COTTON Yearbook 2019

the sustainable trade initiative

Contents

Introduction

Cotton is one of the most significant crops in the global textile industry. From cultivation to processing, 250 million smallholder farmers are dependent on the crop for their livelihood and income. Due to the scale, global reach and resilience of the crop, it is one of the world's most important fibers and cash crops. However, the environmental impact of the crop can be extensive in the face of stark agronomic and social challenges. The crop can be incredibly water-intensive and is often synonymous with poor pesticide management.

Cotton programs by IDH – The Sustainable Trade Initiative (IDH) aim to target key sustainability issues in cotton production. They focus on water efficiency, pesticide management, gender inclusion and biodiversity management with the aim of improving the livelihoods of smallholder farmers. IDH pilots initiatives in key cotton regions and explores opportunities to scale and achieve impact through innovative capacity-building models, climate resilience programs, and leveraging public and private financing – all of which will help meet the Sustainable Development Goals for 2030.

IDH continues to invest in key partnerships, working closely with the Better Cotton Initiative (BCI) on the Better Cotton Growth and Innovation Fund ("Better Cotton GIF" or "the Fund") as a partner, funder and fund manager, and investing in farmer capacity-building programs and innovations, with the aim of training five million farmers on more sustainable practices and having Better Cotton account for 30% of global cotton production by 2020.

This year, IDH, in collaboration with BCI and supported by the Better Cotton GIF launched a global innovation platform, **The Better Cotton Innovation Challenge**, to identify solutions that can transform the way cotton is produced today.

Maintaining project work in key cotton-producing regions enables IDH to incubate new cotton approaches and foster key

relationships in the regions. Our continued, focused work in Maharashtra has led to notable outputs – the piloting of approaches including Lint-based Cotton Marketing system and integration of female co-farmers in BCI projects. IDH has also successfully implemented a climate resilience program reaching out to 6,300 cotton farmers.

Mozambique is a strategic region for IDH investment. We are excited to look ahead into the final year of our pilot program, which focuses on increasing farmer resilience against volatile weather conditions and poverty by employing a coordinated and multi-pillar approach that leverages access to water and training on good agricultural practices. This is intended to increase farmer productivity, provide access to alternative livelihood activities, diversify income, and improve food intake.

Gender discrimination remains a prevalent problem throughout the cotton sector even though women play a critical role in cotton cultivation. According to the International Trade Center, female cotton cultivators account for 70% of the labor in sowing and 90% of the labor in cotton picking .

Our gender intervention program works to educate and break down perceptions of gender that can be damaging, especially those that directly affect women in the field. In this yearbook, we share stories from the field, resulting from the gender sensitization training that we rolled out to Implementing Partners in 2018.

Better Cotton Growth and Innovation Fund

BETTER COTTON
GROWTH & INNOVATION FUND

BCI Better Cotton Initiative BetterCotton.org

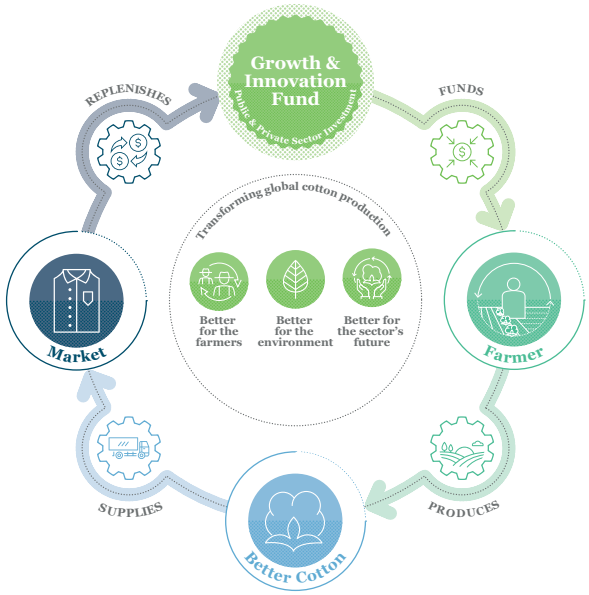
idh the sustainable trade initiative

The Better Cotton Growth and Innovation Fund ("Better Cotton GIF" or "the Fund") is a global program designed to support the Better Cotton Initiative (BCI) in its goal of reaching five million farmers in key cotton-producing countries and having Better Cotton account for 30% of global cotton production by 2020.

IDH is a strategic partner to the Fund and plays multiple roles as strategic partner and fund manager, funder, and partner for delivering innovations for farmer capacity-building on more sustainable production practices.

The Fund identifies, supports, and invests in field-level programs and innovations, while supporting the adoption of the Better Cotton Standard System by governments, trade associations and other entities. It is governed by the BCI Council in partnership with BCI Retailer and Brand Members, BCI Civil Society Members, and donors.

The Fund provides a mechanism for BCI Retailer and Brand Members to make investments that can lead to tangible impact at the field level that cannot be achieved alone. It works with Implementing Partners (IPs) for farmer capacity-building in six countries – India, Pakistan, China, Mozambique, Mali and Turkey.



2019-20 Season

In the 2019-20 cotton season, the Fund worked with 1.8 million* cotton farmers in India, Pakistan, China, Mozambique, Mali and Turkey. The farmers received training and support from the Fund through regional IPs. The Better Cotton GIF directly invested €11 million* from BCI Retailer and Brand Members, public donors (DFAT), and IDH, and mobilized an additional €4.3 million* in co-funding from IPs and supply chain partners (social enterprises, ginners, spinning mills, and garment manufacturers), creating a total portfolio value of €15.3 million.

India

The Fund worked with 17 IPs on 26 projects in 2019-20.

Estimated Program Results 2019-20*

- Fund Investment: **€6,197,164**
- Participating Farmers: **1,019,252**
- Area Covered: **1,596,166 ha**
- Better Cotton Production: **1,194,210 MT**

Implementing Partners

Ambuja Cement Foundation | AFPRO | AKRSPI | Arvind Ltd. | Basil Commodities | CottonConnect | Deshpande Foundation | DSC | KK Fibers | Lupin Foundation | MYKAPS | PRDIS | Puneet Enterprises | Spectrum | STAC | Udyansh | WWF India

Pakistan

The Fund worked with eight IPs on 17 projects in 2019-20.

Estimated Program Results 2019-20*

- Fund Investment: **€3,998,366**
- Participating Farmers: **495,558**
- Area Covered: **1,400,292 ha**
- Better Cotton Production: **1,202,318 MT**

Implementing Partners

Agriculture Extension Department Punjab| CABI | CottonConnect | Lok Sanjh | REEDS | Smart Agriculture | SWRDO | WWF Pakistan

China

The Fund worked with five IPs on five projects in 2019-20.

Estimated Program Results 2019-20*

- Fund Investment: **€538,486**
- Participating Farmers: **116,224**
- Area Covered: **173,968 ha**
- Better Cotton Production: **311,350 MT**

Implementing Partners

CottonConnect | Huangmei Cooperative | Nongxi Cooperative | Songzi Agricultural Extension Center | Zhong Wang Cooperative

**The figures presented within the report are 2019-20 season estimates. BCI will publish final season figures once the 2019-20 cotton season is complete.*

Mozambique

The Fund worked with two IPs on two projects in 2019-20.

Estimated Program Results 2019-20*

- Fund Investment: **€53,040**
- Participating Farmers: **85,000**
- Area Covered: **66,250 ha**
- Better Cotton Production: **26,398 MT**

In the Southern Hemisphere, the cotton season runs from October to September. The 2019-20 season thus reports against 2018-19 contracted figures in the case of Mozambique.

Implementing Partners
Sanam | SAN-JFS

Mali

The Fund worked with one IP on one project in 2019-20.

Estimated Program Results 2019-20*

- Fund Investment: **€99,137**
- Participating Farmers: **87,287**
- Area Covered: **297,000 ha**
- Better Cotton Production: **320,760 MT**

Implementing Partners
CMDT

Turkey

The Fund worked with two IPs on two projects in 2019-20.

Estimated Program Results 2019-20*

- Fund Investment: **€230,338**
- Participating Farmers: **3,600**
- Area Covered: **27,807 ha**
- Better Cotton Production: **61,476 MT**

Implementing Partners
CANBEL | WWF Turkey

**The figures presented within the report are 2019-20 season estimates. BCI will publish final season figures once the 2019-20 cotton season is complete.*

Pakistan

Implementing Partner: Lok Sanjh

Lok Sanjh has been a BCI Implementing Partner (IP) since 2012. Lok Sanjh has gone from working with 10,000 smallholder farmers in its first year, to 138,782 farmers in 2019-20, working in 1,378 villages across Toba Tek Singh, Jhang, Layyah, Bhakar and Bahawalnagar districts in Pakistan.

These districts deal with several challenges in cotton production including soil deterioration, overuse of pesticides, declining supply and quality of water and loss of biodiversity. Through the BCI program, Lok Sanjh helped farmers in the region to reduce their pesticide use, and improve soil health through better soil management and efficient use of fertilizer. The farmers in the project area are increasingly adopting soil analysis techniques to assess fertilizers requirements for their cotton crop. In the 2019-2020 crop season, more than 35% farmers got soils analyzed.

Lok Sanjh is also encouraging gender balance in its staff and field programs. In the first year, the IP had less than 5 percent female staff in the BCI program as social challenges made it harder for females to work in rural areas. Through various interventions, Lok Sanjh has been able to engage more than 12 percent female staff in the BCI projects this year.

The IP continues to work towards bringing efficiency and scale in making sustainable agriculture mainstream. A female farmer under the Lok Sanjh project shares her story on improving cotton quality to improve her income.

Farmer Story

Manzooran Bibi lives in Basti Mumtazabad of Bahawalnagar district of Punjab. A mother of four, she is the primary breadwinner for the family. She grows cotton on about two acres (0.81 ha) of land to earn a livelihood for her family. To improve her income, Manzooran Bibi wanted to boost the productivity and the quality of her cotton. She joined the BCI program through Lok Sanjh Foundation and became a licensed BCI Farmer in 2019.

In the local rural community, female participation in this kind of learning project is limited, but she joined the BCI program against all odds. She is now a trained BCI Farmer and is managing all field operations herself.

"I was an ordinary cotton farmer. I was using traditional methods to grow my crop. Since joining BCI, I have received trainings for better cotton farming."

With BCI, Manzooran Bibi has adopted management practices to maximize fiber quality. She is adept at picking cotton in a way which maintains the fibre quality and is well aware of the importance of clean cotton in terms of improved fiber quality.

She also advises female farmers and cotton pickers in her neighborhood to enhance cotton production and maintain fiber quality. Manzooran Bibi has been an iconic female BCI Farmer among her farming community, inspiring others by her courage and hard work. She aspires to be the lead farmer of her learning group.

Manzooran Bibi
Basti Mumtazabad, Bahawalnagar District,
Punjab – Pakistan

China

Implementing Partner: Huangmei Huinong Technology Cooperative

Huangmei Huinong Technology Cooperative is a private business supported by Hubei provincial and municipal scientific research centers, and technology experts from Huangmei county. It focuses on application of new agricultural theory, experiments, demonstration and promotion of new technology and novel breeds, and development and sales of new products.

Joined BCI as an Implementing Partner (IP) in March 2019. It is engaging with two local partners in Xiaochi and Fenlu to work in 47 villages, with 2 Producer Units, 14 Field Facilitators, and 7,648 farmers to facilitate production of Better Cotton.

This year, the IP has been working to establish a BCI project in the area, in which 90% of the local farmers have joined. They are working with farmers through concentrated trainings, demo plots for sustainable agricultural practices, and sharing training materials and Better Cotton Standard materials with farmers.

The IP helped the farmers to select prime quality seeds, promote direct seeding after the wheat crop is harvested and increase density to around 3500 plants per mu (1ha is equal to 15 mu), decrease fertilizer consumption by 20%, increase application of organic fertilizer and use pesticide according to the advice of pest forecast.

A farmer associated with the project shares his story of how his income increased with the decrease in input costs for his crop.

Farmer Story

Zhou Yongming is a cotton farmer in China. For years, he was growing cotton by transplanting cotton seed from a nutrition bowl to the field. As the process was quite labor-intensive, he had been growing cotton on only 0.2 ha of his land. He joined the BCI project in 2019 and has now adopted direct seeding short-season cultivation. He now grows cotton on 46 mu (7.5 acre) land.

After joining the BCI project, Zhou regularly attended the trainings and kept in touch with the Producer Unit and agriculture technology service center in his area, for recommendations and solutions for any issues he faced while farming.

Zhou has also been able to considerably bring down his input cost. He says, "I reduced the frequency of pesticide application instead of sticking to my previous routine of applying it every seven days. I also decreased fertilizer consumption at the field. Together, they resulted in lesser labor cost at my farms too."

"In all, my input cost decreased by 380 yuan (€50) per mu, which means that the total cost for my 46 mu land dropped by 17,480 yuan (€2300)."

2019 was also a rather challenging year for the farmers in the region, due to severe drought. However, Zhou still had an average yield of 260 kg of seed cotton per mu from his farm, which was 30 kg more than the harvest in the previous year. Participation in the BCI project has resulted in low input cost and improved yield for Zhou, increasing his income by 25,760 yuan (€3,385) from his farm produce.

Zhou Yongming
Duanyao Village, Huangmei, Hubei – China

India

Implementing Partner: Aga Khan Rural Support Programme (India)

Aga Khan Rural Support Programme (India) - AKRSP(I) - has been a BCI Implementing Partner since 2018. In 2019-20, the organization worked working with 7,500 farmers in two Producer Units in Junagadh and Rajkot in Gujarat.

The villages under the project have been facing water-related challenges including depleting ground water and increased salinity. AKRSP(I) has been working to reduce salinity and increase water use efficiency by increasing awareness on water management and promoting efficient irrigation practices such as drip and alternate furrow irrigation.

AKRSP(I) is also working to create awareness among the farmers and farm workers in their project area on worker rights, minimum wages and equality, and child labor. In addition, the organization has been training farmers on reducing pesticide use. Farmers in the area have been informed on pesticide groups and recommended dose for pest control. They have also been trained on identifying pesticides through color codes for their impact on the environment and humans.

The farmers under the by AKRSP(I) BCI project have also increased usage of bio-pesticides and bio-fertilizers, which is helping in improving the soil quality and also reducing their input cost. A farmer from the project area shares his story of how he has been able to turn around his field's soil quality by changing his farming practices.

Farmer Story

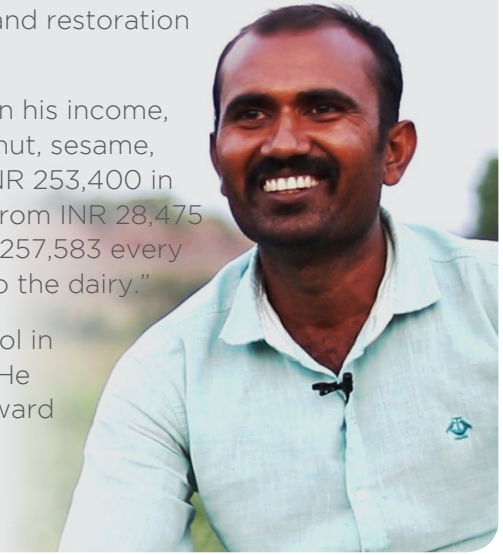
Suresh Makwana is a smallholder farmer with a total 1 ha of land in Rajkot, Gujarat.In 2016, he joined a BCI project managed by Implementing Partner Aga Khan Rural Support Programme India (AKRSPI). The training and learnings imparted in the program have helped Suresh improve his income.

Before joining the program, cultivating 1 ha of land was the only source of livelihood for Suresh's four-member family. Due to excessive use of agrochemicals, the C:N ratio of his land was 0.2 (much lower than the standard ratio, which is between 0.75 and 1). This resulted in deterioration of soil fertility and affected the agricultural productivity. Suresh was using an open well for irrigation. He was cultivating cotton, green gram and maize in the Kharif (monsoon) season and wheat, chickpeas and cumin in the Rabi (spring) season. The total annual expenditure incurred for cultivating his land was INR 56,950 and his total annual income was INR 71,900.

He says, "I joined the BCI program in 2016 and received a drip irrigation system in 2016 from AKRSPI. I adopted water management practices with the help of a series of trainings, farmer's learning meetings, and exposure visits. I started using biopesticides and biofertilizers, which resulted in low input costs and improved soil quality for my land. In the soil test report done in 2019, my land recorded C:N ratio of 0.55, which was a considerable improvement. This was owing to the changes I adopted in my farming practices. I also started cultivating on the 0.2 ha of my fallow land through land development and restoration practices."

Speaking about the overall impact of the interventions on his income, he says, "I am now growing new crops including groundnut, sesame, tomatoes and chili. This gives me additional income of INR 253,400 in a year. Besides, I was able to bring down my input cost from INR 28,475 to INR 15,542 per acre. I am earning a net income of INR 257,583 every year from my land and INR 560 per day by selling milk to the dairy."

Suresh has enrolled his daughter and son in private school in the region and become an inspiration for other farmers. He has also been felicitated by AKRSPI with Best Farmer Award for the year of 2018-19.



Suresh Makwana
Rajkot, Gujarat

Turkey

Implementing Partner: WWF Turkey

WWF Turkey has been a BCI Implementing Partner since 2019. In the 2019-20 season, the organization worked in 85 villages with 1,125 farmers in Söke, Germencik, ncirliova, Koçarlı, and Efeler districts.

This region deals with several challenges including flood irrigation, overuse of pesticides, and overuse of fertilizers. To meet some of these challenges, WWF Turkey has created a multi-stakeholder platform so that all related parties own the problem and create a solution around that. One of the achievements of this platform is a modern irrigation model that will be piloted soon. After a financial model is designed, the model will be rolled out at scale in 2020-21 cotton season. WWF Turkey is also using an electronic soil analysis equipment that can analyze soil quality in 15 minutes, making it possible for farmers to use fertilizers more effectively.

The IP says, “We wouldn’t have been able to start working on cotton in such an elaborate manner without partnering with the Better Cotton GIF. For the past two years, it has been helping us engage in fruitful dialogues with the broad spectrum of cotton stakeholders. This has also contributed a great deal to our work in the Buyuk Menderes River Basin as part of our larger WWF landscape approach.”

A farmer under the project shares his experience of how as a BCI Farmer he is now taking more informed decisions about his cotton cultivation.

Farmer Story

Arif Karaağaç joined the BCI project being implemented by WWF Turkey in 2019. He grows cotton on 1.58 ha of on land. The BCI field team then consisted of agricultural engineers, and Arif joined the program, believing that he would benefit from their knowledge and experience.

Joining the project has helped Arif to bring down the usage of agrochemicals on his farm. He says, “Before I joined the program, I followed what my neighboring farmers were doing. I would blindly adopt the same practices. When they started spraying pesticides, I would immediately start spraying it on my farm. When they started to apply fertilizers, I would immediately follow that too.”

After becoming a BCI Farmer, however, Arif is more aware about the pesticides and fertilizers that he uses in the farm. He is also wary about the intervals at which he sprays them. He says, “This has resulted in reduced consumption of agrochemicals on my farm and brought down my input costs as well.”

Arif Karaağaç
BCI Farmer - Turkey

Driving Innovation

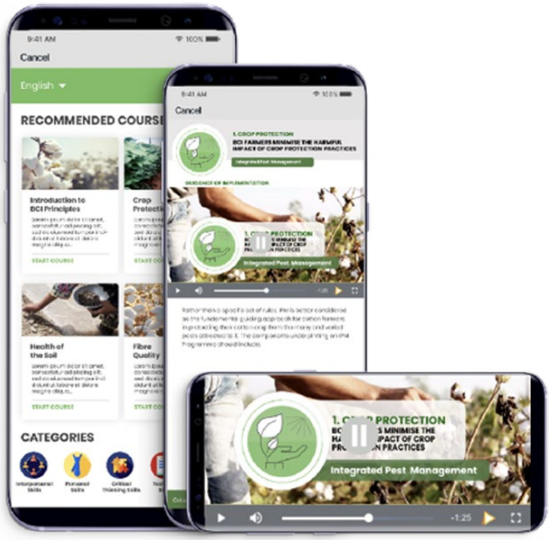
Skill Development for Field Facilitators in India

Project Implementer: Kuza

In 2019, the Better Cotton GIF launched an online skill development tool for Field Facilitators (FF) in India. The learning platform enables FFs to undertake personalised and self-directed learning with a view to ensure a consistent skill set across Implementing Partners (IPs). The pilot was conducted in Maharashtra and Gujarat with six IPs. As many as 504 FFs participated in the initial roll-out, followed by an additional 134 FFs.

All the FFs (634) used the learning modules, including a standardized assessment tool that enables users to identify skills gaps and then suggests a personalized learning path. Sixty-three percent of FFs (398) also completed a user survey to provide feedback on the tool. Seventy-six percent of the respondents said that they found the tool useful, while 57% said they found the training relevant to their work and will regularly use the learning. However, 82% of the survey participants indicated that they would prefer a combination of online and classroom learning.

In Phase Two of the project, the Better Cotton GIF will assess adoption of learning by FFs and measure demonstration of enhanced skills during farmer training by FFs. Based on the outcome of the assessment, the tool will either be rolled out in 2020 to all IPs in Maharashtra and Gujarat, or expanded to include a new language; e.g., Punjabi.



Scale Partners Management Systems Review

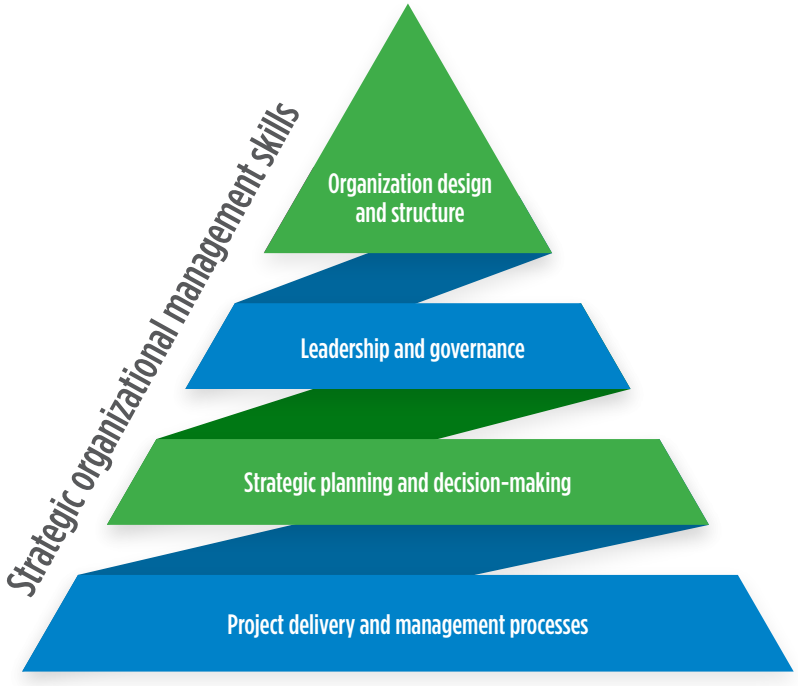
Project Implementers: Think Through Consulting (TTC) and KPMG

In 2019, the Better Cotton GIF carried out a Management Systems Review for our largest Implementing Partners (IPs) in India. These Scale Partners are an integral part of our ability to reach and impact large number of smallholder farmers. The rationale for the review was to identify gaps in the capacity of these IPs and to strengthen the capacity of those partners willing to scale up their outreach to more than 100,000 farmers, while delivering a high-impact program.

Eight IPs were assessed and provided Corrective Action Plans (CAPs) on how to improve their implementation by aligning it to BCI's Principle and Criteria (P&C) and result-based management framework. Five cross-cutting gaps were identified, and CAPs provided. The review was concluded with a follow-up assessment to check if the IPs had been able to address the gaps. The end line assessment concluded that:

1. There was a need to conduct refresher training on BCI Theory of Change and P&C
2. Need to develop a Management Information System platform to be used by IPs for data collection and reporting
3. Improve quality of training and awareness plans and modules developed by IPs on program management aspects and capacity-building

Based on these findings, the Better Cotton GIF will work with KPMG Phase Two of the project, which will provide capacity-building for Scale Partners on strategic organizational management skills. The pedagogical approach developed will then be used to inform capacity-building for other IPs.



Better Cotton Innovation Challenge

To scale the BCI program further and in a financially viable manner, IDH and BCI set up a global innovation platform, The Better Cotton Innovation Challenge, to identify solutions that can transform the way cotton is produced today.

Funded by the Better Cotton GIF and developed in partnership with Dalberg, the Challenge seeks to involve a global pool of innovators to develop innovations that have the potential to drive breakthrough performance at field level and enable BCI to achieve scale in a more efficient way, with higher learning and adoption outcomes.

This first round of the Innovation Challenge was launched in November 2019 and focused on two opportunity areas that were shortlisted after thorough exploration and consultation with BCI on ongoing challenges and gaps in implementation.

1) **Customized learning for farmers:** Farmers are treated as one homogeneous group and similar content is provided to them every year. We want to identify innovations that will lead to BCI Farmers receiving customized trainings based on their specific needs, preferences, and knowledge gaps.

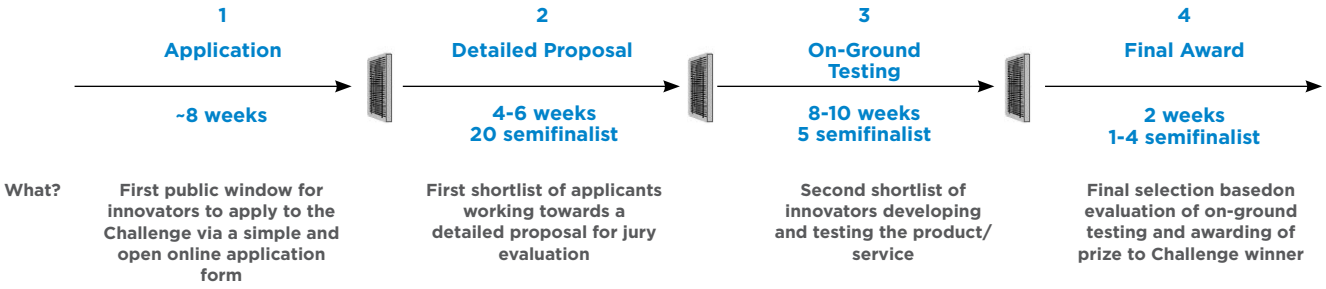
2) **Efficiency of Data Collection and Documentation:** Field Facilitators desire to spend more time training farmers, but 50-70% of their total time is spent on data collection.

   As for any verification model, quality data is imperative to ensure that the cotton is indeed produced more sustainably. Data collection helps assert compliance of Better Cotton production practices on the ground and track the progress of farmers.

Innovators will undergo three competitive application stages through 2020 and receive mentorship from experts and access to networking opportunities with industry leaders. In the end, a maximum of four global winners will be awarded the prize and potentially have the opportunity to launch their innovation.

The Innovation Challenge will create an open pipeline of ideas that, with Better Cotton GIF seed funding, will be developed into new viable service delivery models to improve farmer livelihoods and achieve greater field-level impact. Through the Challenge, the Better Cotton GIF aims to drive an independent process for pioneering pipeline development and funding, and to utilize its expertise and vast network of partners to actively drive and enable innovation in the cotton sector, addressing the many challenges it faces today.

At the time of publishing this report, a jury composed of external experts, alongside BCI, IDH and Dalberg have selected the 5 semi finalists that will move to next phase of the Better Cotton Innovation Challenge, pilot testing the innovations and looking at ways to scale further.



The winner(s) will receive significant recognition, prize money (up to €135,000), and the potential to launch their innovation with over 2 million farmers.

[1] http://www.intracen.org/uploadedFiles/intracenorg/Content/Exporters/Sectors/Food_and_agri_business/Cotton/AssetPDF/Women%20in%20cotton%20-%209%2011%2011%20FINAL.pdf

Key Better Cotton GIF Meetings 2019

21-23 January:
Field Impact and Innovation Committee (FIIC)

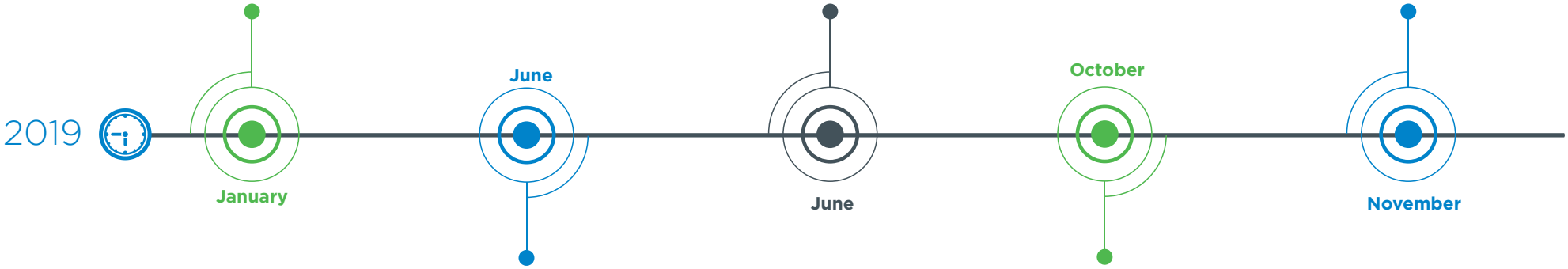
The FIIC met in Utrecht, The Netherlands, and approved 53 projects for investment from 35 applicants across six countries.

24 June 2019:
Field Impact and Innovation Committee (FIIC)

The FIIC met in Amsterdam, The Netherlands, at Fashion for Good to set the Better Cotton GIF funding priorities and strategy for the 2020-21 season.

7 November 2019:
Buyer and Investor Committee (BIC)

The BIC team met in Bonn, Germany. The team confirmed their support to Better Cotton GIF 2020 AOP and agreed to update its terms of reference in the following months.



11-13 June 2019:
BCI Global Cotton Sustainability Conference

BCI hosted its annual global cotton conference in Shanghai, China, bringing the entire sector together, including retailers and brands, supply chain partners, CSOs, and government representatives, to collaborate on a more sustainable future for cotton.

12 June 2019:
Buyer and Investor Committee (BIC)
Shanghai, China

The BIC is a platform that operates within the governance framework of the Better Cotton GIF, which allows representative brands and retailers to provide input on investment decisions, share knowledge, and propose new strategic initiatives that support the supply and demand of Better Cotton.

15-25 October 2019:
RFP face-to-face meetings

In August, the Better Cotton GIF launched its Request for Proposal (RFP) for BCI implementation in the 2020-21 season. In October, applicants were invited for face-to-face meetings to discuss their project proposal with the Better Cotton GIF secretariat, in preparation for a final investment decision by the FIIC in January 2020.


MOZAMBIQUE
CLIMATE
RESILIENCE
PROJECT

Introduction

In Mozambique, agriculture production – predominately rain-fed agriculture – contributes 25% to GDP and is the main economic activity for many people. Smallholder farmers represent 95% of the country's agricultural production.

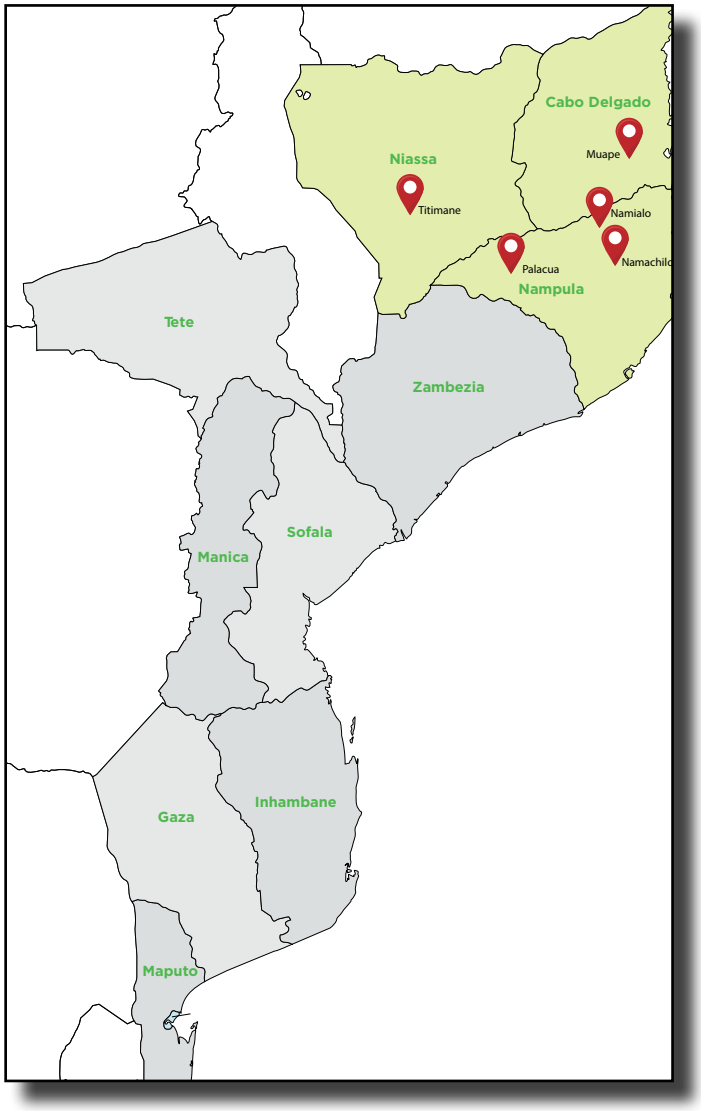
Located on Africa's Southeastern coast, Mozambique suffers from periodic cyclones, droughts, floods, and related epidemics. Climate change will likely exacerbate this existing climate variability and result in more severe droughts, unpredictable rains, floods and uncontrolled fires. This, combined with the fact that agriculture is currently practiced on less than 10% of arable land – whilst lacking access to credit, markets, high quality inputs – makes the sector, and especially its smallholder farmers, extremely vulnerable to external shocks.

For these reasons, ensuring the resiliency of smallholder farmers against climate change and other shocks is essential to securing the agricultural productivity as well as the health and well-being of Mozambique and its people. It requires mitigating the impact of climate change by de-risking farmer livelihoods and maximizing all possible and existing assets.

This starts with developing the household and community as a reliable safety net and implementing a holistic livelihood approach for robust asset development and risk mitigation.

The Mozambique Climate Resilience Program (the "Program") works with four private sector partners – Olam, San JFS, Plexus, and SANAM – with additional technical support from Action for Food Production (AFPRO), to increase farmer resilience against volatile weather conditions and poverty by employing a coordinated and multi-pillar approach that leverages access to water and training on good agricultural practices. This is intended to increase farmer productivity, provide access to alternative livelihood activities, diversify income, and improve food intake. The program aims to equip farming communities with the ability to make informed decisions on their farming practices and to help them gain access to multiple livelihood options. Farmer households are offered a variety of tools for empowerment and a greater chance to institutionalize a systemic change that will lead to improved livelihoods, increased economic security, and overall improvement in health and the quality of life.

Where We Work



Program Funding

By leveraging investments from our private sector partners, with match-funded support from the Dutch Embassy of Mozambique and IDH, we have developed and are now testing an innovative model that supports diversification. The aim is to ultimately increase sustainable performance and profitability and reduce smallholder farmers' dependency on a single cash crop for their livelihoods.

IDH supports the program in its three roles of convening, piloting, and co-funding.

2019 Summary

In the second year of the Program, over EUR 385,000 in public and private sector contributions were invested to service 484 direct beneficiaries across the five projects.

With the completion of most water harvesting and water management structures and some rebuilding that was required due to unexpected flooding, farmers were able to leverage the available water for cotton production, crop diversification, and animal husbandry activities. Additional support was also provided for the community-level entrepreneurs to increase the availability of solar energy technology services.

A gender study was conducted in partnership with Solidaridad Southern Africa to improve our understanding of the social dynamics within our intervention communities and to help further improve the Program design. Overall, the Program continues to progress in its second year of implementation, especially at the community level, where water availability has visibly improved living conditions and established new livelihood opportunities in the communities. IDH and its partners continue to sharpen their understanding of the local realities and evaluate the successes and failures of the implementation activities through continuous engagement with the communities.

Working across the five project sites and with our private sector partners has proved to be a very effective way of testing the Program's theory of change and for understanding the common denominators for maximizing the impact at the farmer and business level. While the pillars of our work remain the same, the local conditions and organizational approach of each of our partners vary. These differences have enriched our experiences, yielding best practices that can be shared with and applied by others.

Access to Water

In this second year of implementation we have observed visible improvements in the capacity of the partners and local contractors for developing the water infrastructure. Continuous involvement and on-site training have helped improve the capacity of the local communities, which is essential for ensuring they have the knowledge and tools to conduct repairs independently in the future. This season, approximately 370 community members across the five villages were involved in the activities, with support from AFPRO's engineers.

Community engagement and capacity-building is and will continue to be an essential component of the Program for establishing ownership and ensuring long-term sustainability of the structures. While the structures can now be leveraged to harvest additional water in most project sites, natural weathering and sudden and heavy rainfalls will demand additional repair work in the future.

Crop Diversification

In our second year of implementation, our senior agronomist continued to support and monitor the implementation of second crop activities across all villages, providing on-site training and demonstrations at each project site. All activities received additional support from AFPRO, who advised the partners' village coordinators on land preparation, selection of crops and varieties, planting, and irrigation methods. The training also covered nursery preparation, seedling transplantation, fertilizers and pesticides application, scheduling irrigation, and harvesting procedures.

The growing success of horticultural cultivation by the leading group of farmers has resulted in positive spillover effects, with other farmers wanting to join the Program to receive training and make use of previously unproductive land.

Animal Husbandry

In this second year of implementation, communities received refresher trainings on animal and health management and additional support from local district offices for vaccines and other veterinary support services.

We found that individual management of animal husbandry activities is more effective for ensuring proper management of chickens and goats than enforcing shared responsibility. This coming season, we will continue to explore best practices for individual management and establishing a governance system for distributing successfully bred offspring to new beneficiaries.

Cotton Production

This season, trust and engagement between the cotton concessionaires and farmers continued to improve with increasing appetite and commitment to grow cotton. The partners were able to service a total of 519 farmers compared to 189 farmers in the previous season. This is the result of increasing farmer confidence in soil conservation and land development activities of the Program and improvements in land management by farmers with better access to extension services, along with stabilization of the price of cotton.

The coming season will continue to focus on building the trust and confidence with the farmers; timely supply of inputs and support for weeding and pest management; and training on good agriculture practices.

Access to Energy

The partners and entrepreneurs developed a business model and repayment mechanism for the solar kits that ensures ownership and long-term sustainability. In this model, the entrepreneurs agreed to pay for 30% to 50% of the cost of the solar panel and equipment, which was then match-funded by the Program's investment.

Since the first year of implementation, the mobile charging services made available through the solar kits has increased interest in the community to further invest in solar energy and replicate the model. However, the upfront investment that's required continues to be a challenge.

In the coming season, we will continue to find solutions for the ongoing challenges and build a stronger business model to expand the activities in the villages and benefit more community members.

Digital Micro-Learning Toolkit for Farmer Capacity-Building

We've partnered with Kuza – a leading social technology enterprise that specializes in developing micro-learning content – to develop digital training materials on:

i. good agricultural practices for cotton and three other high-value crops
ii. poultry management
iii. watershed management
iv. farm planning and decision-making
v. crop-budgeting and group-saving

Additionally, Kuza will provide access to the learning materials through a digital kit that can successfully operate off-grid in even the remotest areas of Mozambique. An entrepreneur from each project site will be trained on providing crop advisory services to farmers using Kuza's digital toolkit.

The aim of this project is to provide farmers with more dynamic and engaging training material and a platform that allows farmers to learn at their own pace and time, which, when combined, will increase adoption of more sustainable agricultural practices leading to improvements in livelihoods and resilience.

Farmer Narrative

Salvador Daissene is a BCI farmer from Niassa province in Mozambique. He has joined the BCI project being implemented by SAN-JFS in the region. He has been growing cotton and other crops since 2002. In 2019-20, he cultivated cotton in 11 ha, corn in 4 ha, and sugarcane in 5 ha land. He also has a small garden in which he grows tomato, cabbage and onion.

His main income is from the cotton crop, which helps him to sponsor studies for his three children. He believes that BCI is good not only for environment but also for the cotton-growing community. He has attended several trainings by SAN-JFS, in which he learned to improve culture management practices, pest monitoring and pesticide management.

He has also been focusing on the "decent work" aspect on his farms. Since he owns more than 20 ha, he regularly hires temporary workers and local community members for land-clearing, sowing, weeding, thinning, pesticide application, and harvesting. In addition to cash payments, he also gives meals to his workers.

Salvador Daissene
BCI Farmer - Mozambique

MAHARASHTRA PROGRAM

Introduction

As the largest cotton growing state in the country, Maharashtra covers about 34% of total cotton area and contributes to 17% of the production. However, in comparison with most other states in 5-700 range, Maharashtra produces significantly low yields of 398 kgs/ha, due to a variety of reason including rainfed dependence, pest attacks, poor soil quality among others. Given Maharashtra's position as a major agricultural hub, combined with these major challenges faced by smallholder cotton farmers, there is significant potential for IDH to align Maharashtra's cotton landscape with national and global sustainable production agendas.

Building Public Private Collaboration

Expert Group Meetings with the Government of Maharashtra

In 2019, IDH signed an MOU with the Maharashtra government under the World Bank-funded project to promote sustainable agriculture – State of Maharashtra Agribusiness and Rural Transformation (SMART) – with the goal of strengthening off-taker relationships with 4,000 cotton farmers.

IDH continued the sub-national government engagement through participation in value chain consultations for the SMART project, as well as expert consultations for the Public-Private Partnership for Integrated Agriculture Development (PPP-IAD) program.

Maharashtra Cotton Water Platform

IDH, in collaboration with 2030 Water Resource Group (2030WRG) under an MoU signed in April 2017, lead the development of the initiatives and working groups under the Maharashtra Cotton Water Platform in its Phase 1 till December 2019. Established under the broader Maharashtra Water Multi-Stakeholder Platform, the Maharashtra Cotton Water Platform was formed under the guidance and leadership of the Department of Agriculture, bringing together representatives from the public sector, global and local cotton supply chain actors, financial institutions, and civil society to deliver innovative solutions to improve water use efficiency, increase the income of the cotton farming communities, and support partnerships with cotton supply chain actors.

In 2019, IDH co-hosted a Platform meeting on May 9th that focussed on two key discussion themes:

Theme #1: Financing for Water-efficient forms of Irrigation to Cotton farmers

This theme revealed commonly known challenges that bankers face when working with smallholder farmers which included:

- Lack of credit history at individual farmer level
- Need for a contiguous area where banks can work with multiple farmers so as to reduce overall transaction costs
- The need for farmer segments where there is multi-cropping and in general diversification of livelihoods are more financeable, as there is fallback in cases of particular crop losses and therefore reduction in risks for the banks

Some models of outreach were also proposed including working with FPOs to attain credit guarantees from Government schemes as well as a tripartite agreement for irrigation between the bank, farmer and the ultimate off-taker. These were explored further in a closed-door consultation between the Chair of MCWP (and Project Director – Project on Climate Resilient Agriculture) and leading financial institutions to apply to their access to credit strategy in the project areas.

Theme #2: Partnerships for area-based approaches to pest management

The potential for an area-based approach for pest management in Maharashtra's cotton belt was explored. It was discussed that for an effective area-based approach at scale, certain elements need to be plugged in including monitoring weather at smaller scales for more accurate crop-weather models, Monitoring of the farmers' adoption of recommended practices as well as an understanding of crops-use of chemicals in multi-cropping/ intercropping systems.

The discussion also explored how Artificial Intelligence based solutions could be incorporated to support area-based surveillance, intervention and monitoring. A benefit of this approach is that it would add a level of verification and document data point for further analysis and record purposes. It would also be real time and can be built for purpose when it comes to dissemination for advisory. As a platform member, Wadhwani AI for Social Good took the lead in following up with individual members to further build out their AI solution on integrated pest management being piloted in Maharashtra.

Converting Insights to Action

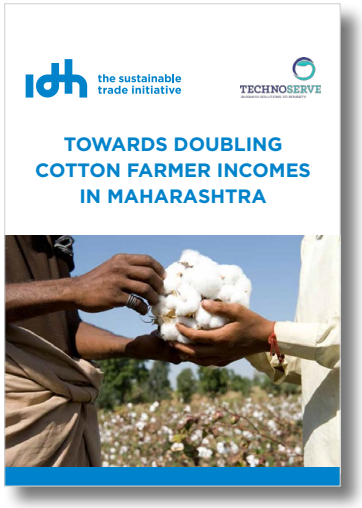
As convenor of the Maharashtra Cotton Water platform, IDH also led the development of two sector reports – conceptualised and delivered through a consultative process involving 60+ key government, industry, civil society and finance-sector actors. These sector reports in Maharashtra - 'Towards Doubling Cotton Farmer Incomes' (based on the Prime Minister's strategic agenda to drive livelihood security) and, a 'Business Case for Gender Mainstreaming in Cotton' on the gender division of roles and responsibilities on the farm, participation in decision-making and access to productive resources, were launched in May 2019 at a launch event which included 100+ people across 60+ organizations from the sector.

Establishing the Business Case of Integrating Women Cultivators in Maharashtra

Women play a critical role in cotton cultivation. To assess their potential, IDH commissioned 'Business case for gender mainstreaming in cotton in Maharashtra' report, which presents findings from gender analysis of cotton cultivation in Maharashtra, conducted by IDH and Sattva. The analysis built an understanding of the gender division of roles and responsibilities in the farm and the burden of labour, participating in decision-making and access to productive resources and ecosystem support in the form of trainings, finance, extension services and government schemes. The study examined both the economic contributions of women cultivators on the farm and the various barriers that limit their role in cultivation.

Taking to Action: Informed by findings of this study, IDH will be working with BCI to pilot interventions to integrate women co-farmers in BCI farms in Maharashtra. The pilot, planned for 2020, is designed to be a scalable model that can be replicated seamlessly across implementing partners and geographies, to drive economic and social sustainability of cotton production through mainstreaming of women cotton cultivators.

Establishing the Business Case of Investing in Smallholder Livelihoods



The report — 'Towards Doubling Cotton Farmer Incomes in Maharashtra' — outlines a strategy towards doubling net household income of Indian farmers.

This study assesses a range of intervention strategies (decreased cost of cultivation, increase in yield, adhering to market requirements, moving beyond cotton, and livelihood diversification) that could potentially contribute to increasing cotton farmers' incomes, quantifying the economics of implementation, and the incremental value added.

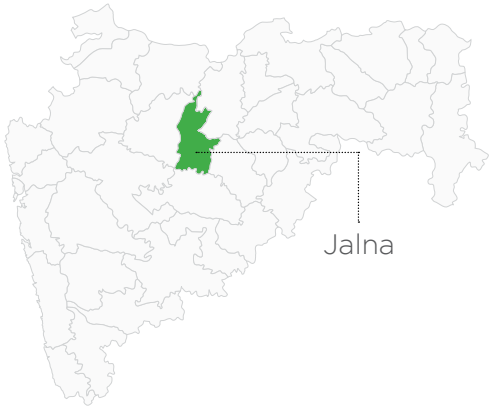
The study also identified game changer solutions transform the entire cotton value chain – one example of this was Lint Based Marketing. In the cotton value chain, the common system uses an expert to subjectively price seed cotton on the basis of weight and quality. Under the proposed LBM, fast, accurate and unbiased machine readings could be used to price cotton lint for weight and quality, while rewarding producers for producing cotton of such parameters.

Taking to Action: Going forward, IDH will pilot this approach with participation from progressive actors in the cotton value chain and the state government to assess the additional value that can be shared with smallholder farmers and the scope for a wider adoption in the sector

From The Field: Securing Smallholder Livelihoods in Rainfed Maharashtra – Jalna, Maharashtra

At the field level, the project implemented by Watershed Organization Trust in Maharashtra scaled from four to thirty-seven villages, engaging 6,300 farmers through an integrated, participatory and gender-inclusive approach of agro-meteorological advisory services, training on good agricultural practices, and community-based watershed management

In 2019, the program demonstrated a high level of local community self- contribution towards watershed works (creating wage employment of over 75,000 man days) to deliver on results that exceeded the set targets for 2019 - yielding a 20% reduction



in costs of production and over 1/3rd of the project farmers taking up a second crop owing to improved soil and water management activities. .

Gender at a Program Planning Level

- Gender analysis through FGD at all 37 villages
- Gender sensitization training of all staff of WOTR
- Ensuring at least 40% representation of women in baseline/endline assessments (40%)
- Ensuring at least 40% representation of women in selected para-agronomists/ master trainers
- Gender Planning guided by IDH study on the business case for mainstreaming women's roles in cotton cultivation

Watershed Activities

Through the implementation of watershed activities as part of this project, water harvesting potential of 766 TCM has been created through various structures which will lead to increased water availability and area under irrigation. The treated catchment area of 1,896 ha will also be protected from soil erosion and consequently, soil moisture will be retained. The watershed works have also created wage employment of 75,840 person-days in summer months, during which agricultural activity is restricted on account of limited access to water.

Good Agricultural Practices

Farmers were also trained on Good Agriculture practices such as Deep Ploughing, Soil Testing, and Intercropping while soil samples were collected from around 3000 farmers enabling them to calculate and plan fertiliser requirement based on the recommendations on soil health cards. 4,031 farmers were linked to 9 automatic weather stations allowing for informed decisions on crop cultivation based on timely and weather specific advisories received. Overall, the project reported that nearly 80% of the trained farmers had demonstrated improved practices as a result.

Figure 2 Snake and Ladder themed training on GAP

Community-based Water Budgeting

Water Budgeting is an exercise geared towards ensuring optimum and most efficient use of water. Community members in the 30 project villages were trained on understanding of water availability, community's existing needs and requirements of water, equitable sharing of excess water and dynamics of groundwater withdrawals. This consideration of various local claims on water resources in the village has provided communities with a strong basis for making decisions regarding appropriate cropping patterns, area to be taken for cultivation, the irrigation method etc. so as to optimize output per drop of water.

Developing Service Delivery Models for Agri-services

A new partnership was formed with Syngenta Foundation India (SFI), to integrate the Agri-Entrepreneur (AE) model into the project areas in Jalna. In this model, SFI selects and trains unemployed village youth to provide products and services to 150-200 smallholders in two to three villages. The AE network replaces conventional and inadequate 'point solutions' with one holistic provider, whereby the AEs provide fee-based services includes credit access and market linkages, as well as access to high-quality inputs and farming advice. Each AE has to come from one of the villages she or he serves: trusting relationships are crucial.

AE program started out strongly in Jalna, reaching 6 blocks and more than 40 villages. To bring quality agri-services to the cotton farmers, 19 rural youth agri-entrepreneurs were selected and trained at the Center of Excellence, Ahmednagar, Maharashtra. They are currently undergoing business plan preparation and mentorship, to deliver essential services in the areas of inputs, credit and market linkages.

Figure 3 Automated Weather Stations for Hyper-locale crop advisories

Key Project Results:

No. producers and community members trained on sustainable production

Topic	Baseline	Annual Output		
		Male	Female	Total
Good Agricultural Practices (farmer training)	0	3319	1870	5189
Water budgeting (Jalsewaks)	0	47	8	55
Soil testing (farmers)	0	2377	1244	3621
Empowerment of women/ gender (FGD)	0	465	437	902

No. of producers reached by service delivery

Topic	Baseline	Annual Output		
		Male	Female	Total
Microirrigation devices	0	61	0	61
Soil testing	0	2139	670	2809
Crop advisories	0	3672	359	4031
Trap crop seeds	0	756	252	1008
Vermicmposting bed	0	64	11	75

No. of smallholder producers organized/aggregated by the program

Topic	Mid-term Output	
	Male	Female
Farmer Producer Organizations	409	74
Self-Help Groups	0	1405

Cost of cultivation

Crop	Baseline	Avg. cost of cultivation
Cotton - cost of cultivation	"Rs. 9,338 per acre (HH Survey data 2018)"	"Rs. 7,488 per acre (Farmer diary 2019 of representative farmers)"

Indicators	Baseline	Achieved (Year 2019)
Area protected from soil erosion and moisture retained	1,500 ha	3,352 ha
Increase in acess to water (water harvesting potential)	8,775 TCM	9,541 TCM
Improved use of water as a resource - water budgets	5 villages	30 villages
Increase in area under irrigation	1,800 ha	2,125 ha
Increase in farmers taking second crop	1,050	1,965

Hrishikesh Pagire

Hrishikesh Pagire of Pagirwadi village shares his experience of how passionate he is about natural farming and how the project initiatives helped him to learn new things about crop diversification in his field with increased productivity and less risk.

Pagirwadi is a small village in Ambad taluka of Jalna district in Maharashtra. The green patch in the village was a surprising element in this parched area of Marathwada. Hrishikesh Pagire, a second year commerce student, is practicing the organic farming methods on his agriculture land. In his very first attempt, he has earned a profit of Rs. 60,000 on cotton crop against an investment of Rs. 10,000 on two acres of land.

Hrishikesh is very concerned about his farmland and the fertility of soil; this is why he decided to adopt organic farming practices to win the battle against severe drought conditions. His strong desire to learn organic farming methods has finally been realized with the dedicated support from WOTR, which is actively working in the drought prone areas spreading awareness about organic farming. During the agricultural

training session, Hrishikesh got detailed information about organic farming practices. He narrated his experience at the training session with conviction:"It was really worth it staying there for 4 days and learning so many things about agriculture. I successfully completed the session, which motivated me to become a successful farmer."

Hrishikesh has already decided to live in his own village and to take up farming as a full-time career. On organic farming, he says, "Saving water and the environment is the need of the hour. We must protect our own environment and try different methods of organic farming to get more agriculture production by using less water."

Premchand Bhagchand Naglot

Premchand Bhagchand Naglot is the Sarpanch of the village Dhangar Pimpalgaon in Ambad taluka of Jalna district in Maharashtra. He is also one of the farmers who directly benefitted from the one of the two check dams built in the village. He narrates how the construction of the check dam has helped him.

"Ours is a small village of about 250 families and we have always faced water scarcity in the past. In summer, water tankers used to ply regularly bringing drinking water to the village. For too long we ignored the plight of the cattle in the village due to paucity of fodder and water. Under such conditions, WOTR started a project in our village to increase the water retention capacity of the land through different soil and water conservation measures. In this project, watershed development work was undertaken to harvest rainwater. Various area and drainage line treatments were done following the ridge-to-valley approach that included two check dams and 16 earthen gully plugs.

Our village is reaping the benefits of the project by following sustainable agriculture practices that we've been advised to follow to increase our agriculture yield. Farmers in the villages are also applying organic formulations on their crops and trying to reduce the dependence on the use of chemical fertilizers and pesticides."

"Personally, I have immensely benefited from the check dam built on the stream near my farm. Thanks to the check dam, I have water available in my both bore well and well. Agricultural yield has improved. The important thing is that we have green fodder available for my animals; I am cultivating fodder for animal feed. I am growing maize in the rabi season because of the water availability. I am also growing pigeon pea and cotton. With the water available, I am growing vegetables all year round, which was not the case earlier," he concludes.

GENDER INTERVENTION

Introduction

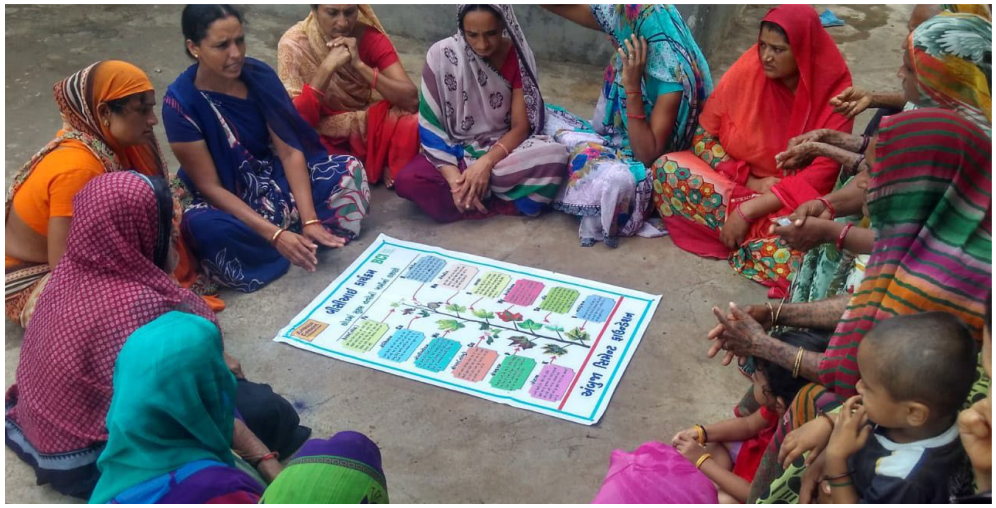
Gender discrimination is one of the biggest challenges for workplace equality in the Indian agriculture sector. Despite the crucial role women play in agriculture in India, they are generally paid less than their male co-workers. They also face a greater risk of harassment and are less likely to be considered for benefits and opportunities, including gaining access to credit, and their views may be overlooked in decision-making.

These challenges drove IDH to make a difference at the field level in promoting gender equality within its programs. Over a period of three months, IDH gender consultant Sangita Shete conducted gender sensitization trainings with IDH's 19 implementing partners in 30 locations across India, training around 2000 field-level workers, who provide extension service to over a million farmers.

Through the training, field extension workers were made aware of mainstreaming gender equality in their work, labor division based on gender, access to resources, decision making, gender awareness in project activities, and project planning for gender inclusion. The workers who participated in the trainings were able to implement these learnings over the cotton season in 2019. The stories below capture their experiences and highlights the field-level impact of the exercise.

A female field-facilitator's experience in breaking barriers at field-level

Ujiben is a Field Facilitator (FF) at Ambuja Cement Foundation in Ambujanagar, Gujarat. She is working with 503 farmers in the region, which includes 103 male farmers and 400 female farmers. She was one of the field facilitators who participated in the gender sensitization training conducted by IDH.



> "During my field trainings, I explained to the farmers that women contribute heavily in farm activity and if the decision is taken together, it will be beneficial for everyone."

Ujiben

Speaking about her experience she says, "I understood the gap that exists at the grassroot level, between male and female farmers and the daily work that they do."

But when Ujiben took this learning to the farmers, she faced challenges due to the ingrained gender bias, not just among the male workers, but also the female ones. She says, "Women farmers recognized their contribution in the farm as well as household work, but they did not want to participate in decision making as they felt this is only for the male members of the house. During my field trainings, I explained to the farmers that women contribute heavily in farm activity and due to their experience in farming, including them in decision-making will be beneficial for everyone. "

Before the gender sensitization training, she says that she wasn't confident in training male farmers. However, after becoming more aware of the role women play at the grassroot level, she gathered the confidence and now works with three male farmer groups. The impact of her work is steadily visible in her project area and she says that there is awareness among both male and female farmers. Women in the village are now stepping forward to attend trainings, and they are increasingly getting involved in decision making at the farm as well as the household level.

Lalitaben is a farmer in Ujiben's project area. While she used to attend every meeting, she did not have any role in decision making in farming, as it was her husband's role. From her learnings at the field extension trainings, she advised her husband to apply SSP fertilizer instead of DAP. Though he did not completely agree to do this, they eventually decided to try it on 7 acres of land, out of their total 17 acres. While the production on the whole field remained unchanged, expenses on the area of land where the SSP fertilizer was used were less than the other. The husband-wife duo is now applying SSP in the entire field. Lalitaben is also now a shareholder in Somnath Farmers Producer Company Limited, a farmer producer organization in Gujarat.

Ujiben says that she has to work more on gender sensitization in all villages that she works in. She believes it is important that both male and female farmers and in many cases husbands and wives are trained together so they can understand and appreciate each other's role and contribution.

A male field facilitator in Madhya Pradesh fights resistance to change

Shantilal Rathod is a field facilitator working with K.K. Fibers in Lohari, in Khargone, Madhya Pradesh. He is working with 376 farmers in his operational area in the project and in addition, has trained 193 female co-farmers.

> "In my project area, there was a general perception of women being weaker than men."
>
> **Shantilal Rathod**

One of the participants in the gender sensitization training, Shantilal has been able to translate his learning's to create gender training programs for the farmers. While he was appreciated in the village for his efforts, initially he faced issues in making the farmers understand the importance of discussing and recognizing the role of women in farming.

He says, "In my project area, there was a general perception of women being weaker than men. While women played a limited role in decision making, there was also more emphasis on educating the son than the daughter. In view of this, we prepared training programs based on IDH's gender sensitization trainings. This helped us in training farmers, women and laborers this season and make them aware of gender equality."

"At the field-level, we faced issues in some places, where we were asked why we are organizing such type of training, which can cause quarrel in our families. Nevertheless, most of the farmers, women and laborers have appreciated our efforts and responded positively by actively participation in the gender training conducted by our team. "

The efforts have started to show impact at the field level. Shantilal says, "Women and men are sitting together for combined training in our project areas. Earlier participation of women in the training organized by KK Fiber team was less, but nowadays they are coming forward to participate. We will now use videos and success stories of our intervention on gender sensitization to further encourage women farmers and create awareness on gender inclusion in our project."

A female farmer shares her story of transformation within her family

Shalu Shrikant Gaurkar is a female farmer in Yavatmal, Maharashtra. She has a total of eight members in her family and farms on 4.5 acre of land along with her husband. The 33-year old also does sewing work to support her family.

> We learnt how men and women are capable to perform the same tasks, but it is the village culture and traditional approach towards women which limits their role.
>
> **Shalu Shrikant Gaurkar**

Speaking about her experience, Shalu says, "My husband has been associated with APPRO project in Yavatmal for the last four years. I always used to discuss with my husband regarding his participation in trainings and what benefits obtained to them through these kinds of programs, but my engagement was limited as I used to be busy in household work and working on the farm."

With learnings from the gender sensitization training, the field facilitator and Project Unit Manager working in her project area reached out to the women farmers there to explain to them the importance of being included in decision-making. A gender training session was also conducted in the area for the farmers to create awareness on contribution of women in farming and in household activities.

Shalu attended the training along with her husband. Sharing her experience, she says, "We learnt how men and women are capable to perform the same tasks, but it is the village culture and traditional approach towards women which limits their role." She further adds, "After attending the training, my husband includes me not only in farming activities, but also when we have to take decisions regarding farming or at domestic level."

She further says, "I have also started a small business of sewing ladies wear, from which I get a monthly income of Rs. 1,200 to Rs. 1,500. I am happy to see that the social and traditional barriers are being broken today by coming together and creating awareness. A woman plays an important role in the economic development of the family if their efforts are nurtured equally."

A Project Unit Manager shares his story of how driving change at management level can result in grassroot level impact

Arvindbhai Govindbhai Patel is a Project Unit Manager with AFPRO in Surendernagar, Gujarat. He has been leading his Project Unit and working with the farmers in the region since 2016.

> "After attending the training, my attitude towards women's participation in farming changed."

Arvindbhai Govindbhai Patel

Sharing his experience on the training Arvindbhai says, "Before the training, I did not engage with a lot of women farmers and had no female field facilitators. But after the training, I realized their role in farming and in overall social development and have been working to engage them more within the program."

He explains, "We noticed that women hesitated to participate with men in common trainings and would not speak in front of male members. To overcome this, I recruited a female field facilitator and created women learning groups to ensure their inclusion in the program.

"After attending the training, my attitude towards women's participation in farming changed. Though women are doing more manual labor in the farm, they have less representation in decision making. While trying to create more awareness around this, we are also starting to observe some changes. For instance, earlier, the male farmers did not like to send their wives for the training, but now they are supportive and are also encouraging them to attend the trainings."

Field facilitators in Telangana are exploring new ways to reach women farmers to train them on sustainable farming practices

S. Sridhar is a field facilitator at Deshpande Foundation in Telangana. He has been working for the project since 2015, and this was the first time he had attended a training on gender sensitization.

Sharing his experience on the training, Sridhar says, "(in the training) I learnt about contribution of women in farming, existing gender discrimination and why is it important to include them in our program."

Speaking about gender-based challenges at the field level, he says, "Participation of women in the learning group meetings is one of the main issues. Women working in the farm have double the burden as they are also doing the household chores. This spares her no time to attend meetings or trainings. They are also discouraged to go out of village when it is not related to work."

After attending the trainings, S. Sridhar and other field facilitators in the project area are trying to address the issue differently. "This year we have targeted trainings like eradication of Moncrotophos and awareness on minimum PPE mainly to women. We have also started approaching self-help groups (SHGs) in our area. In these meetings women interact freely without any hesitation. We have also been able to reach a large group of women at a time through these meetings."

> "I learnt about contribution of women in farming, existing gender discrimination and why is it important to include them in our program."
>
> **S. Sridhar**

"Such methods have helped us discuss critical issues related to farming with the women groups, and we have received positive feedback on our work so far," he further said.

Annexure 1: Better Cotton GIF Summary 2019-20

	India	Pakistan	China	Mozambique	Mali	Turkey
No. of Implementing partners	17	8	5	2	1	2
No. of Projects	26	17	5	3	1	2

Annexure 2: Better Cotton GIF Project-wide summary 2019-20

INDIA

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
ACF Gujarat	33,724	46,677	42,009
ACF Maharashtra	65,000	1,41,600	85,630
ACF Rajasthan	14,000	35,000	23,207
ACF Punjab & Rajasthan	56,000	80,000	53,300
AFPRO Gujarat	68,979	138,000	1,01,500
AFPRO Maharashtra	48,000	85,000	55,250
AKRSPI Gujarat	7,500	7,500	7,027
Arvind Ltd. Gujarat	19,000	45,000	37,350
Basil Commodities Gujarat	46,260	115,000	115,000
CottonConnect Gujarat	47,614	69,957	62,489
CottonConnect Maharashtra	172,618	187,909	132,251
Deshpande Foundation Telangana	80,000	121,600	79,040
DSC Gujarat	15,500	9,941	5,455

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
STAC-FARM Gujarat	28,714	55,120	53,505
KK Fibres Madhya Pradesh	25,009	43,800	30,660
Lupin Foundation Maharashtra	75,000	90,000	42,000
Mykaps Karnataka	7,107	6,246	2,167
PRDIS Andhra Pradesh	24,000	30,000	22,000
Spectrum Gujarat	15,559	39,398	45,754
Spectrum Maharashtra	14,084	28,308	22,293
STAC Gujarat	16,000	41,000	41,923
Udyansh Madhya Pradesh	15,014	15,500	6,900
WWF India Punjab	46,141	83,000	66,000
WWF India Maharashtra	36,591	36,610	25,500
WWF India Telangana	26,838	25,000	16,000
LD-Puneet Maharashtra	15,000	19,000	20,000
TOTAL	**1,019,252**	**1,596,166**	**1,194,210**

PAKISTAN

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
CABI - Mirpur Khas (Sindh)	15,661	71,137	75,906
CABI - Matiari (Sindh)	15,050	42,460	45,306
Cotton Connect - Nawabshah & Naushahro Feroze (Sindh)	20,587	60,588	59,870
Lok Sanjh - Bahawalnagar (Punjab)	50,002	112,504	80,500
Lok Sanjh - Toba Tek Singh, Faisalabad, Jhang, Khanewal (Punjab)	35,000	37,081	27,192
Lok Sanjh - Layyah (Punjab)	50,050	90,090	62,312
REEDS - Rahim Yar Khan (Punjab)	16,000	85,040	66,914
REEDS - Vehari (Punjab)	41,960	152,828	115,809
REEDS - Dadu, Jam Shoro (Punjab)	19,500	47,350	34,320
SWRDO - Rajanpur (Punjab)	28,440	95,614	75,636
WWF Pakistan - Khanewal, Sahiwal, Jhang (Punjab)	41,000	100,000	95,000
WWF Pakistan - Bahawalpur, Lodhran(Punjab)	40,562	110,000	95,000
WWF Pakistan - Multan (Punjab)	14,340	31,000	28,000
WWF Pakistan - Muzaffargarh (Punjab)	31,360	95,000	90,000
WWF Pakistan - Ghotki, Sukkur, Khairpur (Sindh)	29,856	120,000	110,000
Agriculture Extension Department - Rahim Yar Khan (Punjab)	24,540	65,000	70,000
Smart Agriculture - Lodhran (Punjab)	21,650	84,600	70,553
TOTAL	**495,558**	**1,400,292**	**1,202,318**

CHINA

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
CottonConnect	20,604	97,175	200,000
Nongxi	39,000	54,260	73,250
Songzi	48,000	11,333	15,300
Zhongwang	620	10,000	21,000
Huangmei Cooperative	8,000	1,200	1,800
TOTAL	**116,224**	**173,968**	**311,350**

MOZAMBIQUE

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
SanJFS	35,000	26,250	6,398
Sanam	50,000	40,000	20,000
TOTAL	**85,000**	**66,250**	**26,398**

MALI

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
CMDT	87,287	297,000	320,760
TOTAL	**87,287**	**297,000**	**320,760**

TURKEY

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
WWF Turkey	1,000	8,000	14,000
Canbel	2,600	19,807	47,476
TOTAL	**3,600**	**27,807**	**61,476**

**The figures presented within the report are 2018-19 season estimates. BCI will publish final season figures in early 2020, once the 2018-19 cotton season is complete*

Annexure 3: Mozambique Climate Resilience Program KPIs

Output Indicator	Unit	2016 Baseline	2017 Actual	2018 Actual
Water Resource Development				
Water harvesting & soil conservation structures constructed	No.	0	39	68
Area under irrigation	Hectares	0	32	51
Volume of water harvested	m^3	0	55,700	112,786
Soil conservation & Land Development				
People engaged in construction and maintenance	No.	0	240	375
Alternative livelihood: Crop Diversification				
Farmers trained on crop diversification /second crops	No.	0	16 (10M/6F)	92 (69M/23F)
Area cultivated for second crops	Hectares	0	1.5	7.6
Volume of second crops harvested	Kg	0	20.5	Not yet available
Alternative livelihood: Animal Husbandry				
Total beneficiaries trained on animal husbandry services	No.	0	129	94
Male beneficiaries trained on goats/sheep	No.	0	85	45
Females beneficiaries trained on poultry	No.	0	44	49
Self Help Groups for animal husbandry	No.	0	8 (4M/4F)	10 (5M/5F)
Cotton production				
Farmers trained on Better Cotton Initiative (BCI) and Cotton made in Africa (CmiA) standard	No. (M/F)	189 (154M/35F)	189 (162M/27F)	519 (429M/90F)
Area under sustainable production	Hectares	121.5	137	240
Volume of sustainable production	Metric Tons	65	27	87
Access to energy				
Households equipped with solar energy kits	No.	0	3	4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