# CSO Proposals for the National Biotechnology Bill, 2012

### Introduction

CSOs in Uganda have been engaged in activities focused on promotion of food security, improving agricultural income through bettering agricultural production, research and improved technologies. As CSOs involved in the agricultural sector we are aware of the challenges faced in the sector that need to be addressed through improved technology, increased agriculture extension, better breeds among others. We are also aware of the dangers that some of the modern technologies come with. Against this background we reviewed the National Biotechnology Bill, 2012 and came up with the recommendations below. The recommendations focus on the gaps in the Bill, areas that can be introduced in the Bill as well as areas that need improvement. It is hoped if our recommendations below are adopted we can have a sector that embraces technology while at the same time controlling the likely dangers of such technologies.

# Title of the Bill

The Bill is titled "The National Biotechnology and Biosafety Bill, 2012" on the other hand the Committee proposes the title to be changed to *The Genetically Modified Organisms and Biosafety Bill, 2012.*' Whereas the proposed name considers the key subject matter of the Bill, i.e. GMOs, it wrongly adds Biosafety aspect in the Bill. The present Bill as it stands does not provide for Biosafety, which is a much broader and need an independent law to cover all aspects of Biosafety beyond GMOs and the provisions of this Bill.

# Recommendation

Amend the title of the Bill, to "The Genetic Modified Organisms and Products Bill, 2016"

### Justification

To reflect the exact scope of the Bill and avoid causing confusion. To provide for specific issues that the Bill handles

# Amendments to clause 1 on application of the act

Clause 1 provides for a very limited application of the Act and only covers issues of research and general release of GMO in Uganda. It is silent on the application of the Act on issues related to import, export, sale, transfer and use of GMO products in Uganda. The clause needs to be broaden

### Recommendation

**Replace** clause 2 with the following

2. Application of the Act This Act applies to:
(a) all activities aimed at research into and the development, importation, exportation and use of Genetic Modification processes; (b) the import, export, contained use, release or placing on the market of any product of genetically modified product that is likely to have effect on human health, the environment, the economy, national security or social norms and values;

(c) any activity involving molecular engineering technologies such as metabolic engineering, protonomics, metabolomics, nanotechnology, genetic modifications, cloning, DNA-chip technology, bioinformatics and such other technologies as may be declared by the Authority to constitute potentially harmful research or undertakings;

(d) all measures aimed at minimizing the impact of Genetic Engineeringprocesses on national security, human health, animals, plants and the environment.

# Justification

To provide for broader application of the Act

To provide for clarity on application of the Act on things already included in the Bill To avoid ambiguity

# **Compliance with environmental principles**

The Bill and the Committee report make no reference to important environmental principles that should guide the application of GMO products in Uganda. There is need to introduce environmental principles in the Bill

# Recommendation

Introduce a new clause 3 to read as follows

# 3. Compliance with environmental principles

(1) A person doing research, sale, processing, manufacture or dealing with genetically modified products in any way shall comply with environmental principles and safeguards prescribed by the National Environment Management Authority Act and other applicable laws.

(2) No Genetically Modified product or organism shall be introduced in Uganda without conducting an Environment Impact Assessment in accordance with the National Environment Management Act.

(3) The National Environment Management Authority shall in consultation with the Authority make principles and safeguards for the management, research, and introduction into the environment of any genetically modified products or organisms in Uganda

(4) For avoidance of doubt, principles and guidelines made in (3) above may provide for offences and other forms of punishment for persons who fail to comply with the guidelines.

# Amendment to clause 3

The Bill provides a definition of "contained testing" but does not go ahead to define "contained use" whereas it is clear biotechnology products have to be tested, the same products need a contained usage either as part of the research or as part of the normal usage of the products.

Recommendation

a definition of "contained use" be included to provide as follows

"contained use" means any activity in which products of genetic modification or genetic engineering\_processes are cultured, stored, used, transported, destroyed or disposed of, and for which physical barriers or a combination of physical barriers together with chemical or biological barriers or both are used to limit contact thereof with the environment;

# Justification

To provide for contained usage of GMO\_products which is a step after contained testing and part of the established procedures.

# Meaning assigned to Genetically Modified Products

The Bill does not define Genetically Modified Products. This creates ambiguity, which suggest that the Bill focuses and captures GMOs without focusing on products from GMOs. We propose an additional definition of Genetically Modified products

"Genetically modified products" means products made from or containing GMO materials whether manufactured, processed or otherwise created."

# Justification

For clarity

# Meaning assigned to general release

The meaning assigned to the terms "general" release in the Bill limits it to deliberate release of GMO products into the environment, it does not cover circumstances where accidents have happened due to negligence or failure to follow guidelines and cases where GMO products are no longer contained

### Recommendation

A new clause replacing the meaning assigned to "general release" be included to provide:

"general release", in relation to GMOs or GMO products, means the introduction of a product of GMOsinto the environment by whatever means, where the product is no longer contained by any system of barriers and is no longer under any person's control;

### Justification

To cater for other circumstances of general release of GMO products and GMOs.

### Meaning assigned to Genetically Modified Products (GMOs)

The meaning assigned to GMOs focuses more on modern technological change of genes but does not cover the most important differentiation between GMOs and other products, which is natural propagation or genes.

### Recommendation

A new sub clause (c) be **added** immediately after the sub clause (b) in the definition of GMOs to provide as follows

(c) modified in a way that does not occur naturally through mating or natural recombination or both

### Justification

To remove ambiguity

# Meaning of "unintentional release" or "accident"

A new clause to provide for unintentional release of GMOs be included to cater for cases of accidents and other forms of releases.

### Recommendation

### A new clause to provide for accident be included as follows;

"accident" means any incident involving an unintended release of GMO materials orproducts into the environment, which may have an immediate or delayed animpact on the environment;

# Justification

To ensure clarity on what accident or unintentional release of GMO products may include.

### **Definition of organism**

There is no definition assigned to the word "organism" despite the fact that the Bill focuses on organisms of different nature.

### Recommendation

A new clause defining organism be **included** as follows

"organism" means any biological entity, whether microscopic or not, capable of replication;

### Justification

To ensure clarity and avoid ambiguity

# New Clause 7(1)(f)

The committee report creates an authority to deal with GMOs in Uganda, this is a welcome development and the authority should be empowered in its work. However

provisions of clause 7(1)(f) inserted by the committee is narrow and limits the work and scope of the Authority.

# Recommendation

**Replace** sub clause (f) of clause 7 in the committee report to read as follows

(f) to review project proposals concerning research, experimental trials, application, introduction, manufacture or distribution of GMOs and make such decisions as to whether to approve, prohibit or restrict such trials;

### Justification

For clarity purposes

# **Clause 7, functions of the Authority**

There is a need for a clause specifying that the authority will perform the function of advising on the importation sale and distribution of GMO products in Uganda.

### Recommendation

A new subclause (i) and (j) be inserted immediately after (h) to read as follows

(i) to advise the customs authorities on the import and export of GMO active material and products;
(j) to sensitize the community on the possible effects and risks of GMOs and on safety mechanisms for avoiding these dangers

# Justification

For clarity on the roles of the Authority in relation to import and export of GMOs For clarity on the role of the Authority in relation to sensitizing the community on the dangers of GMOs

# **Clause 12, Registrar of Biotechnology**

The committee removes the position of a registrar of GMOs and the justification given is that this will be redundant since the authority will be in charge of registration, however there is no requirement for keeping a register of permits and licenses issued for different activities relating to GMOs.

# Recommendation

A new clause 12 be added to read as follows;

# 12. Register of facilities and permits

(1) The Authority shall establish a register for the purpose of □ :
a) registering facilities utilized for the development, production, use or application of GMOs and
(b) recording permits issued for the utilization of such facilities.

(2) The Chief Executive Officer of the Authority shall be responsible, for maintaining the register and ensuring that entries are made in the register recording;

(a) the name, identity or description and such other particulars as required by the Authority of each facility which the Authority has directed shall be registered; and

(b) the fact that a permit has been issued to any person to utilize the registered facility for the development, production, use or application of any product of biotechnology, or to release such product into the environment, or that any such permit has ceased to be valid, and the name and address of the person concerned; and

(c) the particulars of the cancellation or suspension of any registration or permit, and of the restoration of any such cancelled registration or permit, or the termination of any such suspension; and

(d) any necessary corrections or alterations to any particulars or facts referred to in paragraph (a), (b) or (c); and

(e) any other particulars that may be required by the Authority to be recorded.

(3) Any person may inspect the register at all reasonable times at the premises of the Authority or such other place as the Authority may direct.

### Justification

To provide for a register of permits or institutions that will carry out GMO related activities and to enable any member of the public interested in information about permitted organizations to search and get such information. To align the Bill to the African Model Law

# **Research and general application for GMO**

Part III of the Bill focus on research and approval of general release of GMOs, however the part does not cater for being in possession of, running or managing of facilities of where GMO research can be conducted. Clause 15 is weak in as far as it prohibits research and general release of GMOs without providing for detail form of crime and punishment that is created.

#### Recommendation

Clause 15 be **replaced** with the following text

### 15. Approval of research and general release of GMO (1) No person shall:

(a) own or control any facility utilized or to be utilized for any research in genetics or potentially harmful research or undertaking, or generally for the development, production, use or application of products of GMOs, including any facility utilized or to be utilized in connection with the contained use or trial release of such products, unless such facility is registered; or

(b) carry on GMO research, or undertake the contained use or trial release of any GMO products, without a permit; or

(c) carry on research or undertake any activity referred to in paragraph (b) otherwise than in a registered facility, except in circumstances approved in a permit or in writing by the Authority; or

(d) enter into an agreement with any person so as to transfer any microbial or biological agents or toxins.

(2) Any person who contravenes subsection (1) shall be guilty of an offence and is liable to a fine not exceeding one hundred thousandcurrency points or imprisonment for a period not exceeding ten years or both.

(3) where an offender in section is a company, or any other legal entity other than an individual that person or entity shall on conviction be liable to a fine not exceeding five hundred thousand currency points

### Justification

To provide for a crime and punishment for running facilities or conducting GMO related research without a valid permit from the authority. To align the Bill to the African Model Law

#### **Application for license**

Introduce a new S. 17 to provide for application for and approval of research institutions that intend to conduct GMO research in Uganda. This section will clarify on the present position where an institution needs an independent license to conduct GMO research of any kind and each research or stage of research will need particular approval

#### Recommendation

A new S. 17 reads as follows

#### 17. Application for license to conduct GMO related activities

(1) A person intending to conduct GMO research, creation or manufacture of a GMO or a GMO Product, release of, transport of GMOs and GMO products, export or import of GMOs or GMO products shall apply to the Authority for a license for conduct of such activity.

(a) The Application in sub section (1) above shall show how the applicant intends to transfer technology to Ugandans through the GMO activity.
(b) The applicant shall submit an Environment Impact Assessment of the facilities where the research will be conducted approved by the National Environment Management Authority.

(c) Every application under this section shall be accompanied by a plan on how the applicant intends to address emergencies and accidents including butnot limited to accidental release.

(d) be in line with the national priorities and policies in place at the time in Uganda

(e) the Authority may require the applicant to provide any further information as the authority may deem fit

(f) an application this section shall be accompanied by prescribed fees

(g) the minister may make regulations for enforcement of this section.

(2) The Authority, taking into consideration environmental, scientific and other factors, may grant a license to the person.

(3) A license granted under this sectionmay set conditions, as the Authority may deem necessary for the implementation of this Actand any other environmental and public health laws in Uganda.

(4) The License issued under this section shall be for five years and shall be subject to renewal.

(5) The Authority shall have powers to suspend, withdraw, or cancel a license in cases where the applicant has not met the conditions set out in the license or in cases of failure to comply with any condition set by the Authority or by any law in Uganda.

(6) Before suspending, withdrawing, or canceling the license in subsection (5) above the affected person shall be given a chance to be heard.

(7) An applicant who wishes to renew his or herlicense issued under this section shall apply to the Authority within six months before the expiry of the license for a renewal.

(8) before grant of renewal of a license the Authority shall satisfy itself with the conditions of the applicant and whether the applicant has fulfilled the conditions set out in the license and other legal obligations.

### Justification

To provide for licensing institutions that may need to conduct GMO research. Such license can be used to control the conduct of research through setting conditions in the license and withdrawing or suspending the license.

### **Clause 19Laboratory Experiment**

We welcome the committees improvements on S. 19, however the provisions on Laboratory experiment are narrow in as far as they do not provide for public participation in issuance of permits. Public participation in such a situation is important since GMOs are said to affect a big number of the public and the environment and may require a bigger participation from CSOs, members of the public, scientists among others.

### Recommendation

A new sub section (5) be inserted right after sub section (4) in the committee report to read as follows

(5) Upon receipt of the notification from the biosafety committee the authority shall cause the notification to be published in a widely circulated newspaperindicating the following:

- (a) the application and the details of the application
- (b) the nature of research to be conducted
- (c) the persons involved in the research
- (d) a call to the public to submit their views on the intended research

### Justification

To provide for public knowledge and participation in the approval of the intended research as well as institution and persons

### Recommendation

Amend the new sub section (5) as recommended by the committee to provide for consideration of views from the public and public participation to read as follows;

(5) The Authority shall within ten working days upon expiry of the time for receiving views from the public, consider the views from the public and other conditions set under this Act or any other law respond to the person who notified the institutional biosafety committee under subsection (1), informing the person whether to proceed or not to proceed with the experiment.

### Justification

To provide for public views and public participation in approval of GMO researches S 20(2) Application for approval to conduct contained testing of a GMO

The section generally does not provide for other information that could be necessary for conduct of GMOs, it also does not provide for environmental impact assessments or approvals as well as participation of citizens.

To align the Bill to the African model law

### Recommendation

### Add a new subsection (i) immediately after (h) to read as follows

(h) an environmental certificate from the National Environment Authority certifying that the applicant has complied with Environmental laws of the country.

#### Justification

To ensure a proper environmental plan and certification are in place before a person is issued a certificate to conduct contained testing

#### Recommendation

Add a new sub section (K) after sub section (i) to provide for more information that may be needed to read as follows

(k) any other information that the authority may require for purposes of implementing this Act

# Justification

To enable the authority require any such information that may be necessary for processing such applications

Failure to provide for checks on capacity to meet environmental and other needs in case of environmental damage

# A new clause 20 on laboratory standards

(1) The Authority shall set Biosafety standards for all GMO related activities in Uganda (2) Without prejudice to the general effect of subsection (1), the authority shall set biosafety standards for laboratory and laboratory experiments, safety procedures, biosafety equipment, waste handling and waste management and any other procedure necessary to ensure GMO related research is conducted in a manner that does not harm any person or the environment.

# A new clause 21 on security of GMO facilities be added

# 21. Securing a place where GMO research is being conducted

(1) Every place where GMO research is being conducted or where GMO materials are being stored shall be safely secured from access by unauthorized individuals or any animal and other organisms that are not part of the study.

(2) All laboratory facilities under which a GMO research is being conducted should be well secured from unauthorized access by individuals by the institution carrying out the research

# A new clause 22 on information on access to facilities be inserted

# 22 Records and information on persons entering a GMO facility

(1) The institution carrying out the research shall keep records of all persons who are part of the research or come into contact with the research facility including all workers and visitors to the facility.

(2) The information in subsection (1) shall provide for the detailed identification of the person, the time of entry into the facility and any form of contact with research materials the person may have come into contact with.

(3) Every laboratory or facility where GMO research is being conducted or where GMOs or products are being kept shall have information showing the likely dangers of the products and a warning to persons who might come into contact with the facility.

The Authority may make regulations for the guidelines provided for under this section

# Justification

To provide for basic biosafety standards for GMO research, storage and transport in Uganda

### Clause 20

Whereas the Bill provides that the applicant will provide a plan on how to handle accidents or accidental release there is nothing to bind the applicant to ensure resources are set aside to handle such cases and to bind the applicant to ensure they meet the cost of clearing the damage cause by the accident.

### Recommendation

A new subsection (3) be inserted immediately above the present sub section (3) to provide as follows

(3) before granting a license, the Authority shall convince itself that the applicant has capacity to mitigate possible negative effects resulting from an accident occurring during the research.

(4) The Authority shall for every application ensure a plan for community safety and safety mechanisms are in place to ensure the community and the surrounding environment is not affected by GMO activities before granting the license.

(5) the Authority shall take all the necessary steps to ensure that the licensee complies with needs for environmental safety and may require the applicant to pay money in escrow for making good of environmental damage that may result from the research or use of GMO

# Justification

To condition the authority and a person applying for research and ensure beyond having a plan to mitigate effects of accidents such a person has capacity to deal with them as per the plan

# Clause 22 Lack of proper systems to bind the applicant

S. 22 does not provide enough protection to bind the applicant to meet needs of accidents or in cases of bankruptcy or any natural events that may make the applicant incapable of mitigating the damage or continuing with the research.

# Recommendation

A new sub section (4) be added to provide for an escrow in case of doubt of capacity

(4) The authority may require the applicant to execute an escrow to bind the applicant to meet the damages caused in case of accidents, incapacity to meet the management of accidents or any other condition

# Justification

To enable the authority to bind the applicant in cases such as inability to meet the needs of financing rehabilitation or in cases of bankruptcy or natural events that may make it difficult for the applicant to do good the accident caused.

# Clause 22(3) Application for approval for general release of a GMO

Whereas clause 22(3) requires an application to be published in a gazette, there is need to acknowledge the fact that such matters are of public importance and need to be known by a wide range of the public. The law should consider publication in other media beyond the gazette

### Recommendation

Sub clause (b) be **amended** to add the words "*and widely circulated newspaper*" immediately after the word "Authority"

# Clause 23 Application for import, transit or export of a GMO

The provisions on importation of GMOs do not safeguard Uganda from possible dumping of GMO products. There is need for approval of importation only where the country is satisfied that the product to be imported is relevant and necessary to the country. A clause to this effect needs to be added

### Recommendation

### Introduce a new sub section after 2(c) to read as follows

(c) An application for importation of a GMO or a GMO product or a product containing GMOs shall be accompanied by an approval from the relevant government ministry or department indicating that such a product is necessary for use in Uganda and that there are no alternative non-GMO materials or products readily available.

### Justification

To protect Uganda from dumping of GMO products

To promote local innovations through locally produced products

# S. 24 Review of applications

There is need to incorporate public participation in process of reviewing applications under the Act, this will go a long way in ensuring decisions are participatory. The same should be done for environmental consideration where no application should be approved without recommendation or certification from NEMA.

# Recommendation

A new sub section (3) be introduced to read as follows

(3) The Authority shall take into consideration views from the public in considering application for confined testing, general release, export, import or transit of a GMO.

A new sub section (4) be introduced to read as follows;

(4) Every application for confined testing, general release, export, import or transit shall have an approval from the National Environment Management Authority certifying that the activity so applied for does not have an effect on human, animal, plant or aquatic life.

### S. 30 Unintentional release and emergency measures

Generally the whole of clause 30 does not put an obligation on the person doing GMO related activity to make good of the damage caused under unintentional release.

# Recommendation

# Introduce new sub section (4), (5) and (6) to read as follows:

(4) The Authority shall working with different government entities investigate the cause of the accident

(5) Where it is found in the opinion of the Authority that the Accident was due to negligence of the applicant, the authority shall on top of the other actions move to deal with the person responsible in line with S. 27 and 28 of this Act.

(6) Any person who does any act which is likely to cause an unintentional release of GMO to the environment other than what has been by license or permit allowed commits an offence and is liable to imprisonment not more thanfiveyears or a fine of not more that fivehundred currency points or both.

# Justification

To ensure where the release was as a result of negligent acts, such a person is punished. To create a crime for negligent acts of release which can be termed as accident

# Clause 37 Offences and penalties

The following offences should be added to the list of offences to prohibit some dangerous activities and protect Uganda from the danger that may result from GMO related activities

# Recommendation

# Introduce a new sub clause (i), and (j),

(i) introduces a terminator seed, or a gene that is genetically modified or engineered to make any offspring of a crop sterile, or unable to reproduce or uses genetic use restriction technology commits an offence and is liable on conviction to a fine not exceeding five hundred currency points or imprisonment not exceeding seven years or both.

(j) develops, or imports, or uses genetic use restriction technology or technology that has a potential to create, distribute or introduce terminator genes commits an offence and is liable on conviction to a fine of not exceeding fivehundred currency points or imprisonment not exceeding five years or both.

(2) Any person who repeatedly commits any other offence under this law maybe prohibited from engaging in any activity in relation to any GMO and any product of a genetically modified organism.

(3) Where the offence is committed by a corporation, and where the court feelsthat a custodial sentence ought to be imposed, the executive officer in-charge at the time the offence is committed shall be liable to imprisonment.

# Justification

To prohibit and punish use of terminator seeds in Uganda To protect Uganda farmers

# **Clause 39 Protection of confidential business information**

The provision prohibits disclosure of confidential information, this is against the spirit of article 41 of the constitution, which grants a right of access to information. The only limitations to this right under the constitution are where the release of the information is likely to prejudice the security or sovereignty of the State or interfere with the right to the privacy of any other person. These should be the only limits placed in the Bill

# Recommendation

**Delete** clause 39

# Justification

To align the Bill with provisions of the constitution

# Need for labeling and identification

The Bill says nothing about GMO labeling and identification of GMO materials on the market and in use in Uganda. It has become a common practice that manufacturers, sellers, distributers and people dealing in GMOs generally are required to label their products so that the general public is aware of the fact that what they are dealing with is GMO product and the contents contained in the product

# Recommendation

Introduce clause 41 on GMO Labeling and Identification as

# 41. Labeling and identification

(1) A researcher, trader, importer, exporter distributer, seller or manufacturer or any other kind of dealer of a GMO product shall ensure that any GMO product is clearly identified and labeled, specifying the relevant traits and characteristics of the product.

(2) Every lab, research facility, contained field or field facility, farm or garden where a GMO product is being used shall have a signage to the effect that there are GMO products and organisms.

(3) The labeling of any genetically modified organisms shall comply with such requirements as may be prescribed by the Minister.

(4) For avoidance of doubt, every label made under this section should be conspitious enough to be read and understood by any person trying to use the product.

(5) Any person contravenes this section commits an offence and shall on conviction be liable to a fine not exceeding One thousandcurrency points or six years imprisonment or both.

(6) Court shall on top of a sentence order confiscation and destruction of any GMO product or material on which the person has been convicted

(7) The Minister may, in consultation with the minister in charge of trade make regulation provide for nature of labeling, branding of GMO products and related matters.

# Justification

To ensure all GMO products on the market as clearly labeled so as to avoid deceit and cheating of the public.

To align the Bill with the African model law

### Need for participation of Ugandans in GMO research once approved

The Bill is silent on participation of Ugandans in processes of research for GMOs conducted in Uganda. The law needs to promote local participation and technology transfer.

# Recommendation

Introduce a new clause 42. on participation of Ugandans and Ugandan institutions as follows

# 41. Participation of Uganda

A person seeking conducting GMO related research in Uganda shall submit to the Authority a plan to show the following;

(1) How the research will involve Ugandan citizens

(2) How the applicant intends to build capacity of Ugandans

(3) How the applicant intends transfer GMO related technology to Ugandans

(4) For avoidance of doubt any person conducting GMO related research in Uganda shall ensure that at least fifty percent of the persons involved in the research are Ugandan citizens or Ugandan institutions.

(5) for avoidance of doubt at least one third of Ugandans involved in the research should form part of the lead researchers or top management of the institution conducting research

(6)a licensee shall use Ugandan products in the research and where there are no Ugandan products, the person shall apply to the authority for authorization to source such products from outside Uganda.

(7) the Authority shall monitor compliance with this provision

(8) the Authority shall not grant a license for GMO related activity under this Act where in its view the person has failed to provide evidence of involvement of Ugandans.

(9) Where a licensee fails to comply with provisions of this section during the operation of activities under the license the authority shall give that person a six months notice to comply with this provision and where such a person fails to comply after the notice the authority shall suspend the license so issued in accordance with this Act.

(10) Subject to this Act, where the license has been suspended under subsection (9), the authority shall require the license holder to reapply for a license in accordance with this Act and give proof of how he or she intends to comply with provisions of this section.

(11) where a person fails to convince the authority that he or she has capacity to comply with provisions of this section the authority shall move to cancel the license previously issued.

(12) Upon cancellation of a license under subsection (10) above, all research products shall become property of government of Uganda to be used for development of research in Uganda

# Justification

To provide for employment of Ugandans in GMO research and related activities

To provide for technology transfer to Ugandans and to government of Uganda in GMO research

To provide for use of Ugandan products in GMO research and related activities

# Recommendation

A new section 42 be **added** to provide for government ownership of products made in Uganda

# 42 Government's share of research and research products

(1) Government shall have a right to use and share all technologies and research emanating from GMO related research in Uganda.

(2) For avoidance of doubt, government of Uganda shall have a right to use and apply technologies or products generated from GMO research in Uganda for purposes of improving food security and farming in Uganda.

# Justification

To ensure government of Uganda participates in GMO research and related technologies For security reasons where government of Uganda is protected from possible attack using GMO related technologies

A new section 43 on patent and patent information be **added** *43 Patents* 

(1) There shall be no patent on a GMOs or GMO products in Uganda where the product is for human or animal food

(2) Any other patent on a GMOs or GMO products in Uganda shall be subject to a 10 year limit from the date of the patent.

# Justification

To protect the right to food as provided for under the constitution of Uganda and international human rights instruments ratified by Uganda

To Protect the Ugandan community from likely restrictions of use of GMOs where the GMOs are made in Uganda

To avoid creation of monopolies and dependence on individual companies that produce GMOs in Uganda

# A new clause 42 on declaration of GMO free areas be added

# 44Declaration of GMO Free Area

(1) The Minister, may in consultation with the Authority, by order declare the whole or any part of Uganda to be an area that is free of GMOs if he or she considers that to do so would aid in preserving indigenous and, or non-genetically modified crops and animals or for economic considerations there is an added advantage for Uganda.

(2) The declaration made in subsection (1) shall be published in a gazette and widely distributed newspaper in Uganda

(3) Any community in Uganda, or group of people may petition the minister to declare their area a GMO free area, in accordance with this Act.

# National Gene bank

A new clause 45 be added to provide for national gene bank

# 45 National Gene bank

(1) There shall be a national gene bank in which all genetic materials shall be kept and preserved

(2) The national gene bank shall be managed by the authority in conjunction with ministries responsible for agriculture, animal husbandry and fisheries; ministry responsible for health and the national drug authority

(3) The national gene bank shall be responsible for storage and preservation of all naturally occurring genes as well as genetically engineered genes in Uganda

(4) *materials<u>Materials</u>* to be kept in the national gene bank shall include all plant and animal genes including seed and other forms of genetics.

(5) for For avoidance of doubt all genetic materials developed in Uganda under this Act shall be stored in the national gene bank.

# Justification

To provide for a national gene bank to preserve indigenous genetics in Uganda To provide for storage and preservation of genetic materials developed in Uganda.