



LEARNING REPORT

**TACKLING POLLUTION
FROM THE APPAREL SECTOR:
ENGAGING SMES IN WATER
STEWARDSHIP**

Learning Report about embedding
water stewardship in cotton
production in Ethiopia



**COTTON
MADE IN
AFRICA**



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1 Introduction

→ In 2020, Aid by Trade Foundation (AbTF), Alliance for Water Stewardship (AWS), Water Witness International (WWI), CDP (an environmental reporting organisation) and Solidaridad Ethiopia, started a collaborative three-year project in Ethiopia with co-funding from the Swiss Agency for Development and Cooperation (SDC).

The project “Tackling Pollution From the Apparel Sector Through Engaging SMEs in Water Stewardship”, had two strands. The first was to study local practices and how they affect water resources in Ethiopia, as well as to evaluate the skills and capacity available locally for managing water supplies. The second strand was

to engage stakeholder groups in efforts to improve water stewardship throughout the industry’s entire value chain.

Working in concert with its project partners, AbTF published the “Water Security Scan of Ethiopian Cotton Production” in 2021. The report identified the major water stewardship challenges and opportunities present in the country. The **Ethiopian Cotton Water Security Scan** was also a necessary precursor to raise awareness about water-related issues within the country’s agricultural sector and to introduce appropriate new techniques.



2 Expansion and Sustainability: Assessing the Current State of Cotton Production in Ethiopia

→ **Water is relatively abundant in Ethiopia; however, the unpredictability of the rains creates supply problems. Due to climate change, rainfall has been insufficient to refill Ethiopia's water supplies in parts of the country over the last few years. Droughts are posing a growing threat to millions of Ethiopians who face severe water shortages as a result.**

These challenges have also affected the country's cotton production. Ethiopia has more than three million hectares of land suitable for growing cotton. The area under cotton cultivation in recent years has varied between 50,000 and 100,000 hectares. Small-scale cotton farmers currently produce about 30 percent of total lint production, while the remaining 70 percent is grown by commercial farms. Overall, about 79 percent of the total cotton farms are located in predominantly rain-fed cotton regions.

Within the framework of the **National Cotton Development Strategy (NCDS)**, the Ethiopian government established an ambitious 15-year plan (2017–32), which aims to boost cotton production to 1.1 million tonnes and increase the area of land on which it is grown to one million hectares. This expansion could well increase the level of demand for water to cultivate cotton.

On the other hand, cotton production is facing greater disruption, often caused by water supply issues and climate change, from problems such as flooding, pests, and the late arrival of rain. Other unusual patterns of rainfall have also been observed, with the start of the rainy season bringing heavier rains and its end often coming earlier than expected. Water pollution and inadequate water supplies also exacerbate the problems facing smallholder cotton farmers, making it even more important to raise awareness of sustainable methods of water management in cotton production regions.

3 Training Ethiopia's Smallholder Cotton Farmers in Water Stewardship

→ **The Ethiopian Cotton Water Security Scan recommends the development of training modules on water stewardship and delivering them to farmers. Such modules could easily be integrated into existing training schemes, contribute to the mitigation of risks, and foster resilience in cotton production.**

As part of the project, **AbTF** has developed two training modules on improved water stewardship for cotton production, in cooperation with **Solidaridad Ethiopia** and with support from **WWI** and **AWS**.

As the modules have to be approved **AbTF** engaged with government representatives to seek a partnership

for developing training materials. Once formed, this collaboration was sufficiently durable to pursue common goals even beyond the scope of the project. With the transfer of the mandate for steering cotton production from the **Ethiopian Ministry of Trade and Industry to the Ethiopian Ministry of Agriculture (MoA)**, the latter became the main contact for ongoing work on the training modules. Embedding water stewardship techniques in cotton production trainings is also in alignment with the **MoA's** priorities. This has meant that the cooperation between **AbTF** and the **MoA** has been able to bring about a range of improvements in the implementation of the project, its overall impact, and its scalability.



Training-of-Trainers Workshop in Gondar Town, June 2022

4 Building a Cooperation for Scaling up Action on Sustainability

→ Since 2005, AbTF has been striving to develop sustainable value chains for agricultural products used by the textile industry. With Cotton made in Africa (CmiA), AbTF created one of the world's leading standards for sustainably produced cotton. Its objective is to use trade as a lever to help people to help themselves, promote sustainable development, protect the environment, and secure a better future for coming generations. AbTF has vast expertise in sustainable cotton production and developing suitable training materials for smallholder communities in different countries in Africa south of the Sahara.

Within the MoA, the Agricultural Extension and Horticulture Extension Directorate has been given overall authority for managing issues related to the preparation, development, and distribution of farmer

training materials. In addition, the MoA oversees a vast agricultural extension system with a cascading approach to providing services from federal, regional, zonal, district (Woreda), and community (Kebele) level. According to the MoA, at Kebele level, there are more than 48,000 agricultural extension agents who have been trained on topics such as crop agronomy, soil and water conservation, animal husbandry, irrigation, land use management and co-operative development. In combination with the 14,000 Farmer Training Centres dotted around the country, the agricultural extension system is considered to be the most effective channel for disseminating knowledge on water stewardship, not only to the country's approximately 55,000 smallholder cotton producers but to all of Ethiopia's approximately 14 million smallholder farmers.

5 Designing the Training Materials

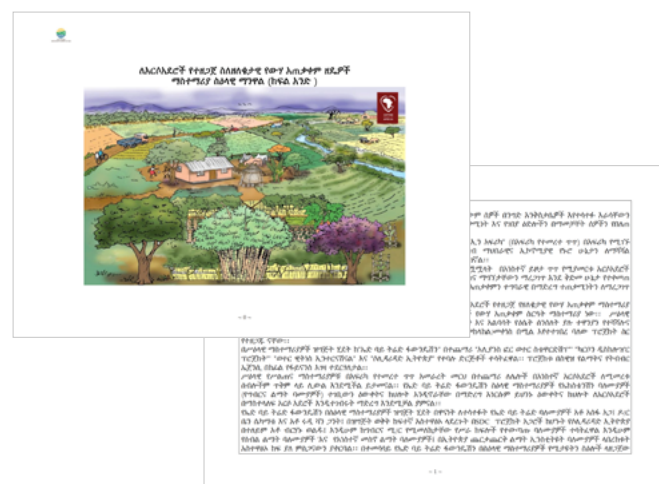
The training modules were developed to address water stewardship issues that are specific to sustainable cotton production, and which were identified in the **Ethiopian Cotton Water Security Scan**. In addition, the modules are realistic about local and traditional forms of water stewardship and their impacts on the pollution of water sources, the harvesting of water,

field management, and the involvement of women in formal water management structures, since women are the main providers of domestic water and hygiene measures within families. Stakeholder consultation on water issues was also identified as an important topic to be covered in the training materials.

Building on these observations, AbTF began by developing two training modules:

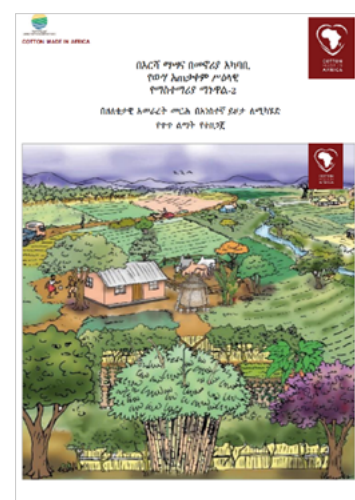
5.1 Module 1 – The Picture Block

A **Picture Block** called “Coach the Farmer in Sustainable Water Use Practices”, which was developed for **Training-of-Trainers (ToT)** session as well as for on-site farmer trainings by agricultural extension agents. A **Picture Block** is an instructive tool designed to have a self-explanatory picture on the front and associated Question and Answer (Q&A) on the back, enabling the trainer to stimulate discussion among training participants. The pictures are used to tell a story about a smallholder cotton farming family considering different aspects of water management in their daily lives.



5.2 Module 2 – The Training Manual

A Training Manual called “Field and Homestead Water Use: An Illustrated Manual for Sustainable Smallholder Cotton Production”, which reproduces the pictures used in the **Picture Block**, accompanied by more detailed information on the topics addressed, in order to provide more background information to trainers.





6 Together at Each Step: Workshops for Assessing the Training Modules

→ Once the first versions of the training modules were drafted, AbTF organised three workshops to test, improve and tailor them for the Ethiopian context. In each of the workshops, contributions from MoA representatives e.g., members of the relevant

directorates responsible for developing training materials for farmers, and extension experts from cotton growing areas responsible for training farmers were decisive for the events' successes.

1. WORKSHOP

Elicits Numerous Valuable Proposals

→ The first workshop took place in Addis Ababa in August 2021.

AbTF invited senior experts from the MoA, WWI, Solidaridad Ethiopia, Private Commercial Farm Luci Agricultural Development PLC, and the Ethiopian Institute of Agricultural Research (EIAR) to take a first look at the modules. The training materials were discussed in great detail, in order to see how well they aligned with participants' expectations in terms of their content and pedagogical approaches.

Numerous valuable proposals were made for adjustments, such as an idea to include methods of water harvesting. There were also requests to include water pollution problems posed by pesticides, to give the fictional characters in the **Picture Block** Ethiopian names, and to present additional agricultural challenges such as waterlogged soil and salination.



Participants to the first Working Meeting in Addis Ababa, August 2021



2. WORKSHOP

Improves the Amharic Version With Feedback From Extension Agents

→ **Revised versions of the training tools were shared with Solidaridad Ethiopia to conduct a Training-of-Trainers (ToT) in Tigray in October 2021.** The feedback from extension agents and lead farmers was aggregated, and these suggestions were then integrated into the training modules before they were translated into Amharic.

The first Amharic-language drafts were then printed and discussed with participants at a second ToT workshop in Gondar Town in June 2022.

The event was jointly facilitated by AbTF and Solidaridad Ethiopia to gather feedback from the target group comprising district development agents from the MoA, mostly from the **Dansha and Soroka Woreda Office of Agriculture**, and extension agents from Solidaridad Ethiopia. As agricultural advisers and trainers, these are the people who would be responsible for disseminating information to farmers.

Apart from their content on water stewardship, the designs of the training modules were also evaluated, as the format of a **Picture Block** was new to the audience. The feedback received on aligning the pictures with the Q&A sessions was particularly helpful for improving the training tools and adapting them to the Ethiopian context.



Adapting the pictures to the Ethiopian context

3. WORKSHOP

Giving the Training Modules a Finishing Touch

→ **The final workshop for validating the modules took place in October 2022.**

At this stage, the aim was to evaluate the suitability of the training materials in the Ethiopian context, with emphasis on content and approach. Several directorates of the MoA — including **Agricultural Extension and Horticulture Extension, Crop Development, Soil Resource Development and Small Irrigation Development** — sent representatives. Also participating actively in the workshop were members of the **Cotton Development Directorate (formerly called ETIDI)**, as well as representatives from the **Institute of Ethiopian Agricultural Research (Melka Werer Cotton Research Center)**, from the German development agency **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)**, from **Solidaridad Ethiopia**, and from **WWI**.

Prior to the workshop, members of the different directorates had already examined the two modules and collected useful feedback. Since this preparatory

work had been completed, the focus of the workshop was on incorporating the feedback received into the final versions, as well as on identifying the best ways of using and developing **Picture Blocks** as training tools for smallholder training sessions more generally. The experts from the MoA were very interested in making use of the training modules on water stewardship in the government's agricultural extension service as well as in developing further **Picture Blocks** on other topics. Once the final versions of the training modules have been approved by the **Agricultural Extension and Horticulture Extension Directorate**, 100 copies will be handed over to the MoA to start rolling out training sessions on water stewardship in cotton growing regions. The first trials are planned to take place in West Gondar and Dansha, as there is a high concentration of smallholder cotton farmers in those areas.



7 Lessons Learnt and Future Prospects

→ **Involving the MoA, with its broad experience in water stewardship at several of its dedicated directorates, has proven to be very advantageous for the project. It enabled AbTF to benefit from the MoA's experience in the field of water stewardship, its knowledge of issues and local contextual factors, and insights offered by their staff at all stages in the development of the training modules.**

A discussion about the future use of Picture Blocks as training material throughout the agricultural system and within vocational schools was initiated following the third workshop. The **MoA** is also interested in disseminating the training modules to its vast network of 48,000 extension agents. Hopefully, they can encourage farmers to join Edna and Abel, the smallholder couple featured in the Picture Block, on their journey towards managing water sustainably, using pesticides safely, preventing water pollution and increasing biodiversity.

Due to the high level of interest in the topic also being shown by **AbTF** partners in West, Central, and East Africa, the training modules have now also been made available in English, Amharic, Portuguese, Kiswahili, and French. The project has therefore already exceeded its mission by expanding its scope across borders.

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Pilot Training-of-Trainers in Tanzania



AID BY TRADE FOUNDATION

The Aid by Trade Foundation (AbTF) was founded in 2005 by Prof. Dr Michael Otto, an entrepreneur from Hamburg, Germany. The aim of the foundation, which operates independently of the Otto Group, is to help people to help themselves through trade, thereby preserving vital natural resources and securing the livelihoods of future generations.

Cotton made in Africa® is an internationally recognised standard for sustainably produced cotton from Africa, connecting African small-scale farmers with trading companies and fashion brands throughout the global textile value chain. The initiative's objective is to employ trade rather than donations to offer help for self-help in order to improve the living conditions of around one million cotton farmers and their families in Sub-Saharan Africa while protecting the environment. The small-scale farmers benefit from training and better working conditions, and additional social projects enable their children to attend school. Female small-scale farmers are supported in pursuing professional and social independence.

The Good Cashmere Standard® by AbTF is an independent standard for sustainably produced cashmere wool. Developed in 2019 in close collaboration with animal-welfare specialists and independent cashmere-production experts, its goal is to improve the wellbeing of the cashmere goats and the working conditions of the farmers as well as the environment in which they live. The standard will begin by focussing on the framework conditions for cashmere production in Inner Mongolia.

DISCLAIMER

This publication has been produced within the project "Tackling Pollution From the foster resilience in cotton production. Apparel Sector Through Engaging SMEs in Water Stewardship", supported by the Swiss Agency for Development and Cooperation (SDC) and implemented in collaboration by the project partners Aid by Trade Foundation (AbTF), Alliance for Water Stewardship (AWS), CDP, Solidaridad Eastern and Central Africa Expertise Centre (Solidaridad), and Water Witness International (WWI).

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