UNFAO

Research, production, and distribution of Genetically Modified Organism-based(GMO) food products

Eunji Dana Hong and
Jun Lee

TABLE OF CONTENTS

LETTER FROM THE CHAIRS

Dear Delegates,

Welcome to the Food and Agriculture Organisation for GECMUN 2017. This is your Chair Dana Hong, who currently attends Branksome Hall Asia as a senior student. Although it is only my third year participating in MUN, and my first year chairing a committee, it is my privilege to chair this committee on the topic of Genetically Modified Crops. As members of FAO, you'll have to discuss pressing issues involving the international community and the need for genetically modified food crops. This issue has been the source of countless arguments between two opposing parties, but have yet to see a fruitful compromise. Thus I am very excited about the changes we can make to this status quo.

As your chair, there are some expectations that I have of all delegates. Please attend the conferences prepared well. You should first and foremost understand the agenda as well as your assigned country's stance. I highly encourage you to read the Background Guide prepared by the chairs, and from that point on refer to external sources such as the official UNFAO website, and the World Food Programme. At the same time, please be well acquainted with the parliamentary procedure. The chairs can provide delegates with the necessary information if delegates wish so.

I hope that you are looking forward to participating in our conference as much as I am looking forward to chairing it. If any questions arise, please don't hesitate to contact the chairs.

Sincerely,
Dana Hong

Dear Delegates,

Welcome to the Food and Agriculture Organization for GECMUN III. This is your chair Jun Lee, who currently attends to Korea International School Jeju as a sophomore student. Although this is my second year of experience of Model United Nations and the first year of chairing a committee, I am very enthusiastic about our upcoming conference. In this committee, delegates will be discussing about the controversy regarding the needs Genetically Modified Food. The matter still remains unresolved so it is up to you, delegates, to propose a firm resolution to settle the case.

As your chair, I have some expectations for all delegates of our committee. First and foremost, please respect all delegates in our committee during and after the conference. Heated debates are welcome, but all delegates must have respect for each other at all times. Also, please be prepared for the committee. Understand the agenda as your nation's stance and prepare arguments based on them. The Background Guide is given as a tool for the committee for the delegates so please use them and other external resources as well. Finally, be aware of the parliamentary procedures for the conference. The chairs can provide delegates with the necessary information if necessary.

I look forward to meeting all the delegates at the conference and hope that we will have fruitful and fun debates. If any questions arise, please don't hesitate to contact the chairs.

Sincerely,
Jun Lee

INTRODUCTION TO THE COMMITTEE

UNITED NATIONS FOOD & AGRICULTURE ORGANIZATION

An intergovernmental organisation, the UN Food and Agriculture Organization(FAO) was established in 1945 to create the first "United Nations program for freedom from want of food." With 194 Member Nations, two associate members and one member organisation, the European Union, FAO strives to achieve food security for both developed and developing countries alike.

The three main goals of the FAO are as follows:

Eradication of hunger, food insecurity and malnutrition

Elimination of poverty and driving forward of economic and social progress for all

Sustainable management and utilisation of natural resources, including land, water, air, climate and genetic resources for the benefit of present and future generations.

As a result, FAO prioritises the knowledge network it provides to the international community where information can be put within reach to aid development. Based on the network, the member nations draft effective legislation where nations come together to create national strategies to achieve rural development and hunger alleviation goals. In the process, FAO mobilizes and manages thousands of field projects throughout the world to achieves its goal. It also works along with the World Food Programme and other humanitarian programs that improve nutrition practices and ensures good nutrition for all to rebuild the lives of the affected people.

GLOSSARY OF KEY TERMS AND ACRONYMS

GMO (Genetically Modified Organism):

Organisms that are artificially born through genetic engineering of genes. Many research and development have been progressed and are still being continued on certain nations.

Controversy: The terminal genes in the GM crops makes seeds impossible to harvest which makes the farmers to buy for GM crop seeds every year.

GM crop: GMO's stage of cultivation

GMO food: GMOs stage of commercialization

Monsanto:

An American multinational agrochemical and agricultural biotechnology company and a primary producer of GM seeds. Many controversies are discussed regarding Monsanto company's misdeeds such as wrongful lobbying or unfair business. Many nations had troubles with the Monsanto company including India, Argentina, Brazil, etc. Monsanto company currently has various issues regarding the lobbying the US government for not labeling GMO foods.

UNEP (United Nations Environmental Programme):
The United Nations Environment Programme (UNEP) is an agency of United Nations and coordinates its environmental activities, assisting developing countries in implementing environmentally sound policies and practices.
WFP (World Food Programme):
The World Food Programme is the food assistance branch of the United Nations and the world's largest humanitarian organisation addressing hunger and promoting food security.
WHA53.15:
A resolution made by Fifty-third World Health Assembly in May 20th, 2000, on Food Safety.
WHO (World Health Organisation):
The World Health Organisation is a specialized agency of the United Nations that is concerned with international public health.
WTO (World Trade Organisation):
The World Trade Organisation is an intergovernmental organization which regulates international trade.

AGENDA OVERVIEW

Agenda: Research, production, and distribution of Genetically Modified Organism-based(GMO) food products

The Agenda focuses on Genetically Modified Organism-based(GMO) food product research, production, and distribution in order to help reduce poverty and starvation rate especially in developing nations. GMO food products hold a number of advantages that can be beneficial for countries suffering through extreme poverty. They are an effective way to provide the locals with larger revenues while spending less resources. Food sources, especially crops, can be modified to grow better in adverse conditions, such as pests and droughts. In fact, many analysts carefully agree that there will be less starvation in the world with GMO food products. However, the current FAO's position on the GMO food products is debatable. There is still a lot to be discussed about the after-effects of GMO products, and the ethical issues related with GMO are disputable. Thus the FAO committee's role of this agenda is to devise a safe, beneficial way to develop and publicize GMO food products globally.

HISTORICAL BACKGROUND

Humans have unknowingly modifying the food sources since prehistoric times. First coined by Charles Darwin, selective breeding describes the natural process of intentional breeding of organisms with most desired traits in an attempt to propagate the desirable characteristics through their offspring. Since the advent of agriculture 12,000 years ago, our ancestors have strived to improve their crop's durability and resistance to diseases and pests as much as possible.

While artificial selection is not what we typically consider GMO technology today, it is still the precursor to

the modern processes and the earliest example of our species influencing genetics. First grown commercially during the mid 1990s, genetically modified crops are now most commonly used in modifying a number of commercial commodity crops such as soybean, canola, corn, and potato. Often, the crops are genetically modified for herbicide tolerance or insect resistance.

Despite what is commonly said, it has been statistically proven that there is enough food for the world's population. For the past two decades, the rate of global food production has increased faster than the rate of global population growth. However, the problem arises with the fact that millions of people do not have the money to purchase the food. The latest State of Food Insecurity in the World report in 2015, jointly prepared by the FAO, the International Fund for Agricultural Development(IFAD), and the World Food Programme (WFP), estimated that almost 800 million people are chronically undernourished in 2014-16. This means that one out of every nine people in the world is currently unable to access enough food to conduct an active and healthy life. At the same time, it is estimated that over two billion people suffer from hidden hunger, a nutritional deficiency caused by a lack of balance in otherwise full diet.

This issue is aggravated by a number of external factors. The world continues to experience an exceptional growth in population, as the global population increased from about 1.6 billion people in the 1900 to 7.4 billion today. Yet the natural resources upon which agriculture depends, such as land, water, and soil, are struggling to accommodate our needs with environmental degradation and climate change. Many of the countries and the populations that are most affected by climate change are those who are already food insecure and malnourished.

However, there are many controversies over the use of GMOs which prevent nations from fully accepting GMOs as possible solution to food security. GMOs are highly controversial mostly due to the debate of whether or not they cause harmful effects if consumed. They have been tested in a limited amount of studies focusing on if they will cause illness, none of which have been very informative. Most of the European Union believes that GMOs are dangerous, and can cause illnesses to the consumers. They have gone to lengths to put strong restrictions and in some cases even outright ban GMOs, even though some other countries such as the United States have GMOs consist up to 80% of its food supply.

In addition to the debate over whether they cause illnesses, there is a speculation that GMOs will have harmful effects on the environment, causing an increased amount of pests that are insecticide resistant, a high amount of herbicide-resistant "superweeds," and will also cause the environment to become polluted with harsh chemicals from herbicides and pesticides like Roundup, which is toxic.

STATUS QUO

It is imperative that the society moves towards sustainable food systems that produce more food that is also of greater nutritional value, with less environmental damage and doing this in the face of climate change. FAO has recognised that genetic modification can play a substantial role in providing solutions to these pressing challenges and contribute to food security.

Currently, 28 nations cultivate and produce GMO crops. Recently, The European Union has announced on prohibitions on cultivations of GMOs within their borders and Russia has issued a ban on both cultivation and imports. Still, many nations allow imports of GMOs mainly animal feeds. Many other nations such as China, Japan, and Canada, restrict GMO products, unless they pass regulatory standards.

The current policy of the UN on GMOs is one of leniency, allowing UN member countries to formulate their own opinions and policies for GMOs within their own countries; however, as of 2004, some minor forms of labeling for GMO products have begun implementation across the globe. Most importantly however, from an international perspective, is that countries must respect other countries' laws regarding the importation and exportation of genetically modified goods.

There are several organizations within the UN that are concerned with GMOs. Primarily the WHO, UNEP, and of course the FAO being the most involved. The primary form of interaction from these parties is through studies that evaluate whether GMOs are safe or not. Two prime examples of this are UN resolution WHA53.15 and "Modern food biotechnology, human health and development: an evidence-based study" which both conclude that countries should continually be concerned with food safety and further the research into the possible effects of GMOs. In addition there is the Convention on Biological Diversity and the subsequent Cartagena Protocol on the Convention on Biological Diversity. The latter convention emphasises that ratifying nations should be concerned with the environmental impact of genetically modified organisms along with the risk to biological diversity in plant life across the globe. Delegates should remember that the UN is highly concerned with both the health risks and the environmental impact that GMOs present.

The FAO's opinion is relatively similar to the United Nation's but is slightly harsher in nature. In an article by Louise O. Fresco, previous Assistant Director-General of the FAO, he writes that GMO products and procedures have become a crucial part of our world, but the further integration of GMO products into citizen's daily lives contains risks, since we do not fully understand the health risks associated with GMOs. Once again, he states, countries must be wary of the over-dependence of GMO products since this might lead to health catastrophe. This article is a very accurate representation of the FAO's current position on GMOs, but the FAO does respect member nations whose opinions vary on how to deal with GMOs in their respective countries.

Stances of Member States and Parties Involved

Australia:

In Australia, the Office of the Gene Technology Regulator (OGTR) oversees the development and environment release of GM organisms under the Gene Technology Act 2000. Many GM crops approved for use as food, are grown for animal feed and some GMO food are even provided in the market for the public while others don't because of a variety of reasons.

Austria:

The Austrian public is strongly opposed to GMO crops. With small amount of land available for agriculture, few farmers believe that coexistence among organic, conventional, and transgenic farming can occur. The Austrian government's stance on this issue reflects the public opinion and has banned several GMOS. In line with the stance, there has been no reported commercial cultivation of GMO crops in Austria.

Bangladesh:

Bangladesh has become the first South Asian country to approve commercial cultivation of a genetically modified (GM) food - eggplant spliced with a gene from the soil, Bacterium Thuringiensis. Bangladesh government is positive regarding GMO research and actively accepts new GMO crops.

Brazil:

Brazilian government allows research on GMOs but has specific law regulation (Law code No.11,105) such as rules for production and marketing of GMOs and punishments for administrative violations and criminal offense.

Canada:

Canada allowed 85 GM foods approved for sale since 1994. Currently, four gm crops are grown in Canada; canola, soybean, corn, and sugar. GM foods are regulated by Health Canada before it enters the market. However, Health Canada released reports that consumers are still skeptical about, if not completely opposed to, GM.

Chile:

Chile is one of the 28 GM producing nations. However, while producing and exporting GM crops are allowed in Chile's GM regulation code, GM production for domestic consumption is not allowed.

China:

Although the Chinese government allows GMO testing, production, and marketing under the government's approval, the chinese people disapproves GMO food. However, China will push for the commercialisation of genetically modified soybeans over the next five years as it seeks to raise the efficiency of its agriculture sector, potentially boosting output of the crop by the world's top soy importer and consumer.

Egypt:

The law and regulation of Egypt regarding the GMO food is overall undeveloped. Although Egypt allows GMO's growing, importing, and exporting, there are no restrictions on researching, producing, or marketing GMOs.

Finland:

Unlike other European countries, the Finnish government and the public are relatively open towards growing GMO crops in the nation. However, despite the lack of legal legislation on this matter, no GMO crops have ever been commercially grown in Finland as authorised GMOs in the EU are not suited to Finland's high-latitude climate.

France:

France has strict restriction on production and sale of GMO food additionally to the current EU's GMO regulations including labelling GM foods. The purpose of this is to strictly avoid potential release of GM crops into the environment. Generally the public dislikes the GMO foods and consequently, no GM crops are cultivated in France.

Germany:

The German public is generally opposed to the release of GM plants. While the government seeks to respect popular opinion, many current politicians support biotechnology, as they consider it an import factor for economic growth. In line with the majority, the German Agriculture Minister Christian Schmidt informed the EU Commission in 2015 that Germany will not permit GMO cultivation on its territory.

India:

India's government once was against GMO crop, however, recently opened its doors to Monsanto and other international agriculture companies. Generally, the people of India, especially the farmers, dislike GMO crops because the farmers have to buy GMO seeds every year which hurts the economy.

Iran:

Iran is unique in that there is no clear biosafety law against GMOs, yet has approved imports of GM crops such as rice, soybeans, rapeseed and edible oil as transgenic crops. While the GMOs are not a subject of public discussion in Iran, the officials are wary of embracing the crops. Advocates say that GMO can yield more crops and use less pesticides. On the other hand, critics argue that such crops can be hazardous to the environment. Thus the Iranians need to decide whether the nation will choose to preserve the "original DNAs of Iran's agriculture products."

Japan:

In Japan, it is legally allowed to cultivate GM crops, but there are certain regulations to keep to do so. Generally, the Japanese public is skeptical regarding GMO foods so there are no commercial planting of GM crops. Still, Japan is one of the largest importers of GMO food although labeling is required.

Malaysia:

There is no current legislation for labeling GMO foods, but the Food Quality Control (FQC), Ministry of Health Malaysia controls the regulatory framework of GM foods.

Mexico:

Mexico has laws on biosecurity puts regulations on research, commercialization, exportation, and importation of GMO foods. The laws prioritize human safety, thus requires authorization for release. If the GMO is considered harmful to human, biodiversity, or the health of other organisms, than it is denied in the process.

Nigeria:

The Nigerian government has claimed that no official GMO crops are grown in Nigeria except the approved

ones that are grown on experimental fields for field trials. Also, currently, the insect repellant GM cotton's commercial release will be subjected to further processes for the next two years. Generally the public is concerned of GMO.

Peru:

Officially, GMO foods are banned in Peru for the purpose of protecting biodiversity and Peru's native plants, but more than 70% of the foods on the supermarket shelves in Peru contain GMOs.

Russian Federation:

Since 2015, Russia has officially banned cultivation and import of GMO food within the nation.

South Korea:

Currently, South Korea only imports GMOs but doesn't cultivate nor export them. Korea is one of the highest GMO importing nations.

Spain:

In Spain, GM maize has been commercially grown since 1998. Thus, it is the EU country with the longest practical experience in cultivating GMOs. In 2006, GM maize accounted for 60,000 hectares of farmland. There have also been many field trials, though most were conducted with varieties of wheat and barley. Despite all this, coexistence regulations have not been enacted. In July 2006, however, the Ministry of Agriculture presented a second draft of the Royal law on coexistence.

Sudan:

Sudan has official National Biosafety Council that is responsible for regulation and risk assessment of GMOs materials with representative from all concerned institution.

Switzerland:

In 2005, Switzerland voted by referendum a 5-year moratorium against the commercial cultivation of GM crops and animals. The Swiss government decided to extend this moratorium until 2013. In 2012, the Swiss Parliament voted for a second extension of the moratorium until December 2017.

Thailand:

Thailand government maintains GM free position by implementing rice GM free policies.

Uganda:

There are no official information regarding the GMOs in Uganda, but the Ugandan government is close to passing GMO law, believing that the application of biotechnology will lift up Uganda's agricultural sector.

United Kingdom:

The UK government is not fundamentally opposed to cultivating GM crops, but it has opted for a cautious approach. It has therefore restricted commercial production of biotech crops until coexistence rules are in place. The time frame for developing coexistence regulations extends into 2008. In the meantime, however, the UK was the site of the world's largest ever field study on GMOs.

United States of America:

GMO in US is regulated by three regulatory agencies: The Environmental Protection Agency(EPA), The Food and Drug Administration(FDA), and the U.S. Department of Agriculture(USDA). Up to 80% of US's food supplies are genetically modified in some way or the other.

Venezuela:

Venezuela currently suffers a huge food suffrage and relies on imports from Argentina and Brazil, which are the leading nations in the number of acres dedicated to GM crops. However, Venezuela plans to ban GMOs because of the ideology of food sovereignty and the success of small local farmers.

Zambia:

Zambia strongly disapproves GMO food. In 2002, when US offered food aid during famine in Africa region, Zambia refused to take the aid because the food was genetically modified.

POSSIBLE SOLUTIONS

1. Create an International NGO directly handling GMO research and commercialization over the world

2. Enforce labelling of GMOs and preventing agricultural companies such as Monsanto from exploiting developing nations

QUESTIONS TO CONSIDER

1. Why is FAO not considering GMO as an eligible option? How can this be fixed?

2. What would be considered "safe" and "beneficial" regarding the research on GMO, and how will GMO research be regulated? If so, to what extent?

3. Many nations are accused of monopolising the GMO industry. In fact, according to a research released in 2012, 76.3% of world's GMO crops are grown in US, Brazil, and Argentina. If the international community decides to grow the crops, then to what extent should FAO interfere with the monopolistic market?

IMPORTANT RESEARCH LINKS

The GMO FAQ:

Agricultural Biotechnology Frequently Asked Questions. This source provides answers to many frequently asked questions related to GMOs.

The State of Food Insecurity in the World 2015:

The State of Food Insecurity in the World is a report jointly prepared by the FAO, IFAD, and the WFP.

WHA53.15:

A previous resolution on Food Safety. This source can help delegates formulate possible solutions to the issues posed by GMOs.

BIBLIOGRAPHY AND RESOURCES

"A Brief History Of GMOs." Medical Daily. N.p., 22 July 2015. Web. 09 Aug. 2016. <http://www.medicaldaily.com/brief-history-genetically-modified-organisms-prehistoric-breeding-modern-344076>.

"Bangladesh Takes to GM Food Crops." SciDev.Net South Asia. Pixl8 Interactice, n.d. Web. 14 Aug. 2016. <http://www.scidev.net/south-asia/agriculture/news/bangladesh-takes-to-gm-food-crops.html>

"Country Reports: GMOs in the EU Member States." National Reports: GMOs in the EU Member States. N.p., n.d. Web. 09 Aug. 2016. <http://www.gmo-compass.org/eng/news/country_reports/>.

"FAO International Symposium on "The Role of Agricultural Biotechnologies in Sustainable Food Systems and Nutrition"." Food and Agriculture Organisation of the United Nations. N.p., n.d. Web. 9 Aug. 2016. <http://www.fao.org/about/meetings/agribiotechs-symposium/about-the-symposium/en/>.

"FAO Warns against Genetically Modified Foods." Saturday Vision. N.p., 10 Mar. 2013. Web. 9 Aug. 2016. <http://www.newvision.co.ug/new_vision/news/1315374/fao-warns-genetically-modified-foods>.

FIFTY-THIRD WORLD HEALTH ASSEMBLY WHA53.15. N.p.: n.p., n.d. 20 May 2000. Web. 27 Aug. 2016. <http://www.wpro.who.int/foodsafety/documents/docs/WHA53_15.pdf?ua=1>.

"Genetically Modified Crops Growing In Iran Amid Lax Laws." Payvand. N.p., 7 Sept. 2015. Web. 9 Aug. 2016. <http://www.payvand.com/news/15/jul/1053.html>.

Gimenez, Eric Holt. "We Already Grow Enough Food For 10 Billion People -- and Still Can't End Hunger." The Huffington Post. TheHuffingtonPost.com, n.d. Web. 09 Aug. 2016. <http://www.huffingtonpost.com/eric-holt-gimenez/world-hunger_b_1463429.html>.

"GM Crops Now Banned in 38 Countries Worldwide - Sustainable Pulse Research - Sustainable Pulse." Sustainable Pulse. N.p., 22 Oct. 2015. Web. 09 Aug. 2016. <http://sustainablepulse.com/2015/10/22/gm-crops-now-banned-in-36-countries-worldwide-sustainable-pulse-research/#.V5NITZN95Z2>.

"GMO Cultivation Bans in Europe." GMO-free Europe. N.p., n.d. Web. 09 Aug. 2016. <http://www.gmo-free-regions.org/gmo-free-regions/bans.html>.

"Graphical View at Evolution of Population by Continent." GeoHive. N.p., n.d. Web. 09 Aug. 2016. <http://www.geohive.com/earth/his_history1.aspx>.

"A Look at GMO Policies in Different Nations - Biology Fortified, Inc." Biology Fortified Inc. N.p., 06 July 2015. Web. 09 Aug. 2016. <https://www.biofortified.org/2015/07/a-look-at-gmo-policies-in-different-nations/>.

"Selective Breeding." Biology Online. N.p., n.d. Web. 9 Aug. 2016. <http://www.biology-online.org/dictionary/Selective_breeding>.

"There Is Enough Food to Feed the World." Oxfam Canada. N.p., 14 Oct. 2010. Web. 09 Aug. 2016. <http://www.oxfam.ca/there-enough-food-feed-world>.

BIBLIOGRAPHY AND RESOURCES

"General Information about GM Food." Food Standards Australia and New Zealand. Food Standards Australia and New Zealand, Mar.2016. 14 Aug. 2016. <http://www.foodstandards.gov.au/consumer/gmfood/gmoverview/Pages/default.aspx> .

"Restrictions on Genetically Modified Organisms: Brazil." Home. N.p., 09 June 2015. Web. 22 Aug. 2016.

"EatRight Ontario." EatRight Ontario. Eatright Ontario Dietitian Service, n.d. Web. 22 Aug. 2016.

Verkamp, Jay. "Chile's Genetically Modified Conundrum - Politics and Regulation of GMOs in Chile." The Speaker. N.p., 05 Dec. 2014. Web. 22 Aug. 2016.

Cavell, Nic. "China Hates GMOs. Problem Is, China Really Needs GMOs."Wired.com. Conde Nast Digital, 18 Feb. 2016. Web. 22 Aug. 2016.

"Restrictions on Genetically Modified Organisms: Egypt." Home. N.p., 09 June 2015. Web. 22 Aug. 2016.

"Where Are GMOs Grown and Banned? #GMOFAQ." GMO FAQ. N.p., n.d. Web. 23 Aug. 2016.

"Restrictions on Genetically Modified Organisms: Japan." Home. N.p., n.d. Web. 23 Aug. 2016.

"Restrictions on Genetically Modified Organisms: France." Home. N.p., n.d. Web. 24 Aug. 2016.

Ugeh, Patrick. "No Genetically Modified Organisms Officially Grown in Nigeria – FG." THISDAYLIVE. N.p., 20 June 2016. Web. 24 Aug. 2016.

"[Special Report Part I] South Korea's Imports of GMO Food at an All Time High." : National : News : The Hankyoreh. N.p., 23 Jan. 2015. Web. 24 Aug. 2016.

Nabwilso, Samuel. "Uganda Close to Passing GMO." East African Business Week. N.p., 16 Jan. 2016. Web. 24 Aug. 2016.

Katiraee, Layla. "A Look at GMO Policies in Different Nations - Biology Fortified, Inc." Biology Fortified Inc. N.p., 06 July 2015. Web. 24 Aug. 2016.

Stieber, Zachary. "GMOs, A Global Debate: Zambia, Strongest Anti-GMO Stance in Africa." The Epoch Times GMOs A Global Debate Zambia Strongest AntiGMO Stance in Africa Comments. N.p., 07 Sept. 2013. Web. 24 Aug. 2016.

"The Cartagena Protocol on Biosafety." The Biosafety Clearing-House (BCH). N.p., n.d. Web. 27 Aug. 2016. <https://bch.cbd.int/protocol>.