

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Ethiopia

### Agricultural Biotechnology Annual

#### Ethiopia plans to commercialize Bt cotton soon

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**Report Highlights:**

For the past several years, Ethiopia has invested in establishing the legal and regulatory systems, as well as the technical capacity to support and manage the adoption of genetically engineered (GE) cotton. This investment appears as though it will soon bear dividends with the expected commercialization of GE cotton, which is expected to help increase local cotton production to meet the growing demands of the country's fast-growing textile and apparel sector.

## ***SECTION I: Executive Summary***

Ethiopia's economy has experienced significant growth for more than a decade. Agriculture is at the heart of the economy, accounting for about 40 percent of the country's GDP and employing 85 million of the country's nearly 100 million inhabitants. Future economic growth is expected to hinge heavily on the country's manufacturing sector, especially the agro-processing, textile and apparel, and leather industries, among others.

With regards to the rapidly-expanding textile and apparel sector, the Government of Ethiopia (GOE) for the last several years has been taking measured but deliberate steps to increase domestic cotton production by implementing the necessary legal and regulatory frameworks to facilitate the adoption of GE cotton. The GOE, alongside international partners, have allocated resources to strengthen the country's technical capacity to manage the technology.

As it stands now, the earlier version of the Biosafety Proclamation, which was unworkable, has been revised to support the adoption of the technology. Confined field trials (CFTs) are underway and commercialization of Bt cotton is expected within the next couple of years. At the same time, the government has taken legislative steps to organize a Biotechnology Council and Biotech Institute to coordinate biotech policy and research, respectively, across the broader GOE. Looking ahead, the country's experience with Bt cotton is critical as it will determine whether the country introduces the technology in other crops.

## ***SECTION II: PLANT AND ANIMAL BIOTECHNOLOGY***

### **PART A: PRODUCTION AND TRADE**

a) **PRODUCT DEVELOPMENT:** Following the amendment to the country's Biosafety Proclamation, which was signed into law in August 2015, the Ministry of Agriculture (MoA) has started conducting CFTs of Bt cotton in several locations across the country. MoA is predicting that commercialization will occur within the next couple of years.

b) **COMMERCIAL PRODUCTION:** There is currently no commercial production of GE crops in Ethiopia. With its anticipated commercialization in the next couple of years, it is expected that GE cotton will primarily be grown on large-scale commercial cotton farms. Small-holder farms are also expected to gradually adopt the technology.

c) **EXPORTS:** Ethiopia does not export GE crops.

d) **IMPORTS:** There are currently no imports of GE grains or oilseeds. However, Ethiopia does import processed agricultural products such as soybean and corn oils, as well as breakfast cereals made from GE ingredients. With respect to non-food products, Ethiopia imports GE cotton from the India and the United States. Information on the Ethiopia's cotton situation can be found in our GAIN report, [ET1613](#).

e) **FOOD AID:** Ethiopia remains one of the largest recipient countries of U.S. food aid. The GOE provides waivers for U.S. food aid commodities made from GE products, such as corn-soya blend (CSB).

f) **TRADE BARRIERS:** The approval process for imports of GE grains and oilseeds for food and feed appears overly burdensome. At present, no GE grain or oilseed has been approved for import, nor has access been requested.

## ***PART B: POLICY***

a) **REGULATORY FRAMEWORK:** The Ministry of Environment & Forest (MEF) is the designated competent authority within the Government of Ethiopia (GOE) that is responsible for the Biosafety Proclamation, which is the overarching legislation governing the use of the technology. The Ethiopian Institute for Agricultural Research (EIAR), which is housed under the Ministry of Agriculture (MOA), provides technical expertise to support the research and development of the technology, safety assessments and field trials, as well as enforcing the provisions within the Proclamation and its subordinate implementing regulations. The Ministry of Science and Technology (MOST), the Ministry of Livestock & Fisheries, and the Ministry of Industry (MOI) also play a role in shaping the country's biotech regulatory framework.

In August 2015, the President of Ethiopia signed into law an amendment to the biosafety proclamation that establishes the legal framework to support the cultivation of GE cotton in the country. The government has subsequently revised the proclamation's underlying implementing directives to spell out the specific requirements for introducing GE cotton and is in the process of conducting field trials. In the meantime, EIAR earlier this year received approval from MEF to begin CFTs for Bt cotton. In July 2016, the first CFTs were planted in several locations in the cotton-growing regions of the country.

In June 2016, the Parliament passed a proclamation establishing the Biotechnology Council and Biotech Institute to coordinate biotech policy and research, respectively, across the broader GOE. The Biotech Institute is already established and operational, but is seeking to staff up personnel. The Biotechnology Council has not yet met, but is expected to convene its first meeting in the coming months after all participating members are identified.

The key driver behind the GOE's decision to open the door to biotech cotton is to boost domestic production of cotton in order to satisfy the rapidly-expanding textile and apparel sector's demand for uniform, quality cotton. In recent years, the GOE has spent considerable time and resources attracting foreign investment in this target growth sector which among other things is to contribute to the economic transformation of the country, lifting it to middle income status by 2025. At the moment, cotton demand is outstripping local supply, causing some textile/apparel manufacturers to turn to imported cotton and/or operate below their production capacity. Information on the Ethiopia's cotton situation can be found in our GAIN report, [ET1613](#).

b) **APPROVALS:** In 2016, at the MOA's request, the Ministry of Environment & Forest approved the importation of Bt cotton seed for field trial testing and research.

c) **STACKED or PYRAMIDED EVENT APPROVALS:** N/A

d) **FIELD TESTING:** Field testing of Bt cotton is underway at several sites in the cotton-growing areas of the country. The Biosafety Proclamation's implementing directives outline the regulatory parameters for conducting field testing.

e) **INNOVATIVE BIOTECHNOLOGIES:** N/A

f) **COEXISTENCE:** N/A

g) **LABELING:** Foods made with GE ingredients must carry a label with the following statement: 'genetically modified food'. The purpose of this statement is to inform consumers of the content of the product. The GOE does not have sufficient capacity to enforce this labeling requirement. For more details on labeling, please refer to GAIN [ET1516](#).

h) **MONITORING AND TESTING:** While the capacity exists, Ethiopia does not have uniform monitoring and testing mechanisms to detect GE products.

i) **LOW LEVEL PRESENCE (LLP) POLICY:** N/A

j) **ADDITIONAL REGULATORY REQUIREMENTS:** N/A

k) **INTELLECTUAL PROPERTY RIGHTS (IPR):** Ethiopia has yet to sign a number of major international intellectual property rights (IPR) treaties. As a consequence, IPR protection of commercially-planted GE crops is uncertain.

l) **CARTAGENA PROTOCOL RATIFICATION:** Ethiopia is a party to the Cartagena Protocol on Biosafety (CPB). According to their most recent submission (2016) to the CPB secretariat, the country has a regulatory framework, which is underpinned by the newly-revised Biosafety Proclamation and implementing directives, in place to implement the protocol. However, implementation is hampered because of capacity constraints.

m) **INTERNATIONAL TREATIES/FORA:** In years past, Ethiopia was at the vanguard of the anti-GE movement in Africa and, to a certain extent, set the tone for the rest of the continent. In fact, while working with the African Union Commission, Ethiopia helped pen the restrictive Africa Model Law which has contributed to the delayed adoption of the technology on the continent. However, Ethiopia now appears to have broken from its past and is looking to embrace the technology, though only in a limited and controlled fashion as they are only looking to initially allow GE cotton. This paradigm shift, however, has not resulted in changes to the Africa Model Law, nor does the GOE appear to be actively promoting the technology in international fora, such as Codex.

n) **RELATED ISSUES:** N/A

### ***PART C: MARKETING***

a) **PUBLIC/PRIVATE OPINIONS:** There are no known active campaigns to dissuade or scare consumers from eating food products containing GE ingredients. This is in part because there is little consumer awareness of this technology combined with the fact that there are so few foods in the marketplace that are made from GE crops. That said, leading up to Parliament's ratification of the newly-revised Biosafety Proclamation, there were efforts within the activist community to discourage the GOE from moving ahead with the newly-revised Proclamation. These groups approached the GOE citing concerns that the introduction of the technology, even GE cotton, would cause Ethiopia to sacrifice its rich biodiversity and cause irreparable damage to the environment. These claims continue to receive periodic coverage by the local press.

At the same time, the GOE and other proponents of the technology, such as the Ethiopian Cotton Growers Association, have also raised their voices to dispel these rumors and to promote the introduction of the technology. These opinions and views as well receive periodic coverage in the local press.

b) **MARKET ACCEPTANCE/STUDIES:** In light of the country's historic counter-stance against the technology, pressures from the anti-GE community, and perceived consumer concern, the GOE is only looking to initially commercialize GE cotton. Once commercialized and depending on farmers' and consumers' collective reaction to biotech cotton, Post speculates that the GOE may explore the possibility of introducing other GE crops at some later date.

## ***CHAPTER 2: ANIMAL BIOTECHNOLOGY***

[Note: Animal biotechnology is not included in this report because the Biosafety Proclamation and its underlying directives appear to be more focused on biotechnology uses in crops, without providing clear guidance on the use of the technology in animals. Furthermore, according to local definition of animal biotechnology, there is research and work being done in the areas of embryo transfer, reproductive synchronization, and sexed cattle semen. However, these activities appear to be more closely aligned with animal genetics and not the conventional practice of animal biotechnology, which includes practices of cloning and transgenics.]