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Report Highlights:

Burkina Faso's amended national biosafety law was passed by parliament in December 2012 and signed by the President in February 2013 after two years of revision and discussion. Texts on derived products and sanction with penalty for imprisonment have been removed. The new law defines damage, responsibility, and repair for each actor of the chain involved for *genetically engineered* (GE) products. Bt cotton production continues to grow with the support of the government with fifty percent of the area planted in MY 2012/13. Bt Cowpea and biofortified sorghum could be the next GE crop in Burkina Faso. The regional biosafety framework of the WAEMU and ECOWAS is still in progress and a steering committee should finalize it by the end of the 2013. Monsanto plans to open a new office in Ouagadougou to cover West Africa in September 2013.

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Section I. EXECUTIVE SUMMARY

The President of Burkina Faso signed the amended biosafety law in February 2013 after parliament passed the bill in December 2012. The law includes major suggestions from stakeholders and industry. Text on derived products and enforcement for imprisonment were removed from this new legislation. However, the law determines responsibilities and repairs for all actors involved in the *genetically engineered* (GE) product.

The *Government of Burkina Faso* (GOBF) continues to support Bt cotton production. Bt cotton reached fifty percent of the area planted in MY 2012/13 (Aug 2012/Jul 2013). Cotton companies forecast a 20 percent increase for MY 2013/14

The next GE crops in Burkina Faso could be Bt cowpea and biofortified sorghum. The *Burkinabe National Institute of Environment and Agricultural Research* (INERA) conducted the second year of Bt cowpea *Confined Field Trials* (CFTs). Research stopped due to lack of funding. INERA is planning a new research project on biofortified sorghum.

The *Government of Senegal* (GOS) has not yet nominated a new Executive Director for the *National Biosafety Authority* (NBA) to replace the former one who resigned in September 2012. Members of the NBA should be officially designated by decree after a new director is appointed.

WAEMU [1] and ECOWAS [2] continue to work on a regional biosafety law. This process started in 2010 and it is still ongoing. A meeting was organized last month in Abuja to harmonize positions between the two institutions, and a steering committee was nominated to finalize it, hopefully, by the end of 2013.

^[1] WAEMU (UEMOA) - West African Economic and Monetary Union members includes: Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo.

^[2] ECOWAS members include: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo

Section II. PLANT AND ANIMAL BIOTECHNOLOGY

Chapter 1: Plant Biotechnology

Part A: Production and Trade

a) PRODUCT DEVELOPMENT

In Burkina Faso, the law states that the development of GE products must be carried out in cooperation with national research structures. It is subject to preliminary authorisation. Burkina Faso developed two varieties of Bt cotton Bollgard II (FK 95 and FK 96) which contain the Monsanto Bt gene introduced to local varieties FK 37 and SAM 59. Research on field trials started in 2003 and commercialization, in 2009. However, INERA, Monsanto, and SOFITEX continue to improve Bt cotton varieties. Studies showed that FK 96 has short length fiber and lower quantity fiber compared to FK 95. For this reason, Monsanto brought back cross 3 lines and INERA will identify plants with long fiber characteristic to breed with local variety. Burkina Faso developed a new variety of cotton with a better yield. Researchers want to introduce the gene Bt and are waiting authorization from Monsanto and the NBA.

For about two years, INERA has been implementing a project funded by the *African Agricultural Technology Foundation (AATF)* to develop a Bt cowpea resistant to the Maruca pod borer. Bt cowpea has been planted in confined field trials during two years but had to stop due to lack of funding. A third year of trial is needed before INERA can request and obtain authorization from the NBA to transfer the gene to a local cowpea variety.

INERA is also drafting a research program on biofortified sorghum. All the infrastructures should be ready before NBA can approve them and authorize the import of the gene.

Monsanto is opening a new office to cover West Africa in September 2013 in Ouagadougou.

Farmers are expressing their willingness to have GE tomato that can resist longer to storage.

b) COMMERCIAL PRODUCTION

Bt cotton is the only crop commercialized in Burkina Faso and Francophone West Africa.

Bt Cotton production continues to increase in Burkina Faso. For MY 2012/13 Bt cotton represented 50 percent of the harvested area. Cotton companies forecast an increase of up to 20 percent for MY 2013/14 if there is enough seed available. In fact, SOFITEX, the largest cotton company which produces about 40 percent of the national cotton production in Burkina Faso, has decided to stop planting FK 96 variety due to its short length fiber characteristic. Therefore the demand for FK95 will increase causing probable seed shortage.

In MY 2011/12, farmers complained about low seed weight of Bt cotton which is a very important factor since farmers are paid based on weight and quality. Researchers determined it was due to not correctly following the technical itinerary. During MY 2012/13, farmers were more attentive to the technical itinerary and added organic fertilizer. Post did not record any complain about it.

c) EXPORTS: Burkina Faso does not export Bt cotton to other countries.

d) IMPORTS

In francophone West Africa, Senegal imports 80 percent of its food and part of it could contain GE product. In 2012, Senegal imported 9,800 MT of soybean meal from Argentina. The U.S. only exports a minimal quantity of soybean meal and cake to Mali and Burkina Faso (10,720 MT in 2011 and 712 MT) in FY 2012.

e) FOOD AID RECIPIENT COUNTRIES

Of the francophone West African countries Senegal, Mali, and Burkina Faso are food aid recipients.

Part B: Policy

a) REGULATORY FRAMEWORK

Regional Initiatives

Post met with the *African Biosafety Network of Expertise* (ABNE) and WAEMU to inquire on the status of the regional ECOWAS/WAEMU biosafety framework.

ECOWAS's experts have been working for the past two years on the draft law. Last month, a drafting committee met in Abuja to work on it and try to harmonize positions between organizations. ABNE thinks that the law is not ready yet and could be even obsolete because:

- It is an old model which includes both GE and derived products. New models of biosafety law cover only GE products as the newly amended law in Burkina Faso;
- Regulation on risk assessment considers socio economic aspects on which country members have different views; and
- includes strict liability.

Discussions are still ongoing and according to the WAEMU biosafety specialist, a meeting should be organized by the end of 2013 to arrive at agreement and finalize the document.

Burkina Faso

Burkina Faso amended its biosafety law which was promulgated by the President in February 2013. All major suggestions from stakeholders and industry have been considered in the new law.

This new law does not address derived products as compared to the previous one. The strict liability sanction with imprisonment has also been removed. However, the paragraph on damage, redress, and responsibility determine the liability of all actors, how redress should be done, and sanctions.

The NBA is planning to inform the public about new changes in the law. A first meeting will involve members of the NBA, the *National Biosafety Observatory* (ONB), and the *National Biosafety Scientific Committee* (CNSB). It will be followed by a national workshop that will include NGOs, ministries, and main actors in the agricultural sector.

The NBA is a national authority competent in the domain of biosafety in Burkina Faso. It is an administrative authority with legal personality and the autonomy of management.

Mali

Mali signed its biosafety law in December 2008 and the decree to adopt GE testing procedures was signed in December 2010. The *Malian National Rural Economy Institute* (IER)'s Board of Directors authorized research on GE cotton in collaboration with *Compagnie Malienne des Fibres Textiles* (CMDT) in 2011, and since then there are no further developments.

The Malian biosafety law ensures an adequate level of protection against any potential adverse effects of modern agricultural biotechnology against biological diversity, the environment or human health. The law has provisions covering the import, export, transit, contained use, and release or introduction into the market of any GE product, be it for pharmaceutical, food feed or other agricultural purposes. There is also provision in the law for mandatory labeling for all products derived from modern biotechnology.

The institutional framework is composed of:

- The *National Competent Authority* (NCA) which is under the Ministry in charge of the Environment. The NCA is in charge of monitoring and controlling of the implementation of this law. It will take into account recommendations and instructions of the National Biosafety Committee.
- The National Focal Point that will liaise with the Cartagena Protocol on biosafety, BCH and will facilitate the information exchanges between the NCA and the different organs.
- The National Biosafety and Biotechnology Committees have a mandate of 3 years, renewable by two-thirds of the members. It consists of representatives from various ministries and departments, civil society, media, the private sector, socio professional organizations and associations.
- The Public Biosafety Committee has to establish security control and authorization procedures. It is composed of national institutions.
- The legal authority for biosafety regulation is given to the Ministry of Environment which is required to approve authorization for any activity involving GE and their products.

Senegal

The Senegalese biosafety law was signed in July 2009 and two decrees were issued in December 2009 describing the function, mission and organization of the NBA and NBC.

The Ministry of Environment is in charge of authorizing any importation or use of GE products. It is supported by the NBA for administrative issues and the NBC for technical issues. The NBA is composed of 17 members from different ministries and the presidency. The Executive Director and members of the NBA are appointed by ministerial order.

The NBC is responsible for risk assessments related to the import, export, handling, transit, confined use, release or launching of GE product and or derived products. Its 30 members consist of scientists, public and private sectors, and members of the general public.

The biosafety law states that all GE products used for direct animal or human food or for transformation or introduction into the environment should be labeled as “contains GMOs”.

In 2012, GOS signed a decree to nominate members of the NBC and the Director of the NBA who resigned six month later. Actually there is no replacement of the NBA director which makes the framework difficult to operate.

Togo

The biosafety law was signed in 2009. Biosafety in Togo is characterized by two regulations: the National Biosafety Framework and the law on the Prevention of Biotechnology Risks.

However, the law is currently being revised for amendment. Once finalized, it will be first submitted to the parliament and consecutively to the presidency for approval and signature.

Togo is interested to develop Bt cowpea and Bt cotton.

Cote d'Ivoire

The national biosafety law has been drafted and is being finalized for approval. The national biosafety framework was established in 2005 and has provisions for a national biosafety commission (CNBIOS) which will be operational once the biosafety law is approved. The CNBIOS will be the authority on biosafety. The Ministry of Environment is the focal point for the Cartagena Protocol.

Bt cowpea could be the next GM crop developed in the country.

b) APPROVALS

The only country in francophone West Africa that has approved a GE crop for cultivation is Burkina Faso. Bt cotton, developed by Monsanto in collaboration with INERA, is the only GE crop approved and registered in Burkina Faso for cultivation.

c) FIELD TESTING

Only Burkina Faso allows field testing for GE crop. Bt cowpea resistant to the *Maruca Vitrata* pod borer that causes significant yield loss to the cowpea crop in West Africa was on its second year of field trials but stopped due to lack of funding. There is no specific date on when tests will resume.

d) STACKED EVENT APPROVALS

N/A

e) ADDITIONNAL REQUIREMENT

Seed registration is required as well as re- registration in Burkina Faso. Bollgard II received a new authorization for dissemination in the environment on March 2013 for ten years starting MY 2013/14.

f) COEXISTENCE

N/A

g) LABELING

Burkina Faso

The biosafety law requires that any GE product intended for distribution or marketing on the national territory must be packaged and labelled in an indelible and non modified manner in order to ensure the protection of ethical and cultural values and to avoid any risks for the environment as well as human and animal health.

Also, all GE product developed on the national territory shall be packaged and labelled by the producer or the dispatcher with the indication “Produced on the basis of genetically modified organisms” or “Containing genetically modified organisms” in conformity with complementary standards defined by the competent national authority in cooperation with other departments concerned.

The terms of labelling are established on the basis of a decree adopted by the Council of Ministers.

Senegal

The law states that all GE products used for direct animal or human food or for transformation or introduction into the environment should be labeled “contains GMOs”.

Mali

The law has provisions covering the import, export, transit, contained use, and release or introduction into the market of any GE products, be it for pharmaceutical, food feed or other agricultural proposes. There is also provision in the law for mandatory labeling for all products made from GE.

Togo

N/A

Cote d’Ivoire

N/A

h) TRADE BARRIERS

There are no trade barriers. Importers should follow the regulation based on the country biosafety law.

i) INTELLECTUAL PROPERTY RIGHTS (IPR)

The *African Intellectual Property Organization* (OAPI) regroups 15 African French-speaking countries. Among them, Burkina Faso, Guinea, Guinea-Bissau, Ivory Coast, Mali, Mauritania, Niger, Senegal and Togo. These countries are treated as one state in trademark law. Apart from that there is no national trademark law in the member states. Therefore it is not possible to obtain national registrations in these countries. Trademark protection is obtained by registration. It is valid for 10 years from date of application and renewable for the same period. Foreign applicants need a local agent. A non-legalized power of attorney is sufficient.

j) CARTAGENA PROTOCOL

Mali ratified the Cartagena protocol in 2002.

Senegal ratified the Cartagena Protocol on Biosafety in October 2003.

Togo ratified the Cartagena Protocol on Biosafety in 2004.

Cote d'Ivoire ratified the Cartagena Protocol on Biosafety related to the Convention on Biological Diversity in 1994 but there was an error on the word Biotechnical instead of Biotechnology.

Burkina Faso ratified the Cartagena protocol in July 2001.

k) INTERNATIONAL TREATIES/FORA

Mali, Burkina Faso and Senegal are members of international organization i.e. FAO, Codex Alimentarius.

l) RELATED ISSUES

All biotechnology research in Burkina Faso is related to Bt cotton and Bt cowpea for pest resistance and nutrition and food security with the bio fortified sorghum.

m) MONITORING AND TESTING

WAEMU countries received laboratory equipment to monitor and test for GE products. However, tests are not active yet. Countries did not receive yet training to test for GE products.

n) LOW LEVEL OF PRESENCE POLICY

Countries do not have a policy on low level of presence.

Part C: Marketing

Among all Francophone West African countries, Bt cotton is the only commercialized crop. It is grown only in Burkina Faso where government and farmers support the initiative.

- a) *Market acceptance*: The president of Burkina Faso supports Bt cotton, and cotton companies forecast an increase in Bt cotton production for MY 2013/14 for more than 50 percent of the area harvested. Cotton companies and farmers have adopted Bt cotton. Farmers said that Bt cotton saved them from spraying more pesticides (4 out of 6 applications) and therefore being healthier.
- b) *Public/private opinions*: The *Burkina Biotech Association* (BBA) is acting in favor of biotechnology in Burkina Faso. They organize workshops to sensitize members of the parliament, farmers and actors in the sector to increase understanding of challenges, benefits and necessity of producing Bt cotton and GE plants. They also assisted on the approbation process of the new amended biosafety draft. Burkinabes have good perception of GE crops compared to Malian and Senegalese who are not well informed about this technology. Therefore, it is necessary to increase sensitization and information on biotechnology in these countries.
- c) *Marketing studies*: Post is not aware about any marketing studies of GE Plants.

Part D: Capacity Building and Outreach

- a. USDA FAS's Cochran Fellowship program will send eight participants from Senegal's NBA and NBC to attend a University of Missouri Biosafety-Biotechnology program on risk assessment and risk management from September 4 – 14, 2013 in Columbia, Missouri.
- b. FAS/Dakar is organizing a State Department funded two day biotech workshop for new regulators, parliamentarians, civil society, media, and biotechnology stakeholders. *The African Biosafety Network of Expertise* (ABNE) and the *West and Central African Council for Agricultural Research and Development* (CORAF/WECARD) in Dakar will be co-sponsoring the event that will take place on September 24-25, 2013. Local partner is the Directorate of National Parks which is Senegal's Cartagena Protocol on Biosafety focal point.
- c. The WAEMU biosafety specialist and the director of the NBA from Burkina Faso travelled to the U.S. with a group of national biosafety focal points in December 2012. They visited Monsanto facilities and the Danforth Center in Saint Louis (Missouri) and travelled to Canada to meet with Canadian regulators and visit several research facilities. The visit successful was in providing the participants with a better understanding of the role of regulatory systems in biotech utilization and GE crop development.
- d. The Burkina Faso NBA signed an MOU with the *International Cooperative Biodiversity Group* (ICBG) to train members of the NBA, National Biosafety Scientific Committee, and observatory in biosafety.
- e. The University of Bobo Dioulasso, INERA and the NBA are working on the possibility to launch a new master program in biosafety that focuses on GE crops. It is still at the planning stage.
- f. The CORAF/WECARD is working on drafting a proposal to be funded by USAID under the Feed the Future initiative. The main activities of the project would include:

- Studies on agricultural policy, market and trade issues which aim to facilitate analyzing and drafting biosafety laws, and conduct regional workshop to validate those texts.
- Capacity building programs for actors by training members of the NBA, NBC, researchers, regulators, journalists, consumers.

The project could include many countries in West Africa.

Chapter 2: Animal Biotechnology

There has been little movement in this domain since last year. The *Senegalese Agricultural Research Institute* (ISRA) and a few other public research centers have ongoing research activities relevant to the production of molecular vaccines for local use. However, output is quite small owing to lack of equipment and funding.

References

- African Centre for Biosafety – <http://www.biosafetyafrica.net>
- African Union - New partnership for Africa's development (AU-NEPAD) <http://www.africa-union.org/root/au/AUC/SpecialPrograms/nepad/nepad.htm> <http://www.nepad.org>
- Convention on Biological Diversity – <http://www.cbd.int/biosafety>
- Interstate Committee for Reducing Desertification in the Sahel (Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel) - <http://www.cilss.bf>
- Cochran program <http://www.fas.usda.gov/icd/cochran/cochranarchive.asp>
- African Intellectual Property Organization (OAPI) <http://www.oapi.wipo.net>
- West and Central African Council for Agricultural Research and Development CORAF/WECARD - <http://www.coraf.org>
- West African Economic and Monetary Union (WAEMU) - <http://www.uemoa.int>

Acronyms

AATF	African Agricultural technology Foundation
ABNE	African Biosafety network of Expertise
BBA	Burkina Biotech Association
CFTs	Confined Field Trials
CILSS	Interstate Committee for Reducing Desertification in the Sahel
CMDT	Compagnie Malienne pour le Développement des Textiles
CNSB	National Biosafety Scientific Committee
CORAF/WECARD	West and Central African Council for Agricultural Research and Development
ECOWAS	Economic Community of West African States
GE	Genetically Engineered
GOBF	Government of Burkina Faso
GOS	Government of Senegal
ICBG	International Cooperative Biodiversity Group
IER	Institut d'Economie Rurale
INERA	Institut de l'Environnement et de Recherches Agricoles
NBC	National Biosafety Committee
NBA	National Biosafety Authority
NCA	National Competent Authority
ONB	National Biosafety Observatory
UEMOA/WAEMU	West African Economic and Monetary Union