

Forum: General Assembly 3: Social, Humanitarian and Cultural Affairs**Student Officer(s):** Yein Oh, Prasanna Maharajan, Hoang Nguyen Phuc Anh

TOPIC 1: The Question of Nutrition Security and Transgenic Food

I. Introduction to the Topic

As technology improves, transgenic food produced by developing countries is being more affordable to people. Transgenic food can contribute to food production: it can increase availability, impact on food quality and nutritional factors, and influence farmers' income and their economic access to food. They are made by modifying the genetic material of crops to include beneficial factors such as vitamins and insect-resistant genes.

Nutrition security does not exist for a large proportion of the human population. The majority suffer from specific nutritional deficiencies that occur due to a lack of consumption of micronutrients. Transgenic food may be a key to solving this global issue internationally by making the food more accessible and including different critical nutrients. However, whether or not they will be helpful is a debate, since Transgenic food may pose a further risk to food security.

Transgenic crops, in addition to increased availability and increased nutrition, can influence the economic and social situation of farmers. This means that the crop can improve or worsen farmers' economic access to food, especially for developing countries. They cannot export the crop to other countries that ban genetically modified organisms (GMOs).

II. Definition of Key Terms & Concepts

Definition of Key Terms

Transgenic Food: Also known as genetically modified foods. Genetic material (DNA) has been modified in a way that does not occur naturally.

Nutrition Security: Consistent access, availability, and affordability of foods and beverages that promote well-being, prevent disease, and, if needed, treat disease. A situation that exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that dietary needs and food preferences for an active and healthy life.

Vitamin A deficiency: The problem that the widely known GMO, the golden rice, aims to solve. When there is insufficient vitamin A in human body, it can lead to blindness and reduced immune system response. The World Health Organization estimated that around 250 million children are affected by the lack of vitamin A at an early age.

U.S. Food and Drug Administration: The FDA will be constantly mentioned in research of transgenic food. The organization regulates most food for both humans and animals, including the transgenic food being discussed in this topic. They ensure that the all foods provided meet the strict safety standards. They enforce safety standards that people involved in production (producing, processing, storing, shipping and selling) must follow.

III. Key Stakeholders

You should include an overview of 3-5 significant stakeholders & explain why these are important. This should guide your delegates in terms of the specific intergovernmental organisations & agencies, non-governmental organisations, state & non-state actors (stateless nations, independence movements, trade unions, political parties...), significant individuals that should be explicitly mentioned in their draft Resolutions. In addition, you should make it clear in this section why these stakeholders are significant AND the relationships and/or tensions between them.

Key stakeholder 1: Relevance & significance

Indigenous people often have high rates of food insecurity and poor dietary health, this is due to the widespread colonization and land theft. The colonization has left Indigenous peoples with

Key stakeholder 2: Relevance & significance

GMO companies

Key stakeholder 3: Relevance & significance

Low income and lower economic developed countries

Key stakeholder 4: Relevance & significance

Organic Farmers

IV. Key Issues including Background Information

You should provide your delegates with 3-5 possible key or at stake issues regarding the topic from different perspectives so that your delegates can use these key issues to guide their draft Resolutions. Include any background including recent or more historical information that will explain why the issue is

significant & relevant which will help your delegates figure out what is at stake. Each Key Issue should include relevant Background.

Golden rice: Golden rice is genetically modified to produce beta-carotene, which is converted into vitamin A in human bodies. The golden rice is thought to be the solution of vitamin A deficiencies in developing countries, where rice is a popular food source. However, some people claim that other planned solutions for vitamin A deficiency will be cheaper and not require Genetically Modified Organisms, and that a vast amount of golden rice would be required. Also, if manufacturers decide to make profit, the transgenic food would not be affordable to those who are in need.

Super Rice: One of the essential nutrients of rice is folic acid. Belgian researchers were able to increase the 150-fold in rice, and this can significantly decrease the risk of birth defects including spina bifida and conditions of neural tube defects. Folic acid deficiency has risen dramatically since 1990s. This rice can save many lives if it is widely eaten by people.

Super Salmons: Super salmons are made to grow four times faster than normal salmons do, and they can even grow in winter times, increasing the supply of salmons to humans. The FDA has determined that the modified salmons are free to eat. Furthermore, the salmons require 25% less feed compared to normal salmons, decreasing the cost spent to supply salmons, thus decreasing their price. However, if the male-modified salmons are released in the while in an accident, those males will have a mating advantage; 25% larger salmons result in 400% more mating. When the male-modified salmon, which has a lack of instinct for survival, has offspring, the young fish wouldn't be able to survive. This, after 20-30 generations, will eventually lead to extinction.

V. Timeline of Resolutions, Treaties, and Events

This section should be a list of about 6-10 events that includes key dates, events & moments (dates or independence, conflicts...), any relevant draft or approved international or regional declarations, treaties, conventions, accords, summits or meetings. This section should give your delegates a sense of the trajectory & development of the topic over time.

Timeline of Resolutions, Treaties, and Events

Date	Description of event
1994-1995	The Agreement on the Application of Sanitary and Phytosanitary Measures was adopted under the World Trade Organisation. The agreement contains informations about rights of countries to ensure that the transgenic products imported are safe, and that countries should not use unnecessary measures as disguised barriers to trade.

1997	The GMO Act was enacted for countries' responsible development, production, use and application of transgenic products. The Act also ensures the minimum harmful impact on the environment, and the effective management of waste.
2000	Cartagena Protocol on Biosafety, procedures that helps countries make decisions with the import of transgenic food, was introduced.
2003	Regulation of the European Parliament. For the distribution of transgenic food, the regulation addresses rights of promotions of information to consumers, and the labelling of the food product - including informations about any property different from non transgenic food, nutritional value or effects, health implications, and characteristic that might evoke ethical or religious concerns.
May 2005	The GMO amendment was adopted by the Economic and Social Council. The detailed amendment with clauses and articles are here .
2006	Amendment on the GMO Act: to increase the authority and responsibility of the Council and Committee, clarify procedures relating to the application of GMOs, to provide certain procedures to follow when advocating.

VI. Possible Challenges & Solutions

In this section you provide guidance to your delegates on how they might approach each of the 3-5 Key Issues you mentioned in the earlier section. This section contains your analysis & evaluation of each of the Key Issues with possible solutions for each from different perspectives. Your goal is not to solve the issue for your delegates but guide them in terms of how certain stakeholders might solve the issue & the consequences of that solution from different perspectives. Each Key Issue should have one (1) paragraph.

Key Issue 1: Write 2-3 sentences about the possible challenges & solutions from a different perspective.

Key Issue 2: Write 2-3 sentences about the possible challenges & solutions from a different perspective.

Key Issue 3: Write 2-3 sentences about the possible challenges & solutions from a different perspective.

Key Issue 4: Write 2-3 sentences about the possible challenges & solutions from a different perspective.

Key Issue 5: Write 2-3 sentences about the possible challenges & solutions from a different perspective.

Possible solutions for developed countries is to increase the production of transgenic food to provide nutrition security to member states, while ensuring that the transgenic food is accessible to those who need it. This means that the resolution will include clauses that can possibly increase the exports and trading of transgenic food; clauses relating to the price and tax of transgenic food to make them accessible and to prevent people from making too much profit; and clause for market regarding ways to ensure an equitable distribution of transgenic food.

Possible solutions for developing countries can be challenging, since they have to consider the economic situation, impact on their environment and the nutrition safety at the same time. If governments are wishing to invest money into importing transgenic food, the resolution will focus on ways of fair trading with minimum money. If governments are not wishing to invest money into transgenic food, alternative ways for nutrition safety would have to be mentioned; these include decreasing the price of nutritional food or directly supplying nutrients such as vitamin A. If nutrition safety is not relatively serious, alternative ways for nutrition safety can be cheaper and more accessible to citizens faster than importing or creating transgenic food.

VII. Recommendations for Resolution Writing including Research

Even though transgenic food might sound to be a solution to nutrition security since delegates have assigned countries, they should first be aware of the economic situation of the country. Transgenic food can be a solution to the citizens' hunger and nutrition security while influencing the economy of farmers and manufacturers. The chair recommends researching whether or not transgenic food is beneficial in terms of nutrition security and the economy while keeping in mind that the resolution has to focus on nutrition safety.

VIII. Bibliography

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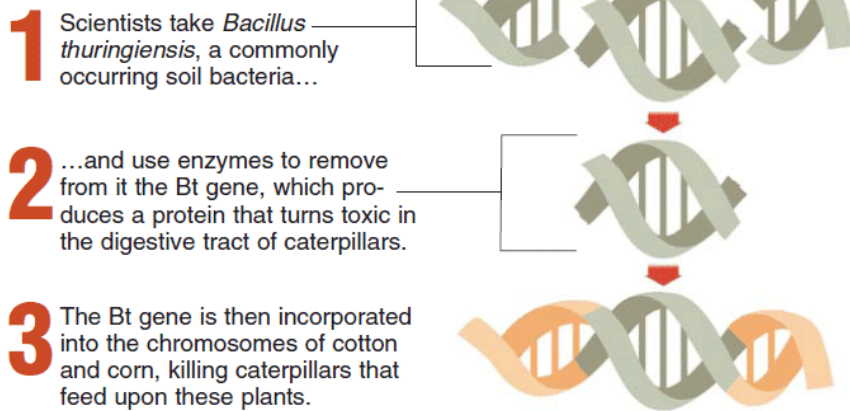
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IX: Additional Resources

Splicing Genes Together

Employing genetic engineering, researchers can take certain genes from a source organism and put them into another plant or animal.

An Example of Genetic Engineering:



SOURCE: North Carolina State University, College of Agriculture and Life Sciences

Figure 1: How transgenic foods are made.

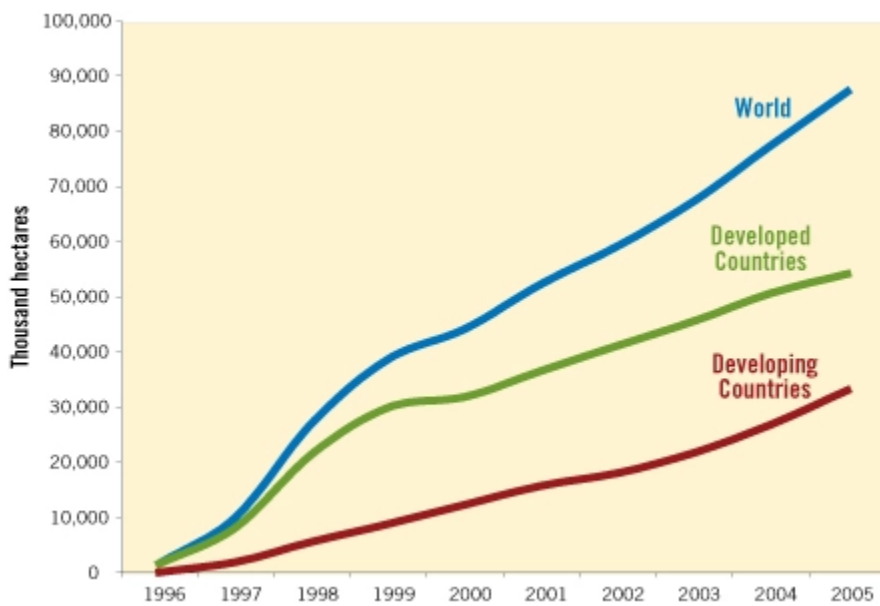


Figure 2: The numbers of Genetically Modified crops around the world.

Global area of genetically modified crops

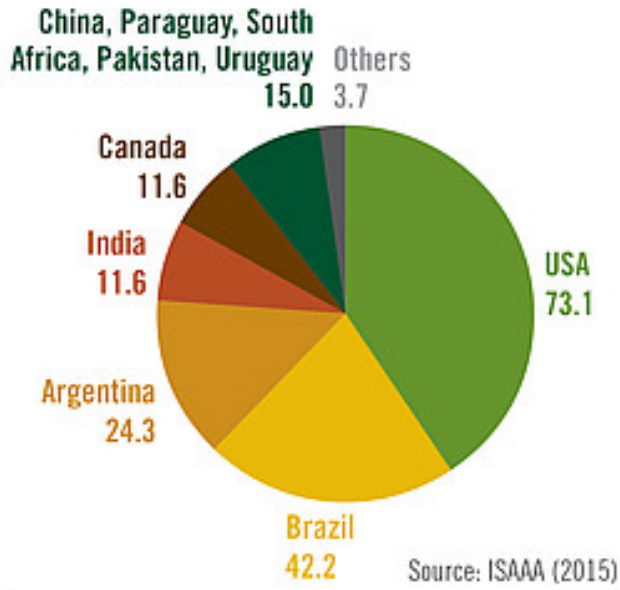


Figure 3: Global area of genetically modified crops.

OVERALL SCORE

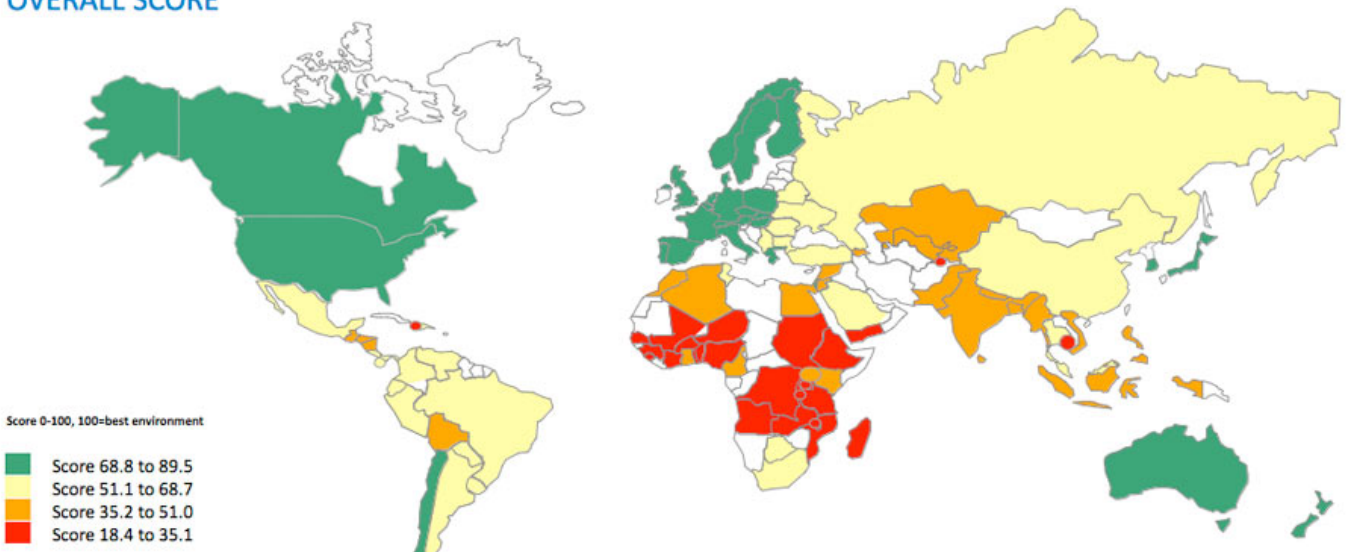


Figure 4: Food security index