National Biosafety Public Awareness, Access to Information and Participation Strategy and Action Plan

2014 - 2018

UNEP

SWAZILAND ENVIRONMENT AUTHORITY (SEA)

GEF

TABLE OF CONTENTS

LIST OF ACRONYMS

ACAT	Africa Co-operative Action Trust
BCH	Biosafety Clearing House
CANGO	Co-ordinating Assembly of Non-Governmental Organizations
CBD	Convention on Biodiversity
CPB	Cartagena Protocol on Biosafety
CBO	Community-Based Organization
COSPE	Cooperazioner per lo Sviluppo dei Paesi Emergenti
CYDP	Children and Youth Development Programme
SE & CC	Federation of Swaziland Employers and Chamber of Commerce
FSBC	Federation of Swaziland Business Community
FODSWA	Federation of Organizations of the Disabled Persons in Swaziland
IEC	Information, Education and Communication
MFA	Ministry of Foreign Affairs
MICT	Ministry of Information, Communication and Technology
MISA	Media Institute of Southern Africa
MOA	Ministry of Agriculture
MOC	Ministry of Commerce
MOET	Ministry of Education and Training
MOH	Ministry of Health
MTEA	Ministry of Tourism and Environmental Affairs
MYSC	Ministry of Youth, Sports and Culture
NCC	National Curriculum Centre
NAMBOARD	National Agricultural Marketing Board

NDMA	National Disaster Management Agency
IRD	International Relief Development
NGO	Non-Governmental Organization
NYC	National Youth Council
RAEIN	Regional Agricultural Environmental Innovation Network
RSP	Royal Swaziland Police
SANU	Southern African Nazarene University
SBIS	Swaziland Broadcasting and Information Service
SCA	Swaziland Consumer Association
SCF	Swaziland Consumer Forum
SEA	Swaziland Environment Authority
SDB	Swaziland Dairy Board
SNFU	Swaziland National Farmers Union
SIPA	Swaziland Investment Promotion Authority
SNAJ	Swaziland National Association of Journalists
SRA	Swaziland Revenue Authority
SSA	Swaziland Sugar Association
STVA	Swaziland Television Authority
SWADE	Swaziland Water and Agricultural Development Enterprise
SWASA	Swaziland Standards Authority
UNISWA	University of Swaziland
USDF	Umbutfo Swaziland Defence Force
VOC	Voice of the Church

1. INTRODUCTION AND BACKGROUND

On 29 January 2000, the Conference of the parties to the Convention on Biological Diversity adopted a supplementary agreement to the convention known as the Cartagena Protocol on Biosafety. The protocol seeks to protect biological diversity from the potential risks posed by living modified organisms (LMOs) resulting from modern biotechnology. The protocol establishes an advance informed agreement (AIA) procedure for ensuring that countries are provided with the information necessary to make informed decisions before agreeing to the import of such organisms into their territory. It makes reference to a precautionary principle approach and reaffirms the precaution language in principle 15 of the Rio Declaration on Environment and Development. It further establishes a Biosafety Clearing House to facilitate the exchange of information on living modified organisms and assist countries in the implementation of the Protocol.

In line with the ratification of the Cartagena Protocol on Biosafety the Kingdom of Swaziland has established a National Biosafety Framework and further enacted the Biosafety Act 2012. The objective in the establishment of these policy documents is to outline procedures for handling LMOs and a public participation procedure in the management of modern biotechnology practices in Swaziland. The Act in particular is aimed at ensuring an adequate level of protection in the safe transfer, handling and use of genetically modified organisms (GMOs) resulting from modern biotechnology. The objective in this regard is to avoid adverse effects on the conservation and sustainable use of biological diversity, taking into account human health. To complement the policy framework in the country, recognition is made in terms of Principle 10 of the Rio 1992 Declaration which compels all countries to put in place necessary mechanisms for access to information and give citizens opportunity to participate in decision-making. Article 23 of the Cartagena protocol as well provides for the parties to:

- Promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of living modified organisms.

- Endeavour to ensure that public awareness and education encompass access to information on living modified organisms identified in accordance with this Protocol that may be imported.

- In accordance with their respective laws and regulations, consult the public in the decision-making process regarding living modified organisms and make the results of such decisions available to the public, while respecting confidential information.
- Endeavour to inform its public about the means of public access to the Biosafety Clearing house.

The Swaziland Environment Authority is designated by the Biosafety Act as the Competent Authority and entrusted with the duty of implementation and administration of the Act and any regulations made pursuant thereto. In fulfilling this obligation, the competent authority needs to come up with a strategy for the following:

- Implementation and enforcement of the Biosafety Act
- Provide programmes that will address information access, public participation in decision
- making and awareness
- Provide framework to entrench info access, public participation and awareness

It is worth noting that unlike other sub-Saharan African countries, Swaziland does not have a comprehensive access to information legislation, however, issues of public access to information are dealt with by each sectoral law.

Part VIII of the Environmental management, 2002 deals with the issue of access to environmental information and public participation in decision making in the country. Among other things the EMA, 2002, which is a framework environmental legislation for Swaziland, provides for the creation of register of environmental information, which should contain all licenses issued for the purposes of safeguarding the environment. It further gives any person a right to request from the Minister of Environment, the SEA or any other organ of Government any information relating to the environment that is not available in the registry but that could reasonably assist that person in contributing to the enhancement, protection and conservation of the environment and the sustainable management of natural resources.

In the context of biosafety information, Section 25 of the Biosafety Act, 2012 specifically deals with Public Information, Awareness and Participation. The Act clearly compels the Competent Authority (SEA) to:

> *"promote awareness and education of the public and those conducting activities subject to the Act concerning biosafety matters through the publication and dissemination of this Act and regulations made under this Act, as well as guidance documents and other material aimed at improving understanding of biosafety and related authorisation and notification requirements"*

The Act further provides for sharing of Biosafety information internationally through the Biosafety Clearing House Mechanism (BCH).

Most anecdotal surveys have shown that levels of awareness on issues of biosafety are very low in the country. However, some efforts have been made to improve the situation. These include an initiative funded by Regional Agricultural, Environmental Innovations Network (RAEIN) Africa, which uses an innovation platform approach to creating awareness and maximizing public participation in biosafety

decision making. The approach established the Public Awareness and Public Participation (PAPP), which 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 platform consisted of stakeholders drawn from various institutions in the country, e.g. the university, media, civil society, farmers, environment regulatory authority, government ministries and industry. The primary purpose of the platform was to enhance public awareness and participation of stakeholders in biosafety decision-making processes, using the innovative systems approach to ensure sustainable livelihoods in Swaziland, through activities tailor-made for each target group.

Among its activities the PAPP undertook a baseline survey to determine levels of knowledge on modern biotechnology and biosafety issues in the country among female farmers in the country. The result showed that the levels of awareness particularly among rural folk was extremely low, and needed urgent attention. It is against this backdrop that a comprehensive awareness, access to information and public participation in biosafety decision making strategy was developed.

2. GOAL OF STRATEGY

The major goal of this document is to assist the government of Swaziland, through the Swaziland Environment Authority as the Competent Authority tasked with the implementation of the Biosafety Act, to promote awareness, access to information and public participation in the management of biosafety issues by 2018.

3. TARGET GROUPS

The strategy is targeted for implementation to the general public. The essence is to ensure that every Swazi is aware of biosafety issues, has access to information relating to biosafety and has the opportunity and platforms to participate in the decision-making processes relating to biosafety and adoption of biotechnology. For purposes of targeting and wider coverage, the public has been grouped into seven (7) broad categories. Academic institutions are added as an eighth category as a strategic target group that is more of a partner representing the research community. These are discussed below, each on its own to establish their relevance.

3.1 Consumers

Consumers are the end-users of biotechnology products. In many respects this target is aimed at the general public because everyone is a consumer. The strategy will therefore provide activities that will ensure that as consumers the public is aware, has access to information and participates in decision making processes on biotechnology products. The different consumer groupings in the form of associations and other representative bodies will be of particular importance in terms of reaching out to this target group.

3.2 Farmers

Farmers as a target group include both subsistence and commercial farmers. Again in this group the anticipation is that it covers almost every Swazi, particularly the rural dwellers. The importance of this group is in the fact that they are largely the adopters and users of biotechnology.

3.3 Policy Makers

Policy makers are the decision-makers. In this case the target will largely involve cabinet; parliamentarians; government departments; municipalities and local authorities; and traditional authorities in the case of rural areas. This group is important because they make the decisions and provide direction on what is acceptable and what is not. They are also enablers and creators of the necessary conducive environment to allow the three pillars of this strategy (awareness, access to information, and public participation) to play themselves out.

3.4 Private Sector

The private sector as a target group mainly includes food processors like millers as well as retailers. These are critical because they process and convert biotechnology products into food products. It is therefore imperative that they are targeted in terms of the strategy because of the role they play in the processing and distribution of genetically modified food products.

3.5 Media

The media are distributors of information, and their coverage is significantly wide in terms of reaching to the public. As a sector they may be relatively small, but their impact in terms of reach and assimilation of information is significantly large. It is therefore imperative that they are specifically targeted in terms of this strategy so that their reporting is guided when it comes to biosafety and biotechnology issues. Awareness, access to information and the participation of this sector is therefore critical in view of the role and impact they have in terms of information dissemination.

3.6 Civil Society

Civil society has in some quarters been defined as the 'third sector' of society because it is neither government nor business. This is a sector largely dominated by non-governmental organizations (NGOs) and other non-profit organizations. Community based organizations (CBOs) could also form part of this sector of society and faith based organisations. These organizations are largely visible and vocal in Swaziland and they cover a range of issues in terms of their views, particularly if it is to do with people and their livelihoods and the environment. It is therefore imperative that they are targeted by the strategy so that they are on the know in terms of biosafety issues and they actively participate in some of the fora where these issues are discussed and where decisions need to be taken.

3.7 The Youth

The youth is the future of the country. They are the future policy makers. They are the future generation that is most likely to feel impacts of activities and decisions taken in the present time. It is therefore imperative that as a grouping they are always involved and engaged on issues such as biosafety and biotechnology. The involvement of the youth should be encouraged and entrenched at the early stages of their lives and development. This means they should be considered as early as primary school. In this strategy document, programmes directed to the youth are meant to involve them as early as at that stage.

3.8 Academic Institutions

Academic institutions are discoverers and banks of scientific knowledge. They play a huge role in imparting this knowledge to future leaders and economic drivers of the country in the students that attend these institutions. The country currently boasts of several institutions of higher learning and training institutions. This translates to a significant number of people, who are largely in their youth years, that these institutions reach. As a target group for this strategy, academic institutions are recognized as re-enforcers of the initiatives that will be implemented on the other seven target groups in terms of awareness, access to information and public participation in bio-safety and bio-technology matters. Initiatives and actions directed to academic institutions are more of a partnering nature with them in driving the objectives of the strategy.

4. STRATEGIC FOCUS AREAS AND ACTION PLAN

The strategy has three focus areas. These are largely based on the nature of the strategy wherein it seeks to address three main areas. These are Awareness, Access to Information and Public Participation. For each strategic focus area, a strategic objective is provided followed by an action plan which is in a form of a matrix that is based on the identified target groups.

4.1 Public Awareness

Public awareness on issues of biosafety in the country is largely limited. The prevailing status quo is that it is largely a concept that is known only amongst the technocrats, government and NGO officials involved in the field. There are few educational resources and materials on Biosafety/Biotechnology in the country. Media coverage on the subject is basically low and when it happens it is often biased often negative. It is only recently that the Biosafety Act, 2012 has been enacted, albeit a limited understanding and awareness on the part of the legislators that passed the Bill. With this law in place in the wake of such limited awareness, even amongst key stakeholders, there is a great challenge in terms of implementing it and reaping the rewards from the provisions provided therein. This focus area is therefore aimed at ensuring that public awareness is entrenched and achieved through the programmes of SEA as the Competent Authority.

4.1.1 Strategic objective

- the strategic objective of this focus area is to create public awareness and understanding of the national biosafety framework and the application of modern biotechnology in Swaziland.

4.1.2 Action Plan

To achieve the articulated strategic objective, an action plan has been drawn to address public awareness. As alluded to earlier, this plan is anchored around the target groups as shown in the matrix. For each group, the key messages are identified and the actions to get the messages across are stated. The matrix also indicates the cost, timeline and indicators of success for each action item.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Policy Makers	• The implication of biotechnology on: •the economy •the environment/ natural resources biodiversity •social Issues, including poverty and livelihoods • Biotechnology and issues of patents • Decision making procedures and roles of different state agencies • Relevant scientific and technical knowledge which must be taken into account in policy formulation and disseminated to end-users • Institutional arrangement for GMOs meant for food, feed and processing • Inspection and monitoring • Labelling and traceability • Intellectual property rights • International protocol, biosafety Act and framework	• Organize regional seminars on the economic, social and environmental implications of biosafety/ biotechnology issues.	• MOA • MICT • Cotton Board • NAMBOARD • SRA • RSP • USDF • Parliament	100,000	December 2014	• Increased knowledge, awareness and technical understanding by policymakers of biosafety/ biotechnology issues • Increased inter-ministerial collaboration on the implementation of biosafety framework
		• Identify champions in parliament and cabinet to advocate for biotechnology/biosafety issues	• Parliament • Cabinet	10,000	March 2015	• Higher priority is given to biosafety/biotechnology at national level • In each and every decision-making structure there will be a champion at all levels
		• Include biotechnology/ biosafety issues during monthly cabinet breakfast meeting	• Cabinet • Media Houses	5,000	On going	• Biosafety issues discussed during cabinet and editors breakfast meetings
		• Conduct annual national, and regional training workshops for agriculture and health head of departments and senior officers	• MOA • MOH • Cotton Board • NAMBOARD • SDB • Farmers Union	120,000	Annually	• A percentage/ proportion HODs and senior offices are conversant withBiotechnology and Biosafety issues
		• Conduct tailored workshops for border enforcement agencies e.g. customs, police, army and agriculture leadership.	• MOA • MOH • Cotton Board • NAMBOARD • SDB • SRA • RSP • USDF	60,000	September 2015	• Enhanced enforcement and restriction in illegal imports of GMOs • All leaders are aware and eligible • All guidelines include biosafety issues
		• Develop IEC materials on Biosafety and Biotechnology and use of multimedia for dissemination to all relevant ministries and Agencies	• UNISWA • Media • NGOs	100,000	March 2015	• Published IEC Materials • Number of programmes developed and aired

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Media	• Responsible and accurate reporting on biosafety and bio-technology issues • Information dissemination to the public • Public engagement on biosafety issues through live call-in programmes and through the publishing of articles by interested parties on the subject	• Establish a network of environmental journalist	• SNAJ, • MISA, • Media Houses • MICT	100,000	December 2015	• Established functional network for environmental journalist with special focus on Biosafety/ Biotechnology
		• Conduct Awareness seminar for journalist and editors	• SNAJ, • MISA, • Media Houses • MICT	15,000	March 2017	▪ Number of articles and programmes reporting on Biotechnology and Biosafety
		• Conduct training for journalist and editors on reporting scientific information	• SNAJ, • MISA, • Media Houses • MICT	15,000	March 2017	• Number of biosafety radio and TV programs produced
		• Produce multimedia Adverts periodically	• Media houses	50,000	September 2015	• Radio advert on national radio played
		• Conduct live debates on the Biosafety Act,2012 Biotechnology pros and cons, risk assessment procedure, and labeling on TV, and radio	• Swazi TV • Channel S • SBIS • Social Media	30,000	June 2015	• Live TV debates
		• Publish Scientific articles/ produce and air TV documentaries focusing on biosafety/ biotechnology	• Print Media • Electronic media • STVA • Channel S	30,000	December 2014	• Number of articles published on national newspaper
		• Award outstanding journalist and media houses	• SNAJ • MISA	15,000	March 2015	• Awards ceremony for journalist
		• Conduct field tours and practical observations for journalist	• SNAJ, • MISA, • Media Houses • MICT	40,000	June 2016	• Local journalist increased understanding for Biosafety and Biotechnology
		• Produce and Air TV documentary on Biosafety and Biotechnology	• Channel S • STVA	60,000	March 2018	• Number of documentaries aired
		• Produce and disseminate 30seconds tailored adverts on Mobile Transit TV in public transport	• Mobilize Swaziland	30,000	September 2017	• Number of adverts produced

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Civil Society Organizations	• Basic provisions of the Cartagena protocol and Biosafety Act, 2012 • The Science of Biotechnology • Biosafety and concerns on Modern Biotechnology • Risk assessment • Labeling of GMO products • Prior informed procedure • The cost of action/inaction • Case studies on application of biotechnology on the African continent and in the country • Biotechnology scientific findings	• Establish communication partnerships with relevant interested major NGOs/ CSOs and/or include NGOs/ CSOs and faith based organisations in biosafety communication networks and platform	• CANGO • Farmers Union • ACAT • COSPE • World Vision • Swaziland Food Consortium • Consumer Forum • Consumer Association • Songimvelo • RAEIN Africa Supported Platforms • Africa Bio	20,000	December 2018	• Biosafety communication platform for NGOs established
		• Circulate technical lessons learned on Biosafety/Biotechnology	• CANGO • Farmers Union • ACAT • World Vision • Swaziland Food Consortium • Consumer Forum • Consumer Association • Songimvelo • RAEIN Africa Supported Platforms • Africa Bio	50,000	April 2016	• Scientific relevant information distributed to NGOs and CSOs
		• Put in place a civil society consultation and coordination mechanism on Biosafety and biotechnology issues	• CANGO • Farmers Union • ACAT • World Vision Swaziland • Food Consortium • Consumer Forum • Consumer Association • Songimvelo • RAEIN Africa Supported Platforms • Africa Bio	10,000	June 2015	• Biosafety consultation and coordination mechanism for NGOs and CSOs

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Civil Society Organizations (continued)		• Provide NGOs with scientific, economic and political information regarding Biosafety/ Biotechnology and the links with the major global challenges	• CANGO • Farmers Union • ACAT • World Vision Swaziland • Food onsortium • Consumer Forum • Consumer Association • Songimvelo • RAEIN Africa Supported Platforms • Africa Bio	50,000	April 2015	• Publications of Biosafety done by NGOs
		• Compilation and dissemination of case studies	• CANGO • Farmers Union • ACAT • World Vision Swaziland • Food Consortium • Consumer Forum • Consumer Association • Songimvelo • RAEIN Africa Supported Platforms • Africa Bio	10,000	August 2016	• Biotechnology and Biosafety related case studies and stories published by NGOs

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Farmers	• Basic provisions of the Cartagena Protocol and Biosafety Act, 2012 • The Science of Biotechnology • Biosafety and concerns on Modern Biotechnology • Risk assessment • Labelling of products • procedure for the release of GMOs to the Environment. • Use and management of GMOs in agriculture	• Present and exhibit biosafety material during all agricultural shows	• MOC • SIPA	50,000	Annually	• Materials distributed during shows
		• Regional awareness workshops for farmers • Training of existing lead farmers on issues of biosafety	• SFU • NGOs • MOA • Cotton Board • NAMBOARD • SWADE • SSA	100,000	June 2015	• Level of awareness on GMO issues among farmers
		• Citizen's jury for possible introduction of specific GMO events on selected crops such as cotton, sugar cane and maize.	• SFU • MOA • Cotton Board • NAMBOARD • SWADE • SSA	100,000	Annually	• Level of farmers participation indecision making
		• Study tours for farmer leaders to GMO farming communities in neighboring countries	• SFU • MOA • Cotton Board • NAMBOARD • SWADE • SSA	250,000	Bi-annually	• Farmers more aware and knowledgeable on transgenic crops

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Consumers	• Basic provisions of the Cartagena protocol and Biosafety Act, 2012 • The Science of Biotechnology • Biosafety and concerns on Modern Biotechnology • Risk assessment • Labeling of products of Biotechnology • Prior informed consent procedure.	• Set up an exhibition on biosafety in the annual trade fair	• SIPA • MOC •	40,000	Annually	• Number of consumers made aware of their rights regarding GMO products
		• Host bi-annual Biosafety conference	• SCF • SCA • MOC • Media Houses	30,000	Bi-annually	• C onference proceedings
		• Upload information of Biosafety Clearing House web page for Swaziland, to be linked to the SEA and CBD website containing all possible information and links to relevant institutions and individuals	• CBD & CPB Secretariat	10,000	March 2017	• Functional BCH and website
		• Production and dissemination of an online news letter/ electronic news flash on biosafety and biotechnology.	• RAEIN-Africa	5,000	December 2015	• Level of consumer participation in decision making processes
		• Print Biosafety and Biotechnology Posters focusing on labeling	• CBD & CPB Secretariat	50,000	June 2018	• Number of posters printed and disseminated
		• Produce short radio and television clips on labeling	• SBIS • VOC	50,000	September 2015	• Radio clips produced
		• Conduct four regional road shows on biosafety and biotechnology	• Dance and Music Artists	120,000	March 2018	• Attendance in regional road shows

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Private Sector	• The private sector is better informed on the potential benefits and threats of LMOs • Informed of the provisions of the Cartagena protocol, the Biosafety Act,2012 and Policy framework guiding the use of LMOs • The private sector invests in biotechnology and biosafety research • Access to information on LMOs and trade issues • Procedure for import of LMOs and their products • Labelling requirements • Basic provisions of the Cartagena protocol and Biosafety Act, 2012 • LMOs and trade issues • Procedure for import of LMOs and their products • Labelling requirements • Basic provisions of the Cartagena protocol and Biosafety Act, 2012	• Prepare specific documents for targeted sectors of the economy particularly for millers and producers of animal feed on simple steps for importing LMOs into Swaziland	• FSE&CC • Millers (feed and food processors) • Major Retailers • FSBC	10,000	December 2016	• Guidance documents for millers
		• Involve business leaders in round table and brainstorming sessions on Biotechnology and Biosafety issues in the country.	• FSE&CC • Millers (feed and food processors) • Major Retailers • FSBC	20,000	By June 2015	• Business sector fully understanding the Biosafety framework

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Academic Institutions	• The Science of Biotechnology • Biosafety and concerns on Modern Biotechnology • Risk assessment • Labeling of products of Biotechnology • International issues emanating from research on biosafety/ biotechnology • New scientific findings	• Circulate Biotechnology and Biosafety scientific findings to relevant enterprises particular millers and grain producers	• FSE&CC • Millers (feed and food processors) • Major Retailers	5,000	March 2017	• Millers and producers of GMO products abreast with emerging scientific research
		• Prepare a roster of Biosafety/Biotechnology experts from academia and the world of business for media interviews	• FSE&CC • Millers (feed and food processors) • Major Retailers • Research Community • UNISWA	10,000	March 2014	• Roster of Biosafety Experts
		• Conduct a training on communicating scientific information for selected scientist and researchers	• FSE&CC • Millers (feed and food processors) • Major Retailers • Research Community • UNISWA	30,000	September 2015	• Researchers fully knowledgeable on how to communicate Scientific Biotechnology information to the media
		• Systematic preparation and dissemination to the media of press materials on the latest findings, major reports and significant scientific advances	• SNAJ • MISA • Media Houses	50,000	March 2015	• Research findings shared with the media regularly
		• Seminars for sharing latest scientific research in the field of biosafety and biotechnology	• UNISWA	20,000	March 2018	• Seminars on sharing of research shared regularly
		• Conduct workshops for institutions of higher learning to discuss the mainstreaming of biosafety and biotechnology into their course contents	• UNISWA	50,000	May 2015	• Workshop reports with recorded contributions from participants

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Youth	• Basic provisions of the Cartagena protocol and Biosafety Act, 2012 • The Science of Biotechnology • Biosafety and concerns on Modern Biotechnology • Risk assessment • Labeling of products of Biotechnology • Prior informed procedure • The cost of action inaction • Case studies on application of biotechnology on the African continent and in the country practices • Biotechnology scientific findings	• Conduct a curriculum audit for biotechnology/ biosafety primary, secondary and tertiary education in Swaziland	• MOET • NCC	30,000	December 2014	• Primary and secondary school biosafety / biotechnology curriculum audit report
		• Develop a cross cutting curriculum matrix for integrating biosafety and biotechnology in the formal education in Swaziland	• MOET • NCC	30,000	December 2014	• Curriculum matrix for all grades at primary and secondary school
		• School debates and competitions on Biosafety	• MOET • NCC	50,000		• March 2015
		• Undertake a curriculum audit for tertiary institutions on the mainstreaming of Biosafety and Biotechnology	• UNISWA	30,000	June 2015	• curriculum audit report for tertiary level education
		• Annual Debates for students in all Tertiary Institutions	• UNISWA • Junior Achievement • ENECTUS	80,000	September 2015	• debate proceedings
		• Create group pages in social network sites where biosafety issues will be discussed	• NYC • UNISWA • Junior Achievement • ENECTUS • Scouts	5,000	April 2014	• biosafety issues being discussed on facebook
		• National Competition to come up with a Siswati Name for GMOs through different media platforms	• MYSC • NYC • UNISWA • Junior Achievement • ENECTUS • Scouts	40,000	December 2014	• SiSwati name for GMOs

4.2 Access to Information

In a similar vein as public awareness, access to biosafety and biotechnology information is generally limited in the country. It is again a case of it being accessed by those in the know of the subject and field. There are no proper mechanisms and collaborations to ensure that information is readily available for the public to access. Without information, even stakeholders who could be assisting to disseminate messages on biosafety issues are challenged to do so. The media for instance could be doing quite a significant lot, if they had adequate access to packaged information on issues around biosafety and biotechnology. Civil society could perhaps push more in their advocacy campaigns and allow for robust debates around the issues of biosafety and the adoption of GMO products. This in turn would enhance the first focus area of public awareness. It is on this basis that access to information is identified as a strategic focus area to be developed and implemented. The essence of this focus area is to ensure that the public has adequate access to information to allow for them to make informed decisions in terms of the adoption of biotechnology products.

4.2.1 Strategic Objective

In cognizance of the brief background given above, the strategic objective of this focus area is provide mechanisms for improving access to information on biosafety and biotechnology.

4.2.2 Action Plan

A matrix for this focus area has been developed as well based on the identified target groups. As different from the public awareness focus area, for access to information the matrix identifies gaps or the context in relation to accessing information per target group. Action items are as well provided to address the identified gaps.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Policy Makers	• Basic provisions of the Cartagena protocol and Biosafety Act, 2012 • The Science of Biotechnology • Biosafety and concerns on Modern Biotechnology • Risk assessment	• Seminar on access to biosafety information	• MOA • MICT • Cotton Board • NAMBOARD • SRA • RSP • USDF • Parliament	120,000	December 2015	• Policy makers encouraging public access to biosafety information and right to information
		• Establish an online information sharing and exchange system for all implementing agencies linked to the biosafety clearing house	• MOA • MICT • Cotton Board • NAMBOARD • SRA	30,000	September 2015	• Functional online information sharing and exchange system
Media	• Local media is currently the major consumer of biosafety information	• Establish a web- based information sharing platform where all up to date biosafety information and decisions can be uploaded (linked to BCH).	• SNAJ, • MISA, • Media Houses • MICT	30,000	September 2015	• Functional web-based information sharing platform
	• Often, information not readily available and information not obtained timely	• Create an online biosafety information request form	• CBD&CPB	5,000	December 2014	• Improved turnaround time on information request
	• Media often does not give out enough information	• Issue press releases after any decision has been taken	• SNAJ, • MISA, • Media Houses • MICT	30,000	On going	• Accurate information being communicated to the media through press releases

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Civil Society Organizations	• NGOs lack up-to-date information on GMOs • Often information made available to NGOs is scientific in nature	• Compile a detailed electronic and hard copy register of biosafety information quarterly	• CANGO • SFU • ACAT • World Vision Swaziland • Food Consortium • SCF • SCA • Songimvelo • RAEIN Africa Supported Platforms • Africa bio • Save the Children • IRD • COSPE • Technoserve	50,000	On going	• Up-to-date electronic and hard copy biosafety register • Simplified non-technical summaries for all risks assessments done before the introduction of GMOs
		• Prepare simplified versions for all risk assessments undertaken by biosafety advisory committee	• CANGO • SFU • ACAT • World vision Swaziland • Food consortium • SCF • SCA • Songimvelo • RAEIN Africa Supported Platforms	100,000	On going	• Simplified versions for risk assessment dossiers
Farmers	• Farmers lack information on the potential risks associated with GMOs	• Issue public notices on and distribute all risk assessment documents undertaken for new events in all the four regions of the country	• SFU • MOA • Cotton board • NAMBOARD • SWADE • SSA • Technoserve	100,000	On going	• Simplified non-technical summaries for all risks assessments distributed in all the four regions before the introduction of GMOs
	• Often they are called upon to make decisions on whether to adopt specific transgenic crops without full understanding of the potential risks	• Prepare simplified/ summarized versions for all risk assessments in both official languages undertaken by biosafety advisory committee and distribute in all four regions	• SFU • MOA • Cotton board • NAMBOARD • SWADE • SSA	100,000	On going	• Simplified versions for risk assessment dossiers distributed

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Consumers	• Consumers currently have not been capacitated to identify GMO containing productsre-relevance for people without information	• Create an online biosafety information request form	• SCF • SCA • MOC • Media Houses • N D M A • Health Motivators (bagcugcuteli)	5,000	December 2014	• Improved turnaround time on information request
	• Mainstreaming awareness on biosafety issues in community engage-ments (merge cells)	• Accommodate people with special needs by making information available for people living with disabilities. E.g. capacitating people to teach in sign language	• FODSWA	100, 000	April 2015	• Community meetings minutes indication biosafety issues as agenda items discussed
		• Seminars for development committees at community level	• Tinkhundla Ministry • NGO's	300, 000	April 2015	• Biosafety issues addressed in community development plans
	• The draft biosafety regulations (part iv, section 27&28 and part vi, section 37&38) details specific provisions on labelling of GMO products	• Print and distribute poster on GMO information and labelling	• SCF • SCA • MOC • Media Houses	50,000	September 2015	• Posters on labeling information requirements
Private Sector	• Producers and retailers require specific guidance of GMO labeling	• Prepare and distribute GMO labeling manual to all major retailers and producers	• FSE&CC • Millers (feed and food processors) • Major retailers • SWASA • Competition Commission • Malkerns Research-SQC	20,000	March 2015	• GMO labeling manual widely distributed
		• Conduct training for all retailers and producers on labeling	• FSE&CC • Millers (feed and food processors) • Major retailers • Research community	30,000	June 2015	• All retailers and producers aware of labeling procedures
		• Upload labeling manual to the internet	• CBD&CPB secretariat	2,000	April 2014	• Online labeling manual

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Youth	• Youth lack relevant information to participate meaningfully in biosafety decision making	• Use social media platforms (face book, tweeter and YouTube) to publish risk assessment documents and research articles	• MOET • MYSC • S NYC • UNISWA • Junior Achievement • ENECTUS • Scouts	10,000	March 2016	• Risk assessment dossiers, research articles and relevant local video clips published on social network platforms
	• There is a need to attract more youth to pursue careers in the field of biotechnology	• Upload information on career opportunities on website and hard copy publications	• MOET • UNISWA • Bantwana • Children and Youth Development Programme (CYDP) 4S	50,000	March 2017	• Young people taking up biotechnology careers at undergraduate and postgraduate level, up to PhD level
		• Seminar for career guidance teachers	• MOET • UNISWA • Bantwana • Children and Youth Development Programme (CYDP)	20,000	June 2016	• Young people exploring Biotechnology related careers
		• SEA taking part in school's career guidance events	• MOET • UNISWA • Bantwana Children and Youth Development	10,000	March 2018	• Young people exploring Biotechnology related careers
Academic Institutions	• Research • Publishing of articles	• Conduct surveys to determine people's access to information on biosafety • Publish articles in journals and magazines on biosafety • Host and conduct seminars, workshops and debates on biosafety matters	• UNISWA • MOET • Research community • Siteki Industrial Training Centre • MITC • NSTIC • St Mary's Agricultural Training Centre • William Pitcher College • SANU • Christian Medical University • Ngwane College • Limkokwing University • Swaziland College of Theology	200,000	August 2015	• Survey reports • Number of articles published • Workshop and seminar reports

4.3 Public Participation

The background to the first two focus areas discussed has revealed that there is generally a lack of public awareness on biosafety issues, with access to information on the subject limited as well. This being the case, it goes without say that the involvement of the public in matters of biosafety, particularly the decision-making processes, is minimal at best. As a principle, the participation of stakeholders in matters that directly affect them is crucial so that any concerns are addressed at an early stage and decisions taken are owned by all. With biosafety issues touching directly on people's lives and the environment within which they live, it is therefore imperative that activities and decisions made in relation to these are all encompassing in terms of the involvement of the public. It is for this reason that all policy documents and legislation on the matter emphasize on public participation. As a focus area for this strategy, public participation is aimed at ensuring that people as individuals and as a collective are involved in the decision-making processes and in the activities relating to biosafety.

4.3.1 Strategic Objective

The strategic objective of this focus area is to create an enabling environment for the involvement of interested and affected parties in decision-making on biosafety issues.

4.3.2 Action Plan

The action plan for this focus area is as well centred on the identified target groups. Within the matrix the plan firstly identifies the key issues to be addressed per target group. It then presents the areas of involvement for each target group, with actions, strategic partners, estimated costs, timelines and indicators given as well.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	AREAS OF INVOLVEMENT	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Policy Makers	• Legislate the Control of influx and distribution of GMO products	• Strengthening legal and policy frameworks the address the importation and distribution of GMO products.	• Conduct workshops with senior officials from relevant government ministries	• MTEA • MOA • MOCIT • MFA	90,000	June 2014	• Policies in place and adopted by all relevant stakeholders
		• Review international trade agreements in relation to GMO products and strengthen collaborations with trade partners on the importing and exporting of such products.	• Facilitate meetings between government officials and representative of international trade partners.	• MOC • MTEA • MFA	200,000	November 2014	• Agreements on conditions of GMO products trade.
Media	• Information gathering and distribution.	• Design information dissemination programmes.	• Facilitate a meeting with all media houses' senior management to solicit their support in the design and dissemination of information packs on biotechnology and biosafety.	• MICT • STVA • SBIS • Print Media Houses • VOC	20, 000	May 2015	• Memoranda of Agreements with individual media houses.
			• Prepare listener interactive programmes and present these on local radio and television	• STVA • SBIS	50, 000	August 2015	• Interactive programmes aired at least once a month.
			• Publish articles on print media addressing biosafety issues on a monthly basis.	• Print Media Houses	50,000	August 2016	• Articles published in print media prompting public review and comments on the articles.
			• Run media competitions for best articles by school going children	• Media Houses	100,000	Sep 2017	• Articles published in print media prompting public review and comments on the articles.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	AREAS OF INVOLVEMENT	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Civil Society	• Protection of people's rights to knowledge	• Biosafety policy development processes	• Invite NGOs input into policy development and review processes relating to bio-technology and biosafety.	• CANGO	10,000	June 2015	• Concerns from NGOs recorded and incorporated in policy documents.
		• Information collection and dissemination	• Facilitate workshops with NGO representatives to agree on their roles in collecting, sharing and disseminating information on biotechnology and biosafety.	• CANGO • MTEA	90,000	Jan, 2016	• Memoranda of agreements with NGOs to have Biosafety issues constituting a part of their programme areas
	• Protection of the environment.	• Advocacy for environmental protection.	• Create a consultation platform for NGOs to input into the approval of GMO handling applications	• CANGO	5,000	June, 2018	• Platform in place and agreed upon by all parties with no complaints of non-consultation. .
			• Distribute risk assessment reports to NGOs for their input and comments.	• Media houses • CANGO	5,000	April, 2018	• NGOs accessing risk assessment reports and their inputs recorded, incorporated and addressed.
	• Food security	• Debates on GMOs and food security	• Invite NGOs to make presentations on topics around food security and GMOs.	• Media Houses • RAEIN Africa Supported Platforms • CANGO	100,000	April, 2018	• Robust debates with recorded solutions and way forward on subjects under debate.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	AREAS OF INVOLVEMENT	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Farmers	• Transgenic crop and animal varieties	• Experience sharing on GM crop and animal varieties.	• Create and establish a mobile farmer information sharing system wherein experiences will be shared on GMO crop varieties.	• MICT • MOA • MTN •	200,000	April 2017	• System in place and fully functional.
	• Adoption and use of GM seed plants and animal feeds	• Decision-making on adoption of GM seed plants and animal feeds.	• Establish an interactive supplier-farmer-consumer platform where decision-making points with regards to use of GM farm input products will be discussed and agreed upon.	• Media Houses • MICT • MOA	100,000	April 2015	• Discussion points and agreements documented and implemented..
			• Create a position within the application review bodies for the representation of farmers.	• MTEA • MOA •	20,000	April 2016	• Farmers represented in application approval committees.
	• Marketing of GMO agricultural products	• Selling of GM products	• Engage agricultural products marketing agencies to discuss responsibilities and ethical issues with regards to the marketing and selling of GM agricultural food products.	• NAMBOARD • NMC • MOA • SMI	50,000	May 2015	• Discussion points and agreements recorded and implemented.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	AREAS OF INVOLVEMENT	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Consumers	• Levels of exposure to biotechnology food products	• Review GMO applications and make input into the approval process.	• Establish a platform for consumers' inputs in the application and approval processes	• SCA • SCF •	20,000	May 2015	• Consumers concerns addressed in approval process.
		• Debates and learning and knowledge sharing fora.	• Establish debate fora wherein experts in the field and the general public discuss consumer exposure levels	• RAEIN Africa Supported Platforms • SCA • SCF	100,000	May 2016	• Debates publicized and issues raised addressed.
		• Review and input on risk assessments done for GMO products to be distributed for consumption.	• Advertise any assessment reports for public input before adoption, with consumer specific issues clearly articulated in the advertis ements.	• Media Houses	150,000	April 2017	• Advertisements aired and published in media houses.
	• Identification and labeling of GMO food products.	• Design and visibility of GMO labels	• Discuss placement, level of detail of GMO labels with consumer representatives in fora such as workshops, meetings, debates and seminars.	• Signage companies • SWASA	50,000	December 2014	• Agreements recorded and implemented.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	AREAS OF INVOLVEMENT	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Private Sector	• Processing of GMO products.	• Handling of GMO raw materials.	• Review application approval for GMO materials used in processes.	• Millers	50,000	May 2015	• Compliance to conditions of approval.
	• Labeling of GMO products	• Placement and level of detail in labels.	• Engage millers and retailers and examine conformance to manner of labeling as detailed in the GMO labeling manual.	• MOC • MTEA • Millers • Retailers	100,000	May 2015	• GMOs labels properly placed and visible with adequate level of information detail on products packages.
Youth	• Environmental protection	• Advocacy for the protection of the environment	• Arrange debates for school-going youths on biotechnology and the environment	• MOET • MTEA • NYC • MYSC	200,000	March 2015	• Increased interest on the subject at high school level.
			• E stablish a Youth Awards programme for individual or groups of young people who implement projects that address biosafety	• MOET • MTEA • Private Sector • NYC • MYSC	200,000	August 2016	• Increased numbers of successful projects implemented.
		• Environmental campaigns	• Design information pack to be used in campaigns to cover biosafety issues.	• MOET • MTEA • MYSC • Private sector • UNISWA	150,000	April 2017	• Increased number of environmental campaigns themed around biosafety
	• Capacity building on use of biotechnology	• Training	• Facilitate the training of interested young people on biosafety and biotechnology	• MOET • UNISWA • NYC • MYSC	250,000	April 2018	• Increased numbers of interested youths attending training.
			• Review high school and tertiary curricula to extensively incorporate biosafety as a subject of study.	• MOET • SNAT • UNISWA • NYC • MYSC	150,000	November 2015	• Clearly articulated topics on biosafety to be covered in the curriculum.

TARGET GROUP	KEY ISSUES TO BE ADDRESSED	AREAS OF INVOLVEMENT	ACTIONS	STRATEGIC PARTNERS	ESTIMATED COST (E)	TIMELINES	INDICATORS FOR SUCCESS
Youth (continued)		• Research	• Solicit funding for young people carrying out research on biotechnology and biosafety.	• MOET • UNISWA • Private Sector • NYC • MYSC	500,000	August 2015	• Increased number of research proposals that get funding.
			• Provide platform for young people and students to present their research studies.	• MOET • UNISWA • Private Sector • NYC • MYSC	100,000	May 2018	• Increased number of research projects presented.
			• Review research reports and make provision for the publishing of research articles by young people.	• MOET • UNISWA • NYC • MYSC	100,000	May 2017	• Positive reviews to research reports.
Academic Institutions	• Advantages and disadvantages of GMO products	• Scientific research on advantages and disadvantages of GMO products	• Solicit scientific bases for decisions on the entry and refusal thereof of GMO products. • Publish research findings on dangers and benefits of specific GMO. products	UNISWA MOET	200,000	August 2017	• Clear arguments supporting decisions on entry of GMO products into the country. • Findings published through local media houses.

5. MONITORING AND EVALUATION

A three-phased monitoring and evaluation framework or approach is proposed for strategy. In the first phase it will be important to determine the situation before the implementation of the strategy and the activities contained therein. A review of literature and consultative interviews would assist in this regard in relation to the target groups identified. In many respects this has been covered in this strategy document wherein it reveals low levels of awareness, access to information and public participation.

The second phase of the M&E is to be done during implementation of the strategy. In this case the essence will, in the first instance, be to determine whether the activities contained in the strategy are being carried out and at what pace and coverage. In the second instance the second phase of the M&E will aim to determine whether the activities being carried out are producing the desired outcomes. The indicators as given in the action plan will be of critical importance at this M&E phase. It is at this phase where necessary improvements and changes in activities or manner of carrying them are made.

The last phase is more of an impact assessment phase. This is where an evaluation of whether the overall goal of the strategy has been achieved. It is a post strategy implementation phase where the outcomes of the strategy are evaluated if they are what were desired in the first place. For this evaluation phase the following matrix can be adopted.

Criteria	Evaluators summary comments	Rating
Achievement of strategic objectives		
Stakeholder involvement		
Implementation approach		
Sustainability of implemented programmes		