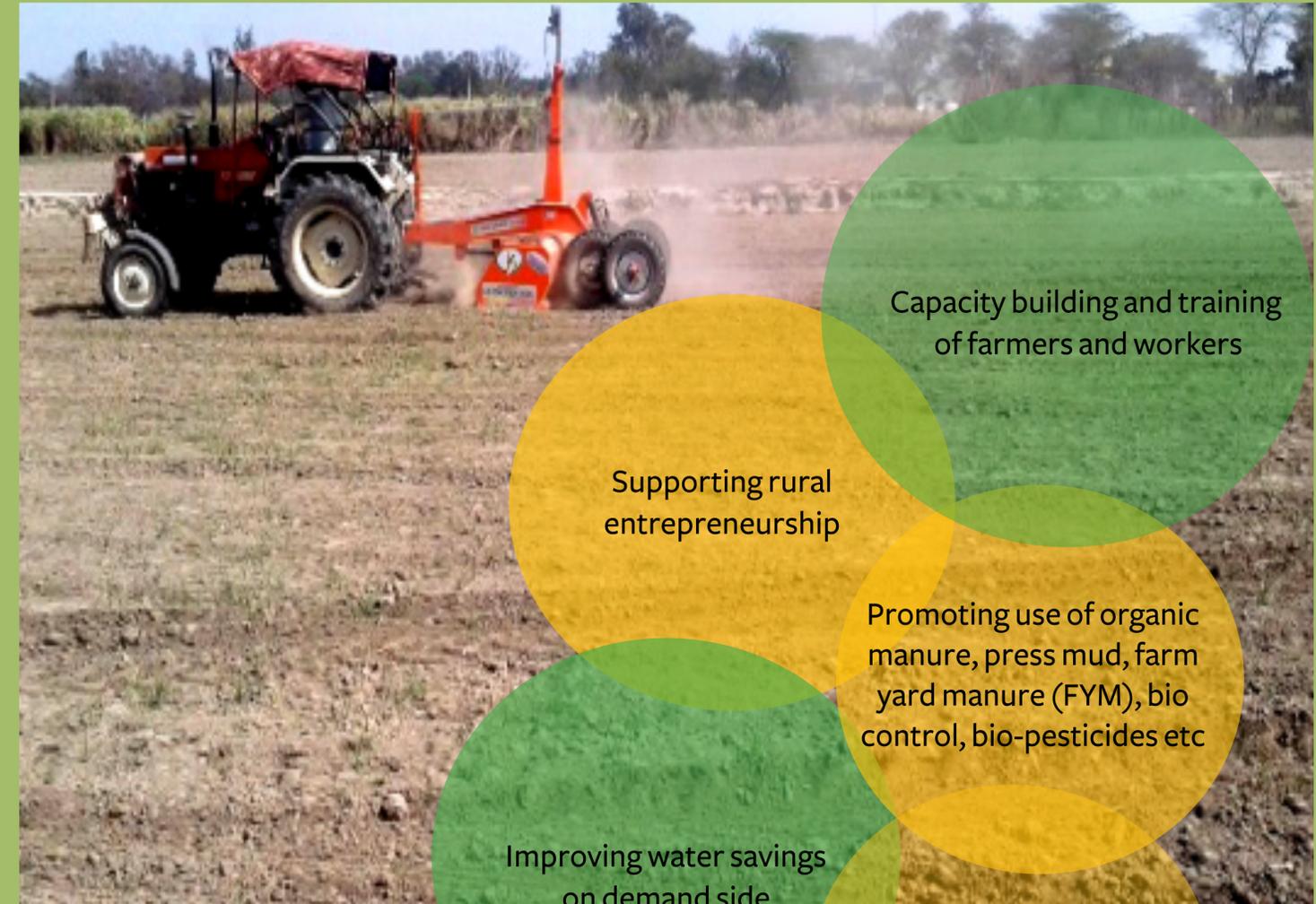
FETTERS OF CONVENTIONAL FARMING

The sugarcane-growing state of India, Uttar Pradesh, has long suffered from unhealthy crops, poor yield and a deteriorating socio-economic condition of the farmers and workers. Soil degradation, inefficient irrigation, poor nutrient management and rising cost of cultivation have been the primary reasons for the economic distress of sugarcane farmers in UP.

Conventional practices such as flood irrigation on undulated lands, use of diesel pump sets and excessive nitrogenous fertilisation have not only raised the cost of cultivation and contributed to soil degradation, but also resulted in unprecedented greenhouse gas (GHG) emissions from the sugarcane fields in UP. Solidaridad's Meetha Sona Unnati (MSU) targets the issues at their roots to address the layered challenges of low yield, poor income and high input cost.



'MEETHA SONA UNNATI'



Supporting rural entrepreneurship

Capacity building and training of farmers and workers

Promoting use of organic manure, press mud, farm yard manure (FYM), bio control, bio-pesticides etc

Improving water savings on demand side

Improving sugarcane productivity and enhancing polarisation (Pol) percentage in cane

Meetha sona unnati (MSU) was conceived as a partnership programme of DCM Shriram (DSCCL-Sugar), Solidaridad and International Finance Corporation (IFC), focussed on Ajbapur, Rupapur, Loni and Hariyawan in the northern state of Uttar Pradesh (UP), India.

The primary objective of MSU has been to improve livelihood, support entrepreneurship and generate employment for the sugarcane farmers and workers under the programme command areas. The programme's uniqueness lies in the way it combines business interest, small holder farmers' income and environment sustainability together with a major focus on water-use avoidance.

Land levelling

Good agricultural practices (GAP) start with scientific and efficient land preparation. The sugarcane farmers in UP have been following the traditional method of flood irrigation on their undulated lands, which led to water logging in some sections of the fields and drought in others. While the lack of water proved detrimental for the crops in the arid sections of the field; excess water and its accumulation in other parts resulted in gradual soil degradation. To address this issue, Solidaridad advised farmers to use laser land levellers during their field preparation work.

“An undulating surface meant that while some parts of the field have close to knee-deep water, others would barely have any water; farmers would level their land using a bullock pulling a plough but that wouldn’t be efficient,” explains Amratnath alias Sonu of Khumaripur village.

“In contrast to leaving the water pump working overnight, a levelled piece of land takes a fraction of the time. It reduces the cost of irrigation and increases the yield by at least 30 per cent,” adds Sonu.

Sonu himself was taken aback when he first saw the giant machine at the nearest sugar mill. Through constant training sessions conducted by the Solidaridad team on the benefits of a levelled land for better irrigation and crop growth, Sonu and the other farmers in his village realised that it has a direct impact on the yield of their produce.

During 2018-2019, in all 2,433 ha of land was levelled with laser land levellers.

Balancing varietal mix

During the sowing period (autumn and spring planting), the programme vastly promoted the use of early variety (also considered better-yielding variety). Sugarcane variety Co. 238, which is one of the high yielding varieties, was promoted by the programme experts on the basis of the agro-climatic conditions of an area. Along with promotion of high-yielding varieties (like Co 238), farmers were motivated to balance between spring and autumn planting area. The purpose of this was to enhance the sugarcane cultivation area, ensure the supply of sugarcane to mill and to increase the income of farmers. Other varieties like Co. 118 was also discussed with farmers. In addition to varietal promotion, seed treatment was extensively promoted with the project farmers. As a longer-term strategy, a four-stage seed nursery programme was devised to maintain a healthy varietal mix and ensure quality seed for the command area farmers.

Soil sampling and nutrition management

Micronutrient management, fertiliser application and soil testing are some of the critical aspects of sugarcane cultivation. During the programme period, soil tests were done, and their reports were distributed among farmers. Farmers were informed about the quality of soil of their land, based on the soil cards given to them, and thereby, they were able to take decisions on application of fertilisers, nutrients and other agents. A Soil Testing Lab was also established at Loni sugar mill. The soil test reports helped farmers take informed decisions on formulations and dosage for applications to address the deficiencies. The farmers appreciated the effort. A total of 8,684 cards were distributed.



Sanjay Shukla

Sugarcane Farmer, Hariyawan

“We never knew what our soil was lacking in. Now, we have a soil health card that tells us what fertiliser we need to use. Farmers now know how to take a sample of the soil for testing.”

Water-use efficiency

Sugarcane crop is a water guzzler crop inflicting tremendous pressure on water resources. Understanding the criticality of the issue, the programme recommended trash mulching and irrigation practices such as furrow irrigation, skip furrow irrigation and land levelling to encourage water-use efficiency. While trash mulching practices were promoted with trainings and follow -up visits to ensure wide adoption, farmers were simultaneously capacitated on various irrigation methods. In the class room training, they were also exposed to drip irrigation with the help of various short movies and documentaries.

During 2018- 2019, in all 21,081 ha of land was brought under furrow irrigation practices.



Ratoon management

Ratoon is the crop practice that farmers take to after harvesting the plant sugarcane. This process saves cost and time for the farmer with respect to land preparation, seed sowing, irrigation without significant reduction in yield of sugarcane. Training and capacity building activities were organised by MSU experts, cane staff and FCOs on ratoon management. Farmers were trained on stubble shaving, trash mulching, use of foliar sprays and gap filling. These practices ensured better growth for the ratoon crops. For ratoon management, the programme has launched intensive campaign for foliar spray. This is expected to lead to better growth in ratoon crops and improvement in cane productivity and quality. Also, with increased area under foliar spray, the consumption of chemical fertilisers got reduced owing to greater efficiency achieved through the spray method of application.



‘Training at Farmers’ Door’

Documentaries were developed to communicate various GAPs to the farmers, especially the women farmers, in an easy-to-understand manner. This was done with the help of mobile van theatres (MVTs). The MVTs were promoted as ‘Training at Farmers’ Door’. Four MVTs were used under the programme, one for each location.

Issues related to occupational health and safety (OHS) in sugarcane cultivation (cuts and wounds, hazards of chemical, snake bite and its treatment etc); access to safe drinking water; sanitation facility etc were also covered in the documentaries shown through MVTs.

Technology in use

The MSU programme initiated a voice short message service (voice SMS) to update the farmers on aspects such as temperature, rain forecast, wind velocity and humidity for 24 to 72 hours. These messages were sent six to seven times in a month. A minimum of one voice message and one text message per week were sent to 26,000 farmers.



SWEET FACTS

As many as 25,372 farmers were capacitated to implement more than 20 good agricultural practices (GAPs) in their sugarcane fields. The farmers and workers were introduced to land levelling for effective irrigation; soil sample testing and balanced nutrition management; furrow and skip furrow irrigation; ratoon management; farm mechanisation and trash mulching among others.

Water trials conducted in the regions revealed that trash mulching and irrigation in alternate row saved maximum water, 44 per cent, followed by trash mulching in every row, 24 percent. Similarly, other trials revealed that laser levelling saved 22 per cent irrigation water over no land levelling; furrow irrigation saved 24 per cent water over flood irrigation and planting techniques and application of organic manure/press mud cake such as trench planting saved 32 per cent irrigation water over conventional planting.

Solidaridad’s Meetha Sona Unnati has trained in all 52 agro-technical service providers (ATSPs), orienting rural youth towards entrepreneurship. The programme has organised financial literacy and training programmes and helped with developing business plans for the ATSPs.

27,651 ha

area covered under trash mulching

21,081 ha

areas covered under furrow irrigation

2,433 ha

areas covered under land levelling

64 billion litre

total water saved through furrow irrigation and trash mulching

52

ATSPs promoted



THE CHANGEMAKER

INSPIRATION FROM THE MARGINS

SHANTI DEVI

Can a farming family, which is surviving on the margins with just three bighas of land (five bighas make an acre) live a life of dignity? Can they earn handsome dividends and improve their lives? The answer is a resounding YES. Shanti Devi, a widowed Dalit woman from the Ajabapur village, is an instance of how Solidaridad's Meetha Sona Unnati Pariyojna has been helping such smallholders to become market-smart and go beyond their limited capacity.

Being a regular at meetings conducted by Solidaridad in collaboration with local partners, Shanti Devi groomed herself into a better-informed farmer, learning the nuances of vermicomposting and benefits of inter-cropping; using nitrogen-fixing bacteria to enrich the soil and most importantly, exploiting her geographical advantage of living near the mill.

Her diligence and persistence paid off: vermicomposting reduced her dependence on chemical fertilisers; inter-cropping ensured she has a perfect mix of cash and food crops — wheat to feed the family and vegetables to sell—and she was also able to take an additional 50 bighas (10 acres) on contract farming. The programme was a much-needed relief for her as she was not getting any of her entitlements from the government, not even the widow pension that is her due.

“

My dependence on chemical pesticides has reduced. Doctor saab (scientists attached to the Solidaridad team) told me that a healthy soil keeps pests and diseases at bay. I can see the results now. Earlier, I used to get 20 to 30 quintals of sugarcane from a bigha. Now I get 65 quintals!

”



COTTON

Powering Small-Scale Farmers



FACT FILE



2,028

farmers enlisted and trained
on programmatic aspects



277

acres converted to
organic production



498

in-conversion
farmers certified



83

villages covered



4

important districts
targeted



THE PLIGHT OF COTTON FARMERS

Vidarbha, our intervention region or command area for cotton programme, is drought-prone, with a reputation of witnessing the lowest cotton yield in the country. The region is riddled with several challenges. Scanty rainfall and shallow soils are some of the most chronic issues. Moreover, mono-cropping of cotton in the area and lack of crop rotation have led to severe infestation of bollworm in some of the programme areas. What makes the problems even more entrenched is the fact that the region is a hub of Bt Cotton, making it highly prone to pest contamination. With the prevalence of pests and diseases, introducing and practising organic farming is always a difficult proposition. It becomes even more vulnerable owing to the small presence of organic cotton in a high-risk Bt Cotton zone.

The past few years also witnessed high secondary pest pressure besides bollworm infestations. Indiscriminate use of 'pesticide cocktails' puts cotton farmers at an increased risk of long-term exposure to toxic pesticides. What's even more alarming is the way pesticides are misperceived as yield-enhancing input.

Non-availability of non-Bt seeds, coupled with circulation of fake seeds in the market, adds another layer to the existing challenges. Considering the myriad problems, which are somewhat unique to this region, Solidaridad took a cautious approach and chose to implement the programme only on 0.5 acres of land per farmer. This is to ensure that farmers are able to cope with the production losses, if any, due to unforeseen circumstances.

POWERING SMALL-SCALE FARMERS

Social, ecological and economic sustainability are at the core of Solidaridad's intervention in the Vidarbha region of Maharashtra, with focus on Yavatmal, Nagpur, Wardha and Amravati districts. One of the major agendas of the programme was to improve soil biodiversity and develop drought-resistance capabilities in the area with trainings on soil and water conservation and preparation and use of natural insecticides, vermicompost etc. Trainings on safety measures while using chemicals in the field, use of personal protective gear and safe disposal of pesticide/fertiliser cans were aimed at ensuring social sustainability of the beneficiaries.

Special attention was given to water conservation and moisture preservation by conducting trainings on micro irrigation systems, including drip irrigation, and survival irrigation planning, with satisfactory levels of adoption by the farmers. The direct and indirect benefits of organic farming were advocated to the farmers to drive home the message of economic sustainability.

Farmer mobilisation and formation of groups

The first step of the programme was to mobilise 2,000 farmers and make them aware of the package of practices for organic cotton farming. A group of 498 farmers, including six farmer producer organisations (FPOs) and 10 key farmers from 26 villages in Dhamangaon taluk of Amravati district, were trained on organic cotton production, organic cultivation of other crops, post-harvest management and market linkages. They were successfully certified. One farmer producer company was formed during the year and one FPO was registered in the programme. Moreover, clusters of 100 organic cotton farmers were formed in neighbouring villages, which were beyond the first year's command area, to join the programme. Discussions were initiated with two of the ginners identified during the year for procurement of in-conversion cotton.

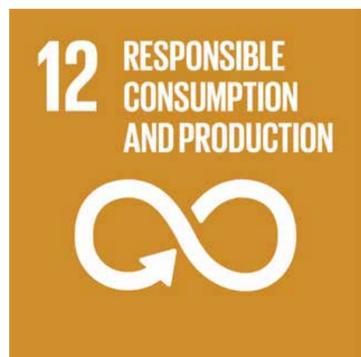
Enhance access to organic inputs

With a broader objective of helping farmers comply with the norms laid down by the Agricultural and Processed Food Products Export Development Authority (APEDA) under the National Programme for Organic Production, Solidaridad developed a training module on package of practices for organic cotton farming and conducted trainings for all project farmers, including women. Besides, 30 field-level trainings were conducted at Dhamangaon FPO on preparation of organic inputs for seed treatment, Jeevamrut, Dashparni, neem seed kernel extract, compost and vermicompost production etc. Solidaridad also conducted 25 different training sessions, involving 1,530 farmers in 57 villages across two districts.

With farmers migrating to a different production system, which led to the changes in input materials like seed, there was a 49 per cent drop in production. Despite this, farmers were able to maintain 170 per cent returns on investment per acre.

While the net income from organic cotton and the intercrop — Tur — reduced by 46.5 per cent from INR 26,959 to INR 14,396 per acre for each conventional farmer, it was somewhat offset by reduced input cost for the programme farmers. Their input cost reduced by almost 50 per cent from INR 15,829 to INR 8,031 per acre. The benefits were expected to be more evident in the coming years.

SUSTAINABLE DEVELOPMENT GOALS BEING COVERED



Research on availability of non-GMO cotton seeds and policy advocacy

Team Solidaridad held meetings with research institutions and seed companies for research and mapping of current efforts of non-GMO seed production. The programme set the stage for trials and evaluation to be carried out in the second year. Even the Organic and Fairtrade Cotton Secretariat in Maharashtra also took seed as one of the agenda items to work upon.

With a focus on policy advocacy, Solidaridad, along with C&A Foundation, hosted the Maharashtra Organic and Fairtrade Cotton Secretariat meeting in Nagpur to discuss non-Bt seed production, cultivars and the way forward. Research institutions like Panjabrao Deshmukh Krishi Vidyapeeth (PDKV Akola), Central Institute for Cotton Research (CICR), Krishi Vigyan Kendras (KVKs) and Cotton Research Station, along with private seed companies like Green Gold Seeds, Daftari Seeds, Maharudra Seeds and Partech were present in the meeting. Two meetings were conducted and trips undertaken to various research establishments and seed companies along with the C&A Foundation.

Work towards community-integrated soil and water management, conservation and storage

Since the programme operates in a highly drought-prone area, facing severe water crisis, special attention was given to water conservation and moisture preservation.

Trainings were conducted on micro-irrigation systems, including drip irrigation, survival irrigation planning, water conservation and water recharging methods with satisfactory levels of adoption by the farmers. Village associations were also made aware of various community-based interventions like building farm ponds, wells, canals etc. Solidaridad also signed an MoU with the Netherland-based TU Delft University on conducting a Hydrogeological Assessment of the target area in Ghatanji block.

A multi-stakeholder meeting and consultation was conducted with representatives from different organisations including Solidaridad, Welspun Foundation, Ecomm, Central Institute for Cotton Research (CICR), Krishi Vigyan Kendras (KVKs), Ground Water Survey and Development Agency, zila parishad and panchayat and farmers' and village associations among others.

Improve market linkages

Solidaridad initiated discussions with four organic cotton supply chains locally. An MoU was facilitated between Dhamangaon FPO and Gopuri Industries for sale of in-conversion cotton at a 10 per cent premium over the market rate in a year. Gopuri bought 2 MT of seed cotton for the season while the rest of the cotton was sold to local ginning units at the MSP prescribed by the Government of India. To establish more such market linkages, discussions were held with the Future Group on other organic crops produced in the programme area.

MAINSTREAMING ORGANIC COTTON

Mainstreaming organic agriculture is a long journey and it takes time to realise its complete benefits. However, in the first year of our engagement — which was focused on capacity building and supporting farmers in adopting organic cotton cultivation — we were able to make some progress. A total of 2,028 farmers, including 207 women farmers, benefitted in the first year of the programme. It is important to note that the number of women beneficiaries will be as good as male beneficiaries since women are actively involved in agricultural operations like sowing, seed treatment, input preparation, harvesting, post harvesting operations etc.

The fact that 1,500 more farmers in the neighbouring communities and 11 farmer producer organisations in the three districts showed willingness to engage with the organic cotton programme in the coming seasons was proof enough that they could now see multi-fold benefits of organic farming. Another important breakthrough was the linkages that we managed to establish with ginning units while also bringing the FPO directors on a negotiating platform to sell the produce in conversion.

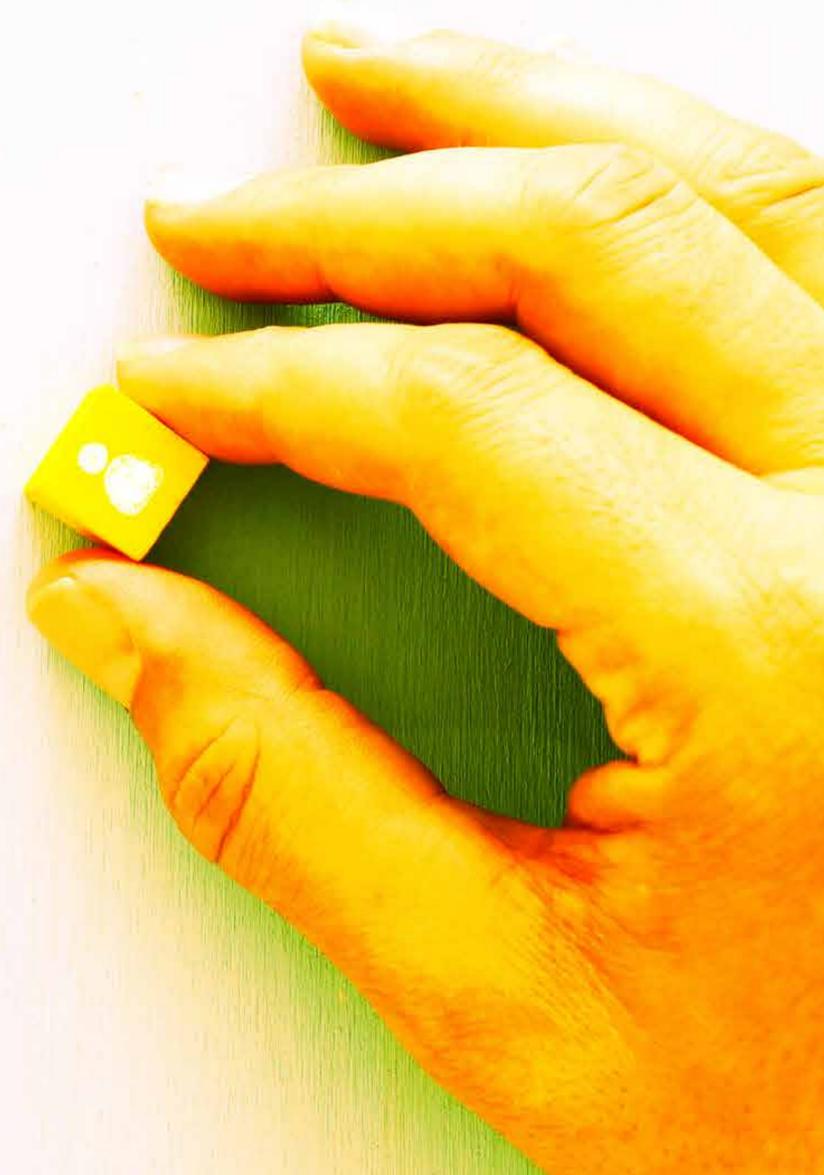
As we move towards the goal of building resilient organic cotton farming communities, we need to bear in mind that Maharashtra is a politically active state with lot of legislative controls levied by the state. Hence, we have to take one step at a time and be cautious in our approach for the successful completion of the programme. Coordinated efforts of both partners are a must to bring about the change perceived and planned.

PARTNERS/DONORS





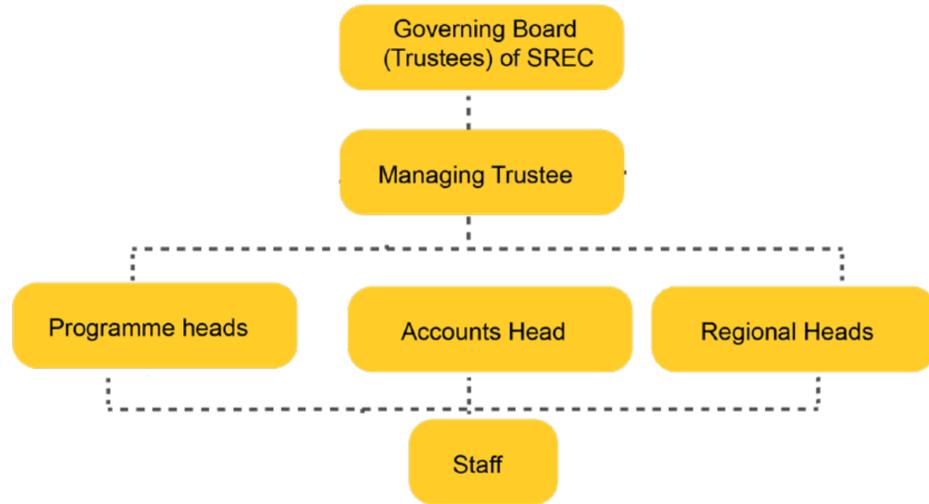
HUMAN RESOURCE



ORGANISATIONAL STRUCTURE AND GOVERNANCE

Solidaridad Regional Expertise Centre (SREC) is an NGO registered under the Indian Registration Act, 1908. The certificate has been issued by the Sub Registrar of Janakpuri, New Delhi, under Section 60 of the act with the registration number 17474 in additional Book No.4 Volume No. 12384 on page 113 to 126 on 18 December 2008.

SREC satisfies the conditions of u/s 80G of the Income Tax Act of 1961 and is also registered under Section 12 A of the Income Tax Act of 1961.



HUMAN RESOURCES, STAFF AND MANAGEMENT

SREC has a well defined human resource (HR) policy, which is an attempt to document prevalent organisational practices and norms in a standardised format for user-friendly reference. This HR Policy contains the key policies, goals, benefits and expectations of SREC and other information an employee will need in the course of seeking employment in the organisation.

SREC believes the development of people is the prime responsibility of the organisation and if an environment is created where individuals can develop their competencies, people can and will do their best.

OUR EMPHASIS IS ON

- Devising a system that would result in an organisational climate conducive to developing the potential of human resources and providing opportunities for fulfilment
- Facilitating the implementation of human resource policies and practices in a clear and sensitive manner to enable the achievement of the mission of SREC
- Building an enduring foundation for professional relationships in the organisation and ensure continuity through the creation of a ready point of reference
- Ensuring that SREC continues to be an exciting, happy, secure and satisfying place for each and everyone of us to work in and grow

SREC values the individual needs of staff and commits to providing an environment that facilitates work and life balance. It would be our constant endeavour to explore alternatives in the ways of working - ones that embrace and harmonise all the important areas of our lives. SREC has a strong anti-corruption policy in order to be transparent and credible. It is guided by a well-articulated code of conduct book, which is handed over to each employee at the time of joining. Any corrupt practice by its staff is dealt with disciplinary measures provided in HR policy and if it is by a partner, appropriate steps are taken, including bilateral discussions to legal remedies.

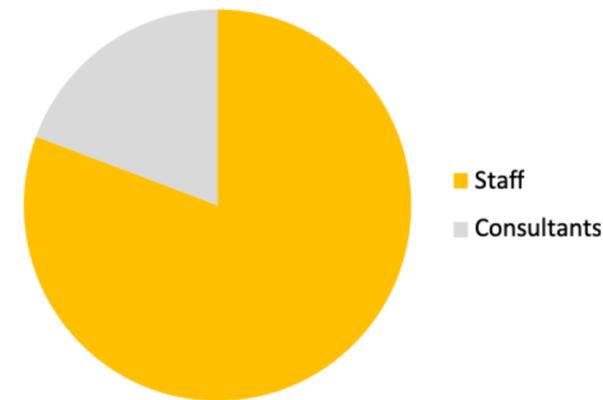
SREC is ISO 9001-2008 certified

Solidaridad Regional Expertise Centre has been certified under ISO 9001-2008 since 9 September 2009.

The purpose of the certification is to follow a globally accepted quality management of the work in order to:

- Demonstrate our ability to consistently provide services that meet applicable statutory and regulatory requirements of donors and beneficiaries.
- Enhance donors' and beneficiaries' satisfaction through effective application of the system, including processes for continual improvement of the system and the assurance of conformity to donor and applicable statutory and regulatory requirements.

SREC HR Strength

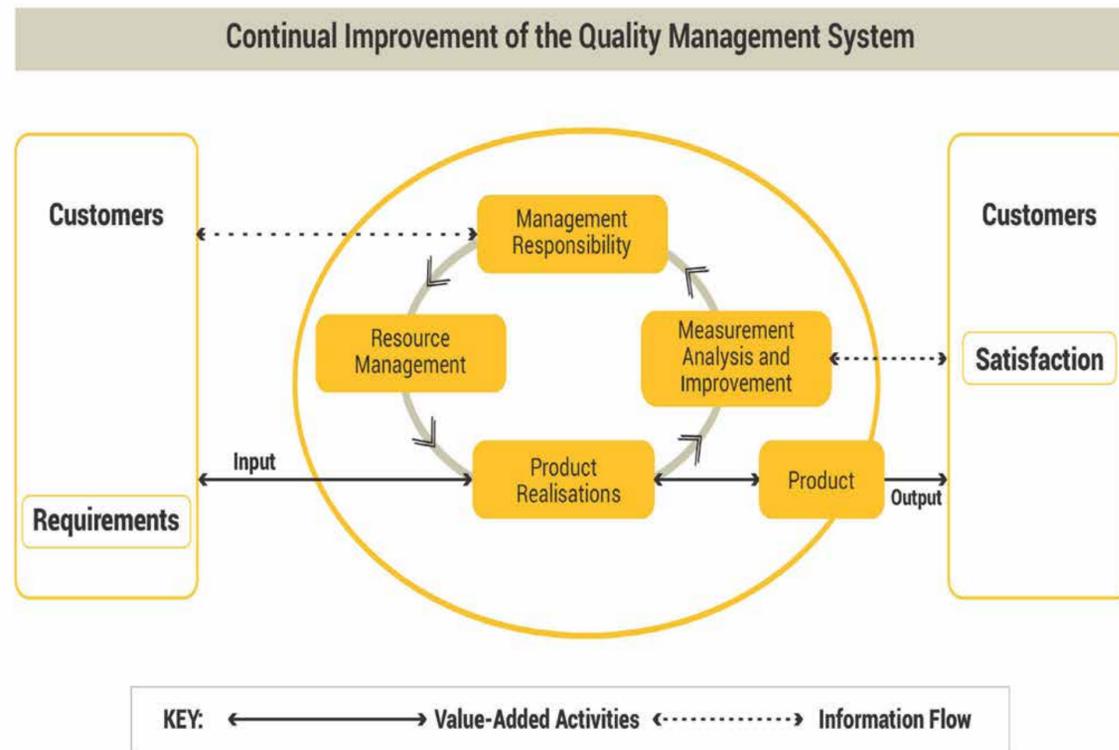


SREC EMPLOYEE STRENGTH 2018-2019

46 Staff + 11 Consultants = 57 Total



DECISION-MAKING PROCESS IN SREC



The Admin & Accounts Manager, along with the PSO, registers the project in a project database where a unique number is given to the project. With the number of the project, the PSO makes a digital file. In this file, all the important documents of the project are saved. Each digital project folder should have at least the following elements:

- Partner assessment form
- Project description and contract
- Payment requests and payment records
- Progress reports and evaluations
- Working documents

Reporting: Every month, staff meeting is organised in SREC to evaluate and discuss the progress of different programmes, and if necessary, corrective actions are taken. The key outcomes of the monthly meetings are documented and preserved in hard and soft copies. An annual overall report along with audited financial statement is prepared as well.

The programmes are developed in SREC as per the following:

1. The programme team under the supervision of the Managing Director develops multi-annual strategy plan (MASP) within India. These MASPs are in line with local priorities and in alignment with government plans.
2. The MASP is then placed for consultation before the Board of Trustees and inputs are collected.
3. The MASP serves the basis for the preparation of annual plans by the Managing Director, which are again deliberated and approved by the Board of Trustees.
4. The overall responsibility of managing and implementing the programmes and projects in line with MASP lies with the Managing Director. The Managing Director further delegates this function to programme coordinators.
5. Each commodity has a coordinator or manager assigned in SREC who are overall responsible for the project implementation.
6. Each project is registered by the Programme Support Officer (PSO) in SREC under the overall supervision of the Manager-Accounts and Administration of SREC.

FINANCIAL STATEMENT

2018-19



Monthly Budget - Detail

Description	Category	Projected Cost	Actual Cost
Extracurricular activities	Children	50	
Medical	Children		
School Supplies	Children		
Movies	Children		
Music (CDs, downloads, etc.)	Entertainment		
Sparring Events	Entertainment		
Dining Out	Entertainment		
Groceries	Entertainment		
Charity 1	Entertainment		
Charity 2	Entertainment		
Dis-Satellite	Entertainment		
TTC	Entertainment		
Age or Rent	Entertainment		
	Food		
	Gifts and Charity		
	Gifts and Charity		
	Housing		
	Housing		
	Housing		
	Insurance		
	Insurance		
	Loans		
	Loans		
	Personal Care		
	Personal Care		
	Personal Care		
	Savings or Investments		
	Investments		
	Investments		

All technology companies are also included in "Main Market - UK Listed" companies by equity market value



DHINGRA & JUNEJA

Chartered Accountants

13/82, LGF, Vikram Vihar
Lajpat Nagar-IV, New Delhi-110024
Tel. : 011-41729407, 46103248, 9811991182
E-mail : vdhingra1231@gmail.com
Vikas.dhingra@dhingrajuneja.com

Extract of Independent auditor's report of the trustees of the Solidaridad Regional Expertise Centre

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give the information so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- In the case of Balance Sheet of the state of affairs of the Trust as at 31st March 2019, and
- In the case of Statement of Income and Expenditure, of the excess of expenditure over income for the period from 1 April, 2018 to 31st March 2019.

For Dhingra & Juneja

Chartered Accountants

Firm Registration Number: 018799N

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VIKAS DHINGRA
Date: 2020.05.20
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Vikas Dhingra
(Partner)
Membership No: 099604

UDIN :- 20099604AAAABI1424

Date: May 19, 2020
Place: New Delhi

Donors	Type of contribution	Purpose
Coca Cola India Private Limited	Local Contribution	Meetha Sona Unnati - Sustainable Sugarcane Program in Hardoi District, Uttar Pradesh
Vippy Industries Limited	Local Contribution	To implement the Project on "India Sustainable Soy Program"
Gujarat Tea Processors & Packers Limited	Local Contribution	To implement the Project on "India Domestic Sustainable Tea" (IInd Phase)
Indian Institute of Soybean Research	Local Contribution	Front line demonstrations of Soybean
Jayant Agro Organics Limited	Local Contribution	Sustainable Castor Initiative "Pragati"
C & A Foundation	Foreign Contribution	Establishing an Organic Cotton Hotspot in Maharashtra, India
Solidaridad Network Asia Limited	Foreign Contribution	Building CSO capacities on participatory decision making in Ganga basin
Solidaridad Network Asia Limited	Foreign Contribution	To Improve the social, economics, agronomics and environmental performance of Small Tea Grower families across India
Solidaridad Network Asia Limited	Foreign Contribution	Imparting Knowledge to farmers on good practices from the perspective of Safely Handling Pesticides and other Agri chemicals and reducing its usage in castor farming

Statements of Financial Position				Statements of Activities			
	As at 31st March 2017	As at 31st March 2018	As at 31st March 2019	Particulars	Financial Year 2016-17	Financial Year 2017-18	Financial Year 2018-19
Funds & Liabilities				Revenues			
- Trust Fund	10,000	10,000	10,000	Restricted Income (Grants & Donations)	23,897,917	17,809,402	34,507,148
- Capital Fund	3,611,709	3,270,152	3,162,200	Unrestricted Income			
(Represented by Fixed Assets)				Overhead Support	1,032,924	2,229,188	4,727,411
- Restricted Fund	506,139	16,417,091	19,930,150	Interest from Bank	237,460	230,731	1,024,355
- General Fund				Voluntary Contribution (Donation)	1,923,062	2,958,613	10,166,104
Towards general objectives of the Trust	2,864,486	4,064,463	7,960,664	Total Expenses	32,446,036	22,027,957	38,511,948
Towards specific objectives of the Trust	-	-	9,626,000	Surplus/(Deficit) for the year	(5,354,673)	1,199,977	11,913,071
- Current Liabilities & Provisions	1,453,150	2,693,347	2,870,350	Changes in Net Assets	(5,354,673)	1,199,977	11,913,071
	8,445,484	26,455,053	43,559,364				
Property & Assets							
- Fixed Assets				Programme Related Expenses	30,096,857	20,019,688	34,774,030
Gross Block	8,207,227	8,512,292	10,729,758	Management & General Expenses	2,349,179	2,008,269	3,737,918
Less: Accumulated Depreciation	4,595,518	5,242,140	6,165,359				
Net Block	3,611,709	3,270,152	4,564,399				
- Current Assets and Loans & Advances							
Cash & Bank Balances	240,162	22,255,472	34,968,404				
Other Current Assets	3,801,764	326,601	2,295,034				
Loans & Advances	791,849	602,828	1,731,527				
	8,445,484	26,455,053	43,559,364				

For Dhingra & Juneja
Chartered Accountants
Firm Registration Number: 018799N

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VIKAS DHINGRA
Date: 2020.05.20
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Vikas Dhingra
(Partner)
Membership No: 099604

UDIN :- 20099604AAAABI1424

Date: May 19, 2020
Place: New Delhi

Solidaridad

Solidaridad Regional Expertise Centre

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