Forum:	Environmental Assembly
Issue:	Implementing global guidelines on genetic modification in order to prevent its negative effects on the environment, such as, but not limited to the growing of monocultures and the loss of biodiversity
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Table of Contents

I. Introduction

Genetically modified crops have been used in the market for over 20 years. The many technological advancements in the field have allowed us to overcome many crises as seen in many examples such as the golden rice project. Yet many governments are still skeptical of the crops with over 35 UN nations implementing a complete ban on all genetically modified products. Despite this seeming counterproductive, it is in the interest of environmental

action. Recently, accompanied with the rise in popularity of modified crops, the world wide biodiversity has suffered. Mass plantations are on the rise through the support of large corporations. Furthermore, in order to plant these the rainforest is being cut down at increased rates. Quite controversially the more efficient use of space due to use of genetically modified crops is also lessing the need to remove the rainforest for plantations. This is one of the dangers we must deal with when considering modified crops and cattle.

Another that we must keep in mind is the rising number of resistant, parasites in the crop farms and on cattle. Pesticides and herbicides already had an effect in creating these resistant species, and so are the newer developments in research. Many researchers are considered with this fact fearing that we soon will have no means of protecting our crops. This is another reason organic plantations are generally considered the safest as unlike pesticides and the safer variant within genetic modifications, who both impact the surrounding environment and ecosystem. When keeping these two issues in mid, we must also consider the overarching theme: “Launching Local Economies to Achieve Global Prosperity”. Especially in the case of LEDCs, although this applies to all countries, small scale farms are necessary for both local and global prosperity. Only small scale farms provide both profit and diverse products. However, small scale farms have a much larger need for modified crops in order to grow. This must all be considered when writing resolutions on the topic.

II. Definition of Key Terms

A. Genetically Modified Organism (GMO)

Genetically Modified Organisms are organisms who have had there genetic structure, known as DNA, modified usually in order to maximise the yields of crops and animals.

B. “Frankenfoods”

“Frankenfoods” is a term coined by anti-GMO groups and critics of the products. It combines “Franken” from “Frankenstein’s Monster” to insinuate what they believe to be monstrous consequences of using GMOs.

C. Biodiversity

The term refers to the variety and variability of biological species, measuring the genetic level as well as the overall amount of species and the scope of the ecosystem.

III. General Overview

The primary issue is the loss of biodiversity. Due to the overall productive benefit the United States of America’s agricultural income comes mostly from GMO crops of soybean and maize. These crops are a perfect example of loss of biodiversity due to the implementation of GMOs. The entire agricultural system in the USA is centered around these two crops, as well as wheats and other grains. Despite gaining much more food production, it would come at the cost of the biodiversity. The ultimate effect would be lack of variation and a grain, soybean

and maize based food supply. While food shortages have been a more pressing issue lately, this may not be the preferable option for many.

The other danger lies in the rising numbers of resistant organisms. Due to the increased use of many pesticides as well as the noted increase in genetically modified crops is affecting the targeted pests. Although the research in this field is not yet completed, most research indicates that GMOs are relatively safe for human consumption and the local ecosystem, in comparison with the use of pesticides and herbicides. However that does not mean that GMOs are completely safe. From from it even, as food without GMOs and pesticides have been proven to be safer for our environment. This leads to the true question, being: is our environment more important than our people? The economic benefit is necessary for the survival of many humans and, more importantly, many more are dependant on the food supply provided through GMOs. Nearly 80% of all animal feed required to raise animals is provided through GMO plantations, as well as a moderate amount of crops grown for human consumption. More notably than the crops however, AquAdvantage Salmon is but one example of many modified animals that are also grown by humans for consumption.

IV. Possible Solutions

Despite many issues arising with the use of GMOs, there are ways protect our world. Despite the seeming controversy around GMOs using them would be beneficial in the long run. Therefore investing in research in order to provide a wide variety of farmable products would both increase production and remove the risk for loss of biodiversity. However in the case of LEDCs, short term arrangements must be made in order to provide food. Through international loans local small scale farms could be created utilizing both completely organic and GMO crops in order to provide variety. At the base, these issues stem from lack of resources. Through simple measures such as funding better storage and transportation of food can drastically reduce food waste to resolve the issue at its source.

Despite these optimistic solutions our world, especially the human race, is not perfect. Due to many other issues around the world such as global heating, natural disasters, political disagreements, and atrocious human rights violations, we can't afford to pour all of our resources into one project, no matter the importance. Due to these factors implementation of the above mentioned "solutions" will prove difficult if not near impossible. This is why we must pay the utmost care to every detail when implementing solutions as our not only our resources, but also our time is limited.

V. Conclusion

Although often times the world's issues seem to be a daunting task impossible for mankind to complete, through simple short term measures and long term research investments we can drastically reduce the negative effects induced by human activity towards our environment. Sometimes, the best solution is not to launch a global operation, but to simply advance local economies and small scale farmers in order to produce a better future.

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