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A Food Revolution Gone Awry

How a good plan in theory took the world from famine to greed

In 1942 the World was in the middle of its second war, and food was being rationed to help feed the troops. Everyone did what they could to help each other, and even though food was rationed, people were healthier without the added sugar and processed foods. They knew where their food came from because the majority of the population was growing it themselves.

However, when the war finally ended in the middle of 1945, everything changed. The Baby Boomers started to arrive on the scene and the world population started to rise. The Government needed new tactics to feed all the new mouths, and there was no money to be made in personal gardens. Born was the idea of using technology to create high yield seeds by utilizing human-made chemicals. The idea supplied food for the growing population in the short term but had long term negative affects. The country and world may have more food than 75 years ago but we have sacrificed our health, land, and ethics to get it.

One of the new methods during this turning point was dubbed the Green Revolution. It was started under the guise of saving billions of people from starvation. "The crops developed during the Green Revolution were high yield varieties - meaning they were domesticated plants bred specifically to respond to fertilizers and produce an increased amount of grain per acre planted" (Briney). In the short term perhaps that goal was obtained. In the long term however,

the Green Revolution has led to overpopulation worldwide, and harmful consequences from chemical pollution.

One of the countries most impacted by The Green Revolution is India. As reported by Daniel Pepper in the *US News and World Report*, “The Green Revolution hardly seems to have made much of an impact in terms of well-being here. Rural poverty abounds, malarial mosquitoes breed in stagnant pools of water, and bullock carts far outnumber motor vehicles” (Pepper). He explains that many farmers are turning their backs on “modern agricultural methods - the use of modified seeds, fertilizer, and pesticides,- in favor of organic farming” (Pepper). The change is motivated by the rising cost of fertilizer, seeds, and pesticides, not to mention all the harm the decades of using chemicals has done to the soil. “Many are also revolting against what they see as the environmental degradation that has come with the new farming techniques, particularly the serious pollution of drinking water that village residents blame for causing cancer and other diseases” (Pepper). Villagers in Punjab “speak of cancer, which they say is on the rise along with other ailments such as renal failure, stillborn babies, and birth defects that researchers attribute to the overuse and misuse of pesticides and herbicides. Punjab represents only 1.5 percent of India's geography but accounts for nearly a 20 percent share of its pesticide consumption” (Pepper). The Green Revolution only focuses on one issue, which is mass food production. It seems to ignore all the negative side effects the chemicals have on humans and the earth.

The Green Revolution was the beginning of the use of genetically modified organisms, (GMOs). The corporation Monsanto is the world's largest supplier of genetically modified seeds and they also happen to be one of the larger producers of pesticides and herbicides. Their

Roundup Ready Soy fields require an average of three times as much Roundup. They double-dip in the pot by supplying a seed that has to be purchased new every year, plus they produce the chemicals needed to grow said seed. They are altering the genetic make-up of the seeds to “help” feed the world, and lining their pockets with cash while they do it. Monsanto is a big corporate giant that is tinkering with nature for monetary gain. All the chemicals that saturate the soil are not good for humans or the Earth. “Monsanto’s advertising campaigns have convinced many people that Roundup is safe, but the facts just don’t support this. Independent scientific studies have shown that Roundup is toxic to earthworms, beneficial insects, birds and mammals, plus it destroys the vegetation on which they depend for food and shelter. Although Monsanto claims that Roundup breaks down into harmless substances, it has been found to be extremely persistent, with residue absorbed by subsequent crops over a year after application. Roundup shows adverse effects in all standard categories of toxicological testing, including medium-term toxicity, long-term toxicity, genetic damage, effects on reproduction, and carcinogenicity” (Organic Consumers Association). Monsanto has substituted indestructible seeds of only a few different crops, for all the diverse seeds that had a long history on the Earth. The ethical line is crossed when the agenda becomes more motivated by money than contributing to the greater good of humanity and the Earth.

A class at UC Santa Cruz discusses the use of GMOs. They talk about how “the use of genetically modified plants and animals has already become commonplace in today’s society without many people being aware of it. The lack of consumer consent in the choice to eat genetically modified foods creates an ethical dilemma. As much as 70% of foods prepackaged in a normal grocery store contain genetically modified foods. Are they all safe?” (UC Santa Cruz).

It should be the right of the consumer to know what is in the food they are eating. If the world knew how much genetically modified food they consume on a daily basis there would be outrage about how much the big corporations are able to sneak in for their monetary gain without general knowledge.

The three big GMO crops produced in America are corn, wheat, and soybeans. One of those three is an ingredient in almost anything on a grocery store shelf. High fructose corn syrup (HFCS) is hidden in everything from Infant Tylenol to Ice Cream. Without knowing it, the average American consumes empty calories and sugar through government-subsidized genetically-modified corn turned into HFCS. Obesity is on the rise and the world is fatter than it has ever been. “75 per cent of men and 67 per cent of women ages 25 and older are now overweight or obese. This compares with 20 years ago when 63 per cent of men and 55 per cent of women were overweight or obese” (JAMA Internal Medicine). The over-production of just a few crops of food has led the world to be extremely unhealthy. Monsanto claims they are finding ways to feed the world, but is it not ethical to feed the world genetically modified food without letting them know what they are eating. And, at the same time, contaminating the ground water and monopolizing the market while making a huge profit and turning a blind eye to the problem. “The ultimate choice on genetically engineered foods should be placed onto a well informed consumer not held in the dark by those in power of the government and large corporations which may not have the general public’s interest as their primary goal” (UC Santa Cruz).

There are a few places around the world that are learning from the mistakes and missteps of the Green Revolution and the GMO trend, and Cuba is one of them. Organopónico is the Cuban term for any urban garden. There are thousands of organopónicos in Cuba, with more than

200 in the Havana area alone, where they have taken the “traditional” organic approach to raising crops. They have planted basil and marigolds at the row ends to attract beneficial insects, and rotate sweet potato through the rows every few plantings to cleanse the soil. These are just a few of the sustainable practices that Cuba has adopted to promote greater long term effects for the land, health, and ethics. According to Bill McKibben’s article in *Harper’s Magazine*, “It is the reverse, that is, of the Green Revolution that spread across the globe in the 1960s, an industrialization of the food system that relied on irrigation, oil (both for shipping and fertilization), and the massive application of chemicals to counter every problem” (McKibben). “The localized application of research practiced in Cuba has fallen by the wayside in countries where corporate agriculture holds sway” (McKibben). Money and government stand in the way of true nutrition for the world.

Colin Todhunter asks about The Green Revolution in his article in *Counterpunch*, “If the technology involved had been used more judiciously and genuinely in the public interest – and had not been married to geopolitical interests resulting in the creation of food deficit regions or instituted for the commercial gain of corporations – would we not now be in a better position? And would organic farming and agroecology have received greater attention and investment and be playing a much greater role (as research shows they should), even a dominant one, in agriculture?” (Todhunter). As the world population continues to expand, hopefully we can learn from the last 75 years. There are supposed to be good harvest years and bad harvest years, which is natural to the Earth. It is important to work with the ebb and flow of our planet, instead of using harsh chemicals and seeds created in a lab. We need to learn to produce food to feed the world, without major consequences to the land, health, and ethics.

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