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## Kenya

## Biotechnology

## Kenya Biotechnology Report

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#### **Report Highlights:**

The passage of the Biosafety Bill into is underway, it is hoped that the 10th parliament will pass it into law.

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Includes PSD Changes: No  
Includes Trade Matrix: No  
Annual Report  
Nairobi [KE1]  
[KE]

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## 1. Executive Summary

Kenya has a Draft Biosafety Bill and an approved National Biotechnology Policy. The National Biotechnology Policy 2006 outlines the safety procedures for biotechnology in the context of research development, technology transfer and commercialization of products. The passage of the Biosafety Bill into law reached an advanced stage in 2007 but 9<sup>th</sup> Parliament was dissolved before it was enacted. The Bill lapsed and has to go through the three readings before it can be signed by the president. The process has recommenced and it is hoped the 10<sup>th</sup> Parliament will pass the Biosafety Bill into Law.

Currently, Kenya requires declaration of genetic modification status as stipulated in the Cartagena Protocol on Biosafety.

### 11. Biotechnology Trade and Promotion

Kenya has no legislation on biotechnology but existing regulations and recently developed National Biotechnology policy have provided guidelines that have enabled experimental GMO activities. The guidelines only address issues up to confined field trials, a step that will be overcome with the adoption of the draft Biosafety Bill.

Biotechnology research activities in Kenya range from application of tissue culture for mass production of disease-free planting materials, use of molecular markers for disease diagnosis, development of recombinant animal disease vaccines, marker-assisted selection to biotransformation and producing insect and virus resistant crops. The application of tissue culture technology has been initiated in different crops, e.g., banana, vanilla, pyrethrum, potato, cassava, sugarcane, coffee, flowers etc. Increased use of DNA-based molecular markers is now applied to address resistance to maize stem borer and to promote maize's ability to withstand drought. There is ongoing research in development of GM crops, which are at various stages of research and development. These include Bt maize (confined field trials), viral resistant transgenic sweet potato, cassava resistant to the cassava mosaic virus, and Bt cotton (has undergone one season of Confined Field Trial (CFT) and the second CFT has been approved for planting). It is hoped that in the next decade Kenya will commercialize some of these transgenic products.

Adoption of genetic modification has been slowed with the ongoing anti-GM debate that has created fear, mistrust and general confusion to the public. However, Kenya recognizes that overtime the use and development of biotechnology will be integrated into its agricultural production systems. In its efforts of attaining food self-sufficiency, as part of its long-term national policy on food production and economic growth. Kenya also knows it cannot ignore adoption of biotechnology as a tool. Kenya is in the process of developing a "Functional Biosafety Regulatory Framework." This involves biopolicy formulation, capacity building among regulatory agencies; enactment of a National Biosafety Bill, and development of regulations and accompanying guidelines. There are efforts by government to demystify and inform the public properly through science-based dialogue and debates.

The USG exported transgenic products to Kenya in 2007/08. These include shipments under the McGovern Dole Food for Education Program, USAID food aid programs (Title 11, Food for Progress). The products are soybean/products and corn/products.

#### 111. National Biotechnology Policy

In 1998, the National Council for Science and Technology (NCST) in partnership with stakeholders developed the National Biosafety Policy, Draft Regulations and Guidelines for Biosafety and manuals for Monitoring and Inspections. The NCST through the National

Biosafety Committee (NBC) is the coordinating office on all issues related to biosafety. The roles of different regulatory agencies in biosafety are evolving but not yet concretized. For example, the Kenya Plant Health Inspectorate Service (KEPHIS) in the Ministry of Agriculture tends to take the lead in overseeing activities related to introduction, testing and use of GM plants (such as importation of GMO food especially if in seed form). This role seems to emanate from KEPHIS's phytosanitary mandate. The Ministry of Health regulates food safety issues. The Department of Veterinary Services (DVS) under the Ministry of Livestock and Fisheries regulates veterinary drugs and related issues. The National Environment and Management Authority (NEMA) in the Ministry of Environment and Natural Resources oversees all issues related to environment and is charged with carrying out environmental impact assessments, while the Pest Control Products Board regulates biopesticides. The preceding roles are more defined in conventional products while for biotechnology products the roles are gradual evolving.

Several workshops to deliberate an appropriate National Biopolicy and Biosafety Regulatory Framework have been held. The most recent efforts involved joint participation from the Kenyan Ministry of Agriculture, USDA, USAID/Kenya, USAID/EGAT and experts from the U.S. in conjunction with National Biotechnology Stakeholders with the objectives of making changes in the Biosafety Bill to facilitate national, regional and international trade. There are also efforts to empower Kenyans in improving and finalizing the current guideline. A monitoring and inspection manual is being developed which will facilitate interpretation, application and enforcement of the Biosafety Bill after it is enacted. There are further efforts to convert the approved National Biotechnology Policy into a National Sessional Paper and ongoing efforts to create knowledge and awareness among the parliamentarians.

Kenya is a food aid recipient country. There are no serious indications that the GOK may implement policies restricting the use of bioengineered commodities in food aid programs. Kenya is in the process of developing its own transgenic products and increasingly understands the benefits of agricultural biotechnology such as increased crop yields, reduced need for water and chemical materials, and higher resistance to crop stress, pests and diseases (food security concerns).

#### **1V. Marketing Issues**

Over the last five years, U.S. agricultural, fish, and forestry exports to Kenya have more than doubled, growing from nearly \$33.3 million in 2003 to \$83.6 million in 2007. The highest exports levels were recorded in 2007. Major U.S. exports to Kenya include wheat, vegetable oils, and pulses, comprising mainly food aid and monetized shipments under Food for Progress, Title II, P.L. 480 and/or Section 416 (b). Though in small quantities, high value products like breakfast cereals, food ingredients and other consumer-oriented products are also imported by Kenya. Kenyan importers, retailers and consumers have not expressed serious concerns about importation, sale or use of transgenic products.

#### **V. Capacity Building and Outreach**

The following are some of the capacity building and outreach programs in Kenya

- Cochran Fellowship program – Biotechnology short courses, capacity building on Intellectual Property rights and technology transfer and policy development
- FAS/USDA sponsored two workshops in 2006 and 2007 'Africa farmer to farmer outreach workshop on biotechnology in Pretoria South Africa.

- Biotech Speaker Programs sponsored by Public Affairs Section  
2002 - 2007
- USAID sponsored Programs in Kenya – Biotechnology Development and public awareness and Outreach

The country needs include assistance in enhancement of Biotechnology development and capacity building amongst implementing institutions.

**VI. Reference Material**

There are no transgenic products approved.