



# Materials Yearbook

**2020**



the sustainable  
trade initiative





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## Introduction

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In 2020, the cotton-production sector was not immune to the impacts of the COVID-19 pandemic. IDH and the Better Cotton Growth and Innovation Fund (“**Better Cotton GIF**” or “**the Fund**”) worked together with Implementing Partners (IPs) in Mozambique, India, Pakistan, Turkey, and China to deliver training to smallholder cotton farmers to improve their agronomic and Decent Work practices. Initially, 2020 underwent a reduced demand for more sustainably-produced cotton as a direct result of the COVID pandemic. The apparel sector was severely impacted due to store and factory closures, cancellation of orders placed with suppliers, and worker redundancies. The reduced need for new products sparked a domino effect on the need for raw materials such as Better Cotton. The threat of a significantly lower financial contribution by private-sector partners had the potential to compromise the level of investment in smallholder capacity-

building activities. Due to global demand recovery towards the end of 2020 and the on-boarding of new BCI Retailer and Brand Members, the private-sector contribution to the Fund increased to €12.7 million.

IDH supported the Better Cotton Initiative (BCI) by convening leading BCI Retailer and Brand Members to illustrate the potential negative impact of reduced financial contributions at field level and on smallholder farmers. IDH demonstrated the value of maintaining investment in capacity building with a view to improving smallholder profitability, thereby supporting vulnerable populations already facing challenging circumstances. As a result, in 2020, the Better Cotton GIF reached 1.8 million farmers across 3.3 million ha, producing 2.6 MT cotton lint. The total investment was €12.7 million, including a financial contribution of €1 million by IDH directly into the Fund.

In addition to standard capacity-building projects, IDH invested in and rolled out an online training platform for Field Facilitator (FF) capacity building in India. The platform was used by 2,100 FFs across seven states and translated into six languages with content on Soil Health, BCI Record Keeping, Safe Usage of Pesticides, Pest Management, and the Cotton Growth Cycle. Maintaining the investment in capacity building and the introduction of modified and innovative training methods to deal with the impact of the pandemic were direct results of IDH activities and interventions throughout 2020.

Finally, IDH facilitated and funded a COVID-19 insurance product for 180,000 farmers under its cotton and tea programs in India, which were rolled out through our IPs. The insurance product eases the financial burden of unplanned hospitalizations and compensates for the loss of income the

farmer families may experience if they are infected by COVID-19. IDH extended the insurance to include field managers and facilitators engaged by the IPs for program delivery of the cotton and tea programs.

In 2020, IDH, in partnership with BCI, concluded the inaugural Better Cotton Innovation Challenge by declaring innovators Agritask and Cropln winners of a total of €135,000 in prize money. In the upcoming season, we look forward to piloting the winning innovation in the field and applying the lessons learned to the full BCI portfolio of projects.

Outside of our partnership with BCI and our response to the pandemic, our work on climate resilience in Mozambique and Maharashtra continued to gain momentum as modifying the training methods to reach farmers was critical. IDH and Kuza launched the Mozambique Climate Resilience digital micro-learning toolkit, consisting of 46 micro-learning videos for farmer capacity building in watershed management, animal husbandry, and good agricultural practices (GAPs) in cotton, maize, tomatoes, and cabbage. In Maharashtra, the water-harvesting potential of the project area increased by 20% and the area under irrigation increased by 300 ha during the year. Due to increased water access, 900 additional farmers could assume a second crop in the season.

Gender intentionality remained key to our work and, in 2020, IDH, with technical expertise from Breakthrough India, conducted training on gender-based violence (GBV) for approximately 2,800 field-level staff from 17 IPs from its cotton, tea, and spices programs in India. Additionally, IPs created wall paintings to raise awareness of GBV and, with advice from Sattva Consulting, a systematic approach was implemented to integrate female co-farmers in BCI projects. In 2021, we aim to build and expand on these initial successes.





**Programs and interventions**



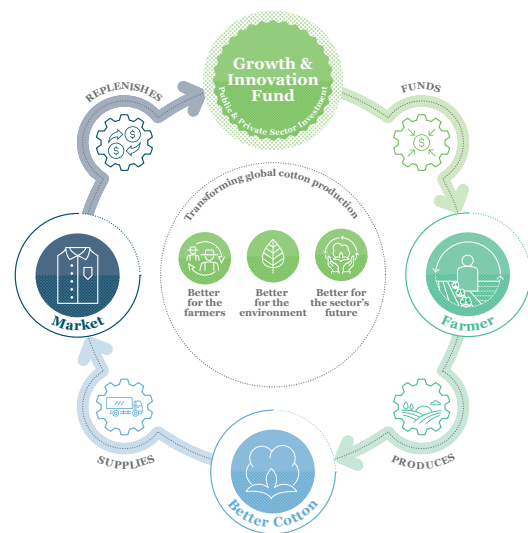


# Better Cotton Growth & Innovation Fund



The Better Cotton GIF is a global program designed to support BCI in its goal to make global cotton production better for the people who produce it, better for the environment in which it grows, and better for the sector's future.

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



## Project investments and activities

In the 2020-21 cotton season, the Fund worked with 1.8 million\* cotton farmers in India, Pakistan, China, Mozambique, and Turkey. The farmers received training and support from the Fund through regional Implementing Partners (IPs). Better Cotton GIF directly invested €9.3 million\* from BCI Retailer and Brand Members, public donors (DFAT and Laudes Foundation), and IDH and mobilized an additional €3.4 million\* in co-funding from IPs and supply-chain partners (social enterprises, ginners, spinning mills, and garment manufacturers), to create a total portfolio value of €12.7 million.

### India

The Fund worked with 13 IPs on 24 projects in 2020-21.

#### Estimated Program Results 2020-21\*

- Fund Investment: **€5,306,986**
- Participating Farmers: **1,052,453**
- Area Covered: **1,662,671 ha**
- Better Cotton Production: **1,217,190 MT**

#### Implementing Partners

Ambuja Cement Foundation | AFPRO | AKRSP(I) | Arvind Ltd. | Basil Commodities | CottonConnect | Deshpande Foundation | K.K. Fibers | Lupin Foundation | Spectrum International | STAC | Udyansh | WWF India

### Pakistan

The Fund worked with eight IPs on 12 projects in 2020-21.

#### Estimated Program Results 2020-21\*

- Fund Investment: **EUR 3,478,155**
- Participating Farmers: **554,254**
- Area Covered: **1,442,659 ha**
- Better Cotton Production: **1,204,463 MT**

#### Implementing Partners

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

\*Estimated Program Results' figures within this report represent the 2020-21 season contracted figures negotiated prior to the start of the season. BCI will publish final season figures once the 2020-21 cotton season is complete.



## China

The Fund worked with four IPs on four projects in 2020-21.

### Estimated Program Results 2020-21\*

- Fund Investment: **€298,190**
- Participating Farmers: **120,776**
- Area Covered: **68,272 ha**
- Better Cotton Production: **93,010 MT**

#### Implementing Partners

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

## Mozambique

The Fund worked with two IPs on two projects in 2020-21.

### Estimated Program Results 2020-21\*

- Fund Investment: **€41,006**
- Participating Farmers: **85,000**
- Area Covered: **69,050 ha**
- Better Cotton Production: **26,316 MT**

#### Implementing Partners

Sanam | SAN-JFS

## Turkey

The Fund worked with three IPs on three projects in 2020-21.

### Estimated Program Results 2020-21\*

- Fund Investment: **€215,784**
- Participating Farmers: **2,930**
- Area Covered: **45,000 ha**
- Better Cotton Production: **99,838 MT**

#### Implementing Partners

Canbel | GAP RDA | WWF Turkey

*\*Estimated Program Results' figures within this report represent the 2020-21 season contracted figures negotiated prior to the start of the season. BCI will publish final season figures once the 2020-21 cotton season is complete.*



## Narratives

### Pakistan

#### Implementing Partner: CABI

CABI is an international not-for-profit organization, which has been a BCI Implementing Partner since 2012. It has grown from working with 3,000 smallholder farmers in its first year to over 31,463 farmers and 69,010 workers in 2020-21 across Mirpur Khas and Sanghar districts in Pakistan.

Regional farmers face challenges with the harsh environments, including droughts, torrential rains, and pest attacks. CABI's major challenges were changing people's mindsets regarding using pesticides, irrigation and fertilizer and following integrated pest management (IPM) practices.

To improve this situation, CABI trained farmers, workers, and field staff to increase their knowledge on sustainable cotton-farming practices.

CABI targets training staff and farmers on diverse topics including: IPM; using registered pesticides; irrigation-resources mapping; improving soil through soil identification; soil analysis; biodiversity management through conserving biodiversity resources; improving fiber quality through proper picking; storage and transport practices; child labor; and improving the situation of marginalized groups.

### From the Field



#### Javed Dall

Mirpur Khas, Sindh - Pakistan

Javed lives in Jameel Dall village in Mirpur Khas district in Pakistan and is one of the most active BCI farmers in the project since 2012. He has 200 acres of land where he cultivates cotton, wheat, mango, mustard, jojoba, and diverse vegetables.

Javed has been growing cotton since 2002. He shares the initial challenges he faced as a cotton farmer: "Earlier, I was getting a

good cotton yield after applying one bag of nitrogen and a half bag of phosphorus per acre. However, over years the fertilizer requirement on my farm kept increasing, impacting my savings."

He shared this issue with CABI's field facilitator, who explained soil-nutrient management and recommended soil analysis. Javed says, "After participation in CABI's training session on soil-management practices, I collected some soil samples of land where my cotton production was declining for analysis. After the test, I realized that I was using wrong fertilizers on my land. Following information from the soil report and through training, I started using farmyard manure. My cotton production improved by around 5% and I was also able to save PKR 7,000 to 5,000 per acre as input costs."

In addition, Javed started using homemade yellow sticky traps to manage sucking pests in his cotton crops, on which he and other farmers in the project were trained. He reports this has reduced his input costs by PKR 50,000.



## India

### Implementing Partner: Ambuja Cement Foundation

Ambuja Cement Foundation (ACF) has been an IP for the BCI program since 2010, engaging with over 35,000 farmers in Gujarat, India this season.

Over the past 10 years, one of the major concerns faced by the IP was to convince farmers to shed the popular belief that increasing irrigation and fertilizer use will result in a better crop. Thus, the IP organized group trainings, practical demonstrations, field days, and farmer interactions with experts from the local Farm Science Centers (Krishi Vigyan Kendra). As a result, farmers became aware of banned pesticides, soil testing, and drip irrigation.

Farmers within the project continue increasing their knowledge and implementing GAPs in cotton cultivation. Currently, over 600 farmers in the project have installed drip irrigation in their fields.

Additionally, the IP is working towards understanding practical challenges faced by the farmers and developing solutions. Detopping is an important practice in cotton cultivation, helping to maximize yield. Since detopping is labor intensive, some farmers were unable to finish the task or afford additional labor. ACF purchased one detopping machine for INR 1,000 and demonstrated it in field. Working with one of the farmers in the project and his wife, they developed a low-cost alternative to help the farmers in the region and created an alternate income option for the farmer family.

## Turkey

### Implementing Partner: Canbel

Canbel is a consulting company that implements sustainable agricultural standards and provides technical advice to farmers in the Aegean Region of Turkey. In 2018, to disseminate the Better Cotton Standard in the Aegean Region and deliver training on the Better Cotton Principles and Criteria, Canbel started a partnership with IPUD, the strategic partner of BCI in Turkey. Canbel reached 500 farmers in seven districts as an IP in the first year. In 2020, the number of farmers increased to 2,051 in 113 districts.

The IP focuses on improving technical skills of the field-extension service providers and soil health; disseminating integrated pest-management techniques; developing a robust data-collection system; and empowering female workers. As farmers were engaged in field work during the season, Canbel faced an issue of a small farmer turnout for trainings. As a solution, the IP now delivers farmer trainings

during one-on-one field visits.

Farmers are encouraged by Canbel to analyze soil and create fertilization plans accordingly as well as to use IPM techniques to reduce the use of chemical pesticides.

Canbel plans to start using an online data-collection system this season. Additionally, it converted the Farmers' Registry into a common online document which increased the data collection and storage capacity of the FFs to obtain cleaner and more accurate data in the Result Indicator Report.

The farmers responded favorably to these interventions and are incorporating their learnings into practice. This year, Canbel aims to increase farmers' participation in obtaining soil analysis for their fields for better agrochemical management and to improve the use of organic fertilizers. Going forward, the IP plans to continue training activities and wants to work with the Municipality of izmir on a support system to empower female workers next season.

### From the Field



**Rasikbhai Poriya and Muktaben**  
Farmers and entrepreneurs

**R**asik is a smallholder BCI farmer from Sonpara village in Somnath district of Gujarat, India. He joined the project in 2011.

He was approached by ACF to take the initiative of preparing a detopping machine under the guidance of ACF and the Somnath Farmers Producer Company

Limited (SFPCL) team. He, along with his wife Muktaben, started manufacturing detopping machines locally.

Rasik purchased parts such as a small electric motor, pipe, switch, and cable from the local markets and was able to develop a detopping machine for INR 550. The field trial of the machine was extremely successful as it decreased the labor requirement for detopping by one-third.

The couple received financial support to procure tools from SFPCL and the ACF team assisted in branding and marketing their products.

This year, Rasik and Muktaben have manufactured and sold 257 detoppers, gaining a profit of INR 29,700. The detopper is now being assembled by Muktaben, who has several ideas to reduce manufacturing costs.

Rasik says, "during the lockdown, additional income from this venture supported me and my family to sustain our livelihoods."

### From the Field



**Memduh Övünç Yılmaz**

**M**emduh Övünç Yılmaz lives and practices farming in Pamukyazi village, Torbalı district in İzmir. He has been farming for seven years, grows cotton on 30 decares (300 acres) of land, and joined the BCI program in 2019.

By attending training organized by Canbel, Memduh is now able to implement the learnings. Through the IPM training and support from the FFs, he recognizes harmful and beneficial insects in his field. He sprays pesticides after noticing the integrated damage thresholds and understands resistance management by not using the same active-ingredient pesticide group consecutively. Thus, pesticide resistance was reduced in his field. Due to these interventions, his input costs decreased.

Memduh spotted beneficial insects (ladybugs) at his farm. While ladybugs were not encountered in the field in 2019, a ladybug population was discovered in his field in 2020. Memduh is happy with eliminating the negative financial burden and preventing environmental pollution. The resurgence of beneficial (and reduction of harmful) insect populations, which is the balance of nature, have stepped back into order.



## Mozambique

### Implementing Partner: Sanam

Sanam has been a private company in the business of cotton cultivation and production for the last 15 years and is a member of BCI. The company has improved with respect to producing quality cotton, acquiring additional international customers, and farming cotton on a larger scale.

Initially, Sanam faced challenges in providing training to the farmers on Better Cotton Principles and Criteria, cotton cultivation strategies, and crop protection from insects and weeds via chemicals applied properly and timely.

With regular farmer interactions, the IP overcame this. Now, trainings for farmers are organized regularly and farmers receive support with inputs such as seeds, agrochemicals, monetary assistance, and the connection to technical advisory experts.

As a continuous improvement model, Sanam discusses the seasonal challenges with farmers and reports them to BCI. BCI's suggestions are implemented in the next season to avoid similar issues in the forthcoming seasons. Furthermore, farmer feedback is collected, becoming the base for preparing the next season's work plan.



## Driving learning & innovation

**In addition to providing farmer support and training, the Fund invested €475,000 in six learning & innovation projects which aim to support farmer training and support programs with newly-created learning materials and methods, university research, gender projects, and field innovations, some of which are:**

### 1. Learning Management System (LMS) for Field Facilitators in India

#### Project implementor: Abara

IDH and BCI launched an online skill-development tool for all FFs engaged with the Better Cotton GIF programs in India.

During 2018-19, a significant variation in the knowledge and capability of the FFs, who are responsible for the last-mile delivery of the Better Cotton Standard System (BCSS) to the farmer, was identified; both in terms of agronomic knowledge and soft skills required for training and project management. To address this, standardized training modules were developed to ensure FFs have a uniform skillset and the understanding required to support cotton farmers with the implementation of the Better Cotton Principles and Criteria.

Last year, as phase one of implementation, a pilot was rolled out to 634 FFs from the six IPs in Maharashtra and Gujarat to test the standardized modules.

After a successful pilot, an online learning tool with the standard training modules

was rolled out to approximately 2,100 FFs to provide them with an LMS to facilitate personalized and self-directed learning. Facilitated by Abara, the LMS platform tool is a cost-effective and scalable solution to support skill development among the field staff. All FFs, Producer Unit Managers, and IP coordinators are registered on the LMS.

The training modules are currently available in six languages: English, Hindi, Gujarati, Marathi, Telugu, and Punjabi. The modules developed in the pilot phase of the project were translated by Media 4 Agri, a company specializing in media for the agricultural sector.

#### PHASE 1

Piloted with **634 FFs in India** in two languages (Gujarati and Marathi)

#### PHASE 2

Identified an alternative **learning platform**

Rolled out to **2,100 FFs** in India  
Provided a cost-effective and scalable solution



## 2. LMS – Pakistan

In the 2020-21 season, with support from DFAT, the Fund is working with local service providers in Pakistan to develop micro-learning videos on the Better Cotton Principles and Criteria as supplementary training material for FFs in the Urdu language. Once all video material are produced and based on the success seen in India, the Fund will develop an LMS platform for FFs to undertake personalized and self-directed learning with a view to ensure a consistent skillset across the IPs. The Fund expects to launch its first pilot in Pakistan starting in the second quarter of 2021.

## 3. Better Cotton Innovation Challenge

To scale the BCI program further and in a financially viable manner, IDH and BCI initiated a global innovation platform, The Better Cotton Innovation Challenge (“the Challenge”), to identify solutions to transform the way cotton is produced today. Funded by the Better Cotton GIF and developed in partnership with Dalberg, the Challenge involved a global pool of front runners to develop innovations with 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 shortlisted after thorough exploration and consultation with BCI on ongoing challenges and gaps in implementation:

- 1) Customized learning for farmers. Farmers are currently treated as one homogeneous group and similar content is provided to them every year.
- 2) Efficiency of Data Collection and Documentation. FFs want to spend more time training farmers but 50-70% of their total time is spent on manual data collection and entry.

Two winners were announced in November 2020; both having presented a solution in the ‘Efficiency of Data Collection and Documentation’ area.

### First place: Agritask



**Agritask** offers a platform to manage the entire cotton verification process, including digital data collection, field inspection planning, remote sensing, and other technologies. Its mobile application (“app”) enables farmers to keep records digitally and FFs to document inspections digitally. Agritask provides agronomic advice to farmers and enables remote monitoring via satellite and virtual weather stations.

Award €100,000

### Second place: CropIn Technology Solutions



CropIn Technology Solutions is an intelligent data-powered, full-stack agtech platform providing digital solutions for the key stakeholders of the agri value chain with transaction and insight, centering on the farmers’ interests by maximizing per-acre value.

Award €35,000

At the time of publishing this report, subsequent steps in the process are being formalized. Striving towards a roll-out pilot for ‘Efficiency of Data Collection and Documentation’, the envisioned benefits of the transition from paper to digital data entry and collection to be tested in the roll-out pilot include:

- Time savings in aggregating and data processing at the PU and IP levels
- Enhanced data quality
- Real-time data used by IPs on agronomic management
- Potential to add additional features such as functionality for FFs to monitor capacity-building activities

Simultaneously, we will ascertain the field challenges at hand, such as:

- Smartphone penetration of FFs, which varies heavily among IPs and regions
- Assurance of compliance to local data-protection policies

The envisioned outcome of the roll-out pilot will be a solid working Data Collection and Documentation Application (“app”) for the use of and data entry by the FFs, in which the learnings and main feedback of all users has been incorporated. Future next steps will comprise of an analysis into the scalability to other IPs, regions, and countries, a roll-out plan, and solid business case.

## 4. Research on cotton production with cover cropping and tillage

### Implementor: University of Arkansas

To demonstrate the potential of the BCI program and its Principles and Criteria for sustainable cotton production, the Fund partnered with the University of Arkansas in 2019 to fund research evaluating the long-term responses of cotton production with cover cropping and little tillage versus no cover cropping and conventional tillage practices.

In the first year of cotton production following a cover crop, differences were



noted. Output results showed improved sustainability with greater water infiltration and improved soil-healthy fields compared to the standard practice fields.

Based on the field research and findings, learning materials for improving soil health and cotton production were developed and delivered via social media (including podcasts, short videos, and online interactive tools) to share learnings and best practices for the adoption of procedures.

## 5. Research on multifunctional vegetation buffers

### Implementor: Israel Cotton Production & Marketing Board (ICB)

Recognizing cotton production can negatively affect (stream) ecosystems through nonpoint source (NPS) pollution (e.g., runoff sediments, nutrients, and agrochemicals), in April 2020, the Fund partnered with the Israel Cotton Production & Marketing Board (ICB) to research and assess the effectiveness of multifunctional vegetation buffers (MFVB) as a means to mitigate the effects of agricultural runoff and improve the functionality of the agroecological systems on cotton farms. Also included are the economic evaluation of the ecosystem-services provided by MFVBs including, but not limited to: the prevention of erosion and pollution; enhancement of pest control by creating habitats for natural enemies; and preventing field infestation by riparian weeds.

Based on the research findings, ICB will develop learning tools and a platform for farmers to continue learning about agroecological systems, ecosystem services, and environmental conservation practices with MFVBs.

In 2020, ICB established demo plots with MFCBs. Currently, these plots are carefully monitored and data is collected for further analysis. In 2021, ICB will conduct farmer surveys to evaluate the willingness to adopt such conservation practices, which will be used to design customized training materials in the following year





## 6. Integrating female co-farmers in cotton farms in Maharashtra

### Project design: Sattva

#### Implementation Partner: Lupin Foundation

To assess the potential of female farmers, IDH commissioned the **'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 study found female cultivators are instrumental in driving environmental, economic, and social outcomes in cotton cultivation. To validate the expected business and social outcomes while also testing BCI's co-farmer model, IDH-BCI piloted a project with 2,000 female co-farmers in two Production Units of Lupin Foundation in Maharashtra in May 2020.

## Response to COVID-19

### 1. Income security for farmers through COVID-19 insurance.

There are more than 145 million farmers<sup>1</sup> in India, of which as many as 82% are smallholders<sup>2</sup> owning less than two hectares of land with an average monthly income of approximately INR 9,000 (EUR 109)<sup>1</sup>. Farmer livelihoods and well-being are directly threatened by the impacts of the pandemic.

In response to the situation, IDH facilitated and funded a COVID-19 insurance product for 180,000 smallholder cotton and tea farmers in India and rolled out through our IPs, including: Lupin Foundation, Ambuja Cement Foundation (ACF), AFPRO, CottonConnect, Deshpande Foundation, Arvind Limited, STAC, and Spectrum International in the cotton sector, and AFPRO, TRA, and RGRC in the tea sector.

Moreover, ACF also extended the insurance to 4,377 female farmers and co-

farmers, of which 50% contribution was received from the farmers.

The insurance eases the financial burden of unplanned hospitalization and compensates for the loss of income farmer families may experience if they are infected by the coronavirus. IDH also extended the insurance to all field managers and facilitators engaged by the IPs for program delivery of the cotton and tea programs.

Executed through two insurance providers in the country, Reliance General Insurance and Chola MS General Insurance, the policy will provide a one-time, lump-sum payout between INR 20,000 (EUR 242) to INR 25,000 (EUR 302) to the insured individual. The policy is valid for a period of one year from the date of issuance.

<sup>1</sup> Agriculture Census, 2015-16 | <sup>2</sup> FAO, 2016

### 2. The online learning tool rolled out helped continue the capacity building for the 2,100 FFs despite COVID-related challenges.

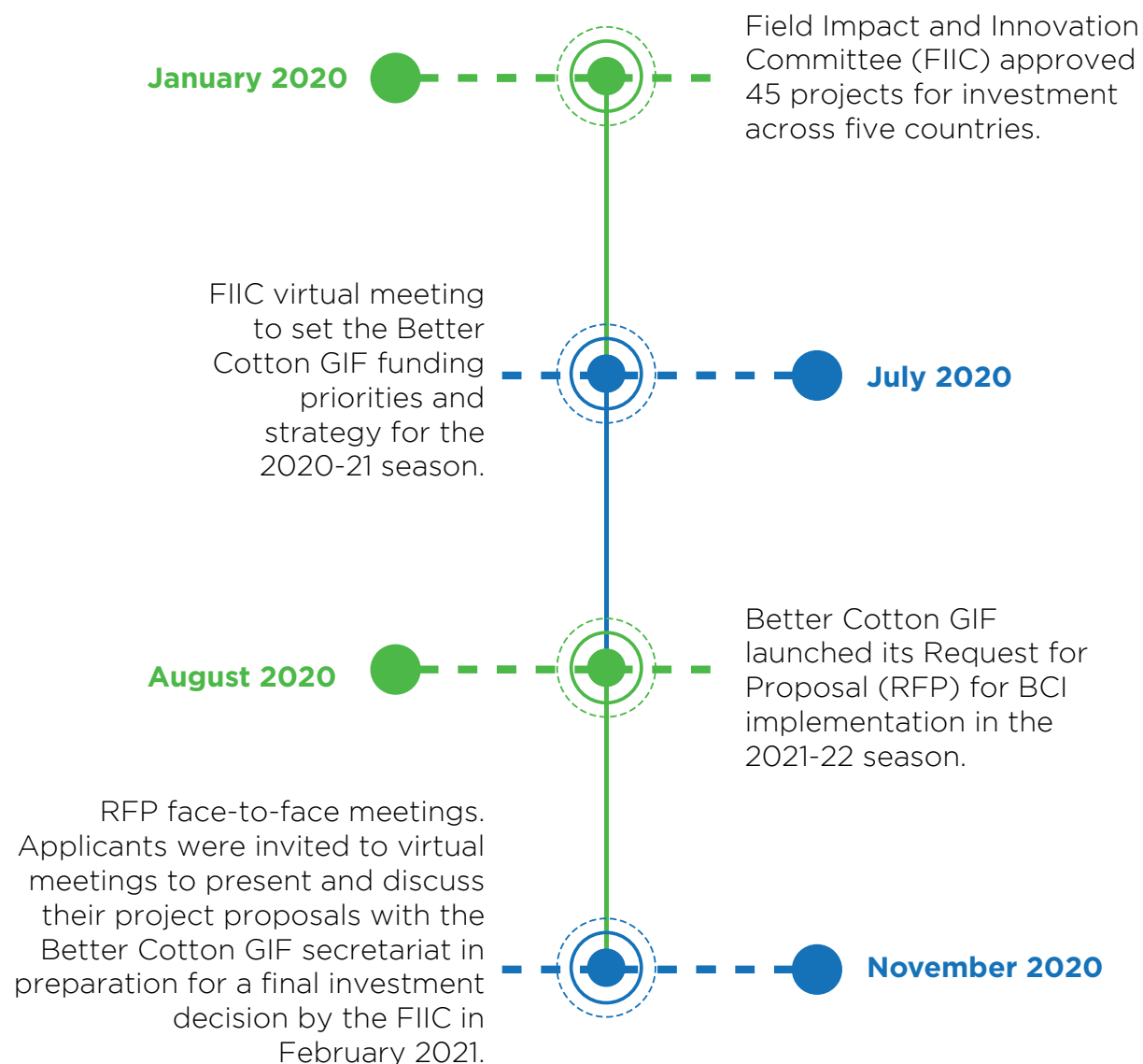
Hardeep Desai, Senior Director – Farm Innovations at CottonConnect commented, “The LMS tool has proven to be a very useful tool for capacity building of the GIF projects’ field team and farmers. The FFs can easily understand and learn about various agronomic aspects related to cotton crop. The training videos on

the platform are also available in local languages, which makes it easy for users to understand and can also be used during farmers’ training. The tool is accessible at village level and has specially been very useful during these challenging COVID times.”

### 3. Wall paintings with precautionary messages

Wall paintings with precautionary messages to stay safe from COVID-19 were made in over 6,100 villages across seven states. The paintings have informational messages in regional languages and were placed in prime village locations to create maximum impact.

## Key meetings







**Climate  
Resilience  
programs**





# Mozambique Climate Resilience program

## Introduction

The Mozambique Climate Resilience Program (the “Program”) implements a cluster-based, rural economic-development program where we leverage funding from public donors, the Dutch Embassy in Mozambique, and IDH to match private-sector investments that de-risk smallholder-farmer livelihoods from the impact of climate change and climate variability by promoting scalable and cost-efficient rainwater harvesting and soil-management solutions to increase productivity and yield, to strengthen water and food security, and to catalyze income diversification with additional livelihood opportunities including crop diversification and animal husbandry.

## Program Funding

By leveraging investments from our private-sector partners, with match-funded support

from the Dutch Embassy of Mozambique and IDH, we developed and are now testing an innovative model supporting diversification. The ultimate aim is to 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.

## 2020 Summary

Within a period of three years across five project villages in Nampula, Niassa, and Cabo Delgado, IDH and its partners successfully developed 52 water-harvesting structures along with 5,200 meters of trenching, 25,792 meters of farm and contour bunding, and 54 gully plugs for soil and water conservation, creating access to water for over 3,000 rural community members and enabling more than 150 farming households to leverage

over 200,000 m3 of water previously lost to surface runoff for crop diversification. This has translated to an additional 3-4 months of water after the rainy season to support and improve cotton production, second crop cultivation, and animal rearing.

By investing in a combination of cost-efficient water-harvesting and irrigation structures and soil and water-conservation structures, the Program was able to increase the resilience of farmers and rural communities against the effects of heavy rains and erosion as well as extended periods of drought. There is a significant increase in water-storage capacity, soil moisture, and fertility through improved productivity, enhanced ground-water quality, and access to drinking water and irrigation facilities.

As natural weathering and sudden heavy rainfall demand maintenance and repair

of the established structures, capacity-building activities were instituted to focus on training and equipping farming communities with the skills and knowledge to conduct repairs independently. Further, training was provided on water-budgeting and resource management to ensure farming households can estimate and budget available water for farming activities, avoiding excessive irrigation early in the season. These activities established local ownership to ensure long-term sustainability of the structures in the future.

## Crop diversification

This season, as a direct result of the additional water availability combined with training on crop diversification and the provision of inputs for second crops, farmers successfully produced nearly 150 kg of vegetable crops including tomatoes, onions, cabbage, lettuce, and sweet pepper. In total, 159 farmers received training on crop diversification including nursery preparation, seedling transplantation, fertilizer and pesticide application, irrigation scheduling, and harvesting procedures.

## Animal husbandry

The Program began with 129 initial beneficiaries of goats and chickens, training on managing animal health and feeding practices, and support on the development of proper shelters and training of community veterinarians. To date, the Program has been able to successfully expand its animal-husbandry activities to 413 beneficiaries through successful breeding and distribution of offspring to new beneficiaries.

Post-pilot, close coordination and timely support from local district offices for vaccines and other veterinary support services will continue to be essential for ensuring long-term sustainability. Their prompt delivery of vaccines and other support services to prevent severe disease outbreak will be the difference between a small number of losses and the loss of an entire flock of chickens and goats.





### Cotton production

In Mozambique, cotton is produced through a concession model where the government grants a company, usually a ginner, the sole right to operate in a specified area. In return, the company guarantees offtake and must provide inputs and extension services to farmers such as seeds, pesticides, and training on Good Agricultural Practices (GAPs) according to the Principles and Criteria of BCI and Cotton made in Africa (CmiA, a BCI-benchmarked equivalent standard).

Every season focuses on building trust and confidence between the farmers and cotton concessionaires through the timely supply of inputs, support for weeding and pest management, and training on GAPs. While trust and engagement continued to improve with an increased willingness and commitment to grow cotton, price competition with other cash crops such as maize and sesame continues to cause fluctuations in the number of farmers planting cotton with significant effect on the return on investment for the concessionaires.

Within the farming communities participating in this pilot, the partners serviced a total of 178 farmers compared to 517 farmers in the previous season. The overall area under cotton cultivation decreased to 35 hectares, demonstrating a significant loss against last season.

### Access to energy

In our first year of implementation, three individuals received solar panels with training on operation and maintenance of the solar kits. Now, nine households are providing access to solar light and established charging stations for the community.

To address the challenges faced in previous seasons, the Program is working together with the entrepreneurs to find solutions for building a stronger business model to service an increasing number of household beneficiaries while potentially expanding their services on non-cotton livelihood activities by empowering the entrepreneurs to become vegetable offtakers and stocking and selling inputs for vegetable production and animal husbandry.

### Digital micro-learning

In February 2020, IDH and Kuza launched the Mozambique Climate Resilience digital micro-learning toolkit consisting of 46 micro-learning videos for farmer capacity building in watershed management, animal husbandry, and GAPs in cotton, maize, tomatoes, and cabbage.

The toolkit will play a key role in improving the delivery and scale of farmer capacity building under the Program. Agricultural extension workers engaged by the Program's IPs will use the toolkit to train farmers and help them deliver uniform trainings in quality and understanding key agronomic practices.



## From the Field



**Farmer: Mr. José Mathanlela**

Location: Namialo

My name is Mr. José Mathanlela, I live at the Netia-Sede Administrative Post in the Nampaua neighborhood and own and farm five hectares of land. Prior to joining the Program, I lacked knowledge on good agricultural practices and on managing cotton related pests. By participating in this Program, I have been able to learn more about early sowing, recommended crop density, using a compass between plants, weeding and when best to do it, and proper pesticide application. Through the additional income I've been able to generate, I've been able to buy zinc sheets to cover my home, a mattress, bed, plastic chairs, and some home utensils. I was also able to help my mother construct her home.



## Response to COVID-19

IDH ensured all training activities were conducted on the farm while respecting social distancing at all times in lieu of group gatherings held in previous years. Through the IPs, farmers received training, information, and health and safety measures to be taken relating to COVID-19.

Several additional initiatives taken by the IPs:

- Two IPs in Mozambique, SAN-JFS and Plexus, provided lead farmers with phones to enable them to report on field developments and access advisory services as field visits were reduced.
- Group training activities were cancelled. Field visits had taken place to monitor production and assist producers in loco. Social distancing with a minimum of two meters were mandated during interpersonal contacts. To maintain hygiene at training sites, hand sanitizers and soap and water were provided and protective face masks were compulsory for all participants.
- To build awareness of COVID-19, all meetings included explanations and information regarding COVID-19, how it is spread, and protocol for containment.



## Maharashtra Climate Resilience program

IDH's Climate Resilience Program in India addresses smallholder vulnerability to climate change through public/private action. In India, the program builds hard as well as soft resilience within communities to accelerate:

- **Economic prosperity** (improving yields, increase in farmers taking up a second crop and connecting to markets).
- **Environmental protection** (improved soil health and restoration).
- **Social impact** (enhancing nutritional security through kitchen gardens, securing water for domestic use, and increasing community stewardship).

The Maharashtra Climate Resilience program was initiated in 2019 in Ambad Block, in Jalna District in 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 in 30 villages through an integrated, participatory, and gender-inclusive approach of agro meteorological advisory services, training on GAPs, and community-based watershed management.

Jalna is characterized as a 'frequently drought-prone area' with lower availability of water and consequently lower crop productivity (~400 kg/Ha cotton productivity in comparison with other states within the 500-700 range).

### Key causes of lack of access to water:

- Poor vegetable cover results in high runoff of rainwater, high soil erosion, and slim recharge of groundwater aquifers.
- Susceptibility to climate change remains high with erratic rainfall and extreme weather changes.



### Other challenges in the region:

- Increased outbreaks of pink bollworm caused up to 50% crop infection; total crop loss in the state measured at EUR 400 million.
- Low-yield factors including degradation in soil quality, soil erosion, and lack of quality and timely inputs.
- Agri value chains are underdeveloped as farmers in Ambad project cluster are located at a significant distance from formal marketplaces with little negotiating power for their produce.

### Program interventions

Maharashtra Climate Resilience Program's farm-to-market model of engagement focuses on securing farmer resilience to climate change through improved access to water, agricultural practices at the farm level, and strengthened market linkages on the supply side.

### Watershed management

The program attempts to build both hard as well as soft resilience within communities against disasters of slow and sudden onset, including but not limited to droughts, moisture stress, infrequent and highly variable rainfall, intense precipitation, and pests and disease attacks.

Keeping in mind the specificities of climate variability this project emphasizes: digging water-absorption trenches on the upper, middle, and lower portions of hillsides with planting indigenous vegetation to stabilize these and bind soil; designing water-impounding structures strong enough to withstand runoff; prioritized soil-conservation structures while dovetailing these with water-harvesting structures; and promoting changes in cropping patterns to include water-sipping crops, tree-based and mixed-farming systems as well as conservation irrigation technologies.

### Community-based water budgeting

Community-enforced water budgeting is employed to ensure sustainable management



of water resources, specifically groundwater, in the post-monsoon season. Communities are taught how to measure the groundwater level using a water-level indicator and collecting data bi-monthly reflecting groundwater fluctuation, which is displayed publicly. Water planning is undertaken considering requirement for crops, livestock, and domestic needs.

The program treats approximately 1,500 ha of catchment area and achieved a 20% increase in water availability in the region through the construction of 15 check dams and canals, the installation of micro-irrigation devices, and by conducting 30 water audits across the project villages.

### Good Agricultural Practices (GAP)

To address soil-quality issues, pest attacks, unscientific use of inputs, etc., farmers were provided training on GAP and supported by village-based para agronomists to make the correct decisions on the farm regarding the use of suitable inputs, appropriate land preparation, nutrient management, proper harvesting, storage, crop demonstrations, experience-sharing workshops, and exposure visits.

### Integrated pest management (IPM)

IPM is an important aspect of project implementation, given crop losses due to pink bollworm and highlights the importance of seed selection, timely harvesting and sowing, ETL-based spraying, window-based pest management, etc.

### Agro-met Advisories

To reduce risks and improve agricultural productivity despite local climatic variations, Watershed Organization Trust (WOTR) provides crop and locale specific agro-met advisories to farmers based on weather forecasts and particular crops' growth stage.

### Agricultural value chain development

In addition to improving access to water and increasing agricultural yields, engagement of the agri value chain is an important element of the project including service providers, agents and traders, first-level processors, and local public markets to ensure better market access for farmers through the knowledge of market demands and requirements across long and short value chains in agriculture and other allied sectors.

IDH works with Agri Entrepreneurship Growth Foundation (AEGF) to incubate a cadre of agri entrepreneur service providers to create last-mile access to service delivery (inputs, market linkages, and finance).

### Farm level results

- Farmer cost of cultivation (cotton) declined by 20% from 2018.
- Approximately 900 more farmers took up a second crop due to increased water accessibility.
- 4,496 ha protected from soil erosion (against target of 3,000 ha).
- Area under irrigation increased by approximately 300 ha (total 2,125 ha).
- Area treatment increased to 2,946 ha (against project target 1,750 ha).
- Water harvesting potential of project area increased by 20% (to 10,542 TCM).
- Gender-intentional approach in recruitment of field staff and trainings to female farmers.

### Market engagements:

- Twenty agricultural entrepreneurs in Ambad received training on grading/sorting of cotton from Puneet Enterprises, including a site visit to the ginning mill.
- AEGF engaged with local ginners and traders to build awareness of the model and to improve market linkages.
- Four active agricultural entrepreneurs were involved in cotton-market linkages in Ambad, connecting with nearby ginners.
- AEs delivered transparent payments and assessed cotton-moisture levels, trash content, and weight (using electronic weighing machines) at site.

**Total volumes transacted: 105 MT**

**Total selling value: INR 55 L**

**Margin per AE: ~ INR 8,000**



## Narratives



“I joined the AEGF program in January 2020 to find new opportunities to provide services to my community in Dudhpuri village. I noticed the shortage of banking services in the community. Farmers here had to travel up to 15 km to avail any banking services. To help the farmers, I established a common service centre in the village where I provide all banking and digital services to associated farmers. So far, about 100 farmers have accessed financial services through my centre, and I also have earned a profit of INR 30,000. I hope to continue the growth and provide more services to aid farmers.”

**Bhimrao Tambe**, Agri Entrepreneur, Maharashtra, India



“Through the training provided by the AEGF program, I realized that farmers in my district needed a fairer system to sell soybean to the market. Soybean is graded through moisture content and usually traders would quote a very high moisture content to undercut the price. I used more transparent methods of grading the soybean and evaluating moisture, which improved farmer price by Rs 40-45 per quintal. I successfully sold over 200 quintal of soybean in this season, helping farmers in my [community] improve their income.”

**Pratibha Nibude**, Agri Entrepreneur, Maharashtra India

## Response to COVID-19

WOTR's watershed-development activities were halted suddenly due to lockdown in March 2020. This summer season was very critical for the program as watershed activities needed to be completed before the monsoons. Due to lockdown, many daily wage earners found themselves without employment. Building confidence among various stakeholders through formal and informal interactions was important to get the work started. Timely intervention and

efforts of the project team worked well to start the watershed works in several villages, creating needed employment hours in the process. For the project teams, it was equally important to create awareness regarding COVID-19 within the villages and ensure proper precautions were being taken onsite. Wasundhara sevaks and sevikas (the field staff) played a critical role to drive this awareness and become the backbone of this project.

# Regenerative Production Landscape: People, Nature, Economy

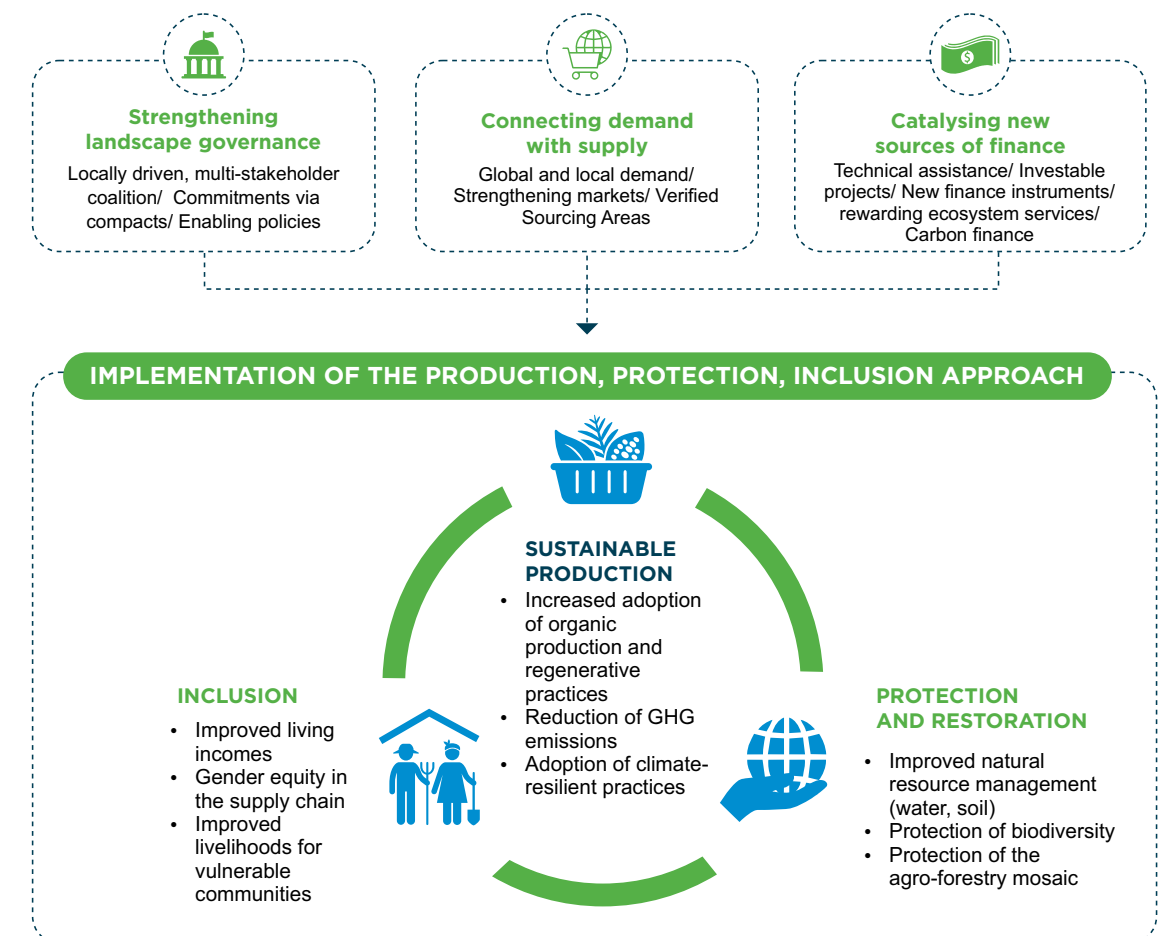
## Introduction

**Regenerative Production Landscape: People, Nature, Economy** is an innovative jurisdictional model to foster agricultural ecosystems which conserve and enhance natural resources and build community resilience whilst enabling businesses to source responsibly.

It is a partnership between Laudes Foundation, IDH the Sustainable Trade Initiative, and WWF India, aiming to create system-level shifts to catalyze and scale a model where:

- producers grow agricultural commodities using natural and regenerative farming principles that restore natural resources and reduce emissions from farming systems; and
- smallholder farmers and communities thrive through improved economic stability, enhanced livelihoods, and greater participation in decision making.

To achieve this, the partnership will support a locally-driven, multi-stakeholder governance structure. We will bring together **companies that commit to sourcing responsibly** with smallholder producer organizations for more inclusive production and supply arrangements and joint decision making. Government institutions will be facilitated to drive sustainable and green growth through **strengthened regulations and governance**. Impact investors and other funders will be attracted to **co-invest in scaling the sustainable and economically viable** landscape developments.







## Agroforestry project – Pakistan

IDH, along with IKEA, is co-funding an agroforestry project in Pakistan to bring ecological and economic benefits for cotton-farming communities with a particular focus on livelihood improvement of rural women. Agroforestry is a unique solution that combines elements of agriculture and forestry in a sustainable production system. Trees sequester large amounts of carbon from the atmosphere and lock it into the soil, which in turn improves soil health and mitigates climate change.

The project covers areas in Khanewal and Bahawalpur districts of Punjab and is managed on the ground by WWF-Pakistan. Major livelihood activities in this region include cotton picking, wheat harvesting, animal rearing, stitching, embroidering, and other field works. The area is composed of low-value agricultural land irrigated through seasonal canal water and tube wells.

The project provides training and on-field technical support to farming communities for the integration of trees into cropping systems. Through the project, the farming communities have thus far planted over 100,000 plants on an area of 19.43 ha. Following the success of the initial pilot, the project has been extended until 2025.

### Key Activities 2020

- **Cotton farmers planted 120,000 saplings** of local forest trees on 107 ha of low-valued agricultural land, spread over 90 sites. The calculated survival rate of planted saplings is estimated at approximately 88%, exceeding the planned saplings plantation of 100,000. These saplings are expected to sequester 5,805 MT of carbon-dioxide emissions over a period of the next five years. The WWF team offers on-site technical support for post-plantation care and replacement to ensure an optimal survival rate.

- **200 fruit orchards** have been started with 11,120 fruit-tree saplings. These include the indigenous fruit varieties of java plum, mulberry, lemon, guava, and orchid trees. These saplings are planted in block and linear plantation layouts and are expected to improve the income and nutritional security of farming families.
- **Approximately 30,000 saplings** are raised at four nursery sheds owned and managed by farming communities; the saplings are then returned for the project, creating a viable solution for project sustainability.
- **Capacity building:** 1,786 farmers were trained on sustainable agroforestry management practices through on-site sessions and interactive meetings. The WWF team organized five farmers' field days to build their capacities on post plantation care, gap filling, and intercropping with over 500 farmers in attendance. These sessions also created awareness on COVID-19 safety measures with distribution of personal protective equipment (PPEs) to the farming communities.
- **Training:** The WWF team has trained 583 female members from 200 farming families on maintaining kitchen gardens, tunnel farming, establishment of micro-nurseries, and family food orchards.
- **Over 100 rural women/farm workers** have been trained in the first year on beekeeping in collaboration with National Agriculture Research Centre (NARC). The team provides on-site technical support on the skillful handling of honeybee hives; 30 kg of honey was harvested this year.
- **13 field trainers** were educated in sericulture with Forest, Wildlife & Fisheries Department, who will in turn train the farmers on silkworm rearing, resulting in new income-generating avenues for farming families.
- **15 farming families** were trained on budding and grafting of horticulture plants via three training workshops. The new skill enhanced their capacities to raise high-value fruit plants in their nurseries. More than 40 women participated in these events.
- **583 rural women** have been managing more than 25,000 saplings of acacia and other fruit plants in 22 micro-nurseries. The team returned these saplings, helping the women earn 150,000 PKR.





## Narratives

### Bringing change - Together



**Story of a husband and wife, working together and making a living out of a low-yielding piece of land.**

**Wahid Bakhsh and Zahooran Bibi are inspiring hundreds of villagers to participate in the agroforestry project initiated by WWF-Pakistan.**

Wahid Bakhsh and Zahooran Bibi incorporated agroforestry and micro-nurseries on their farm under the project. Wahid is a smallholder farmer who owns 1.5 ha of salt-affected land which had not produced high-yielding crops. He integrated agroforestry practices into his land-use plans by establishing a block plantation of acacia trees to enhance his land productivity. In upcoming years, the trees can be sold to enhance his income. Zahooran Bibi says, "It was a hard time for us, as due to an accident my husband could not work full-time. We both are happy to be part of this project, as it is helping us maximize utilization of our available resources. I grow tree nurseries in my backyard and earn a decent amount within the span of a few weeks."

This hardworking couple inspired many other farming families in the vicinity. Small-scale interventions such as this have proven to

be successful in improving the livelihoods of farming families, providing them with alternate income-generating opportunities.



### Breaking barriers

Multi-talented women from the fields are breaking barriers with their proactive participation in skill-building training under rural livelihood improvement and the gender-empowerment initiative of the project.

#### Beekeeping

Apiculture enhances economic resilience of farming families against climate change variabilities. The project team identified and facilitated training of a select few women from the community and provided honey-bee boxes to learn the art of honey production. Faizaan Bibi was one such participant. After the training, and through her determination, she mastered this new skill. She currently owns three honey-bee boxes and, with the support of the project team, is selling her natural honey at a premium price in the market.

#### Kitchen Gardening

In rural areas, growing vegetables is convenient for the women but their lack of technical knowledge and scarce sources of quality seeds pose significant challenges. Under the project, WWF-Pakistan provided rural women with good quality seeds, seasonal vegetable-production training,

and regular follow-up visits to ensure every participant succeeds in having her own kitchen garden. Kousar is one of many other women who participated in this activity. She uses vegetables for her household's consumption, sells surplus in the neighborhood, and is now able to save 2,000-3,000 PKR every month by using and maintaining her kitchen garden efficiently.

#### Tunnel Farming

Off-season vegetable cultivation proved a great source of income for smallholder farmers as it provides a decent amount of money while fulfilling the domestic nutritional needs of a farming family. Tunnel farming requires special equipment and training as it is more prone to diseases and crop failure due to controlled environmental conditions. Project teams equipped farmers with the necessary requirements, which were used to prepare nurseries and plant crops in tunnels. The farmers are now expecting a good harvest off peak season as well.

These are only a few examples of inspiring women from the field who bring change not only in their life but also improve the socio-economic resilience of their families and communities.



## Response to COVID-19

Training, skill development, and plantation activities were impacted due to the COVID-19 pandemic. Government-imposed lockdown prevented training in larger-sized groups. Hence, the team conducted in-person trainings in small gatherings of 6-8 people per session. To ensure all farmers were trained, the overall number of training sessions were increased.

Adapting to the situation, the IP team also shared training video messages via the WhatsApp application. In addition, they used the platform to disseminate important information and precautionary measures regarding COVID-19 and provided PPEs to farming communities.



**Gender  
intervention**



# 1. Creating awareness on gender-based violence in India

## Gender-based violence training for IP field staff in India

Gender-based violence (GBV) and discrimination is a significant barrier for women in families, workplaces, and communities that requires a substantial commitment by the public and private sectors for investments in prevention and intervention. IDH, with technical expertise from Breakthrough India, conducted training on gender-based violence for approximately 2,800 field-level staff from 17 IPs from its cotton, tea, and Fresh & Ingredients (F&I) programs in India.

The participants were predominantly field-extension workers including Field Facilitators, Producer Unit Manager, Agri Entrepreneurs, Producer Unit Manager, and IP Project Managers. A need analysis completed with the participants prior to designing the training modules revealed some participants were uninformed about the forms of GBV including domestic violence and sexual harassment in public spaces and workplaces.

Through the training, participants were made aware of gender-based discrimination and violence, including domestic violence and sexual harassment faced by women at home and work. They were briefed on identifying strategies and tools within their scope, context, and spheres of influence to

be used or accessed to address, prevent, and intervene in incidences of domestic violence and sexual harassment that co-workers may witness or experience.

The trainings were conducted via an online platform in seven regional languages: Hindi, Gujarati, Marathi, Punjabi, Kannada, Telugu, and Assamese.

Speaking from her experience, one participant, Manisha Karwa, Field Facilitator – Ambuja Cement Foundation said, “The case studies presented in the training reflected how gender-based violence also impacts mental health of women. It helped in improving the understanding of these issues, which is important for the field staff as being directly connected to the community, we can create greater awareness at the community level.”

Sunil Saindane, IP Coordinator at Lupin Foundation, stated, “The training was good orientation for the team members about gender-based discrimination and violence issues. FFs now have a basic understanding of the topic along with the judicial procedures to prevent or report such GBV cases if identified on the field. Also, this has supported capacity building of the staff to behave in community and among team members by understanding the concept of gender discrimination.”

# 2. Integrating female co-farmers in cotton farms in Maharashtra

Project design: Sattva

Implementation Partner: Lupin Foundation

Female cultivators account for a majority of the tasks in cotton cultivation. However, they have reduced access to agricultural extension services, productive resources, and opportunities.

To assess their potential, IDH commissioned the ‘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.

This study found female cultivators are instrumental in driving environmental, economic, and social outcomes in cotton cultivation. To validate the expected business and social outcomes while also testing BCI’s co-farmer model, IDH-BCI piloted a project with 2,000 female co-farmers in two Production Units of Lupin Foundation in Maharashtra in May 2020.

This project aims to strengthen the participation of female co-farmers within BCI’s Quality Assurance Program to drive outcome at three levels:

1. Creating a strong foundation by positively influencing gender norms through the integration of gender-based planning and gender-sensitization training to the community.
2. Enabling capacity-building programs for female co-farmers through agronomic

and life-skill trainings.

3. Driving learning and continuous improvement through a community of practice by the formation of female LG and participation in demonstration plots.

The project will be concluded in April 2021 and is expected to demonstrate proof of concept. Hence, a scalable model can be created and replicated seamlessly across IPs and geographies.

# 3. Wall Painting on GBV and COVID-19

IDH has led a wall-painting exercise in the GIF project-area villages to increase awareness of GBV. Supported by the GIF IPs, the wall-paintings have been posted in over 6,100 villages across seven states to create awareness on women’s rights. The paintings contain informational messages in regional languages and were placed in prime village locations to create maximum impact.

“ We got good information on Gender Based Violence and COVID-19 by reading these wall paintings. The content is easy to understand. Charandas Rangari, Farmer - Yavatmal (from CottonConnect project area) ”

“ The wall paintings [are] a very useful and successful means of creating awareness among farmer communities. As this provides the most efficient way of hammering the constant message in farmer’s mind. Amit Shah, CEO - Spectrum ”





## Annexure 1: Better Cotton GIF summary 2020-21

Country	Number of IPs	Number of projects
India	13	24
Pakistan	8	12
China	4	4
Mozambique	2	2
Mali	0	0
Turkey	3	3
<b>TOTAL</b>	<b>30</b>	<b>45</b>

## Annexure 2: Better Cotton GIF Project-wide summary 2020-21\*

### INDIA

Project Name	Farmers	Area in (Ha)	Projected BC (MT)
ACF Gujarat	36,025	49,500	40,500
ACF Maharashtra	64,779	128,195	58,658
ACF Rajasthan	13,875	28,758	25,000
ACF Punjab & Rajasthan	56,000	101,000	76,000
AFPRO Gujarat	70,000	130,000	100,500
AFPRO Maharashtra	61,500	98,000	68,500
AKRSPI Gujarat	7,500	9,353	8,015
Arvind Ltd. Gujarat	45,466	84,746	75,405
Arvind Ltd. Telangana	17,540	21,000	17,000
Basil Commodities Gujarat	46,000	99,435	97,418
CottonConnect Gujarat	48,026	70,023	57,017
CottonConnect Maharashtra	177,106	207,200	121,000
Deshpande Foundation Telangana	85,000	116,200	79,040
Deshpande Foundation Karnataka	7,500	9,000	7,425
K.K. Fibers Madhya Pradesh	25,016	44,000	32,000
Lupin Foundation Maharashtra	75,021	92,800	48,900
Spectrum Gujarat	15,407	38,913	34,049
Spectrum Maharashtra	11,760	25,899	21,528
Spectrum Rajasthan	11,936	27,038	23,658
STAC Gujarat	55,722	1,23,713	1,20,624
Udyansh Madhya Pradesh	15,014	16,192	6,900
WWF India Punjab	44,779	84,029	61,700
WWF India Maharashtra	36,307	39,677	21,353
WWF India Telangana	25,174	18,000	15,000
<b>TOTAL</b>	<b>1,052,453</b>	<b>1,662,671</b>	<b>1,217,190</b>

\*Estimated Program Results' figures within this report represent the 2020-21 season contracted figures negotiated prior to the start of the season. BCI will publish final season figures once the 2020-21 cotton season is complete.

## PAKISTAN

Project Name	District	Farmers	Ha	MT
CABI Sindh	Mirpur Khas, Matiari	31,383	116,987	124,830
CottonConnect Sindh	Nawabshah	20,633	60,590	60,500
Lok Sanjh - Punjab	Bahawalnagar	58,737	135,924	88,697
	Toba Tek Singh, Faisalabad, Jhang, Khanewal	35,200	28,550	30,541
	Layyah, Bhakkar	61,000	96,775	51,733
REEDS Punjab	Rahim Yar Khan, Vehari	57,960	237,868	182,723
REEDS Sindh	Dadu, Jamshoro	19,500	47,350	34,320
SWRDO Punjab	Rajanpur	28,624	96,110	73,195
WWF Pakistan Punjab	Khanewal, Sahiwal, Jhang, Bahawalpur, Multan, Muzaffargarh	154,991	325,000	300,000
WWF Pakistan Sindh	Ghotki, Sukkur, Khairpur, Shahdadkot	40,501	125,000	120,000
AED Punjab	Rahim Yar Khan	24,000	60,000	58,000
Smart Agriculture Punjab	Lodhran	21,725	92,505	79,924
<b>TOTAL</b>		<b>554,254</b>	<b>1,422,659</b>	<b>1,204,463</b>

## CHINA

Project	Province	Farmers	Ha	MT
CottonConnect	Hebei	18,276	12,072	18,100
Nongxi	Shandong	34,000	42,000	55,350
Songzi	Hubei	49,000	11,600	15,660
Huangmei Cooperative	Hunan	19,500	2,600	3,900
<b>TOTAL</b>		<b>120,776</b>	<b>68,272</b>	<b>93,010</b>

## MOZAMBIQUE

Project	Farmers	Ha	MT
SAN-JFS	37,000	33,300	8,441
Sanam	48,000	35,750	17,875
<b>TOTAL</b>	<b>85,000</b>	<b>69,050</b>	<b>26,316</b>

## TURKEY

Project	Farmers	Ha	MT
WWF Turkey	400	10,000	22,200
Canbel	1,930	20,000	44,000
GAP	600	15,000	33,638
<b>TOTAL</b>	<b>2,930</b>	<b>45,000</b>	<b>99,838</b>

\*Estimated Program Results' figures within this report represent the 2020-21 season contracted figures negotiated prior to the start of the season. BCI will publish final season figures once the 2020-21 cotton season is complete.



### Annexure 3: Mozambique Climate Resilience Program KPIs

Output Indicator	Unit	2016 Baseline	2017 Actual	2018 Actual	2019 Actual	Total
<b>Water resource development</b>						
Water harvesting and soil-conservation structures constructed	No.	0	42	38	2	82
Area under irrigation	Hectares	0	32	19	17	68
Volume of water harvested	m <sup>3</sup>	0	55,700	44,000	40,616	140,316
<b>Soil conservation &amp; Land Development</b>						
People engaged in construction and maintenance	No.	0	240	375	1,150	1,765
<b>Alternative livelihood: Crop Diversification</b>						
Farmers trained on crop diversification / second crops	No.	0	16 (10M/6F)	92 (69M/23F)	159 (122M/37F)	159 (122M/37F)
Area cultivated for second crops	Hectares	0	1.5	7.6	5.4	14.5
Volume of second crops harvested	MT	0	20.5	57.7	148.5	212.2
<b>Alternative livelihood: Animal Husbandry</b>						
Total beneficiaries trained on animal husbandry services	No.	0	129	94	190	413
Male beneficiaries trained on goats/sheep	No.	0	85	45	86	216
Females beneficiaries trained on poultry	No.	0	44	49	104	197
Self Help Groups for animal husbandry	No.	0	8 (4M/4F)	10 (5M/5F)	14 (7M/7F)	14 (7M/7F)
<b>Cotton production</b>						
Farmers trained on Better Cotton Initiative (BCI) and Cotton made in Africa (CmiA) standard	No. (M/F)	207 (167M/40F)	168 (142M/26F)	517 (427M/90F)	178 (126M/52F)	178 (126M/52F)
Area under sustainable production	Hectares	122	137	240	35	35
Volume of sustainable production	Metric Tons	65	27	87	11	11
<b>Access to energy</b>						
Households equipped with solar energy kits	No.	0	3	4	2	9





