



**Learning Women's Participation in the  
Cotton Value Chain  
A  
Gender Analysis Study  
in  
Jalgaon Jamod Block of Buldhana District  
Maharashtra  
September 2019**

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## Abbreviations

ATMA	Agriculture technology Management Agency
CAIM	Convergence of Agricultural Interventions in Maharashtra
CBO	Community Based Organization
CCACP	Climate Change Adaptation of Cotton Producers
CVC	Cotton Value Chain
FGD	Focus group discussion
GM	Genetically Modified
KVK	Krishi Vigyan Kendra (Farm Science Centre)
NGO	Non-Governmental Organization
NREGA	National Rural Employment Guarantee Scheme
PACS	Primary Agricultural Cooperative Societies
PCA	Participatory Community Assessment
PDS	Public Distribution System
PoCRA	Programme on Climate Resilient Agriculture
SHG	Self-Help Group
VDC	Village Development Committee

## 1. Introduction

Women's pivotal role in agriculture, as producers, farmers, and traders, has traditionally not received adequate attention. Of late, however, there has been increasing recognition of the need to look at development programming, including for agricultural development, through the gender lens. Recognizing and addressing women's role in agricultural value chains is imperative not only from the point of women's empowerment but also for enhanced agricultural productivity and sustainability. Systematic understanding of the differing access, involvement, and outcomes for the women and men involved in any agricultural value chain is vital for gender-responsive, evidence-based programming. Gender analysis must therefore be built into any initiatives and programs to increase the incomes of smallholders and poor agricultural producers. Examining cotton farming and value chain from the gender angle is crucial, given that cotton is one of the most important cash crops in the world and its demand in the developing world will always there.

### 1.1 Background

The present gender analysis study of the Cotton Value Chain (CVC) was undertaken by CARE India as part of its ongoing three-year project to strengthen CVC in the Vidarbha region of Maharashtra state. The project, operating in the Jalgaon Jamod block of the Buldhana district in Maharashtra, aims to improve the productive engagement of resource-constrained women in resilient and sustainable cotton-based farming. It seeks to empower women smallholders from marginal communities and increase their productivity, income, and living standard to build a strong and sustainable CVC. The gender analysis study was conducted with a view to developing a robust understanding of gender relations, roles, and outcomes as they play out in the CVC of the project area.

### 1.2 Rationale for the Study

Cotton is one of the most important cash crops in Indian agriculture. Almost 60 million people are engaged in the cultivation, trade and processing (ginning, spinning and weaving) of cotton in India. The state of Maharashtra accounts for one third, of the 12 million hectares of cotton growing area in India. The cotton-based agricultural economy of Vidarbha region which cultivates more than 50 percent cotton area of Maharashtra, is fraught with several challenges across the cotton value chain, many of which are water stress, climate variability, and farmer behavior change related, leading to low productivity, frequent crop failure, poor management of water resources, and high indebtedness of farmers.

The productivity of women smallholders associated with these cotton productions is rather limited, given their inadequate access to land, seeds, markets, farm and enterprise credit, lack of knowledge about cotton productivity enhancement techniques, and information about markets and entrepreneurship opportunities. Empowerment of these women smallholders; equipping them with the necessary knowledge and skills; and facilitating their access to the requisite resources, improved inputs, services, tools, and techniques has immense potential for making and sustaining gains in cotton productivity in the district. Achievement of sustainable results requires recognizing and addressing gender-related differences in participation in CVC. The gender analysis study, therefore, sought to collect, identify, examine, and analyze information on the differing roles and responsibilities, access to resources and inputs, division of labor, decision making, and outcomes women and men have in CVC of the project area.

### 1.3 Objectives of the Study

The key objective of the gender analysis study was to develop a better understanding of the critical aspects of gender that influence the CVC in the particular context of the project district (Buldhana, Maharashtra).

In specific terms, the gender analysis study aimed to:

- Assess the extent of participation of women farmers in CVC in the project area
- Identify opportunities for promoting women's equitable participation and accrual of benefits in CVC, and the risks in terms of existing and potential vulnerabilities that need to be addressed
- Identify and assess other opportunities to promote women's empowerment and address barriers to their equitable participation in CVC

Based on the findings of the gender analysis, CARE India aims to integrate gender into each phase and each component of the program, from the perspective of Strategic Impact Inquiry (SII) framework for women's empowerment.

### 1.4 Profile of the Study Area

The gender analysis study was conducted in 10 villages of the Jalgaon Jamod block of Buldhana district, Maharashtra. All the 10 villages were covered under the study as it was decided to conduct few exercises in each of the project villages to get response from the target community and simultaneously sensitize them on different gender roles and responsibilities. The profile of the project villages is given as follows:

Table - 1

Sr No	Village Name	Total number of beneficiaries	Total number of members in beneficiary family	Male members	Female members	Tribes	Literacy Rate
1	Rajura Br	74	553	301	252	Pawras	46.76
2	charban	172	766	353	413	Pawras	48.5
3	Umapur	345	1833	909	924	Pawras /Bhilala/ Korku	55.79
4	Nimkhedi	215	1298	661	637	Kurku /Bhilala/ Pawras	51.8
5	Rajura kh	75	498	247	251	Pawras	38.05
6	Bandapipal	93	371	180	191	Pawras	36
7	Garpeth	143	659	338	321	Pawras	41.68
8	Hanvatkhed	135	792	420	372	Bhilala/Kurku	70.96
9	Vayal	88	532	282	250	Pawras	35
10	Eslampur	171	879	446	433	Pawras	51.8
Total		1511	8181	4137	4044		

## 2. Methodology

The gender analysis study of CVC was undertaken in 10 villages of the Jalgaon Jamod block of Buldhana district, Maharashtra, in September 2019. Study methodology was driven by the stated objective of developing an improved understanding of the critical aspects of “gender” that influence CVC. To this end, the CARE research team undertook the qualitative field research guided by the gender analysis framework.

### 2.1 Thematic Focus

Five key gender themes were identified to develop a broad understanding of the subject before getting into gender assessment and analysis. The identified gender themes were subsequently integrated with an allied set of five gender tools (see Table 2) to facilitate discussions with women and men farmers in the villages selected for the study. The five gender themes identified by the team were:

- 1) Gendered roles and responsibilities in CVC
- 2) Household division of labor
- 3) Access to and control over resources
- 4) Gender power dynamics and decision making
- 5) Needs, priorities, and perspectives



Figure 1: Planning for the Gender Analysis Study amongst project team

### 2.2 Sampling Design and Key Participants

Based on the village size different tools were segregated to be administered based on the following criteria i.e. distance from Panchayat headquarters, percentage of SC/ST population, and female literacy level etc. Women and men from ST communities from the project villages formed the key participants for the study.

## 2.3 Tools and Techniques for Assessment

In line with the identified five gender themes, the study team developed an allied set of five gender tools to facilitate discussions with women and men at the community level. Delineation of these tools involved an extensive study of multiple national and international sources on CVC. The tools were adopted from documents published by other agencies and contextualized for the local situation. Table 2 below provides a snapshot of the themes and the allied tools used for the gender analysis study.

In terms of techniques, the CARE research team applied Participatory Community Assessment (PCA), using large group meetings, Focus Group Discussions (FGDs), brainstorming, one-to-one interactions, and seasonality mapping. The discussions were held with men and women together as well as separately.

**Table 2: Snapshot of the identified gender themes and allied tools**

Gender Theme	Tool	Objective	Participants
<b>1. Gendered roles and responsibilities in CVC</b>	Activity Profile	To gather information about the gender differences in the production, marketing, and business practices at different levels (what do men and women do?), the locations (where/patterns of mobility), and when (daily and seasonal patterns) in CVC	Women and men (separately)
<b>2. Household division of labor</b>	Daily Activity Clock	To illustrate the different tasks men and women do, and to show the value of women's work	Women and men (separately)
<b>3. Access to and control over resources</b>	Matrix	To gather information about what resources/assets (particularly human assets, natural assets, social assets, physical assets, and financial assets) do men and women farmers need and have access to and what constraints they face in accessing these resources	Women and men (together)
<b>4. Gender power dynamics and decision making</b>			
<b>a. Value chain decision making</b>	Marketing Tool	To map where women and men are present in the value chain and whether they are present as participants (producers, processors, value adders) or as controllers (sellers, managers) and the constraints faced by them	Women and men (together)
<b>b. Household decision making</b>	Pile-sort	To explore who in the household has the authority to make important decisions, and how decision making could be more equal (The process will illustrate inequalities in decision making and identify where women would like more control over decisions.)	Women and men (together)
<b>5. Needs, priorities, and perspectives</b>	PRA tool – Ranking exercise	To map the needs and priorities of cotton producers (both women and men farmers) and gather what their current perspectives are regarding meeting these needs	Women and men (separately)

### 2.3.1 Focus Group Discussions (FGDs)

FGDs were at the core of the qualitative research endeavor undertaken for gender analysis of CVC. FGD is an indispensable tool for such a study because it brings together people with similar backgrounds and experiences to hold focused discussions on a specific topic of interest, like the CVC in the Jalgaon Jamod block, and enables them to share their ideas, perceptions, concerns, opinions, and beliefs.

During the present study, a total of 12 FGDs were conducted, bringing in voices of a total of 380 female and 205 male participants across the ten villages. Gendered roles and responsibilities in CVC and value chain relationships were two key areas of focus for these discussions. FGDs were conducted with female and male participants together and separately and covered all relevant aspects, including gender roles and responsibilities, agricultural practices, the daily work undertaken, family needs, decision making, access to and use of resources available at the community and household level, family's food security, participation in associations/SHGs, and vulnerability to violence.



Figure 2. Focused Group Discussion in Bandapipal Village



Figure 3. Focused Group Discussion in Charban Village

## 2.4 Data Collection

Three separate field research teams were constituted for the study. Each study team had two members and was led by a key facilitator, who was tasked with facilitating the use of tools while another member documented the discussions/findings.

Along with clear descriptions of the five gender tools, the facilitators were also provided an elaborate guidance note on the administration of the tools. Prior to the start of fieldwork, the entire study team was oriented, in a one-and-a-half day session, on the study and its tools. This was followed by pre-testing of the study tools in Charban, one of the ten study villages. During this exercise, the three field teams met the villagers in front of the Anganwadi center, introduced themselves, and talked about the purpose of the study. The study tools were then used with 40 women and 22 men from the village. This pre-testing exercise helped the study team refine the tools further and make them more contextual for use in the remaining nine study villages. The data was collected in the form of charts, field notes, observation etc.

## 3. Key Findings

The gender analysis study has lent the research team a strong understanding of the critical aspects of “gender” that influence CVC in the studied ten villages of the Jalgaon Jamod block, Buldhana district, Maharashtra. It has provided insights about how roles and responsibilities, access to resources and inputs, division of labor, decision making, and outcomes differ for women and men involved in CVC in the project area. This chapter divides the key findings of the qualitative study into three parts: (1) gender framework in CVC; (2) value chain relationships and farming practices; and (3) other critical aspects of relevance.

### 3.1 Gender Framework in CVC

Gender relations are a key part of the real-life contexts in which agricultural technologies are used. Right from crop production to its processing and trade, gendered patterns of behavior impinge on the participation and involvement of men and women and their access to resources and outcomes. They also make or mar what results can be achieved and for whom, in terms of both increased productivity and socio-economic empowerment. Our gender analysis study in the project area explored the different dimensions of gender relations as they play out in CVC.

#### 3.1.1 Gendered Roles and Responsibilities in CVC

The gender analysis study undertook a detailed activity profile of CVC, listing the different activities related to production, financial management, and marketing of cotton (Annexure A). Male and female participants were asked to identify which activities were done by men and which by women. Across the ten villages, it was evident that although men and women together undertake cotton fieldwork, many of the tasks are allocated by gender. For example, while men hold the exclusive responsibility for deep ploughing and fertilizer and pesticide application, women undertake weeding, harvesting, and moisture management. For product selling, both men and women are involved when the produce is sold to the trader in the village, but only men are involved if the produce sold in markets outside the village. Loan management with the village trader is largely the preserve of men.

During lean periods, women also take up paid labor work in their own village and other nearby villages. Gender inequality exists in terms of the remuneration paid for labor work. Working in their own village, women get Rs. 120 as daily wage, while men get Rs. 200 for the same work; the amounts are much below the government stipulated minimum daily wage. Working in another village, women get Rs. 150 as daily wage, while men get Rs. 250. These instances of gender inequity and low wages call for advocacy at the Panchayat, block, and district level as well as intervention at the policy level.

Notably, during the FGDs women shared their willingness to play a greater role in CVC if they could be equipped with the right know-how and skills. There is a clear need to recognize and address gender disparities in farming and harness the capacities and potential of women smallholders. Such a strategy would help create synergy between sustainable cotton farming and gender development, enabling both women and men to understand and value their roles and be more productive.

### 3.1.2 Household Workload Sharing

Along expected lines, workload sharing for household chores was largely to the disadvantage of women (Please see Annexure B). Apart from working along with men in farming, women also shouldered the responsibility for critical household work, like childcare, cooking, cleaning, attending to livestock needs, and caring for the elderly at home (Figure 4 & 5). Only in some families was the household work shared to some extent between women and men. Hence, although women contribute at both farm and home, a large part of their effort goes toward work that is not regarded as productive.



Figure 4. Female Activity Clock



Figure 5. Male Activity Clock

### 3.1.3 Decision Making

The study showed that traditionally it was the practice for women and men to discuss and decide on matters of livelihood, but the final decisions mostly lay with men (Figure 6). Farm-related decisions were largely the preserve of men, although they did consult their wives. For example, both men and women remained vigilant about the monsoon setting in so that they could start farming. They discussed and decided what seeds, fertilizer, and other inputs they could get, from where, and in which farm to grow cotton. Often the local trader-cum-businessman influenced them for the cotton seeds that he sold.

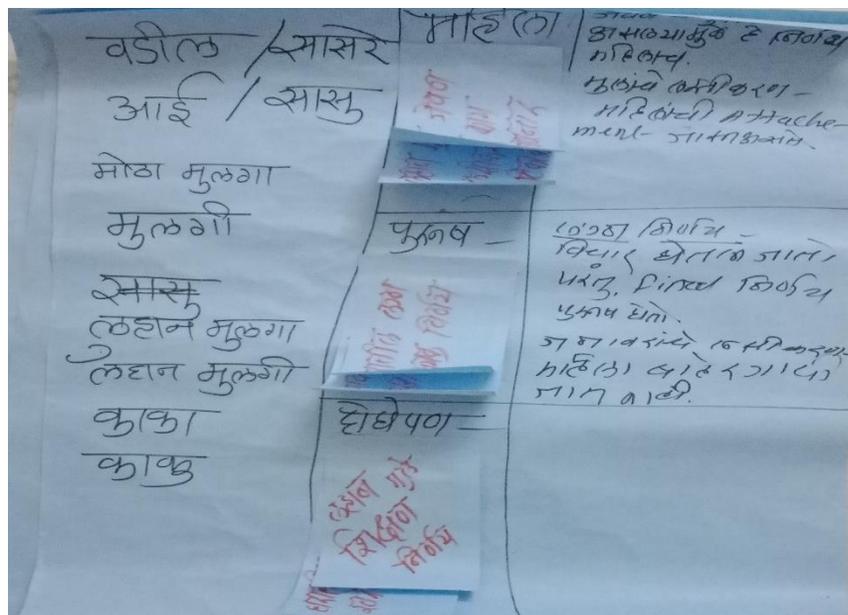


Figure 6. Chart showing decision making process in CVC by men and women or both

Within households, women were the key decision makers, although the husband and wife mostly discussed and decided jointly. Who made the decision depended mostly on the type of decision? After consulting one another, women took the lead in deciding about household matters, while men made the final decision about outside matters. Women usually tended to agree with men upon being informed of the decision made. With regards purchasing of assets for home, discussions were held between the spouses, but men made the final decision.

#### 3.1.4 Access to and Control over Productive Assets

The gender analysis study also gathered information on what resources/assets (human, natural, social, physical, and financial assets) men and women farmers needed, had access to, and the constraints they faced in accessing these resources (Please see Annexure C). Although the study did not show gender inequity in use of/access to natural resources, land was held in the name of the male member; women have traditionally lacked land entitlement. About 8-10 percent households in the study villages did not have their own land. They depended on wages from farm labor.

Gender inequality was also evident in the access to and decision regarding use of most physical assets needed for cotton farming, such as seed, fertilizer, pesticide, tractor, sprayer and weighing machines. These resources were largely the male preserve. Households were found to own few small agricultural implements (like spade), and usually hired major farm equipment like tractors to plough and transport the product. Overall, the study showed poor intensified use of agricultural implements in cotton farming. This is clearly an area for exposure, capacity building, and handholding support.

With regards to financial assets, while women made the savings, men had the responsibility for using financial resources and taking loan, albeit, in consultation with the wife. Human resources (labor) and social resources (Self-Help Group [SHG]) were accessible to both men and women. Access to extension services is limited for both women and men farmers, resulting in reliance and dependence on traders and government extension experts.

#### 3.1.5 Access to Public Spaces and Services

The gender analysis study also gathered information on the participants' access to public spaces and services. Farmers in the study villages had access to government-run Public Distribution System (PDS) and Anganwadi centers, where mothers and children received nutritional supplements and healthcare facilities. Notably, wage employment under the government's flagship National Rural Employment Guarantee Act (NREGA) scheme was hardly available in the villages.

Cotton is a major crop in the project area. It fetches a better price than other products. Majority of farmers in the project area did not have direct access to government-led regular extension services. The entire region grew cotton for selling purpose whereas the government extension system was geared to primarily focus on production-related interventions. Government has initiatives like ATMA, CAIM, NREGA which are working on introducing organic, climate resilient technologies and addressing water issues. Save the Children worked on addressing issues of child labour in the district and others have worked on introducing improved cotton practices. HDFC Bank Foundation is also working to address the issue of cotton farmers in the district. A new initiative of the Government, PoCRA focusing on Climate Resilient Agriculture in the

district and in two project villages of CCACP coverage by CARE under the current programme. There is a need to work together with different organizations and converge all efforts for the promotion of environmentally sound and climate-resilient cotton production system in the region.

### 3.1.6 Participation in Farmers' Groups/Associations/SHGs

Women farmers were members of village SHGs. However, most of the SHGs are not functioning well. The project has given emphasis to revitalize these SHGs by developing their norms and regularizing meetings and savings. Five farmers groups are also promoted in the project villages as project initiatives. The village SHGs had saved in local banks during the initial years of good cotton production. SHGs themselves had not so far taken bank loans for cotton farming as there was no need for it, given the access to loans from the local trader

The study did not find a single community-based organization (CBO), NGO, or producers' group operating in any of the ten villages. The Village Development Committees (VDC) formed under Where the Rain Falls project implemented by CARE India are found to be functioning very actively.

Collectivization was lacking among farmers for purchase of inputs and selling of produce. Putting in place a farmers' or producers' collective will enable them to save and extend loan facility to all the farmers and also facilitate selling of the produce in outside markets at a competitive price.

### 3.1.7 Knowledge of Improved Agricultural Practices

Both men and women lacked know-how and information about improved agriculture practices. The FGDs showed that women had a much poorer idea about farming but still assisted the men on the farm. Overall, there was lack of information on all aspects of farming — seed, technology, fertilizer, pesticide, and marketing. The farmers, both male and female, currently operate at low cotton farming intensification level and have hardly taken up new tools for cotton farming. Extension services have not reached the villages. This area requires urgent attention, as equipping the farmers with updated agricultural information and new agricultural implements will not only have implications for their productivity but also the cost of labor.

### 3.1.8 Expressed Needs and Priorities

The gender analysis study also tried to map the needs and priorities of women and men farmers as well as their current perspectives regarding meeting these needs. The study found that while the different villages had their own sets of priorities and needs, some priorities were common.

Overall, male farmers placed the highest emphasis on agricultural implements, agricultural information, finance, fertilizer, and labor. Storage facilities were reported as the paramount need, as the harvested cotton easily loose its quality thus fetching lower market rates. Women reported finance, labor, agricultural information, and water as their key priorities ((Please see Annexure D). Notably, unlike men, women generally did not place agricultural implements on high priority. They also reported seeds, fertilizer, and pesticide as being easily available from the local trader.

Market information was not a high priority for male or female farmers, possibly because local cotton farming was trader-centered, and the farmers felt obligated to sell their produce to the local trader/money lender who had provided the loan. Both male and female farmers also did not consider it important to go in for crop insurance (cotton), because with the local trader around, they never felt any need for it. However, there are few farmers who have availed loan from Primary Agricultural Cooperative Societies

(PACS) during the period 2018-19 crop cycle have access to crop insurance as an inbuilt component under the loan package.

### 3.2 Value Chain Relationships and Farming Practices

As a concept, “value chain” refers to the full range of activities that workers and other stakeholder entities engage in to bring a product from its start to end use and disposal. From the standpoint of gender, it is important to determine the key players and their relationships in the value chain and how much gender impinges on their participation and outcome. Similarly, gathering information about the current farming practices is crucial to understand the prevalent methods and technologies that may be affecting gender equity and productivity. To this end, our study explored the farming practices and value chain relationships in CVC of the ten study villages of Jalgaon Jamod block, Buldhana district, Maharashtra.

#### 3.2.1 Mapping of Key Stakeholders and Institutions

For the current purpose, the primary stakeholders (or the ‘impact population’) of the program include the 1,500 smallholder farmer producers, including both women and men, of the ten study villages. CARE India is the other key stakeholder.

The secondary stakeholders include the scientists from Krishi Vigyan Kendra, District Agriculture Officers of the Government of Maharashtra; the traders supplying seeds, fertilizer, pesticide, agricultural implements, and money for labor; financial institutions like local banks and cooperatives; Women and Child Development Officials in the district; policy makers at different levels (like Panchayat level officials, Gram Sabhas, relevant state government departments); and other actors in the value chain, such as service- and agro-input providers/manufacturers, seed companies, cotton buyers, microfinance Institutions, and ginning and spinning companies.

#### 3.2.2 Influence of Other Stakeholders

The study brought into sharp focus the overarching influence of local traders, who played a ‘one-in-all’ role as providers of seeds, fertilizer, pesticides and finance and buyers of produce. Cotton farming in the ten study villages could well be described as being “trader-centered”. The traders enabled the farmers to undertake cotton cultivation by providing them the needed seeds, fertilizer, pesticide, farm implements, local transport and hard cash for labor. In the last twenty years, local traders had pushed cotton farming, and their support was critical for farmers to continue with cotton farming.

The traders appeared to enjoy the farmers’ trust as they were available in the nearby village and provided them seeds, money, and other farming inputs as and when needed. The same traders also had a buyback system for the cotton produced. The farmers sold to the trader even though they were paid a lower price (Rs. 3500–Rs.4500 per quintal) whereas the rates available in nearby markets are much higher than that (which is around Rs. 5500 – Rs.6000 per quintal). The farmers sold their produce to the traders despite being aware that the price of cotton in the nearby markets of Malkapur was higher than the trader’s offering. Perhaps the traders’ influence, the farmers’ complete dependence on them, and their initial agreement resulted in this arrangement. The local trader picks up the produce from the farmers’ doorstep soon after the cotton is produced. A week after the produce, the local trader comes with his own vehicle and laborers and collects the produce after measuring separately for each household. He then arranges to

pay farmers the balance amount (after deducting his investment and interest cost). The trader, invariably a male, engages more with male farmers during the negotiations.

The study did not find much information on any other entity investing inputs in cotton farming or buying from the villages. Smallholders dealt almost exclusively with local traders, not only for getting inputs but also for selling the produce.

### 3.2.3 Adoption of New Products, Processes, and Technologies

Most farmers reported not having information about improved agricultural practices, new/more effective products, processes, and technologies for sustainable cotton farming. Extension services had not still reached the village, resulting in lack of information on seeds, technology, fertilizers, pesticides, and markets. For example, farmers in the study villages were unaware of the need for and importance of soil testing and were not doing it. Similarly, they did not know about the correct dosage of pesticides and fertilizers. There was less than prescribed use of pesticides and excess use of chemical fertilizers, which had spoiled soil health and resulted in declining grain yield. Further, there is no systematic irrigation system, and farming was completely dependent on monsoon rain. On most matters, local traders were guiding farmers' decision about what inputs to purchase and what to plant. Further the spray applicants play a greater role in deciding what type of chemical pesticides need to be sprayed in the cotton field. With the project initiative the sprayers operating in the project villages were identified and trained on the safe and scientist ways of spraying and preparation and use of bio-pesticides.

### 3.2.4 Investment in cotton Farming

Investment in cotton farming across the ten villages was found to be completely reliant on local traders. Farmers did not invest their own money but relied on the loan and inputs the traders provided. Farmers' reluctance to use their own money was likely due to cotton farming being trader driven in these parts and the farmers being more comfortable with not risking their own money. The local traders usually charged 5-10 percent rate of interest per month on each sum of Rs. 100/- they gave to farmers as input cost for cotton farming.

Lack of collectivization among farmers impedes development of alternative sources of finance. If the smallholders' impact population, numbering 1,500, comes together as a producers' organization/group, they could save through collective agricultural input procurement and invest in their own cotton production with fair market linkages and profit.

### 3.2.5 Women's Participation in Broader Commercial Networks

The women farmers were unaware of how their role could be mainstreamed in CVC, due to low awareness level about the broader commercial networks available at the district, state, and national level. While they assisted the men in production and processing, women did not participate in broader commercial networks. Once they are sensitized and organized, women can be motivated to participate in the broader sense. For men farmers in the region as well, participation in broader commercial networks was found to be lacking. This highlights the need for establishing networks to increase the participation of both men and women farmers. With the project initiative a block level organic cotton committee is being formed involving one male and one women farmer from each of the ten project villages. Similarly, a district level stakeholders

forum has been formed as an outcome of the project initiative to form a broader network of organic cotton producers.

### 3.3 Other Critical Aspects of Relevance

There are many real-life aspects and issues on the ground that have relevance for gender inequality and must be carefully looked at by any gender analysis exercise. The FGDs conducted as part of the study brought forth insights on many such critical aspects of relevance to the subject.

#### 3.3.1 Risks and Exposures

Adverse natural events pose a major risk for any agricultural value chain. The study villages suffered complete crop loss in the last few years due to scanty rain fall, thunderstorm and drought. The farmers ended up with hardly any yield, losing all the investment and effort put in the field. The crop loss not only wiped out farmers' income from cotton farming, but also rendered them unable to pay back the loan they had taken from the local trader.

Another major risk emanates from the complete reliance on monsoon rains for cotton farming in the study villages. There is no irrigation system in place, and farmers keenly watch for the onset of monsoon to begin farming cotton.

#### 3.3.2 Vulnerability to Economic Exploitation

Cotton farming in the study villages was seen to be completely trader-centered. The local trader was the supplier of inputs and also had a buyback system in place. He charged the farmers interest on the loans given to them. In most of the villages, the rate of interest on loans was in the range of 60–100 percent per annum. Further, the farmers sold their produce to the trader at lower rates (Rs. 3500–Rs. 4500 per quintal) than possible elsewhere. Even so, the farmers, perhaps under compulsion due to their dependence on the trader and the initial agreement, sold their produce to the trader, who picked it up from the farmers' doorstep soon after harvest. Now the same traders are pushing GM cotton seeds instead of indigenous and organic cotton seeds.

#### 3.3.3 Vulnerability to Domestic Violence and Abuse

During initial interactions, the village women did not feel free to openly discuss issues of vulnerability, violence, and exploitation in large meetings. The research team observed that although some women present there wanted to share, something held them back. After a few rounds of meetings, rapport was established, and the women felt more comfortable talking about these issues. It was found that liquor consumption did exist in these villages. Notably, the women also informed that women SHGs are taking joint action to stop alcohol from their villages. .

## 4. Conclusion and the Way Forward

The qualitative gender analysis study of CVC in the villages of Jalgaon Jamod block, Buldhana district, Maharashtra, has provided valuable insights about the ways in which gender affects roles and responsibilities, access to resources and inputs, division of labor, decision making, and outcomes for the women and men engaged in cotton farming. As the study shows, gender inequality is evident in almost all aspects — in the farm, where women’s involvement was largely restricted to the primary level of production, and at home, where women bore the brunt of unequal division of labor for household work. Even as wage laborers, when they did the same work as men, women got paid much lesser than their male counterparts. This gender inequality also pervaded access to and ownership of key resources and the authority to make decisions about their use.

These issues of gender, significant as they are, must be seen together with the overall situation on the ground. Both women and men cotton farmers in the region appear to be in distress. Hailstorm, low rain falls and drought in the last few years affected cotton crop, and with it their incomes, rendering them unable to pay back their debts to the local traders. The farmers’ overdependence on the traders has resulted in cotton farming becoming a rather trader-centered production activity. These traders are the sole suppliers of seeds and other farm inputs, farm implements, transport, and even hard cash for labor. They are also currently the buyers of the cotton produce, which they take from the farmers at a price lower than that being offered in nearby markets. Collectivization for purchase of inputs and selling of produce is lacking among farmers, leaving them with few alternatives. Their poor access to formal source of credit, agricultural infrastructures (like storage), irrigation facilities and knowledge and information levels especially about new agricultural technologies, market information etc, mostly due to the absence of extension services, is further eroding productivity and incomes.

### The Way Forward

Findings of the gender analysis study point to several areas of crucial importance for any gender-fair value chain development initiatives in the area. Transforming value chain relationships, both horizontally and vertically, would help in creating relationships that are equitable, mutually beneficial, and foster knowledge development. Overall, the study found a potentially receptive environment among women farmers, with several of them sharing their willingness to play a greater role in CVC if they could be equipped with the right know-how and skills.

Based on the findings, the study team puts forward the following points as recommendations:

- Provide opportunities for and access to farmer and women-friendly learning and skill development, improved technologies and products, and diverse market linkages.
- Build on the women's current networks and relationships (there are women’s SHGs in the study villages) to foster change.
- Undertake advocacy at the Panchayat, block, and district level and at the policy level to address existing gender-based inequalities, for example, in the remuneration for wage labor.

- Facilitate collectivization and development of farmers' or producers' groups through which to negotiate better terms for purchasing inputs and selling produce at a competitive price. This would also enable farmers to save and extend loan facility to all the farmers.
- Improve the reach of government-led extension services in the area to combat the poor know-how and access to improved agricultural practices and linkages with the formal alternative sources/ banks/ financial institutions etc. for credit and higher order market stakeholders for market linkages.
- Promote intensive and sustainable farming practices through exposure, capacity building, and handholding support.

## Annexures

### ANNEXURE: A: Gendered roles and responsibilities in CVC of the study villages

(√ - represents work/ decision made; while blank parameters represent activity not performed).

Village Name	Area of Assessment	Cotton Farming Work in the village	Work of Women	Work of Men	Women's Decision	Men's Decision
Charban	Gendered roles and responsibilities in the cotton value chain	Deep ploughing		√		√
		Soil testing		√		√
		Selection of seeds & availability of seeds	√	√	√	√
		Seeds germination tests		√		√
		Seeds treatment	√			√
		Line sowing		√		√
		First fertilizer application	√	√		√
		Use of pheromone kit		√		√
		Use of pesticides	√	√		√
		Irrigation system		√		√
		Second time fertilizer application	√	√		√
		Weeding	√	√	√	√
		Harvesting	√	√	√	√
		Drying before selling	√	√		√
		Picking of cotton	√	√		√
		Fiber quality management	√	√	√	√
		Grading	√	√	√	√
		Cotton bales		√		√
		Market knowledge and information		√		√
		Selling in market		√		√
Loan from local traders & banks		√		√		
Loan repayment		√		√		
Profit & loss knowledge	√	√	√	√		
Hanwatkhed		Deep ploughing		√		√
		Soil testing		√		√

		Selection of seeds & availability of seeds	√	√	√	√
		Seeds germination tests		√		√
		Seeds treatment	√			√
		Line sowing		√		√
		First fertilizer application	√	√		√
		Use of pheromone kit		√		√
		Use of pesticides	√	√		√
		Irrigation system		√		√
		Second time fertilizer application	√	√		√
		Weeding	√	√	√	√
		Harvesting	√	√	√	√
		Drying before selling	√	√		√
		Use of harvesting machine	√	√		√
		Moisture management	√	√	√	√
		Grading	√	√	√	√
		Equal packaging		√		√
		Market knowledge and information		√		√
		Selling in market			√	√
		Loan from local traders & banks		√		√
		Loan repayment		√		√
		Profit & loss knowledge	√	√	√	√

## ANNEXURE: B: Household division of labor in the study villages

Village Name	Area of Assessment	Household Work	√ne by Female	√ne by Male
Bandapipal	Household division of labor	House cleaning	√	
		Child care	√ (prepare children for school)	
		Livestock care	√	√
		Household work	√	
		Cooking	√	When the woman is not well, man cooks or daughter cooks
		Farm work	√	√
		Labor	√	√
		Outside work		√
		Ploughing		√
		Fertilizer use in farm	√	√
		Loan getting		√
		Purchase and selling of product	√ (only domestic grocery purchase )	√
		Finance		√
		Land ownership	No (since girls marry and go to another home)	√ (90 percent land ownership having male)
		Water collection	√ (water collection for domestic work)	
Ishlampur			House cleaning	√
		Child care	√ (prepare children for school)	√ drop to school
		Livestock care	√	√
		Household work	√	
		Cooking	√	When the woman is not well, man cooks or daughter cooks
		Farm work	√	√
		Labor	√	√
		Outside work		√
		Ploughing		√
		Fertilizer use in farm	√	√
		Loan getting		√
		Purchase and selling of product	√ (only domestic grocery purchase )	√
		Finance		√
		Land ownership	No (since girls marry and go to another home)	√ (90 percent land ownership having male)
		Water collection	√ (water collection for domestic work)	

ANNEXURE: C: Access to and control over resources in the study villages

Village Name	Area of Assessment	Resources for Cotton Farming	Who Uses?	Resources are in Whose Name?	Who Decides its Use?	Difficulties in getting land ownership	How to solve difficulty
Nimkheri	Access to and control over resources	Natural resources for Cotton farming work					
		Land	Both	Both (Male 90 percent and 10 percent female )	Both	No response	No response
		Water	Both	No response	No response	No response	No response
		Forests	No response	No response	No response	No response	No response
		Crops	Both	Both	Both	No response	No response
		Resources for Cotton farming work					
		Seeds	Both		Both		
		Fertilizer	Male		Male		
		Pesticides	Male		Male		
		Plough	Male		Male		
		Weeding	Female				
		Sowing machine	NA		NA		
		Cotton picking machine	NA		NA		
		Sprayer	Male		Male		
		Tractor	Male		Male		
		Power trailer	Male		Male		
		Bullock plough	Male		Male (female not allowed due to social tradition)		
		Transportation	Male		Male		
		Weighing machine	Male		Male		
		Others					
		Human resources for Cotton farming					
		Labor	Both		Both		
		Agriculture extension					
		Agriculture scientist					
		Others					
		Financial resources for cotton farming					
		Saving	both				
		Loan getting	Male uses		Male gets loan	Both discuss & decide	

		Insurance	Male uses		Male gets insurance	Both discuss & decide	
		Others					
		Social resources for cotton farming					
		SHGs	Female		Both		
		Farmers' club/association	Male		Male		
		Others					
		Extension service for cotton farming					
		Radio	Yes both	Yes both			
		TV	Yes both	Yes both			
		Mobile service	Male	Male	Male	Female having demand for personal mobile for conversation	Purchase mobile
		Newspaper	NA	NA	NA	NA	NA
		Others					
Charban		Natural resources for cotton farming work					
		Land	Both	Both (Male 90 percent and 10 percent female )	Both	No response	No response
		Water	Both	No response	No response	No response	No response
		Forests	No response	No response	No response	No response	No response
		Crops	Both	Both	Both	No response	No response
		Resources for cotton farming work					
		Seeds	Both		Both		
		Fertilizer	Male		Male		
		Pesticides	Male		Male		
		Plough	Male		Male		
		Weeding	Female				
		Sowing machine	NA		NA		
		Cotton picking machine	NA		NA		
		Sprayer	Male		Male		
		Tractor	Male		Male		
		Power trailer	Male		Male		
		Bullock plough	Male		Male (female not allowed due to social tradition)		
		Transportation	Male		Male		

		Weighing machine	Male		Male		
		Others					
		Human resources for cotton farming					
		Labor	Both		Both		
		Agriculture extension					
		Agriculture scientist					
		Others					
		Financial resources for cotton farming					
		Saving	both				
		Loan getting	Male uses		Male gets loan	Both discuss & decide	
		Insurance	Male uses		Male gets insurance	Both discuss & decide	
		Others					
		Social resources for cotton farming					
		SHGs	Female		Both		
		Farmers' club/association	Male		Male		
		Others					
		Extension service for cotton farming					
		Radio	Yes both	Yes both			
		TV	Yes both	Yes both			
		Mobile service	Male	Male	Male	Female having demand for personal mobile for conversation	Purchase mobile
		Newspaper	NA	NA	NA	NA	NA
		Others					

## ANNEXURE: D: Gender Power Dynamic and decision making for cotton farming in the study villages

(5 being the most preferred to 1 being the least preferred)

### A. CVC decision making

Village Name	Area of Assessment	Stakeholder in cotton value chain	Priority by Men	Priority by Women
Garpet	(b) Value chain decision making	Ginning mill	4	2
		Traders	4	4
		Private Input dealers	5	4
		Krishi Vigyan Kendra	3	1
		Agriculture University	2	1
		Self Help groups	2	3
		Agriculture Produce Marketing committee	1	1
		Farmers	5	5
		Village Development committee	1	1
		Farmers groups	2	1
		NGOs	2	3

### B. Household Decision Making

Village Name	Area of Assessment	Household decision making activities	Decision by Women	Decision by men	Both	Remarks
Garpet	Household decision making	Cooking	√			
		Child Vaccination	√			
		Marriage Children			√	
		Child Education			√	Girls Higher education decision taking by male
		Dress/cloth purchasing			√	
		Dowry		√		Dowry decision maker village traditional Mukhiya
		Cash handling	√			
		Saving	√			
		Religious festival	√	√	√	
		Pregnancy Hospital		√		
		Birth delivery	√	√		
		Purchase of assets	√	√		
		Glossary purchasing	√	√		
		Input purchase		√		
		Loan		√		
		Purchase of animals	√	√		
		Selling of animals		√		

**C. Gender Power Dynamic and decision making for cotton farming in the study villages (5 being the most preferred to 1 being the least preferred)**

Village Name	Area of Assessment	Stakeholder in cotton value chain	Priority by Men	Priority by Women
Rajura (Kh)	Value chain decision making	Ginning mill	4	2
		Traders	4	4
		Private Input dealers	5	4
		Krishi Vigyan Kendra	2	1
		Agriculture University	2	1
		Self Help groups	2	3
		Agriculture Produce Marketing committee	1	1
		Farmers	5	5
		Village Development committee	1	1
		Farmers groups	2	1
		NGOs	3	3

**D. Household Decision Making**

Village Name	Area of Assessment	Household decision making activities	Decision by Women	Decision by men	Both	Remarks
Rajura (kh)	Household decision making	Cooking	√			
		Child Vaccination	√			
		Marriage Children			√	
		Child Education			√	Girls Higher education decision taking by male
		Dress/cloth purchasing			√	
		Dowry		√		Dowry decision maker village traditional Mukhiya
		Cash handling	√	√	√	
		Saving	√	√		
		Religious festival	√	√	√	
		Pregnancy Hospital		√		
		Birth delivery	√	√		
		Purchase of assets	√	√		
		Glossary purchasing	√	√		
		Input purchase		√		
		Loan	√	√		
		Purchase of animals	√	√		
		Selling of animals	√	√		

ANNEXURE: E: Needs and Priorities of resources for cotton farming in the study villages

(5 being the most preferred to 1 being the least preferred)

Village Name	Area of Assessment	Resources for cotton Farming	Priority by Men	Priority by Women
Umapur	Priority of resources for cotton farming	Seeds	3	2
		Fertilizer	3	3
		Pesticides	3	3
		Agri implements	2	3
		Agri information	2	2
		Labor	4	3
		Land	5	3
		Water	5	5
		Finance	4	4
		Insurance	2	
		Market information	2	1
		Transportation	3	2
		Store house	4	2
Rajura (Br)		Seeds	3	3
		Fertilizer	3	3
		Pesticides	3	3
		Agri implements	2	2
		Agri information	2	2
		Labor	4	4
		Land	4	4
		Water	5	5
		Finance	4	4
		Insurance	1	1
		Market information	3	2
		Transportation	3	3
		Store house	4	2