



CBD



## Convention on Biological Diversity

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AFRICA REGIONAL CAPACITY-BUILDING WORKSHOP ON  
PUBLIC AWARENESS, EDUCATION AND PARTICIPATION  
CONCERNING THE SAFE TRANSFER, HANDLING AND USE  
OF LIVING MODIFIED ORGANISMS

Kampala, 5-9 November 2012

### COMPILED OF SUBMISSIONS

*Note by the Executive Secretary*

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## SUBMISSIONS FROM PARTIES AND OTHER GOVERNMENTS

**BOTSWANA**

[1 Nov. 2011]

[SUBMISSION: ENGLISH]

### **BOTSWANA BIOTECHNOLOGY AND BIOSAFETY PUBLIC AWARENESS AND PARTICIPATION INNOVATION PLATFORM (BOPAPIP) ACTIVITIES**

Botswana Biotechnology and Biosafety Public Awareness and Participation Innovation Platform (BOPAPIP) is a multi-stakeholder platform, consisting of various experts from different government and non-government institutions. BOPAPIP is an initiative of Regional Agricultural and Environmental Initiative Network-Africa (RAEIN-Africa). It is coordinated by Department of Agricultural Research (National Biosafety Competent Authority) which is under Ministry of Agriculture. The mandate is to promote and facilitate public awareness and education, including access to information, regarding the safe transfer, handling and use of living modified organisms (LMOs) as a way of actualizing Article 23 of Cartagena Protocol on Biosafety (CPB). The platform will not only educate the public but also assist the policy and decision makers in making informed decision regarding Biosafety issues. Currently Botswana is in the processes of developing the National Biosafety Policies and Law.

BOPAPIP has established a strategic work plan which guides the platform on how to implement its objectives or activities.

#### ***Training of trainers***

The first activity that was carried out by BOPAPIP was training of trainers' workshop. The objective of the training was to develop a common understanding among platform members on issues related to Biotechnology and Biosafety. The aim of the workshop was to capacitate platforms actors and partners who will be involved in the facilitation of the Biotechnology and Biosafety Public awareness and participation. Experts from different fields were invited to make presentations and seven presentations were made in three days. During the workshop participants were given opportunity to interact through group discussions and they were also actively involved. The workshop was a success and it attracted various representatives from legal advisors, multi-lateral affairs, scientific experts, seed industry representatives and members of civil society such as non-governmental organizations (NGOs), farmers association and the media.

#### ***Launch of the platform***

The platform was launched by Honorable Minister of Agriculture, Christian De Graff and his was accompanied by many dignitaries from different departments. The workshop was covered on the national television and also in a quite number of articles in the local newspapers. During the workshop, promotional materials such as brochures, pens, water bottles and T-shirts were distributed to the workshop attendants as way of reaching out to the community. Presentations of different areas were also made by BOPAPIP members.

#### ***Baseline survey***

The baseline survey was conducted on the five representative places and the purpose of the survey was to find out the background understanding of the public about Biotechnology and Biosafety. The survey was conducted by administering questionnaire and it was targeting the

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public at large. The survey indicated that a small portion of commercial farmers have a better understanding about Biotechnology and Biosafety while most of the subsistence farmers and the consumers do not understand biotechnology and biosafety issues.

### ***Media training workshop***

The BOPAPIP also held a media training workshop. BOPAPIP recognized the need to educate the media personnel as the media play a vital role in disseminating information and reaching out to the public. The journalists and editors from different media were invited and the objective was to enhance their knowledge on biotechnology so that they can report issues of Biotechnology and Biosafety with impartiality and effectively. The workshop was a success since most of media personnel were present and the attendants were not only from government media but there were also representatives from private media, environmental magazine as well as agriculture magazine. They also have a chance to interact as there were group discussions and presentations.

### ***Live radio talk shows***

Some members of the BOPAPIP were invited for live radio interview both government and private media. The interviews were successful as they were interactive and the public have shown interest as they commented on the issues with understanding and informed deliberations.

### ***Associations and public address meetings***

The platform has started campaigning in the five selected representative places. This is done through holding traditional gatherings (Kgotla meetings) and association workshops such as Farmers Associations, Environmental Association, Consumers Association and Health Association. So far the campaign has been carried out in one place and it was a success.

### ***Decision-makers address***

BOPAPIP has sent invitation letters to House of Chiefs and Members of the Parliaments requesting for meeting with them as this will create an opportunity to capacitate policy makers about the importance of Biosafety Policy and Law resulting in the facilitation of the enactment and implementation of Biosafety Policy and Legislation in Botswana.

**BURUNDI**

[1 Nov. 2011]  
[SUBMISSION: FRENCH]

## **Activités en matière de sensibilisation, éducation et participation du public en rapport avec les organismes vivants modifiés**

### **1. Introduction**

La population burundaise est peu informée sur les risques découlant de l'utilisation de la biotechnologie moderne. Cependant, les discussions engagées dans le cadre du projet biosécurité montrent une situation ambivalente. Les débats sur la biosécurité sont nourris dans certaines institutions étatiques et pratiquement absents dans le secteur privé et au niveau des communautés locales.

L'information, la sensibilisation et l'éducation des populations doivent s'inscrire donc parmi les activités principales à mener en matière biotechnologique pour permettre aux populations de choisir en connaissance de cause, indiquer leurs préférences lors des processus de décisions.

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## **2. Participation du public**

La promotion de la participation de toutes les parties prenantes dans la prévention et la gestion des risques biotechnologiques est l'objectif primaire dans la politique de biosécurité. Le Burundi doit user de la formule de partenariat avec toutes les populations utilisatrices des biotechnologies. Il doit appuyer sur les institutions d'encadrement d'initiatives biotechnologique, des ONGs locales et internationales, des congrégations religieuses, ainsi que des structures organisationnelles des communautés à la base.

Le processus participatif du public doit permettre la prise de décision de toutes les parties prenantes, y compris les communautés locales, dans l'élaboration des politiques et dans leur exécution

L'information de tous les acteurs, des décideurs aux communautés locales, peut se faire à travers deux étapes :

-Il est d'importance capitale que tous les acteurs soient préalablement informés sur les OGM et le protocole sur la biosécurité. Les outils et les stratégies existants (Service de sensibilisation et d'éducation environnementales, les médias, etc.) sont adaptés à mener cette tâche. Des ateliers de consultation selon les groupes cibles constituent également une stratégie pour atteindre le public.

-L'information en rapport avec l'instruction des dossiers de notification doit être diffusée. Un système organisationnel de diffusion de l'information dès la réception d'une notification ou d'une demande d'application de la biotechnologie moderne doit être mis en place. Il s'agira d'un système qui permettra le public à avoir accès aux informations sur le dossier technique et aux résultats de l'analyse de l'évaluation des risques. La politique de la prévention et de la gestion des risques biotechnologiques doit viser la responsabilisation de toutes les parties prenantes. Le système éducation formel et informel est à privilégier.

La participation à la prise de décision doit s'articuler autour de deux processus :

-Processus descendant depuis les institutions responsables jusqu'aux communautés à la base. Il s'agit d'une voie pour informer les populations sur les différentes actions à mener en matière de biotechnologie. Processus ascendant depuis les communautés à la base jusqu'à l'autorité décideur. A travers des consultations et concertations, les communautés sont amenées à donner leurs avis.

Cette participation du public doit être fondée sur une réglementation qui en rappelle le caractère obligatoire. En effet, la participation du Public constitue une obligation des parties comme le stipule le protocole de Cartagena ; de plus, en conformité avec son objectif global qui est « la promotion de la technologie moderne autour d'un système participatif de biosécurité », le Burundi a inscrit l'implication des populations dans la prévention et la gestion des risques biotechnologiques dans ses orientations » (orientation 2 de l'objectif 3). Il faudrait aussi développer un mécanisme pour évaluer la prise en compte des avis du public dans la décision finale.

## **3. Accès du public au centre d'échange en biosécurité**

Le centre d'échange d'informations en biosécurité a été établi par les organes du Protocole pour faciliter la mise en œuvre effective des dispositions dudit instrument international en vue de faciliter l'échange d'informations et aider les pays parties à appliquer les dispositions du Protocole. Les Parties au Protocole sur la biosécurité sont invitées à faciliter l'accès des populations audit centre d'échange. Ce mécanisme est un outil précieux pour informer, sensibiliser et éduquer les parties prenantes.

## **4. Autres outils d'information et d'éducation utilisés :**

Les outils ci-après ont été utilisés en matière de sensibilisation sur les organismes vivants modifiés :

- **Diffusion de l'information :** Brochures, sites Web ont été utilisé pour expliquer le processus et comment les gens peuvent prendre part aux décisions. L'information peut être diffusée plus largement et efficacement si elle est traduite dans les langues locales, largement distribués et gratuitement.

- **L'utilisation des médias :** journaux, radio et télévision offrent des voies utiles pour informer le public sur les questions de biotechnologie et biosécurité, les demandes d'approbation. Cela donne au public la possibilité de faire des commentaires et de participer.

## 5. Activités en cours et à venir

Nous sommes en train de développer un projet sur le renforcement des capacités en biosécurité que nous allons soumettre au GEF et qui va nous permettre de mener les activités suivantes :

- Elaboration d'une stratégie de sensibilisation et des outils de sensibilisation
- Disponibiliser des matériaux de formation, brochures
- Améliorer la compréhension du public sur les biotechnologies et sur les systèmes de biosécurité

**CHAD**

[30 Oct. 2011]  
[SUBMISSION: FRENCH]

### ACTIVITES DE SENSIBILISATION ET D'EDUCATION DU PUBLIC EN MATIERE DES OVM AU TCHAD

Pour la mise en œuvre du Protocole de Cartagena sur la Prévention des Risques biotechnologique, le Tchad a mis sur pied un Comité national de Coordination (CNC) pour gérer les activités liées à la biosécurité.

Dans le cadre d'exécution des activités, un cadre national de biosécurité a été élaboré et adopté sur le plan national. Le cadre national de biosécurité a mis en place un Comité national de biovigilance qui s'occupe particulièrement de la sensibilisation et de l'éducation du public. L'outil utilisé est mécanisme de participation active du public au processus de prise de décision en biosécurité. Pour se conformer à la mouvance du droit international notamment à l'émergence du principe de participation du public en droit international de l'environnement, le Tchad œuvre à l'établissement et au maintien d'un mécanisme efficace, seul garant de la réussite de son programme national de biosécurité. Le mécanisme de participation du public à la prise de décision dans le domaine de la biosécurité met de l'avant une procédure transparente et fiable avec une forte composante dédiée à l'information et à la participation du public. Le mécanisme de participation du public bénéficiera également d'une politique stratégique efficace de coordination de l'ensemble des actions des divers ministères du gouvernement de concert avec les universités et instituts de recherche mais aussi avec l'implication du secteur privé, du public et de la société civile.

Notre plan d'action tend vers un programme national de renforcement des capacités. Le Tchad abrite au sein de ses universités nationales et instituts de recherche scientifique, des installations de recherche exploitées par quelques chercheurs nationaux maîtrisant la biotechnologie moderne.

De façon régulière, le comité de biovigilance procède à :

- Valoriser les ressources humaines existantes et créer de nouvelles expertises par la formation du personnel à impliquer dans l'évaluation et la gestion des risques;
- Sensibiliser et éduquer le public à tous les niveaux, qu'il s'agisse des décideurs et des parties prenantes;

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- Échanger les informations et gérer les bases de données, y compris une participation aux activités du Centre d'échanges pour la Prévention des risques biotechnologiques (BCH) mis en place par le Secrétariat de la Convention de la diversité biologique;
- Collaborer scientifiquement, techniquement et institutionnellement aux niveaux sous-régional, régional et international ;
- Harmoniser des méthodes d'identification des OGM et des produits dérivés d'OGM.

De temps à autre le comité fait des descentes sur le terrain (région, villes, villages) pour parler de vive voix aux populations. Pour ce faire, il s'appuie sur :

- Les relais en communication dans les zones rurales pour faire participer le public (radio rurale);
- Les réseaux organisés représentés aux différents niveaux de la hiérarchie administrative (région, département, arrondissement, communauté rurale, ...) mais aussi au sein des institutions nationales (instituts de recherche, universités, directions, inspections, ...). Au niveau des mouvements associatifs, les associations d'agriculteurs, de forestiers, de consommateurs, de protection de l'environnement, etc. peuvent être mises à contribution ;
- La plateforme paysanne, les groupements de jeunes, les associations féminines, les associations consuméristes, etc.

Pendant ces séances, les avantages et les inconvénients des OVM sont détaillés et discutés de long en large. Dans le cadre du BCH 1, une rencontre publique a eu lieu à Moundou, une ville dans la région méridionale du pays où la culture du coton et la culture des céréales sont des activités principales quotidiennes des ruraux.

En mai 2011, un atelier a réunis plus de cinquante personnes à N'Djamena a permis de passer à peigne fin un projet de cadre régional de biosécurité de l'Afrique de l'Ouest et le Tchad. Une occasion où tout le monde a participé activement

## **DR CONGO**

[30 Oct. 2011]  
[SUBMISSION: FRENCH]

Il existe en République Démocratique du Congo des dispositions légales et administratives en rapport avec la sensibilisation et éducation du public sur la biosécurité notamment dans le cadre national de biosécurité, le projet de loi sur la biosécurité, la loi portant principes généraux relatifs à l'environnement ainsi que le code forestier. Ces différentes dispositions réaffirment le principe de l'implication du public dans l'élaboration de la politique et dans la gestion de l'environnement, de la biodiversité et des forêts ainsi que le droit d'ester en justice pour la protection de l'environnement.

En ce qui concerne le cadre national de biosécurité, il prévoit notamment de sensibiliser le public, l'éduquer, lui faciliter l'accès à l'information et le faire participer aux processus décisionnels relatifs aux OVM.

Le projet de loi relatif à la sécurité en biotechnologie prévoit des mécanismes de sensibilisation et de consultation du public lors de la prise des décisions et met à la disposition de celui-ci les résultats des décisions prises.

La loi portant principes fondamentaux relatifs à l'environnement prévoit que toute personne a droit de participer au processus de prise des décisions en matière d'environnement et de gestion des ressources naturelles.

Ainsi, le public a le droit de participer au processus d'élaboration par les autorités publiques des politiques, programmes, plans et règlements relatifs à l'environnement dans un cadre transparent et équitable défini et mis en place par lesdites autorités et a également le droit de participer, dès le début et

tout au long, au processus de prise des décisions qui ont une incidence sur son existence peuvent avoir un effet important sur l'environnement.

Le Code forestier quant à lui prévoit la création des conseils consultatifs dans lesquels toutes les parties prenantes sont représentées et toutes les décisions concernant la gestion de la forêt sont prises après sensibilisation et consultation de cette structure ainsi que des populations locales et autochtones. Aucune décision ne peut être prise sans au préalable sensibiliser, éduquer et consulter le public.

En dépit de l'existence de toutes ces dispositions, il se fait malheureusement que les activités de sensibilisation et d'éducation du public sur la biosécurité ne sont pas effectives. Une des raisons qui expliquent cette situation est l'inopérationnalisation du Cadre national de biosécurité. En effet, le manque des moyens financiers et matériels avec comme conséquence, la non mise en œuvre du cadre national de biosécurité depuis son développement a mis en veilleuse tout ce qui devrait être entrepris en rapport avec la prévention des risques biotechnologiques.

A ce jour, les quelques activités de sensibilisations sur la biosécurité restent des brèves présentations au cours de certains ateliers sur la biodiversité.

## **GHANA**

[31 Oct. 2011]  
[SUBMISSION: ENGLISH]

### **BIOSAFETY PUBLIC EDUCATION PROGRAMME IN GHANA**

After the passage of the Biosafety Bill into law on 31<sup>st</sup> December, 2011, it became imperative to engage the public on the entirety of the law in view of the low public understanding of Genetic modification activities. The purpose of the Act is to establish a legal framework which will provide the machinery for regulating biotechnology and Biosafety in Ghana.

In view of this, series of TV and Radio programs have been identified, whose platform would be engaged to educate the public.

<b>TV PROGRAM</b>	<b>MEDIA HOUSE</b>	<b>DATE/ TIME</b>	<b>RESOURCE PERSONS</b>
Break Fast Show	GBC-GV	29/10/12 7.00 am	
Adult Education	GBC-GTV	5/11/12 6.30pm	
Talking Point	GBC-GTV	17/11/12 8.00pm	
TV3 News item	TV3	7.00 p.m.	
<b>RADIO PROGRAM</b>			
Peace FM Morning Show	Peace FM	6.00 a.m.	
Super Morning Show	Joy FM	8.00 a.m.	
Radio Gold Morning Show	Radio Gold	9.00 a.m.	

\*\*\*Regional and District programmes will start in 2012.

## **MESSAGES FOR BIOSAFETY SYSTEM IN GHANA**

### **What is the Biosafety Law**

1. The Biosafety system in Ghana is supported by the Biosafety Act, 2011 (Act 831).
2. It was passed by the Parliament of Ghana and assented to by the president in December 2011.
3. It is an Act to regulate biotechnology and provide for other related matters.
4. It does not apply to Genetically Modified Organisms (GMOs) that are pharmaceuticals for human use.

### **Who is mandated to carry out functions**

The National Biosafety Authority (NBA) is legally mandated to carry out Biosafety activities.

### **Why is this necessary?**

To ensure that all genetically modified foods, feed and crops are deemed safe before commercial and/or environment releases

### **Who constitutes the Authority (sub message)**

### **What are the responsibilities of the NBA**

1. Oversees all activities involving genetically modified organisms (GMOs) in Ghana
2. Ensures that all GMOs are safe before approval for use / import /export.
3. Dispel misconceptions about biosafety and win public confidence in the practice of biotechnology involving GMOs in Ghana.
4. Ensures that applications are reviewed using Risk assessment and Risk management to evaluate their safety.
5. Ensures that applications are reviewed on timely basis following the deadlines outlined in the framework.
6. Allows for the participation of the public in decision making.
7. Enables Ghana as signatory to the Cartagena Protocol to be compliant with international standards

## **STRUCTURES FOR BIOSAFETY SYSTEMS**

**National Biosafety Authority** – Provides the application form to applicants and constitutes a Technical Advisory Committee (TAC) to review it.

**Technical Advisory Committee (TAC)** – Reviews applications for Risk Assessment and Risk Management.

**Institutional Biosafety Committee (IBC)** – Reviews applications at the institutional level for onward submission to the national biosafety office

**Biosafety officer** – Receives application and proves it for acceptance and review by TAC.

**Inspectors** – Inspects premises on site practices / activities for compliance.

**Regulators** – Inspect for monitoring and enforcement.

1. National Biosafety Authority (NBA) has a secretariat, the Biosafety office, to receive applications.
2. The Biosafety Officer has to ensure the following:

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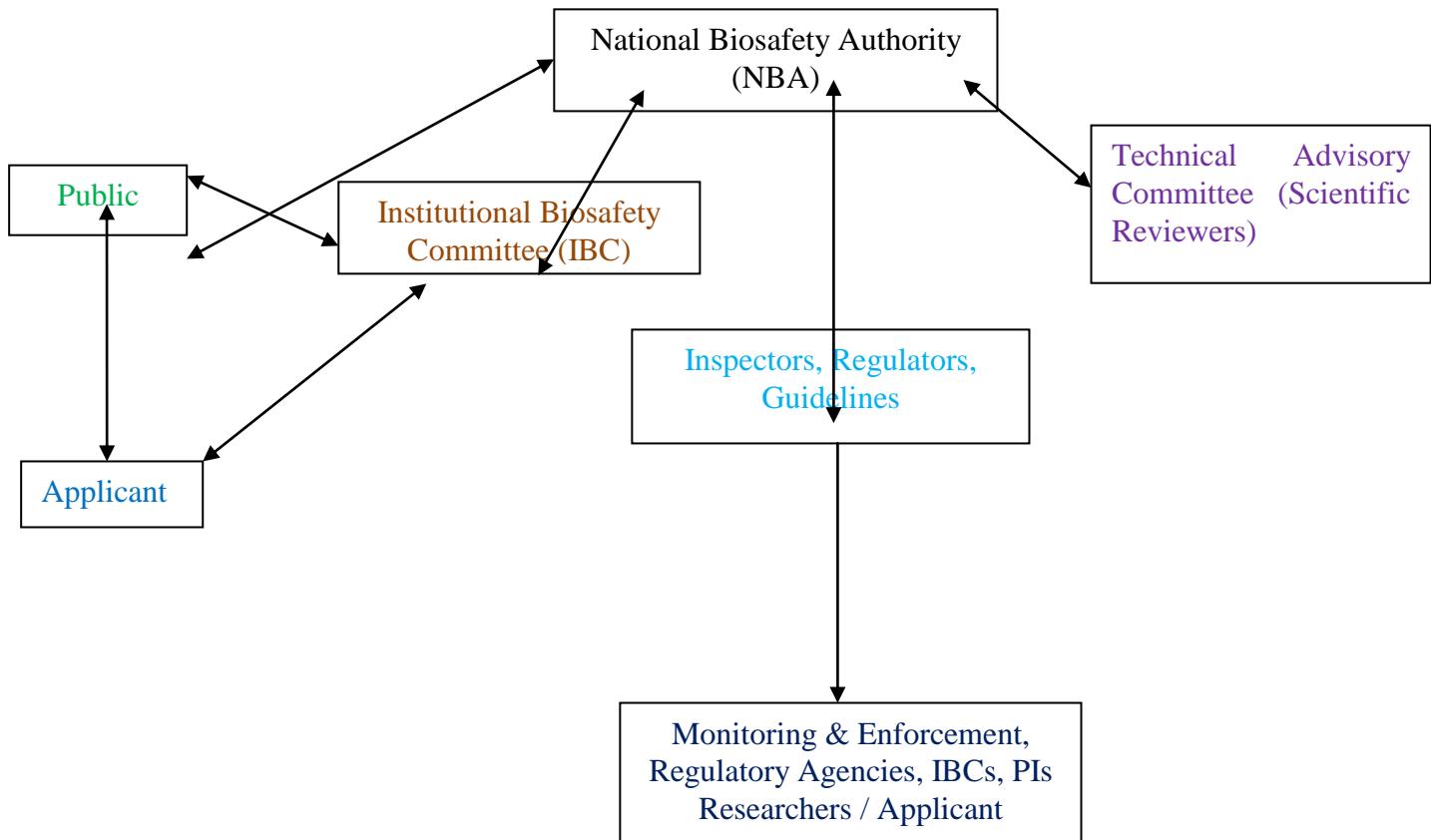
- i. Completion of application correctly with signature of PI
  - ii. Application accompanied by minutes in which the Institutional Biosafety Committee (IBC) had approved of the application for onward submission to the National Board Authority (NBA)
  - iii. Request for any document deemed necessary
  - iv. Start the clock for action on the application
3. The National Biosafety Authority (NBA) constitutes a Technical Advisory Committee (TAC) for each application depending on the expertise needed to expertly review the application.
  4. The Technical Advisory Committee (TAC) composition is determined depending by the nature of the application in order to recruit Scientists and other stakeholders as experts for the review.
  5. Institutional Biosafety Committee (IBC) should be constituted by every Research Institute conducting research on GMOs and should include stakeholders and the community. IBCs should be certified by the NBA.  
In the event that an institute does not have full complement of scientists to form an IBC, it can team up with another to constitute one.  
Members of the IBC should indicate their qualifications.
  6. Institutional Biosafety Committees (IBCs) are required to monitor laboratory and Greenhouse trials.

### **Decision Making**

- i. Decisions are made after an application has been reviewed by a competent Technical Advisory Committee (TAC) duly constituted by the NBA on case by case basis.
- ii. Decisions are (i) Science-based using competent Scientists
  - (ii) Transparent – involvement of the public
- iii. Ghana already has in place National Biosafety Framework documents which are used in the execution of Risk Assessment and Risk Management of GMOs.  
These documents were prepared as a requirement of the Cartegena Protocol by Member States.
- iv. An applicant may appeal against an unfavourable decision preventing him/her from carrying out an activity.

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## MESSAGE MAP FOR BIOSAFETY SYSTEM IN GHANA



MDA: Ministries, Department and Agencies

PI: Principal Investigator

### LESOTHO

[31 Oct. 2011]

[SUBMISSION: ENGLISH]

**AFRICA REGIONAL CAPACITY-BUILDING WORKSHOP ON PUBLIC AWARENESS,  
EDUCATION AND PARTICIPATION CONCERNING LMOS - KAMPALA, UGANDA, 5-9  
NOVEMBER, 2012**

**Lesotho ongoing activities on public awareness, education and participation regarding LMOs**

**By Maboi Mahula**

Lesotho participated in the negotiation and drafting of the Cartagena Protocol on Biosafety (CPB) with the specific focus on transboundary movement of any LMOs resulting from modern biotechnology that may have adverse effects on the conservation and use of biodiversity and the adoption of appropriate procedures for Advanced Informed Agreement (AIA). Lesotho signed the Cartagena protocol on Biosafety in September 2001 and ratified the Protocol on the 11<sup>th</sup> September 2003.

Lesotho participated in the UNEP/GEF Global Projects for the Development of National Biosafety Frameworks and developed the following measures: a Policy on Biosafety in place; a Biosafety Bill has

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been formulated and it is currently undergoing parliamentary review and approval. Lesotho is also part of UNEP/GEF Projects on Implementation of National Biosafety Frameworks. By the end of the project, Lesotho will have integrated biosafety and biotechnology into its national development plans, established a fully functional and responsive regulatory regime in line with Cartagena Protocol and national needs on biosafety, will have a fully functional national system for handling requests and applications, set up a system for monitoring environmental effects and enforcement mechanism for biosafety, and established a functional systems for public awareness, education, public participation in decision making and access to information.

Four consultative workshops were conducted between February and March 2012 for various stakeholders to sensitise them on the issues concerning modern biotechnology in four of ten districts of Lesotho and to find their priority needs concerning modern biotechnology and biosafety.

The workshop was held with the following objectives;

- To explain the international Biosafety instruments to the stakeholders which are;
  - ♣ Cartagena Protocol on Biosafety(CPB)
  - ♣ Convention on Biological Diversity (CBD)
- To introduce the project and explicate the need for partnership amongst the stakeholders on environmental management
- To find out priority needs from stakeholders in relation to biosafety

A three day workshop was also conducted for eight district environment officers to capacitate them on biotechnology and biosafety in May 2012.

Through national public awareness survey on biotechnology and biosafety conducted in June this year on ways of improving communication concerning LMOs, various channels were suggested including use of mass media, public campaigns, public gatherings, workshops and the use of language understandable at the community level. The Department of Environment has also prepared a five year biotechnology and biosafety public awareness strategy.

The future actions involve the preparation of outreach materials for different communities in both official languages in Lesotho. Subsequent to that, outreach materials will be disseminated throughout the country while conducting campaigns relating to biosafety and during educational fairs. The major challenge was a lack of biotechnology and biosafety public awareness strategy that will guide in public awareness, education and participation.

## **LIBYA**

[31 Oct. 2011]

[SUBMISSION: ENGLISH]

### **National Programme for Biosafety –Libya Environment General Authority 2011-2012**

#### **Introduction:**

Libya Passed during the past decades a period that marked by weak level work on governmental institutions and departments related to awareness activities, because of purely political reasons, and this wouldn't enable the Environment general Authority to carry out its role in the field of environmental awareness in Generally, This along with the lack of addition to the lack of financial and technical resources.

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### Running Activities:

Editing and finalisation of informative leaflet .

- Publication of scientific information in different medias, (magazines/newspapers) on Biosafety and Biotechnology.
- Organization of radio program ( Radio TRIPOLI) on Biosafety and Biotechnology 2012.
- Many information and awareness activities are running at national, regional, local levels (Environment General Authority).



- These pending activities planned to be executed on medium and long term basis, considering targeted goals, such as information sharing, training, stakeholder sensitisation on Biosafety and Biotechnology through consultations and public awareness meetings.

### Activities planned for the period after revolution:

- Encourage publication of scientific informations, in magazines, local newspapers on Biosafety and Biotechnology ;
- Organisation of media programs on Biosafety and Biotechnology

### Difficulties

A certain number of problems were encountered including the following:

- Complicated Procedures in National financial support.
- Lack of Communication and response at the National Institutions Level.

**MADAGASCAR**

[29 Oct. 2011]  
[SUBMISSION: FRENCH]

**Progressives activités de Madagascar sur la sensibilisation, l'éducation et la participation du Public concernant le transfert, la manipulation et l'utilisation sans danger d'organismes vivants modifiés**

Madagascar a signé le Protocole de Cartagena sur la prévention des risques biotechnologiques en septembre 2000 et l'a ratifié en 2003. De ce fait, il a bénéficié des appuis financiers et techniques du GEF-PNUE pour l'élaboration du cadre National de Biosécurité (2002 - 2005) et des deux (02) phases du Projet de Renforcement Continu de la Création des Capacités pour une Participation Effective au Centre d'Echange pour la Prévention des Risques Biotechnologiques (CEPRB), du 2007 à 2008. C'est dans la continuité de ces actions que Madagascar bénéficie encore actuellement du soutien du GEF-PNUE pour la mise en œuvre de la Structure Nationale de biosécurité, d'une durée de quatre (04) ans (2011 – 2015). Ce projet comprend cinq (05) composantes :

- Composante 1: Intégrer et incorporer les questions de biosécurité dans les programmes nationaux et ou les stratégies pour le développement durable ;
- Composante 2: Mettre en place un régime pleinement fonctionnel et réglementaire adapté au Protocole de Cartagena et les besoins nationaux en matière de biosécurité ;
- Composante 3: Établir et consolider un système opérationnel transparent national en matière de traitement des demandes, une évaluation des risques et la prise de décision dans la gestion des OVMs.
- Composante 4: Mettre en place d'un système de surveillance des effets environnementaux et les mécanismes d'application de la biosécurité à Madagascar ;
- Composante 5: Mettre en place des systèmes entièrement fonctionnels pour la sensibilisation et l'éducation, la participation du public au processus décisionnel et l'accès à l'information.

**SENSIBILISATION**

***Au niveau central :***

Organisation des ateliers de sensibilisation sur la manipulation et l'utilisation des informations du CEPRB :

- 13, 14 et 15 Décembre 2011 pour les techniciens des ministères sectoriels, des organismes rattachés et des agences d'exécution du programme environnemental ;
- 25, 26 et 27 Janvier 2012 pour les académiciens et les universitaires (enseignant-chercheurs), les douaniers, les techniciens phytosanitaires, les médias et les membres des sociétés civiles ;
- 29 Mai 2012 pour les décideurs (Ministres, SG,DG, parlementaires)

***An niveau régional :***

Organisation des ateliers de sensibilisation et de formation sur le Protocole de Cartagena sur la Biosécurité. Cet atelier a été effectué aux Circonscriptions Administratives territoriales où se trouvent les Ports de Madagascar :

/...

- 18 et 19 Septembre 2012 à la Région Est, Province de Toamasina
- Parallèlement, le 18 et 19 Septembre 2012 également à la Région Sud-ouest, Province de Tuléar
- 6 et 7 Novembre sera à la Région Boeny (Ouest), Province Majunga
- 20 et 21 novembre sera à la Région Diana (Nord), Province de Diégo

Ces ateliers régionaux ont pour objectifs de renforcer la connaissance et la compétence technique des participants et surtout la prise de responsabilité des services déconcentrés et décentralisés dans la mise en œuvre du Protocole de Cartagena et du Centre d'Echange pour la Prévention des Risques Biotechnologiques (CEPRB).

Les participants de ces ateliers sont composés par des techniciens des services déconcentrés (Environnement, Agriculture, Elevage, Santé, Douanes, Population, Commerce, Transport,...), des responsables des services décentralisés, des ONGs/Associations régionales œuvrant dans le domaine de développement et des paysans (Planteur et Eleveur).

Actuellement, nous sommes entrain d'établir des systèmes fonctionnels pour la sensibilisation et l'éducation du public, cela consiste : à concevoir, à multiplier et à distribuer des brochures, des Posters ; à diffuser une émission radio et télévisée ; à organiser des conférences universitaires et des débats publics.

## **EDUCATION**

Depuis 2010, le Ministère de l'environnement contribue à la formation des futures responsables, élèves de l'Ecole Nationale d'Administration de Madagascar. Les élèves de cette école sont composés des sections : Administrateur Civil, Administrateur des Services Financiers, Inspecteur des Impôts, Inspecteur des Domaines, Inspecteur de Travail, Agent Diplomatique et Consulaire. Parmi les modules enseignés pour cette école, les Conventions Internationales, notamment la Convention sur la Diversité Biologique et le Protocole de Cartagena sur la protection des risques biotechnologiques.

## **PARTICIPATION DU PUBLIC**

Développement du CEPRB, cela consiste :

- à créer un site web spécifique pour Madagascar accessible au public :  
<http://mg.biosafetyclearinghouse.net> autre que <http://bch.cdb.int> pour Protocole de Cartagena ;  
<http://mg.chm-cbd.net> autre que <http://www.cbd.int> pour la Convention sur la Diversité Biologique, afin de développer un Système National d'Information de biosécurité, comprenant une base de données et des manuels opérationnels sur l'utilisation du CEPRB national. Un système entièrement fonctionnel et exploitable pour les applications de manutention, y compris la prise de décision, l'évaluation et la gestion des risques, ainsi que le mécanisme d'échange d'informations.
- à mettre à jour d'une manière régulière et systématique des informations relatives aux réglementations, y compris le partage d'informations sur le CEPRB.
- à organiser chaque année des ateliers de formation sur CEPRB pour créer un système accroissant la sensibilisation du public, l'éducation et la participation à la prise de décision.

Elaboration des textes, citons :

- le Code de la Santé qui stipule en son article 48 que « les produits alimentaires d'origine végétale, ayant été mis en culture sous le mode spécifique des Organismes Génétiquement Modifiés appelés OGM, font l'objet d'une déclaration les classant dangereux pour la consommation humaine en

raison des risques de modification du génome qu'ils font courir au consommateur. Leur mise en vente au titre de denrée alimentaire est interdite à travers le Territoire National » (Loi n° 2011-002 du 15 juillet 2011).

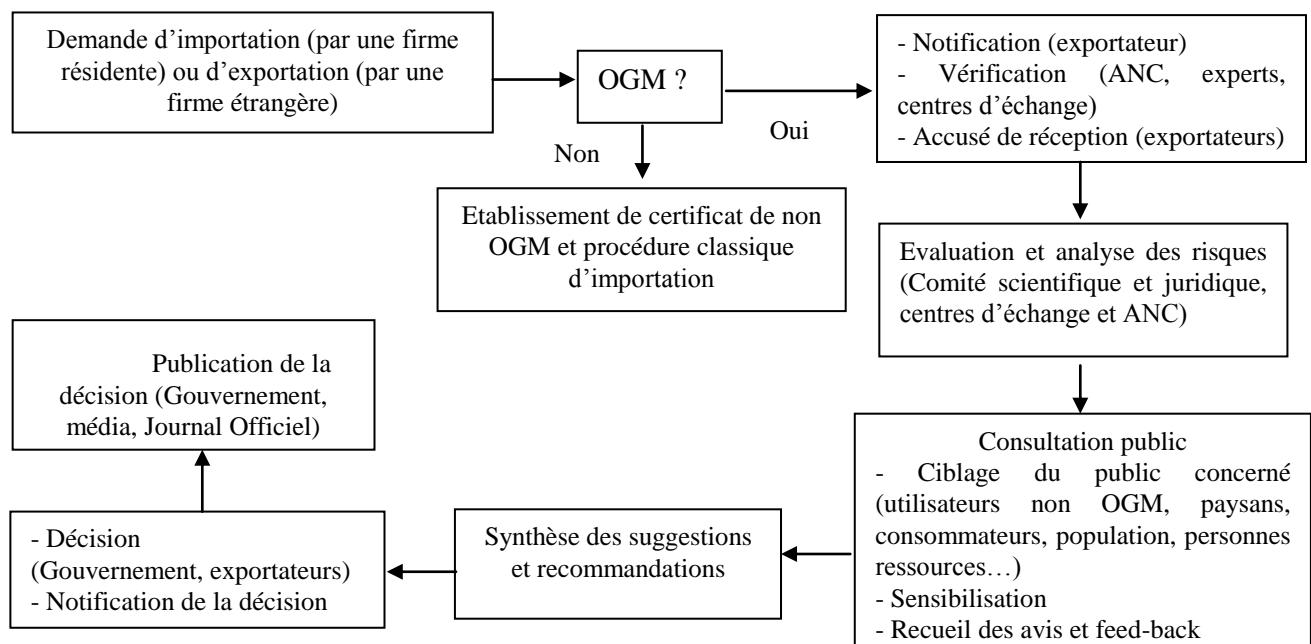
- l'Arrêté portant création d'un Comité Scientifique et Technique (CST) en biosécurité, chargé d'appuyer l'Autorité Nationale Compétente (ANC) dans la prise de décision concernant l'exportation et l'importation des organismes génétiquement modifiés (OGM) (Arrêté n° 11 356 /10/MEF le 05 Mai 2010).
- le Décret portant mise en place, fonctionnement et attributions des divers organes de la biosécurité à Madagascar.

Les divers organes de la biosécurité mentionnés par ce Décret sont :

- ✓ l'Autorité Nationale Compétente (ANC) en matière de biosécurité à Madagascar. C'est le Ministre chargé de l'Environnement. Il est le seul habilité à prendre la décision finale relative à la biosécurité. Le Point focal Biosécurité assure le Secrétariat permanent de l'ANC.
- ✓ Le Comité National de Biosécurité (CNB)
- ✓ Le Comité Scientifique et Technique (CST)
- ✓ Le Service de Contrôle Mixte (SOCM)
- ✓ Le Bureau de Participation du Public pour la Prévention des Risques Biotechnologiques (BPP).

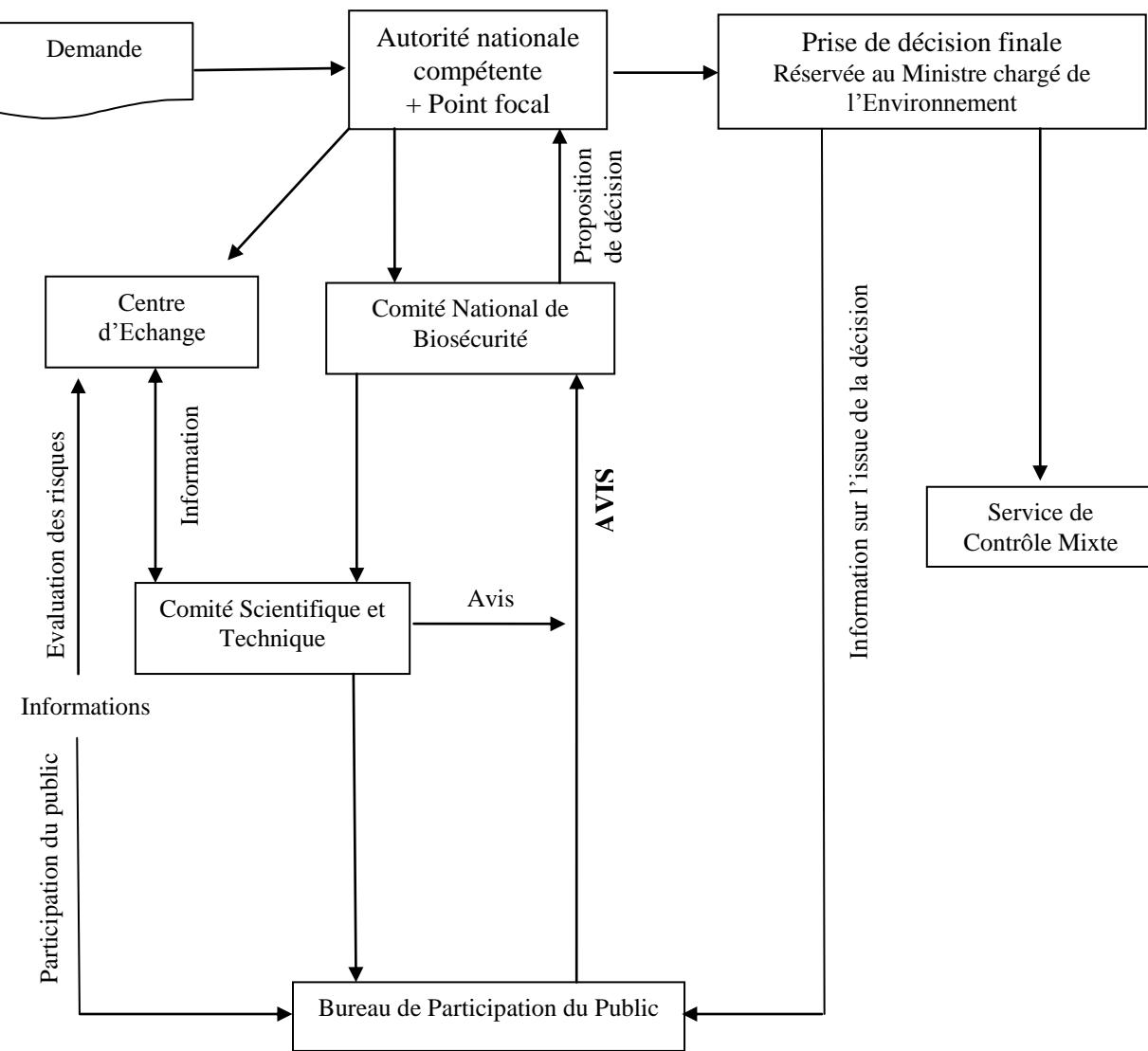
Ce Décret définit également le processus de participation du public et le processus de prise de décision pour réglementer, gérer ou maîtriser les risques associés au transfert, à la manipulation et à l'utilisation sans danger des OVMs résultants de la biotechnologie moderne.

#### *Processus de participation du public :*



**Processus de prise de décision :**

L'Autorité Nationale Compétente (ANC) s'acquitte des fonctions administratives telles que la réception des demandes et la notification de la partie importatrice. Le CNB saisit le CST au cas par cas selon les compétences requises pour les analyses et/ou suivis nécessaires avant et/ ou après la notification par l'ANC de l'introduction ou de la production d'OGM ; les résultats sont rendus au CNB qui en informe le Public concerné et les médias pour recueillir leur avis. Suite à la consultation publique, le CNB formule la décision et la transmet à l'ANC pour la suite à donner au demandeur. Pour une suite positive autorisant l'introduction et la libération de l'OGM, le CNB saisit le Service de Contrôle Mixte pour réaliser des opérations de suivi, de contrôle et d'inspection.



Pour terminer, nous tenons à souligner que, à Madagascar, tous les dispositifs ou les préalables nécessaires pour mettre en œuvre le Protocole de Cartagena sur la prévention des risques biotechnologiques est déjà mis en place. Il nous reste la nomination de quelques personnes aux postes des divers organes de la biosécurité, c'est la mise en œuvre du Décret portant mise en place, fonctionnement et attributions des divers organes de la biosécurité à Madagascar. Et, pour que le système mise en place dans la mise en œuvre de ce Protocole soit effective (efficace et efficience), nous souhaitons la collaboration et la participation active de tous les pays membres et non au protocole.

**MALAWI**

[2 Nov. 2011]

[SUBMISSION: ENGLISH]

**ONGOING ACTIVITIES ON PUBLIC AWARENESS, EDUCATION AND PARTICIPATION REGARDING LMOs****BACKGROUND**

Malawi is located in the southern part of the East African Rift Valley and has a total territorial area of approximately 118,000 km<sup>2</sup> of which 20% is taken up by water bodies, Lake Malawi being the largest.

Malawi is also Party to the Cartagena Protocol on Biosafety. The Protocol was domesticated as follows: The Biosafety Act was enacted in 2002, while the Biosafety (Management of Genetically Modified Organisms) Regulations were developed in 2007. Later, in 2008, the National Biotechnology and Biosafety Policy was passed by Cabinet. Other documents developed include the Confined Field Trials (CFT) Guidelines, Trial Managers' Handbook and Inspectors' Handbook.

**ONGOING ACTIVITIES**

The country recently published and launched a National Environment and Climate Change Communication Strategy 2012 – 2016. This strategy was developed to address the knowledge gap that existed in the population with regards to issues of environment and climate change, including LMOs.

The objectives of the communication strategy include:

- Increasing public awareness, knowledge and understanding and participation in environment and climate change, including LMOs among various target groups;
- Promoting popular participation in the implementation of the environment and climate change, including LMOs;
- Enhancing institutional and individual capacity for communication in environment and climate change, including LMOs;
- Fostering collaboration, coordination and networking of the National Environment and Climate Change Communication Strategy interventions; and
- Enhancing monitoring and evaluation of the National Environment and Climate Change Communication Strategy.

To achieve these objectives, several strategies have been put in place, such as:

- Utilizing all available channels of communication to inform the public about environment, climate change including LMOs;
- Increasing community and individual participation in environment and climate change management including LMOs;
- Mainstreaming and strengthening environment and climate change, including LMOs communication aspect in existing curricula;
- Increasing environment and climate change, including LMOs awareness in educational institutions;
- Strengthening environment and climate change, including LMOs into literacy programmes and extension services;
- Supporting key agencies/institutions that provide environment and climate change, including LMOs communication services;

/...

- Developing and implementing relevant training in environment and climate change, including LMOs for special groups of people in different strata of society;
- Identifying mechanisms for facilitating and coordinating environment and climate change, including LMOs communication at all levels;
- Identifying and utilizing existing structures in environment and climate change, including LMOs;
- Evaluating existing interventions on environment and climate change, including LMOs; and
- Providing feedback on environment and climate change, including LMOs interventions.

It is hoped and believed that this communication strategy will address issues of public awareness, education and participation, in areas regarding the environment and climate change, and Living Modified Organisms.

## **MOROCCO**

[31 Oct. 2011]  
[SUBMISSION: ENGLISH]

### **BIOSAFETY AND BIOTECHNOLOGY STATUS IN MOROCCO**

Benefiting of various types of ecosystems, Morocco is rich in biodiversity (fauna and flora). It's also an origin center of many vegetable species.

This biodiversity is integrated in almost all national agricultural strategies. It aims a rational management and sustainable use of all biological resources.

#### **1. STATE OF BIOTECHNOLOGY IN MOROCCO**

In Morocco, biotechnology has emerged recently. So research programs were launched first on plant tissue culture technologies and later on various aspects such as molecular biology, transgenesis and genetic molecular.

Research is carried out in many public, semi-public and private institutions. All these institutions work under the authority of universities and/or Ministry of agriculture.

Biotechnology research program has benefited from a number of national and international cooperation. The collaboration in biotechnology field consists basically on training, research and development.

#### **2. OVERVIEW ON BIOTECHNOLOGY MAJOR PROGRAMS**

- A large number of research units and laboratories are carrying out projects in biotechnology. Most biotechnology projects involve collaboration between at least two research institutions;
- institutions involved in agricultural biotechnology are under the authority of Ministry of agricultural development;
- private companies are building up their own research groups in the case of certain crops;
- Research is focused on more than thirty plant species, but horticultural crops are prevalent. Since 1982, research programs have been carried out on tissue culture of banana, date palm, citrus fruit, strawberry, olive, potato, tomato, pistachio, cereals, food legumes, medicinal plants and some arid land species.

- Embryo rescues and micro-propagation have been used to produce healthy plant date palm, potato or regeneration of plant combining resistant genes to virus and disease for cereals, tomato and melon.
- Mass propagation was used to produce explants for farmer in case of date palm, forest and fruit trees.
- Research on molecular biology has been initiated at public institutions and private sector. Animal and agricultural food crops were concerned.
- Assessment of genetic diversity and development of molecular markers were initiated in many crops.
- Techniques of RFLP and PCR RAPD markers have been used in case as markers for, Hessian fly, the most insect destroyer for barley and wheat, abiotic stress (drought and salt tolerance). Genetic diversity of Morocco Hessian fly has been study using RAPD technique.
- Assessment of diversity of cereals, food legumes and forage is ongoing. This will be used to evaluate Moroccan germplasm.
- Biotechnology applications in industry are limited to isolate examples. At the National Center for sugar cane (the clone selection and micro-propagation) since 1985.
- Biotechnology research in forest is restricted to a few laboratories. Tissue culture of eucalyptus, holm oak, argan (*Argania spinosa*) and cedar holm oak.
- In medicinal biotechnology, veterinary departments, studies are carried on isolation, purification and characterization of antigens for vaccines production against recombinant vaccines for equine plaque and diagnostics test for mycobacterium studies on the production on industrial enzymes from hyper-thermophilic bacteria.
- In the control and plant quarantine, biotechnology is used primarily in:
  - 1. variety identification using biochemical techniques;
  - 2. Control and certification of seeds and seedlings (electrophoresis, ELISA test);
  - 3. Detection of certain diseases (electrophoresis, PCR, ELISA test).

### **3. STATE OF TRANSGENIC PLANT IN MOROCCO**

This is no transgenic plants are grown in Morocco. Currently the introduction of GMOs is not allowed. A draft law on the control of the use, dissemination and marketing of GMOs or products thereof has been prepared and submitted for review and approval.

Under the precautionary principle, a circular prohibiting the introduction in the national territory of products and food preparations containing products derived from GMOs was promulgated by The Department of Agriculture on 11 August 1999.

To develop biosafety regulations, an ethical committee "National Biosafety Committee " under the authority of Prime Minister (Chairman) was created by circular in 2005:

The role of this comity is to examine the research conducted in biosafety area in order to suggest legislation measure and regulations and to check on their application;

The national comity will be supported by sectored groups (agriculture, health, environment...), Private sector representatives and civil society. The Committee must express an opinion to the government on the use, handling, transfer, release, importation and marketing of GMOs and their derived products, including in legislative and regulatory disposal, Morocco's position on GMO issues

#### **4. PROJECT OF BIOSAFETY LAW**

A biosafety law project has been drafted and submitted for approvals. This project is finalized according to the recommendations set by the protocol of Cartagena.

The main objective of this law is to protect human health, animal health and the environment from potential risks of GMOs.

These regulations allow the implementation of the Cartagena Protocol which is signed by Morocco in May 2000 and ratified it in April 2011. The Protocol entered into force in July, 2011.

#### **5. OTHER ACTIONS**

##### **5.1. National charter of environment and sustainable development (CNEDD)**

The publication of this charter in 2010 leads to

- Help to regulate the management of solid and liquid waste in all public and private sector, while conserving resources and natural areas;
- Ensure projects to adhere to environmentally friendly standards, permit to join the progressive policy to reconcile the Moroccan imperatives, socio-economic development and preservation of environment and sustainable development;
- Cover the creation of sites for waste disposal, treatment and recycling of wastewater, the classification of open spaces such as forests, the fight against air pollution, and preservation of natural reserves.

The industrial sector must also comply with this charter.

##### **5.2. Law 11-03 on the protection and enhancement of the environment**

The objective is to enact the basic rules and general principles of national policy in the field of protection and enhancement of the environment, in particular, Chapter III, Section II on The Protection of Nature and Natural Resources: the flora, fauna and biodiversity.

##### **5.3. Law 12-03 pertaining to environmental impact studies**

Objectives:

- To evaluate a systematic and preliminary way the possible repercussions, the direct and indirect, temporary and permanent impacts of the project on the environment and particularly on man, fauna, flora, soil, water, air, climate, the natural environment and the biological balance, on the protection of goods and historical sites and possibly on the comfort of the neighborhoods, hygiene, public sanitation and security while taking into consideration the interactions between these factors;
- To eliminate, alleviate and compensate the negative impacts of the project;
- To promote and improve the positive impacts of the project on the environment;
- To inform the relevant general public about the negative impacts of the project on the environment.

The authorization of any project subject to an environmental impact study is subordinated to the environmental acceptability decision. This decision constitutes one of the main documents in the application dossier submitted for obtaining permission to proceed with the project.

#### **5.4. Law 78-00 on communal charter**

##### Article 40: Health and Hygiene and Environment

The preservation of the hygiene, Food safety and environmental protection, are the mainly objectives, it also concerns especially:

- protection of the coastline, beaches, river banks, Some of Forestry and Natural Sites;
- preservation of Water Quality, Including drinking and bathing water;
- evacuation and treatment of wastewater and stormwater;
- control for diseases vectors;
- fight against all forms of pollution and environmental degradation and natural balance.

#### **5.5. Law 07-22 related to protected areas- 2010**

For the purposes of this law, the term protected area mean any area of land and / or sea, geographically delimited and specially designed and managed so as to ensure the protection, maintenance and improvement of biodiversity, conservation of natural and cultural patrimony, its enhancement for sustainable development, and preventing its degradation.

#### **5.6. Law 25-06 “distinctive signs of origin and foodstuffs agricultural and fishery products quality”- 2008**

It fixes the conditions to distinguish marks of origin and quality of agricultural products and protection and defines the obligations and responsibility of those taking advantages from. The label agricultural, Geographical indication and origin appellation are the quality and origin distinctive signs.

#### **5.7. Law on management and coastal protection**

Objectives:

- assure biological and ecological balances protection, ovoid erosion, preservation of sites and landscapes and of the land and marine environment related to the coastline;
- the preservation and development of economical activities related to the water proximity, such as fishing, marine farming, ports, construction and ship repairing and maritime transport;

The maintenance or development, in the coastal area, farming or forestry, industry, handicrafts and tourism, the preservation of farmland and forest areas in the coastal area during any management

**RWANDA**

[31 Oct. 2011]

[SUBMISSION: ENGLISH]

#### **ONGOING ACTIVITIES ON PUBLIC AWARENESS, EDUCATION AND PARTICIPATION REGARDING LMOS IN RWANDA**

- **Introduction:**

The Cartagena Protocol on Biosafety to the CBD applies to the transboundary movement, transit, handling and use of all Living Modified Organisms (LMOs) that may have adverse effects on the conservation and sustainable use of biological diversity. The Protocol takes into account risks to human health.

Rwanda ratified the Protocol in 2000.

As the Party to the Cartagena Protocol on Biosafety,Rwanda has prepared the National Biosafety Framework (NBF).

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The objective of the NBF is to provide an adequate framework for Biotechnology risk management and to implement the Cartagena Protocol on Biosafety in Rwanda.

Rwanda Environment Management Authority (REMA) designated the National Competent Authority for LMOs transboundary movement.

- **Completed and ongoing activities on public Awareness, Education and Participation:**

The country general assessment on Biotechnology and Biosafety has been done.

Awareness creation among the public and stakeholder institutions.

Training of stakeholders conducted for public awareness on potential benefits of modern biotechnology and perceived risks.

Other activities are carried out to enhance the Environmental Education, Communication and Public awareness. The Rwanda environment management authority promotes the integration of environmental issues in the formal and non-formal education materials, promoting adequate environmental management skills and awareness.

The main related activities include:

- Integrating LMOs related issues into national planning and implement the National Biosafety Framework;
- Raising awareness by integrating environmental issues into schools curricula;
- Initiating and coordinating preparation and implementation of environmental education, training programmes and materials for different stakeholders, target groups, Community Based Organizations and the public at large;
- Initiating and coordinating activities that support decentralized institutions, communities and civil society to address environmental issues including LMOs;
- Developing and coordinating programmes for public awareness on environmental management;
- Promoting informal awareness raising activities through production of promotional materials such as magazine, news letter, brochure, leaflet, poster etc;
- Coordinating the establishment and management of the environmental documentation centre;
- Conducting awareness raising campaigns through celebration of environmental events;
- Conduct training and capacity building to the local government environmental clubs and population;
- Promoting integration of environmental considerations into development policies, plans, programmes and projects;
- Undertaking and coordinating environmental research and cooperating with national and international organizations involved in research;
- Coordinating the management of environmental information systems and facilitate access to the public;
- Coordinating the preparation and implementation of the National Competent Authority's strategic and action plans and ensuring their linkage to the global national development planning system.

**SOUTH AFRICA**

[30 Oct. 2011]  
[SUBMISSION: ENGLISH]

**THE PUBLIC UNDERSTANDING OF BIOTECHNOLOGY (PUB) PROGRAMME  
PREPARED BY DR. MANJUSHA SUNIL  
PROGRAMME HEAD**

The Public Understanding of Biotechnology (PUB) programme is an initiative of the South African Department of Science and Technology (DST) and is implemented by the South African Agency for Science and Technology Advancement (SAASTA), a business unit of the National Research Foundation (NRF).

The PUB programme was launched in early 2003 and targets all sectors of society. The South African National Biotechnology strategy published in 2001 identified that a communication programme that informs the public regarding the potential of Biotechnology and related issues was essential in order to grow the Biotechnology sector in South Africa.

This programme is fully funded by the DST and is mandated to:

1. Promote a clear understanding of the potential of biotechnology.
2. Increase learners and students exposed to biotechnology in curricula and career opportunities in the field.
3. Ensure broad public awareness, dialogue and debate on the current and future potential applications.

The programme is guided by the following principles in trying to achieve outreach and awareness to different audiences:

- I. Neutral and balanced mandate providing factual and balanced information.
- II. Stimulate dialogue, debate and public participation.
- III. Innovative, creative approaches.
- IV. Communicate in easy, accessible language.
- V. Active involvement of science communities.

Over nearly a decade of existence, the PUB programme has developed numerous resources and used different communication tools in order to engage with a variety of audiences on Biotechnology issues including LMOs.

A major activity that was conducted soon after the PUB programme was launched was a mass survey on public perceptions and attitudes to Biotechnology by the South African populations. Findings from this survey which was conducted in 2004 showed that over 70% of the participants were undecided on issues of Biotechnology linked to genetic engineering and genetic modification and analysis of the results showed that more than 80% of the South African population had little or no knowledge regarding Biotechnology. It is the intention to conduct a second survey in the near future to evaluate progress made in improving awareness.

With regards to communication tools, Media Round Tables (MRTs) is an example of one such tool where scientists and the media are given an opportunity to engage in dialogue and debate. This platform provides an occasion for scientists to showcase their work (suitably topical issues are selected) and for the media to gain a full understanding of the science being discussed and enable them to report more accurately and responsibly to the public. Numerous MRTs have been hosted by the PUB programme and one was specifically on GMOs in the wine industry.

Critical Thinkers Fora (CTFs) are high level discussions aimed at academics, industry and policy makers etc. to engage in discussions that would ultimately lead to collaborative opportunities between different stakeholders and contribute towards policy developments. A CTF on “Agriculture, Food Security and Emerging Technologies in South Africa” was hosted in March 2011.

Workshops for Life Science Educators at high schools all over the country are hosted by the PUB programme in an effort to enhance the knowledge of educators on Biotechnology topics in the school curriculum.

The PUB programme exhibits at National and International science festivals where information on Biotechnology is shared with mostly learners, however other sectors of society are reached.

Theatre is an increasingly popular medium for raising awareness and this format has been explored by the PUB programme for communicating on Biotechnology issues.

In terms of resources, a variety ranging from fact sheets, cartoon posters, DVDs, CDs, touch screens, articles in media publications etc. have been produced. Other work done with the media include radio interviews with Biotechnology specialists, drama series and Public service announcements aired on National TV. All these resources have included information on LMOs.

## **SUDAN**

[2 Nov. 2011]  
[SUBMISSION: ENGLISH]

### **Current status of GMO activities in Sudan**

**Yasir Ahmed Salih Khairy**  
**Higher Council for Environment and Natural Resources (HCENR), Sudan**

#### **Introduction:**

Sudan ranks second in area, in Africa with total area of 1.8 million KM<sup>2</sup>. It shares borders with six countries. The population of the country is about 33 million with growth rate 2.7% per year. Farmers represent more than 50% of the population. The primary natural resources of Sudan are water, supplied by Nile and its tributaries and fertile soil in large areas (80 million hectares as a cultivable land). Different crops are grown in Sudan such as sorghum millet, wheat and cotton as well as different types of vegetable and fruit trees. Furthermore Sudan has vast areas of pastures and forests. The country is also rich in livestock of approximately 102 millions head, including cattle, sheep, goats and camels. Moreover, Sudan has a considerable number of wild animals.

#### **Background:**

The constitution of Sudan (Sudanese Transitional Constitution 2005) calls for the conservation of the natural resources of the country and the protection of its various environments against any hazards.

Furthermore, Sudan is a party to the Convention on Biological Diversity (CBD). It has acceded to the Cartagena Protocol on Biosafety since 2005. This protocol regulates safety movement of genetically modified organisms (GMOs) across borders aiming to protect the environment, the biodiversity and human health from possible adverse effects of the products of modern biotechnology.

Referring to all the above, Sudan has set in place (National Framework on Biosafety 2005) and (National Biosafety Law 2010), in accordance with its national and international obligations

### **Objectives:**

The National Biosafety Law 2010 aims to:

1. Secure an appropriate level of protection in the scopes of research, safe transport, handling and use of GMOs and product of GMOs, which have resulted from modern biotechnology and may have harmful impacts on the preservation and sustainable use of biodiversity, human health and the environment.
2. Provide a transparent predictable method for review and decision-making in respect of GMOs and product of GMOs, and similar activities.
3. Promote of public awareness and contribution in activities relating to Biosafety.
4. Strive to build institutional and human capacities in the field of biosafety.

### **Ongoing activities on public awareness, education and participation Current Status of Biotechnology:**

Although The National Biosafety Law 2010 has been ratified by the National Assembly in May 2010, implementing mechanisms are not fully in place. The government is in the process of drafting a comprehensive directive for the biosafety law and developing implementing mechanism. Since there is no permanent staff to deal with GMOs issues in Sudan, The Higher Council for Environment and Natural Resources (in its capacity as Focal Point for CBD and CPB) collaborated with the Sudanese Standards and Metrology Organization (represented in its technical committee for the GMOs products) and the Biotechnology and Biosafety Center of the Agriculture Research Corporation to fill the gaps and take care of raising public awareness, education and information about Biosafety and GMO concerns.

#### **Activities on Public Awareness:**

Workshops targeting different stakeholders at all levels from local communities to decision makers.

Public awareness campaigns are conducted utilizing media tools such as TV and Radio stations.

Periodic.

Coordinate with NGO's to explain biosafety regulatory system

On line forum

#### **Education:**

Environmental Protection Act 2001 Calls for specialist colleges for environment issue with note to start teaching to all students in schools.

Similarly The National Biosafety Law 2010 stated in article (7) that the Biosafety council shall (e) coordinate relations with scientific research corps, inside and outside the Sudan, which work in the field of scientific research concerning Biosafety, and with state organs concerned with implementation of scientific planning policies;(f) Encourage scientific research which is related to the study of Biosafety in the Sudan; During the last five years, some of the universities such as University of Khartoum, Gezira, Enilain, Joba and Sudan have established department for biotechnology which offers B. Sc and M. Sc programs. Moreover, more than 19 well equipped laboratories including universities are currently enrolled in Biotechnology and Biosafety research programs.

### **Participation in Decisions -Making on GMOs**

There is no official risk assessment take place in Sudan till now, however some of genetically modified foods introduce in the country through food aids and most of them rejected by at hock committees. The technical committee of GMOs products of the Sudanese Standards and Metrology Organization make their decisions in accordance of Case by Case rule.

Needless to say that The National Bio safety Law 2010 aims to promote public awareness and contribution in activities relating to Biosafety. In addition to the fact that the law gives any person the right to claim against any damage resulting from GMO (article 27).

### **Conclusion**

Sudan has established especial law: (National Biosafety Law 2010) since May 2010 but did not complete the executive body.

There is legal right to secure public awareness and contribution but there is no mechanism or clear system to use this right till now.

At national level there is urgent need for raising awareness and developing biosafety regulatory system

There is significant progress in Education in Biosafety and biotechnology.

**TUNISIA**

[1 Nov. 2011]  
[SUBMISSION: FRENCH]

### **I. Introduction**

Fidèle à ses engagements internationaux, la Tunisie a, dès septembre 1999, institué sous l'autorité du MEAT (Ministère de l'Environnement et de l'Aménagement du Territoire), un cadre national de sécurité biologique en mettant en place le Comité National pour les OVM transformé progressivement en Commission Nationale sur la Biosécurité. Dès le départ, les travaux de la CNB se sont concentrés sur l'importance de la sensibilisation du public et de son éducation concernant les OVM et leurs risques potentiels.

### **II. Le cadre institutionnel et juridique de la biosécurité en Tunisie**

La Tunisie a pris des mesures juridiques, administratives et autres nécessaires à la mise en œuvre du Protocole de Cartagène à savoir :

/...

- la mise en place d'un comité national ad hoc sur la biosécurité en 1999 et qui attend sa création officielle par décret,

- la ratification du protocole en janvier 2003,

- la préparation d'un cadre juridique national sur la biosécurité (en cours d'adoption) qui permettra d'encadrer et de contrôler de manière adéquate l'utilisation confinée, la dissémination volontaire, la mise sur le marché, l'importation et le transit des OVM.

Il semble important de souligner que l'existence de la Commission Nationale sur la Biosécurité est antérieure au cadre juridique tunisien ce qui est logique puisque ce dernier est en cours d'achèvement. Cependant ce futur cadre juridique prévoit l'existence de la CNB et précise sa composition, ses modalités de fonctionnement ainsi que ses missions. Les réflexions de la dite commission portent sur les grandes lignes suivantes: l'inventaire des utilisations des biotechnologies en Tunisie; la prévention des risques biotechnologiques; l'élaboration d'un cadre juridique national pour la prévention des risques biotechnologiques; **la formation et la sensibilisation du public.**

Faudrait mentionner également que des réglementations et de procédures relatives aux articles 7-10 du protocole ont été établies. Cela englobe des textes d'applications relatifs aux notifications qui doivent être adressées pour la mise sur le marché, l'utilisation confinée, le transit d'OVM. Toutefois, le cadre juridique n'étant pas toujours officiellement adopté par les instances gouvernementales, de telles procédures ne sont pas encore appliquées.

Des textes et procédures réglementaires relatives à l'article 11 ont été établi mais non encore adoptés par le parlement et ne sont pas encore entrés en vigueur. S'agissant des mesures à prendre en cas d'absence de certitude scientifique concernant les effets nuisibles potentiels des OVM concernés, les décisions seront prises à la lumière des données scientifiques disponibles. La Commission Nationale de Biosécurité analysera les dossiers cas par cas.

Les textes juridiques de la loi nationale de biosécurité prévoient que l'autorisation d'un OVM particulier est limitée dans le temps. Par ailleurs, il est également prévu que la Commission Nationale de Biosécurité à toute la latitude, suite à la parution de nouvelles données scientifiques, de retirer l'autorisation d'un OVM donné.

La loi n'est pas encore entrée en vigueur. Aucun OVM n'a été encore autorisé. Aucune reconsideration d'approbation n'a donc été effectuée.

L'évaluation des risques a été prévue dans les textes et procédures réglementaires proposés dans le cadre national sur la biosécurité (déjà élaboré) y compris les services concernés. Par ailleurs, un organisme national de référence sera mis en place pour assurer l'évaluation des risques, dont ceux relatifs aux OVMs.

La gestion des risques a été prévue dans les textes et procédures réglementaires proposés dans le plan d'action national sur la biosécurité (déjà élaboré) mais aucune application n'a été faite jusqu'à aujourd'hui étant donné que la loi nationale sur la biosécurité n'a pas encore été adoptée.

Les mesures d'urgences prévues dans les textes et procédures réglementaires proposés dans le plan d'action national sur la biosécurité (déjà élaboré) concernent les risques potentiels des OVM de façon globale.

Le cadre juridique national prévoit que les demandes d'autorisation de mise sur le marché, d'utilisation confinée ou de transit des OVM soient antérieures à leur importation. La loi exigera que les OVM autorisés soient accompagnés de documents dont la nature exacte sera indiquée dans les textes d'application. Les OVM non autorisés ne pourront pas être introduits.

### **III. La sensibilisation et l'éducation du public**

Depuis les années 90, les controverses provoquées par l'irruption des OVM, dans les cultures, et les risques pour l'environnement et la santé humaine, enflent sur tous les continents. En Tunisie les biotechnologies prennent de l'essor et les OVM deviennent peu à peu une réalité pour le consommateur, l'agriculteur, l'industriel...

Les enjeux des OGM sont souvent mal compris parce que les questions qu'elles soulèvent sont complexes et qu'elles font référence à différentes disciplines dans les domaines des sciences, du droit ou encore de l'économie.

Cependant, depuis la mise en place de la CNB en 1999, on a insisté sur la l'importance d'une transparence vis-à-vis du public et on a souligné la nécessité de l'informer, de le sensibiliser et d'assurer sa formation pour la prévention des risques biotechnologiques. On a souligné également la nécessité de centraliser cette information sous la forme de base de données, afin de la rendre accessible à un public varié et élargi. L'idée de sensibilisation du public par des actions ciblées et spécifiques a été aussi retenue. Elle consiste notamment à tenir des séminaires de courte période, destinés à sensibiliser un public ciblé. Dans ces séminaires, plusieurs conférenciers spécialistes auront pour mission d'organiser des discussions, des tables rondes et des sorties sur le terrain.

Partant de ce principe, le Ministère de l'environnement Tunisien chargé de coordonner le dossier ayant trait à la biosécurité a réalisé plusieurs activités dans le domaine de la sensibilisation, l'éducation et l'information du public en la matière, parmi les principales activités on cite :

- La réalisation de plusieurs études en la matière à l'instar de l'étude sur l'état des lieux des biotechnologies modernes en Tunisie, l'élaboration d'une stratégie et d'un plan d'action sur la biosécurité, l'élaboration des textes d'applications du cadre juridique et les procédures constituant une plate forme intéressante pour la mise en application du protocole et la diffusion de ces principaux résultats .
- La mise en place d'un BCH national (non encore mis en ligne étant donné que le cadre juridique n'a pas encore été adopté par le parlement). Ce BCH sera un des supports pour la dissémination de l'information concernant les OVM ayant obtenus l'autorisation.
- La mise en place d'un réseau de laboratoire de détection et de quantification des OVM (non encore opérationnel). (Laboratoire OGM/BNG/ Ministère de l'Environnement, Unité OGM/Laboratoire de semences/ Ministère de l'Agriculture, Unité OGMCTAA et unité OGM/ Laboratoire Central d'Analyse et d'expérimentation/ Ministère de l'Industrie).
- La préparation des textes d'application du projet de loi en voie de promulgation comprenant plusieurs dispositions visant l'information du public concernant les OVM. Le notifiant doit fournir des données qui seront accessibles au grand public.
- La Sensibilisation d'une partie du public, des ONGs, à travers la réalisation d'un CD rom interactif sur les OGM et sa distribution dans les différentes manifestations nationales.
- L'implication de la société civile au niveau de la Commission Nationale de Biosécurité (CNB) à travers l'Agence de Défense des Consommateurs. Notons dans ce cadre que cette organisation non gouvernementale, a pour mission d'assister, protéger, défendre les intérêts des consommateurs, ainsi que de les conseiller et les informer sur tout ce qui concerne leur sécurité et la bonne gestion de leurs ressources. Elle représente les consommateurs à tous les

niveaux et auprès de différentes instances. A travers des réunions publiques, des émissions radiophoniques, la télévision et la presse, l'ODC a menée des campagnes d'informations et de sensibilisation. Son action de sensibilisation devrait permettre de mettre en exergue les avantages d'utilisation des OVM tels que les bénéfices techniques et économiques qui peuvent être attendus par l'agriculture, la voie alternative à la lutte chimique pour la protection des plantes mais aussi les inconvénients potentiels pour l'environnement, la sécurité des aliments et la santé humaine et animale.

- Le renforcement des capacités des différents intervenants dans ce domaine et ce à travers la formation scientifiques et techniques de certains étudiants, acteurs et chercheurs nationaux en matière de prévention des risques biotechnologiques dans des établissements et des laboratoires à l'étranger.
- La présentation des cours en matière de biosécurité dans certains établissements universitaires.
- La réalisation des mémoires de fin d'études ayant des thèmes liés aux aspects juridiques ou techniques tels que le développement de modèles de notification.

Dans les prochains jours, le Ministère de l'Environnement organisera une formation dans le cadre du Projet « Renforcement des capacités pour la mise en œuvre du centre d'échange pour la prévention des risques biotechnologiques-BCH II » pour les différents acteurs nationaux. Elle organisera également 3 ateliers de sensibilisation dans le cadre du projet « Renforcement des capacités pour la mise en œuvre du Cadre National sur la Biosécurité » et ce dans des régions du Nord, Centre et Sud du pays. La finalité de cette démarche est l'information, la sensibilisation et d'éducation d'une grande partie du public afin de tirer le meilleur profit de cette innovation scientifique.

Finalement, faudrait mentionner que l'entrée en vigueur du cadre juridique après son adoption permettra la mise en application effective du protocole. A l'entrée en force de ce cadre, celui ci, ainsi que les textes d'application, les guides techniques, les supports de sensibilisation et toutes les autres données liées à la biosécurité telles que la liste des OVMs autorisés seront disponibles sur le portail du BCH national.

**SWAZILAND**

[1 Nov. 2011]  
[SUBMISSION: ENGLISH]

**Public Awareness, Education and participation on Biosafety Issues in Swaziland**  
**By Isaac Gcina Dladla**

1. Introduction

Swaziland acceded to the Cartagena Protocol on Biosafety in 2006. Droughts are a frequent phenomenon and the country has not been spared, this has resulted in influx of drought relief food aids and seed aids. These conditions expose the country to the potential unregulated trans-boundary movement of LMOs that present a threat to the environment and public health. With the above objective in mind, the Government of Swaziland with support from the UNEP-GEF, from 2003 to 2005 developed Biosafety Bill which has been recently passed into Law, albeit pending the royal assent.

In 2009 Swaziland through assistance from the Regional Agricultural and Environmental Initiatives Network (RAEIN) Africa developed a project aimed at enhancing public awareness and participation of stakeholders in Biosafety decision making processes using the innovative systems approach to ensure sustainable livelihoods in Swaziland. The project budget was approved at €60,000.00.

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Although some public awareness activities have taken place in Swaziland before, the activities were perceived as being insufficient in ensuring that key stakeholders had been reached effectively. It was therefore acknowledged that creating public awareness and participation needed an innovative method, which would ensure maximum outreach through interaction with a few key stakeholders within the project's duration. One of the components of the Biosafety Act's is to facilitate transparency in LMO use within the country. Public awareness and participation is one of the key components identified in facilitating this aspect.

It is against this background that the project seeks to maximise public awareness and participation on biosafety issues in Swaziland through the creation of an innovation platform. Such an approach entailed the formation of a multi-stakeholder group of people, with actors drawn from different levels and sectors of key stakeholders in the country. The focus of this project was to facilitate appropriate public awareness and participatory mechanisms through an innovation technique. Activities of the platform involve the creation of a combination of interventions targeted at key stakeholders who are at different levels of influence and different sectors. The innovation platform currently consists of eleven members drawn from various key institutions which have a role to play in ensuring achievement of the project's goal. Based on individual areas of expertise, each of the actors in the platform has been assigned a role to ensure ownership and participation in the project. Each of the actors is expected to document their experiences and ideas throughout the project's duration. The innovation platform's activities were formulated with the intention of having maximum outreach based on interactions with a few key stakeholders, e.g. **symposium, dialogue, interactive workshops, citizens' jury, field visits and educational tours**. This is especially important due to the different levels of influence and education among the target groups.

*Acknowledging that the various actors each have constraints when in isolation, their cooperation and concerted efforts through the innovation platform is expected to provide synergistic opportunities for public awareness and participation in the country. The use of the innovation platform for public awareness and participation in the country was thus recognised as a novel approach of maximising the project's success.*

## **1. Objectives**

1. To develop a shared understanding on biosafety for Swaziland policy makers and government official for mainstreaming biosafety into major government policies
2. To empower key stakeholders for efficient and effective implementation of the Biosafety Framework
3. To develop innovative methods/tools for public awareness creation and public participation decision-making processes
4. To develop a case on the use of multi-stakeholder approach to promote public participation in decision making on environmental issues

## **2. Major Activities Undertaken**

- Training Senior government officials
- Training of industry players in particular millers and feed producers
- Induction on Biosafety issues for the Food consortium, i.e all organizations responsible for food security and food aid in the country

- Media awareness workshops and field study tours to South Africa
- Training for Extension officers
- Advocacy sessions for Members of Parliament and Politicians
- National Debate organized by students at the University of Swaziland
- Live TV Debate featuring Platform members.
- Production of several brochures and posters
- Development of training manual
- Undertook a baseline survey on Biotechnology awareness among women farmers in the rural areas.

### **3. *Outcomes***

- Increased level of recognition for biosafety issues in country e.g. industry, NGOs, Key Ministries
- Biosafety streamlined into government's systems e.g. import and exports procedures
- Swaziland ready to implement the NBF by the end of the year
- Significant ground has been covered to deepen the understanding of biosafety issues, but a lot of work needs to be done to improve understanding among the public.
- An active and vibrant platform has been established and has been assigned other functions beyond the RAEIN Africa project

### **4. *Lessons Learnt***

- Communicating biotechnology risks have a potential for blowing things out of proportion
- Avoid conflict of interest among promoters of the technology by ensuring that they are not responsible for regulation.
- Best way of involving youth in the subject is by providing an interactive platform where they are involved in planning and implementation of activities
- Public participation is a continuous exercise therefore it cannot be done as a once-off activity.
- Sharing of ideas on biosafety improves the understanding of the subject matter and expectations of different stakeholders e.g. farmers, media

### **5. *Challenges***

- Technicality of the subject made it difficult for politicians to easily understand, hence the delay in enactment of Bill.
- Difficulty in attracting industry and ensuring that they participate fully in platform activities.
- The idea of an innovative platform was new to all members, hence there was no common understanding of what the platform was aimed

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## **6. Benefits of Intervention**

- Unique relationship between scientist and journalist in creating a common understanding biosafety issues.
- Intervention facilitated the enactment of Bill
- Stakeholder roles in the implementation of the NBF clearly outlined
- Improved working relationships among key stakeholders

**ZAMBIA**

[1 Nov. 2011]  
[SUBMISSION: ENGLISH]

### **Ongoing Activities on Public Awareness, Education and Participation Regarding LMOs in Zambia.**

**Christopher Simoloka, October 2012**

Zambia does not generally tolerate LMOs, except their products that are being used as pharmaceuticals. In about 1991, Zambia experienced poor rainfall and the resulting drought led to a poor harvest. Donors offered the country genetically modified maize as relief. However, the government at the time rejected this kind of maize citing many concerns. This generally led to the present day general public notion that GMOs/LMOs are harmful to humans in many ways.

However, as government officers working in biosafety, we seek to disseminate more accurate information in order to have a well informed public for better decision making. We carry out a number of studies across the country or sometimes in selected communities depending on the research question. During these studies, we administer questionnaires to gauge the level of knowledge and accuracy of information. After the questionnaires have been administered, the communities are gathered for a talk to give information about LMOs. After this follows a question and answer session where we also try to correct wrong perceptions, and leave behind information pamphlets for further reading. When they understand, members of the different communities work with us and lead us around in sample and/or data collection. This work is done with the consent of local traditional leaders who are almost always present during our meetings with communities. The farmers are concerned about maintaining their own seed systems which have sustained their livelihoods through many generations. This helps in public acceptance of governmental decisions concerning LMOs.

We also have annually The Agricultural and Commercial Show and The Science Week. At either of these events, we have a stand where members of the public are free to visit. We prepare visual aids, posters and information pamphlets. We interact with different people and discuss several matters involving LMOs.

We also work with local Universities who send students to The National Biotechnology Laboratory to enhance their knowledge about LMOs. These students then submit a written report on what they have learnt and then they return to share with fellow students.

We also organize training workshops for agricultural extension officers. These are always in touch with communities from various parts of the country since they live among the people. Information is given to these officers who in turn share with members of their communities. Any pressing questions are sent to us and we try to address them either in writing or by way of a visitation when possible.

These training workshops also include the farmers' union, seed and grain traders. These are also always in touch with communities as a result of their trade and, besides, they are important stakeholders. Copies of the National Biosafety Act are also distributed so that issues of LMOs will be understood in line with national legislation.

The Government also established The National Biosafety Authority to help coordinate such activities. A few educational programs on biosafety have been developed for radio and television. More work needs to be done on this front however. Articles on biosafety are also sometimes published in the local print media.

## SUBMISSIONS FROM ORGANIZATIONS

**ABNE**

[29 Oct. 2011]  
[SUBMISSION: ENGLISH]

### **Harnessing Science and Technology for Africa**

In a drive to harness Science and Technology for Africa, African leaders have adopted a Science and Technology Consolidated Plan of Action (CPA) as a framework for a science and technology agenda for the continent. The CPA has thirteen research and development program areas, namely biodiversity, biotechnology, indigenous knowledge and technology, energy, water, desertification, material sciences, manufacturing, laser technology, post-harvest technologies, information and communication technologies, space science and technologies and mathematical sciences. The African Biosciences Initiative (ABI) is the first cluster of these flagship programs, and comprises biotechnology, biodiversity, indigenous knowledge systems and technology.

### **Safe Use of Biotechnology in Africa**

In order to effectively advance the science of biotechnology on the continent, Africa needs to adopt a co-evolutionary approach in which the function of regulation is to promote innovation, while at the same time safeguarding human health and the environment. In the light of such a safety-conscious approach, the African Ministerial Council on Science and Technology (AMCOST) has resolved to develop a 20 year biotechnology strategy whose specific regional technology goals will be implemented through Regional Economic Communities (RECs). All this would ensure the promotion and application of regional regulations which would, in turn, guarantee a safe use of modern biotechnology. A key element in the resolution is a need to develop regulatory systems in which there is a balance between promoting learning and creativity and protecting public interests.

The lag in development of a governance capacity for biotechnology is apparent in the current status in the development of National Biosafety Frameworks (NBFs). Eighty nine percent of African countries that are signatories to the Cartegena Biosafety Protocol have been making slow progress towards developing the key Components of the NBF which comprise of:

- a policy on biotechnology
- laws and regulations on biosafety constituting a regulatory regime for biotechnology
- an administrative system for handling applications and issuance of permits
- a mechanism for public participation in biosafety decision-making.

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The constraints of inadequate policies and legal frameworks noted above are a concern and therefore need urgent attention. To that end, it is none other than Africans who should address such concerns in order to achieve credibility in the eyes of African governments, the African civil society, and the African peoples.

While science is moving forward, the inability to evaluate the potential environmental and food safety risks (that might be posed by biotechnology-derived products) is delaying decisions about whether or not to utilize these products) in Africa. There is no credible resource base currently available to decision makers that would provide science-based regulatory data and information with a focus on biotechnology products for Africa. There are many projects and programs focusing on building biosafety capacity in various countries on the African continent. However, most of these projects and efforts are time-bound, country-focused and targeted to specific crops and technologies.

### **The Need for Biosafety Regulatory Capacity in Africa**

One of the main weaknesses in implementing these programs has been inadequate capacity building and the transfer of knowledge and information from project proponents to the implementing agencies and the beneficiaries. As a result, many of these projects collapse at the end of the project cycle, leaving a gap in terms of skills transfer. In addition, the exit and succession plan is either not clearly articulated or not included in the project design. In a nutshell, there is no network of expertise that is Africa-based and Africa-driven to support the development of regulatory processes and their implementation in individual countries.

In many African countries, the low level of human resource capacity means that a focus on skills development and capacity building should be given priority. Such a capacity building program would build the confidence of the participants in order to empower them to eventually manage future projects on their own in their countries. This state of affairs would allow for a “buy in” from all stakeholders.

### **Why ABNE?**

To address the problem of a lack of expertise and experience, as well as limited networking among the available expertise and institutions on the continent on biosafety, NPCA established an African Biosafety Network of Expertise under ABI. The network is tailored to national and regional needs in order to optimize the use of available expertise, resources and infrastructure at national, regional and continental levels and, where need be, develop additional capacity and linkages.

### **What will ABNE do?**

Given that there are several initiatives that are currently involved in capacity building in biosafety on the continent, ABNE will consolidate the work of these initiatives so that progress is monitored and the developed capacity is effectively and adequately utilized. A unique feature of ABNE has been to provide technical assistance, biosafety related tools and resources to members of the National Biosafety Committees (NBC), the Institutional Biosafety Committees (IBC) and staff of the plant quarantine agencies (PQs) so that the members are better able to make their own science-based regulatory decisions towards implementing national biosafety regulatory frameworks. These regulatory support services will be provided through designated regional and continent-wide nodes.

In addition, an added value of the ABNE is that, through the AU/NEPAD agenda, the Network is supporting the national regulatory frameworks to become functional by providing back-stopping services on a need basis. The ABNE, being an African-based network, is building the capacity of national, regional and continental regulatory institutions through the RECs in a sustainable manner rather than on

an ad hoc basis.. This is being done through designated regional nodes which will provide such services. The ABNE, through the African Union Commission, is also providing evidence-based information to countries, RECs and African Union Summit. This information will inform policy on harnessing biotechnology for Africa's development.

### **Participation in ABNE**

Participation in the ABNE activities is open to national, regional and continental institutions, public and private organizations that are willing to share their expertise, facilities and other resources with the Network. Participation in the ABNE is based on the activities and services conducted at sub-regional nodes and/or through other programs and organizations participating in the Network.

### **Public and Private Partnerships**

Limited involvement of public and private institutions in biosciences R&D has been identified as one of the key factors that have contributed to Africa's falling behind in biosciences. The private sector can now be engaged through the existing NEPAD Business groups. In addition, the ABNE directly engages the same sector in its R&D programs by building internal collaboration and linkages on the continent.

### **ABNE LOCATION**

The headquarters of ABNE is located in Ouagadougou, the Republic of Burkina Faso while the second Node is located in Kampala, Uganda with a specific role of catering to the Eastern Africa region. The second node is hosted by the Uganda National Council for Science and Technology.

### **AFRICA BIO**

[31 Oct. 2011]  
[SUBMISSION: ENGLISH]

### **BIOTECHNOLOGY OUTREACH AND AWARENESS ACTIVITIES**

AfricaBio is an independent, non-profit biotechnology stakeholders association, whose key role is to provide information and create awareness on biotechnology and its products in South Africa and the region and has been in existence since 1999.

AfricaBio is an independent association that represents stakeholders involved with, or having an interest in biotechnology. AfricaBio recognizes that biotechnology awareness is a cornerstone to adoption of the new opportunities available through research and industry development. The wide spectrum of representation is evident from the members who include: research and tertiary education institutions, biotechnology companies, seed companies, farmer organisations, grain traders, food manufacturers, food retailers, professionals, scientists, consumers and students.

AfricaBio seeks to provide adequate representation in policy and sector development through its various advocacy programs.

AfricaBio has regular engagements with government officials and policy makers on issues affecting the biotechnology sector in South Africa and the region.

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AfricaBio provides a platform for discussions, networking and dissemination of accurate information on biotechnology and biosafety issues in Africa. It keeps its members informed on current trends, news and issues affecting the sector in South Africa through its newsletters, website, workshops, seminal, courses, technology demonstration and its various outreach programs.

AfricaBio aims to ensure an equitable access to information and technologies by supporting and empowering its members and stakeholders to have a voice at national and international forums and discussions on biotechnology.

## **NATIONAL ACTIVITIES:**

### **1. Regulators and policy makers outreach**

- Business breakfast/brunch covering emergent issues for example the labelling situation
- Develop and distribute newsletters and fact sheets on the SA regulatory system (through Biotech Indaba and GMO Insight)
- Quarterly policy briefs addressing key emerging issues
- One-on-one interactions with regulators and policy makers
- Submit stakeholder position to appropriate government institutions when required
- participation in the Bioeconomy strategy
- Fostering strategic partnerships to address emergent issues

### **2. General public awareness**

- Participating at agricultural exhibitions- African Farmers workshop and Expo; and at the Agriculture Spring Show
- Recently conducted a Perception survey in South Africa- findings to be published soon
- Development, printing and distribution of brochures, newsletters and booklets to target audiences
- Engage in GMO debates
- Accessible information through our website ([www.africabio.com](http://www.africabio.com)) and social media i.e. Facebook (AfricaBio) and twitter (@AfricaBioSA)

### **3. Farmer outreach**

- Conduct Bt Maize demonstration trials: to facilitate the demonstration of the impact of Bt maize to small scale and emerging farmers Small scale farmers orientation course. To ensure continued cultivation of biotech crops in South Africa and the region
- Train-the-trainer communication training for farmers and extension services
- Farmers biotechnology information days

### **4. Media and communication**

- Media releases on biotechnology issues
- Interaction with the science media
- Organise journalist communicator's workshop & field visit
- Using AfricaBio website ([www.africabio.com](http://www.africabio.com)) and social media i.e. Facebook (AfricaBio) and twitter (@AfricaBioSA)

## **REGIONAL ACTIVITIES:**

- Organise regional workshops e.g. Preparatory Workshop for African Delegates to COP-MOP6

- Coordinate consultative meetings with regional stakeholders on Biotechnology and biosafety
- Train regulators on topics such as IRM, Stewardship, AP,
- Host study tours for policy makers and regulators in the region

**RAEIN AFRICA**

[1 Nov. 2011]  
[SUBMISSION: ENGLISH]

**PRACTICAL EXPERIENCES AND LESSONS LEARNED IN PROMOTING PUBLIC AWARENESS AND EDUCATION CONCERNING LMOs: THE CASE OF RAEIN-AFRICA**

Prepared By

**Phumzile Zanele Dlamini**

The Regional Agricultural and Environmental Initiatives Network-Africa's (RAEIN-Africa) history of promoting public awareness and education on the safe handling, transport and use of Living Modified Organisms began soon after the Network was officially launched with its Biodiversity and Environment Programme when the need for a multi-stakeholder approach to promoting public awareness and public participation (PAPP) was recognized. RAEIN-Africa recognized the huge potential that media and civil society can play in and has always encouraged partners to create space for these groups to participate in PAPP efforts.

***Examples of PAPP related initiatives facilitated by RAEIN-Africa***

- **May 2006:** Public Awareness, Education and Participation Workshop held in Gaborone, Botswana: This workshop brought together 40 participants from Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe amongst them scientist, media practitioners and civil society organization representatives.
- **2006-2007:** RAEIN Africa supported PAPP initiatives in five partner countries i.e. Botswana, Mozambique, Swaziland, Zambia and Zimbabwe. These initiatives were largely aimed at enhancing public awareness on biotechnology and biosafety amongst a broad range of stakeholders as defined by national priorities e.g.
  - Science teachers , extension and customs staff in Swaziland
  - Local communities in Namibia

**LESSONS LEARNT FROM THESE INITIATIVES:**

- Whilst these initiatives contributed towards enhancing levels of awareness on biotechnology and biosafety to some extent, there were a number of lessons that emerged. These included:
- Whilst linear/one way methodologies such as newspaper articles, brochures etc. are useful for reaching a large number of people within a short time, when used as a once-off activity with no follow up the message cannot be reinforced hence change of attitude and behaviour required for participation is unlikely.
- Similarly, once-off community workshops and visits are not likely to lead to effective participation.
- When there are too many messages that are uncoordinated or even contradictory the public is left confused.

These lessons informed RAEIN-Africa's subsequent PAPP interventions under the current programme entitled **Innovation for Sustainable development and Poverty reduction: Towards an Enabling Environment for systems of innovation in Southern Africa (ISP-TEESA)**. Under ISP-TEESA, RAEIN-Africa has established PAPP platforms in three countries i.e. Botswana, Swaziland and Zambia. The PAPP platforms are multi-stakeholder groups that use participatory approaches to engage identified stakeholders. In Botswana and Swaziland the objective of the platforms is to stimulate finalization of National Biosafety Frameworks and prepare for their implementation whilst in Zambia the focus is on enhancing public participation in implementation of the NBF using the cotton sector as a case. The approach to establishment of these platforms was as follows:

- Capacitating key stakeholders on the technical skills related to the innovation systems approach as well as the soft skills required for the change of attitude and culture
- Capacitating platforms actors on participatory approaches for public engagement based on the CEPA toolkit and other resources
- Participatory stakeholder analysis and identification with platform actors
- Identification of appropriate techniques for engaging each stakeholder group determined by information needs etc.

### **LESSONS LEARNT**

- Biotechnology is by nature a complex and multi-faceted issue and as such differences in opinion will always exist. However, for purposes of PAPP it is important to facilitate processes towards developing a shared understanding amongst key stakeholders before attempts to engage the general public are made.
- There cannot be a one-size fits all approach as each stakeholder group has different interests, abilities and information needs thus the message must be appropriately crafted and packaged.
- Initiatives that are small and focussed with a ripple out effect may be more effective than larger but short interventions.

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