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Global Agricultural Information Network

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Cotton and Products

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Report Highlights:

The Government of Ethiopia (GOE) recently amended its Biosafety Proclamation with the intent of permitting the future cultivation of biotech cotton to meet the rising demands from the rapidly-expanding textile/apparel industry. Nevertheless, the anticipated adoption of this technology hinges squarely on the GOE's ability to create a transparent, science-based regulatory environment. Judging by the time it could take to institute such a regulatory environment and to finish the applicable crop safety evaluation, the planting of genetically-engineered cotton is thought to still be a couple of years away.

EXECUTIVE SUMMARY

After many years of fighting against the technology, Ethiopia is poised to become one of the few African countries to commercialize and produce at least one genetically-engineered (GE) crop. In June 2015, after several years of internal government debate and machinations, Ethiopia's Parliament adopted an amendment to the Biosafety Proclamation with the express purpose of laying the regulatory framework to allow farmers to plant biotech cotton in order to meet the rising demands from the rapidly-expanding textile and apparel sector. The earlier Proclamation imposed a de-facto ban on the planting of GE crops as well as biotech research.

As the next step, the Ministries of Environment and Agriculture, as well as other stakeholders, are expected to work together to modify the Proclamation's subordinate directives. While the timeline for completing these revisions is unknown, there is an understood urgency within the GOE to make the requisite adjustments as quickly as their capacity allows. Further, it is uncertain at this stage whether the newly-revised Proclamation and the expected changes to the directives will actually be sufficient for technology providers to feel comfortable doing business in the country. Notwithstanding, it is projected that the planting of GE cotton is still a couple of years away. Meantime, the United States and other development partners are committed to assist, where possible, to build the requisite capacity needed for a smooth introduction of the technology.

CHAPTER1: PLANT BIOTECHNOLOGY

PART A: PRODUCTION AND TRADE

a) **PRODUCT DEVELOPMENT:** Ethiopia, while currently pursuing the adoption of genetically-engineered cotton, is not developing nor have they commercialized any biotechnology product.

b) **COMMERCIAL PRODUCTION:** At present, the country does not cultivate GE crops. However, the Government of Ethiopia (GOE) is in the process of revising its legal and regulatory framework to exclusively permit the production of GE cotton. The GOE expects to start Bt cotton field trials as early as next year. Notwithstanding, the commercial production of GE cotton (or any other biotech crop) will be contingent on the anticipated creation of a transparent, science-based regulatory environment without which the introduction of the technology will be hampered.

The expected time it will take to complete the revisions to the Proclamation's directives and to finish the requisite safety evaluation, suggests that the commercialization and production of genetically-engineered cotton is still, at best, a couple of years away. Again, this estimated timeline is assuming there is a suitable regulatory system in place.

c) **EXPORTS:** At this time, Ethiopia does not produce nor do they export GE crops or products.

d) **IMPORTS:** In recent years, owing to the shortage of domestic cotton, Ethiopia has imported cotton (cotton lint) from cotton-exporting countries, like the United States and India. Some of this imported cotton is known to be genetically engineered. See GAIN [ET1512](#) for more on Ethiopia's cotton production situation. With respect to food commodities, Ethiopia imports processed products such as

soybean oil and breakfast cereals made from GE ingredients.

e) **FOOD AID RECIPIENT COUNTRIES:** Ethiopia is one of the largest recipients of U.S. food aid. The GOE requires waivers for food aid commodities made from GE commodities, like corn-soy blend (CSB) and soybean oil.

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), housed under the Ministry of Agriculture (MOA), provides technical expertise to support the development and enforcement of the Proclamation and its subordinate regulations. Further, EIAR is expected to take the lead in conducting safety assessments and field trials associated with the commercialization of a biotech product.

In June 2015, after several years of internal government debate and machinations, Ethiopia's Parliament adopted an amendment to the Biosafety Proclamation with the express purpose of laying the regulatory framework to allow farmers to plant biotech cotton. The previous version of the Proclamation imposed a de-facto ban on the planting of GE crops as well as research. As the next step, the Ministries of Environment and Agriculture, as well as other relevant GOE parties, are expected to work together to modify the subordinate directives, of which there are six, to reflect the changes made to the newly-revised proclamation. While the timeline for completing the revisions to the directives is unknown, there is an understood urgency within the GOE to make the requisite adjustments as quickly as their capacity allows. Notwithstanding, it is uncertain at this stage whether the newly-revised Proclamation and the expected changes to the directives will actually be sufficient for technology providers to feel comfortable doing business in the country.

The key driver behind the GOE's decision to open the door to biotech cotton is to boost domestic production 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 textile/apparel manufacturers to turn to imported cotton and/or operate below their production capacity.

b) **APPROVALS:** No biotech crops are currently approved for planting. However, the GOE is in the process of revising its regulations with the express purpose of allowing the cultivation of GE cotton. The forthcoming revisions to the Proclamation's subordinate directives are expected to spell out the specifics on the approval process, including dossier data requirements, the timeline for approval, and the length of time an approval is valid. As previously mentioned, however, it is uncertain whether these changes will be sufficient for technology providers to feel comfortable in doing business in Ethiopia.

c) **FIELD TESTING:** Field testing will be required as part of the approval process to commercialize GE cotton. Specifics are expected to be defined in the forthcoming revisions to the Proclamation's subordinate directives.

d) STACKED EVENT APPROVALS: N/A

e) ADDITIONAL REQUIREMENTS: 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) TRADE BARRIERS: It is uncertain at this stage whether the newly-revised Proclamation and the expected changes to the directives will actually be sufficient for technology providers to feel comfortable doing business in the country. Separately, Post is exploring whether GE soybeans for crushing might be able to enter the country under certain, controlled conditions. In contrast, processed foods derived from GE crops seem to fall outside the scope of the Proclamation and are entering the country without issue.

i) INTELLECTUAL PROPERTY RIGHTS (IPR): N/A

j) CARTAGENA PROTOCOL RATIFICATION: Ethiopia is a party to the Cartagena Protocol on Biosafety (CPB). According to their most recent submission (2011) to the CPB secretariat, the country has a regulatory framework in place to implement the protocol. Further, this referenced framework, which is underpinned by the country's earlier, un-revised Biosafety Proclamation (2009) and its subordinate implementing directives, seems to exceed the CPB recommendations.

k) 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 has 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 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.

l) RELATED ISSUES: N/A

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

n) LOW LEVEL PRESENCE POLICY: N/A

PART C: MARKETING

a) MARKET ACCEPTANCE: 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 commercialize genetically-engineered 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, such as soybeans, at some later date.

However, the commercialization of genetically-engineered food crops would likely be fraught with contention from environmental groups and, to a lesser extent, consumers and consumer-based organizations. The activist community promotes and perpetuates the unfounded concern that the cultivation of biotech crops in Ethiopia will result in the country being shut off to lucrative export markets in Europe. Given the country's heavy economic dependence on exports, this is probably the most compelling, but misplaced argument against the technology. With regard to consumers, there is a very small segment of the population who is even aware of the technology and that may harbor reservations in consuming GE-derived foods. The vast majority of the populations is unaware of the technology and is more concerned about just putting food on the table.

b) 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 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 Academies of Science, have also raised their voices to dispel these rumors and to promote the introduction of the technology. These opinions and views as well receive regular coverage in the local press.

c) MARKETING STUDIES: N/A

PART D: CAPACITY BUILDING AND OUTREACH

a) ACTIVITIES: The United States and other partners have provided biotech capacity building to the GOE. For example, the USDA has trained several biotech researchers under the Borlaug Fellowship program and has co-organized with USAID and State Department several workshops to advance the debate on the utility of the technology. With the recent passage of the newly-revised Proclamation, the USG is planning to conduct tailored training to build capacity amongst regulators, specifically EIAR researchers, who will conduct the necessary safety assessments required to commercialize GE cotton. Follow-on trainings of this type will also be required to build sufficient capacity and competence to deliver the technology with the expected results.

b) STRATEGIES AND NEEDS: See above

CHAPTER 2: ANIMAL BIOTECHNOLOGY

[Note: Animal biotechnology is not included in this report since there is limited regulatory infrastructure in place for this use of the technology. Further, the same constraints that currently exist on plant-based biotechnology have also prevented research and development on the animal side. While

some within the local research community are optimistic that the newly-revised Proclamation and forthcoming directives will open the door to animal biotechnology, post believes that this is unlikely to happen at this juncture.]