Bio-imperialism vs. Bio-diversity

Bio-imperialism vs. Bio-diversity

by **Navdanya International**
April 15, 2024

Global Context: Seeds and GMOs

Seeds are emblematic of the connections between our lives, our food, our health and our freedom. They are the first link in the food chain. They embody our heritage and enfold the future evolution of life. The cultivation of seeds and their free exchange among farmers is the core foundation of our biodiversity and our food security. To have control over seeds is to have control over our lives, our food and our freedom.

Bio-imperialism severely threatens this freedom today through intellectual property rights. Old and new GMO technologies that have transformed seeds from a commons shared by farmers, to a commodity under the control and monopoly of agribusiness corporations. This imperialism seeks to appropriate the world's seeds, destroying the lives and livelihoods of peasant communities, as well as biodiversity, but more seriously, in territories recognized as centers of origin. These centers of origin of biodiversity are the cradles of the world's food supply, and the protection against plague, climate challenges, natural disasters or other hindrances to food production.

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*Also read: **Resisting GMO Imperialism – Events in Mexico – March 2024***

Over the last few decades, GMO crops have been imposed in countries all over the world, advertised as a solution to food insecurity and the malnutrition crisis. However, hunger, disease and malnutrition have increased, while biodiversity has declined and toxins have spread. Corporations have forced the introduction of genetically manipulated seeds to impose Food Imperialism through various tools such as regulatory frameworks for intellectual property of seeds, such as UPOV 91, and other legal mechanisms like Trade Dispute Settlement Panels. GMO imperialism has destroyed the lives and livelihoods of small farmers and biodiversity around the world and especially in these centers of origin.

Most recently, agribusiness and biotech giants are attempting to bypass existing biosafety regulations, such as the Convention on Biological Diversity's Cartagena and Nagoya Protocols by quietly making changes to GMO regulation around the world, in order to promote these new GMOs under new acronyms, such as NBTs (New Breeding Techniques), NGTs (New Genomic Techniques), or TEAs (Techniques of Assisted Evolution). These new GMOs have been silently dovetailing into different countries' existing agricultural legislation, with the aim still being patent monopolies in the hands of the big chemical and biotechnology giants.

This deregulation would allow gene edited crops to:

- Be commercialized with no environmental or consumption safety testing
- Require no labeling
- Have little to no traceability
- Be free from public disclosure of gene edited organisms
- Mass deregulation
- Be patented without disclosure

These new GMOs are leaving farmers, and citizens completely in

the dark as to what is in their food and are an attempt to subvert sovereign governments, the United Nations Convention on Biological Diversity and biosafety laws, with their imposition. The biotech industry has claimed that their gene edited products, including seed, plants, microorganism, and animals, are to be considered the same as their conventional counterparts. This deregulation of old and new GMOs absolves the biotech industry from any responsibility and is a continued attack on food sovereignty.

Agribusiness companies have not solved any issue for humanity on the pretext of false narratives around GMOs solving problems of food supplies. The true basis of the world's food supply is free seeds, the heritage of humanity that contain the answers to pests, climate challenges and other threats to the world's production of healthy and sufficient food, not GMOs and Bio-Imperialism. GMOs cannot be forced upon communities, violating norms of democracy and freedom.

All over the world, citizens are rising against the unscientific, undemocratic, anti-ecological imposition of GMOs by corporations. The first generation of GMOs has failed, but corporations continue to impose gene-edited organisms, or new GMOs, in centers of diversity. They continue to shift their narrative towards framing nature and biodiversity as commodities for commercialization and patent monopolies.

Imposition of GM corn in Mexico has global ramifications

In Mexico, which is the center of origin of maize, just as in other centers of biodiversity, there has been a long struggle by society and organized communities against GMO imperialism threatening the subsistence and culture of its peoples. To date, Mexican society has achieved a ban on the planting of GM maize in Mexico through a class action lawsuit filed against the companies like Bayer-Monsanto, Syngenta and Cortiva Agriscience. This ban is still in force, which since 2013 has prevented the planting of genetically manipulated maize in

Mexican territories.

Mexican NGOs have bravely continued to resist genetically modified maize to strengthen access to healthy, sustainable and culturally appropriate food for all people; to defend the food sovereignty of peasant and indigenous communities, responsible for developing the 59 breeds and thousands of varieties of maize existing in Mexico, which are also part of the milpa, a holistic, sustainable and biodiverse system that involves other staple foods such as beans, chili peppers, squash, quelites and amaranth.

Recently, the Mexican government issued an executive order that proposes the gradual prohibition of the use of glyphosate and the use of GM maize in food products, such as tortillas, a staple food for Mexicans. GMOs compromise access to healthy, sustainable, culturally appropriate foods free of genetically modified organisms. Faced with this decision, the U.S. government, based on the U.S.-Mexico-Canada Free Trade Agreement (USMCA), and under the duress, of agribusiness lobby, installed a dispute settlement panel to reject the Mexican government's decision to restrict the use of genetically manipulated (modified) maize in human food and the importation of glyphosate, citing lack of scientific evidence of their harm. This Dispute Settlement Panel neglects the risks to human health, the environment and biodiversity associated with genetically manipulated maize. In addition, it jeopardizes the food sovereignty of the entire Mexican population, since maize is an indispensable food.

In response to this omission, on March 15th, non-governmental organizations from Mexico presented their Technical Opinions before the Panel, arguments based on reliable scientific evidence, including new found evidence by Mexico's scientific advisory board CONAHCYT, rooted in scientifically rigorous evidence from academic institutions. This evidence points out and warns about the multiple risks that make it pertinent and urgent to stop the presence of genetically manipulated maize

in the food of the Mexican population, and as raw material for other industries.

In stark contrast, the US refused to do new experiments and engage in real science and continued to stick to pseudo-science funded by the same agribusinesses that produce this GM corn and make the unscientific claim that it is safe to consume this GM corn.

The case of Mexico is a people's attempt to guard their biodiverse cultures, inheritance, food, health and fields. It is a case of a people demanding their sovereignty be respected. It is a statement to the world and to agribusiness that they cannot continue to impose their system that violates and destroys sovereignty at all these levels, and has wave after wave destroyed health, the land and biodiversity.

On March 5, 2024 Mexico published its formal response to the dispute where its submission presented evidence supporting the implementation of precautionary measures aimed at safeguarding consumers from potential health risks associated with imported GM corn from the U.S. and residues of glyphosate. They noted that the scientific data regarding the safety of GMOs presented by the U.S. was outdated, with a significant portion originating from industry-sponsored studies lacking peer-reviewed support. They pointed out that the regulatory process in the U.S. lacks sufficient stringency to guarantee the safety of products for consumption by Mexicans. Furthermore, the Mexican submission highlighted that Genetically modified (GM) corn, designed to eliminate insect pests, has strong potential to pose negative effects on non-target animals with research that has demonstrated that mammals can experience harm to their digestive systems due to a GM trait that targets the guts of pests, leading to unintended consequences.

While the US claimed that Mexico's ban is "unscientific", IATP Senior Advisor Timothy A. Wise highlighted that Mexico's response "refutes that claim, presenting hundreds of academic

studies that show cause for concern about human health and the threat to native corn diversity."

Significantly, The US claim that Mexico's ban is unscientific is completely unjustified as the US never signed onto the Convention on Biological Diversity and the Cartagena Protocol on Biosafety. It has no biosafety regulatory organism to judge the safety of these GM foods. It is based instead on "substantial equivalence" which is not enough to be considered as a safety assessment in itself. This principle doesn't prioritize consumer protection from health risks nor does it provide consumers with comprehensive information regarding the actual level of risks and hazards associated with "novel foods" (in this case GMO foods) compared to traditional ones.

In its formal submission to the trade dispute panel, Canada aligned itself with the arguments presented by the US government, claiming the safety of genetically modified (GM) corn for consumption in Mexico. However, CBAN's (Canadian Biotechnology Action Network)'s response refuted this stance by asserting that scientific evidence supported Mexico's precautionary measures, particularly due to the extensive use of minimally processed corn in the daily diet of the majority of Mexicans.

Lucy Sharratt of the Canadian Biotechnology Action Network (CBAN), stated that, "Mexico is a sovereign nation with the right to determine the future of its food supply and its needs to take action to protect native corn from GM contamination."

Globally, Mexico's case is important due to the current context of the world. Due to the industrial food system, we are seeing the rise of chronic diseases rooted in metabolic disorders, increasing ecological disasters, lack of water and declining biodiversity. Mexico defending its cultural and food heritage is equivalent to a country taking a stand, backed by scientific evidence and government support, against the continuation of these multiple crises.

Furthermore, the significance of this case is that an unfavorable resolution for Mexico in this Panel, would limit Mexican people's right to decide which seeds to plant and which types of maize to feed themselves with. This directly jeopardizes the traditional Mexican cuisine which is central to the cultural identity of the communities that practice and transmit it from generation to generation and has been recognised as Intangible Cultural Heritage of Humanity by UNESCO.

This in turn also has the potential to devastatingly affect all other centers of biodiversity and interconnected food cultures around the world who will continue to face such attacks on their sovereignty.

Mexico holds the legacy of being one of the first constitutions globally to incorporate enforceable social rights, encompassing health and a clean environment (Article 4). Thus, a right to health is a legally enforceable provision under its national constitution. This along with achieving universal health coverage (UHC) for its 100 million citizens makes Mexico a country that continues to stand up for biodiversity, for health, for the environment.

Convergence: Interconnected strength, interconnected resistance

In the face of this local and global Bio-imperialism, Navdanya International joined together with the campaign Sin Maiz No Hay País, and Via Orgánica, along with the Ministry of the Environment and Natural Resources (SEMARNAT), the Ministry of Agriculture and Rural Development (SADER) and the Ministry of Culture, along with other Latin American movements to organize events from March 12th to 16th in Mexico City to carve a common strategy against the further imposition of new and old GMOs around the world, sharing experiences, struggles and solidarity in defense of Biodiversity, Food and Seed Freedom, through strengthening the support and solidarity, in

cultivating and connecting different organizations, movements and people.

These meetings and convergences helped create a gathering place for solidarity by bringing together representatives from movements from all over Latin America and beyond to demonstrate that this struggle goes beyond individual borders. All over the world the impostions continue to take place, directly violating the sovereignty and rights of people and nature, in favor of corporate agenda.

José Bernardo Magdaleno Velazco (Nino), President of the Peasant Union, Totikes, Chiapas emphasized that “we are not alone in this fight”. Together with activists and organizations such as the Campaña Nacional Sin Maíz No Hay País, Semillas de Vida, Vía Organica, Regeneration International, Bloque Verde, Probioma, Naturaleza De Derechos, and Semillas de Identidad- Colombia, Navdanya International joined the demand for governments around the world to stop genetically manipulated seeds, which threaten the survival of food and agricultural systems based on biological and cultural diversity.

These events carved a convergence of movements, to stand in defense of our biocultural diversity and food heritage across the world, in resistance to old GMOs and new GMOs.

It is in this coming together of different movements and voices united in their goal of food and seed sovereignty that these events in Mexico led to the emergence of an interconnected strength and resistance. Where the nurturing of solidarity and a reminder of a common resistance despite varied contexts, echoed and re-iterated that together, we are all more than the sum of the parts. Building relationships and connections, across organizations, across movements and beyond countries is necessary for effectively resisting this GMO imperialism. This interconnected strength is what we have to tap into, to continue our struggle in defense of life,

diversity and freedom.

Significance: Food sovereignty as a driving force for political sovereignty

The current socio-political context of Mexico's demand of autonomy based on being a center of diversity and cultural heritage is unique because food sovereignty is the driving force behind the political sovereignty of the people. This reiterates that every kind of autonomy is rooted in food and seed.

At the event held on **March 12, 2024** at Mexican Ministry of Agriculture and Rural Development (SADER), Mexico City called "In Defense of Food Sovereignty", Dr. Vandana Shiva, President of Navdanya International in her keynote lecture on food sovereignty, mentioned that it was so important to celebrate cultures where cultural diversity and biodiversity are not seen as separate. She added that "Food sovereignty is a high level concept, because it implies the sovereignty of beings to manage and organize themselves toward health." The cultivation of biodiversity has to imply sovereignty at all levels. Sovereignty is needed at all levels for organisms to be able to freely develop and evolve, self organize toward health.

Leydy Pech, evocatively added in the same event that "In Maya, we have no word for GMO, we call them instead seeds that have no heart, seeds with no life." Furthermore, she asked a significant question, potent for everyone around the world: "Our seeds, our knowledge is our inheritance, with this destruction what will we inherit in the future?"

As also highlighted by Jesús Ramírez Cuevas, general coordinator of social communication and spokesperson for the Government of the Mexican Republic, "Mexican sovereignty starts with food sovereignty." It is food sovereignty and the sovereignty of all interconnected beings to self-organize and grow with health that holds the power of resistance politically, economically and socially.

GMO imperialism is an attack on this sovereignty of all interconnected beings at all levels of self organization. It is an attack on life itself.

As Leydy Pech echoed: “You cannot call what goes against life, development”. Dr. María Elena Álvarez-Buylla Roces, general director of the National Council of humanities, sciences and technologies (CONAHCYT) said that “On a global level the deregulation and imposition of GMOs and toxic food systems is a denial of sovereignty and right to health on multiple levels.” She added that Mexico’s success in asserting its own sovereignty on seeds and food policies would be a beacon for other countries to be able to assert their food sovereignty and seed freedom in turn.

Biodiversity at all levels

A Seminar on Biodiversity Protection titled “Protection and Conservation of Biodiversity in Centers of Origin” was held on **March 15, 2024** at the Mexican Ministry of Environment and Natural Resources (SEMARNAT) Headquarters, Mexico City. This seminar analyzed and discussed strategies to conserve and protect natural resources in countries that are centers of origin and genetic diversity of species, through a dialogues, work round tables, and discussions for common strategy with key actors of the Mexican government, representatives from Latin America, Asia, the United States, and others in the protection and conservation of biodiversity in Latin America and other regions.

Maestro Iván Rico López, Subsecretary of Environmental Planning and Policy, SEMARNAT highlighted that “Megadiverse countries, the centers of origin of crop varieties, have greater responsibility in protecting the world’s biodiversity. We have learned that our plant genetic heritage is our cultural heritage. Natural and Social aspects go hand in hand, as those who have preserved the genetic diversity are the indigenous peoples.”

Columba López, Director of the Commission for Natural Resources and Rural Development, CORENADR, emphasized the key to this biodiversity being in the hands of the farmers. It is the farmers who are the custodians of these biodiverse foods, cultures, seeds, knowledges. She said that "We work on native seeds in our Seed Houses. We cultivate and replicate seeds through agroecological practices in the field. We develop seeds that adapt in the mountains or near the water, that are climate resilient and we do it through farmers' participatory breeding."

Biodiversity at all levels produces health, diversity in our farms, our seed, our foods, our cultures etc. having a biodiverse field in line with local ecosystem and cultural heritage, gives us a diversity of foods, and a diversity of food cultures. This is how we create health first in our fields all the way to our plates and our guts.

Dr. Vandana Shiva, of Navdanya International highlighted that, "Indigenous peoples and communities know that seeds continuously evolve. By turning biodiversity into technology they (corporations) deny the creativity of biodiversity, they go against how nature works. Diversity is a living necessity." She further reiterated that, "The colonizing mentality considers living beings as disposable and nature as raw material to be extracted. Mexico is recovering the dignity of natural resources, which are the basis of our health and well-being & the health of the planet."

Similarly, at the event held on **March 16, 2024** held at Cencalli, Museo de maíz y centro de la cultura alimentaria, Los Pinos, Ciudad de México, in the presence of the Alejandra Frausto Guerrero, from the Ministry of Culture, Victor Sanchez reaffirmed the need to resist the food imperialism that destroys our cultures by defending our biodiversity and strengthening seed freedom. Navdanya International co-organized this event with Campaña Nacional Sin Maíz No Hay País, Via Organica and Regeneration International. Andre Leu,

Director of Regeneration International, discussed the latest evidence of negative health effects caused by exposure to glyphosate: “There’s scientific evidence about the correlations between the introduction of glyphosate and transgenic crops and the increase in diseases such as cancer, obesity, kidney failure and autism.”

Mercedes López Martínez from Vía Orgánica, Mexico, discussed the great importance of protecting small farmers and indigenous communities as the backbone of a thriving food culture. Miguel Ángel Crespo of Probioma, Bolivia shared how, “The fight to protect biodiversity and genetic resources is also political, legal and scientific.”

It is this interconnection of diversity at all levels, including diversity of organizations and movements reflecting the interconnection and sovereignty of organisms that is needed to resist GMO imperialism from the ground up.

Also read:

Vandana Shiva makes an International call to support Mexico in the defense of Seed Freedom and Biodiversity

Events in Mexico: Resisting GMO Imperialism

Joint Declaration in Defense of our Biodiversity, Seed and Food Freedom – Resisting GMO Imperialism

Open Letter from Diverse Women for Diversity to World Leaders

US pressure to impose GM corn in Mexico threatens global genetic heritage of Maize Diversity

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Green Light for New Gene Editing Techniques: Threats and Corporate Interests Behind New Wave of GMOs

Green Light for New Gene Editing Techniques: Threats and Corporate Interests Behind New Wave of GMOs

by **Navdanya International**
July 8, 2023

For the last few years, agribusiness and biotech giants have been quietly making changes to GMO regulation around the world, deepening and entrenching their monopolistic grip on the global food system.

Today the effects of this lobbying also reached Europe.

On July 5, 2023, the European Commission released a proposal to exclude a large part of the new GMOs, or organisms genetically modified through new genetic editing techniques, from existing GMO regulations that require traceability, labeling, and risk assessment for genetic engineering products. The new regulation considers plant products deriving from genetic editing, of "category 1", or equivalent to those that "could have been achieved with classic techniques like seed selection and crossbreeding".

Through this proposal, the products obtained with genetic editing can contain up to 20 different genetic modifications

and would be considered “equivalent” to all conventional plants and products, without the need to explicitly declare their nature as genetically modified.

The European Union represents the last bastion against the imposition of these new technologies. Therefore, it is essential for environmental, ecological, and human health and safety to require that these new genetically modified organisms be labeled, and subjected to independent evaluations. Also meaning that their process of production, sale, and distribution be carefully regulated.

Second generation GMOs

Over the last five years, new gene-edited technologies, denominated under an alphabet of new acronyms, from NBTs (New Breeding Techniques), NGTs (New Genomic Techniques), and TEAs (Techniques of Assisted Evolution), have been silently dovetailing into different countries’ existing agricultural legislation to by-pass any existing regulations and safety checks set in place for GMOs.

The logic used around the world to justify the deregulation of what is nothing but a new generation of GMOs is based on statements coming from the influential biotechnology sector. According to them, these products obtained through genetic editing (including seeds, plants, microorganisms, and animals), are to be considered harmless as gene editing would allow them to mimic nature’s natural mechanisms of genetic evolution and reproduction, now only faster. According to the large agrotech companies operating in the sector, since these techniques do not involve the insertion of foreign DNA through transgenesis, they cannot be considered equivalent to the first generation of GMOs and can therefore be regulated like conventional crops, microorganisms, and animals.

A question of biosafety

As demonstrated by numerous independent studies, however, gene

editing is not as accurate, safe, or sustainable as the industry claims. The process, considered as a whole, induces hundreds of unwanted mutations throughout the plant genome. This may affect multiple gene functions with unknown consequences to cell protein biochemistry and metabolic activity.

We have already seen how the promises of food security, sustainability, and adaptation to climate change which in the past justified the use of highly toxic chemicals, GMOs, and the unlimited expansion of monocultures, have been severely disregarded.

Considering the devastating consequences already caused by the industrial food system in terms of environmental pollution, loss of biodiversity, climate destabilization, and the destruction of small rural economies, there is little reason to believe that the scenario will be different for new genetic editing techniques. Especially when the actors behind this push are the same ones who have fuelled an agricultural model of exploitation and ecological disaster for decades.

The exclusion of gene edited products from regulation, traceability, and labeling and the lack of independent research on their actual safety for human health and the environment, would leave consumers and farmers unaware of the type of GMOs released into nature, the risks associated with their spread and the ecological and/or health damage they can cause. Directly violating the precautionary principle to protect the rights of citizens, farmers, and of the environment.

Food sovereignty under attack by multinationals

This lack of transparency appears to serve to absolve manufacturers of any responsibility and represents a further attack on food sovereignty. Also understood as the fundamental right of people to healthy and safe food, produced by ecological methods and adequate information on the origin and

production methods of food.

The lack of in-depth research on the safety, as well as the long-lasting effects of gene edited products on the environment, undermine this fundamental right and encourages the centralization of food systems to the detriment of local food systems.

A closer analysis is sufficient to bring out all the interests at stake in this very dangerous game. Indeed, the deregulation of gene editing around the world has opened the door to the advent of a new “bioeconomy,” which is a new method of economic production based on manipulating the genetic information of microbes, plants, and animals to “program biology” to make it more economically productive.

What is really at stake is a further process of corporate appropriation and control not only of our food system but of all living systems. In this new “bioeconomy,” the goal of biotech and agrotech companies is to make gene editing and biological engineering the main tool for producing and processing all natural material, reducing agribusiness production to an artificial system of exclusive patents and licensing.

“Organic” and “No GMO” labeling are thus likely to disappear in favor of more generic labels such as “healthy” or “sustainable,” regardless of the process used to create the product.

The deregulation of gene editing biotechnology is opening up huge new profit potential for the major players in global agriculture. Regardless of the regulatory definition that equates these products with conventional ones, companies continue to file hundreds of patents using these new technologies to further strengthen their control over food systems.

The advent of these new technologies is enabling companies to

patent specific genomic sequences by circumventing the foundations of current biosafety regulations established by the Convention on Biological Diversity and the Nagoya Protocol.

The real solutions to the climate and food crises

The agribusiness industry's attempt to reduce the complexity, diversity, and richness of life forms to a mere matter of genetics, treating food and crops as mechanical products, only further endangers the world's biodiversity, ecological systems, and people's health.

The desire to control everything living, and the very constitution of living things, is an attack on diversity and life. Diversity is the basis of life on the planet and is the only antidote we have to create ecological, health, and climate resilience.

After centuries of dominance of a mechanistic, reductionist, and linear worldview, we should see that the solution to the multiple crises of the present cannot come from further manipulation or control of nature.

New gene editing technologies continue to shift attention away from the real alternatives that can drive ecological regeneration. The solutions lie in the creation of ecologically integrated systems based on biodiversity, care, and science that understands and respects the interconnections between life and nature.

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Philippines Supreme Court Blocks Commercial Release of GMOs over Ecological Disaster Fears

Philippines Supreme Court Blocks Commercial Release of GMOs over Ecological Disaster Fears

by **Sustainable Pulse**
April 28, 2023

Genetically modified Golden Rice and Bt eggplant will remain off the market in the Philippines after the country's Supreme Court (SC) issued a writ in favor of farmers and scientists who sought to stop the government from commercially releasing the products, Phil Star Global reported.In a session last Tuesday, the SC granted a writ of Kalikasan to MASIPAG and other petitioners against officials of the Departments of Agriculture (DA), Environment and Natural Resources, and Health as well as the Bureau of Plant Industry, Philippine Rice Research Institute and University of the Philippines-Los Baños.

The writ of Kalikasan, a judicial mechanism in the Philippines, provides protection against ecological damage and disasters caused by human activities like mining.

The petitioners sought the issuance of the writ alongside a continuing mandamus before the SC last year for a temporary environmental protection order that mandates the DA to stop

the commercial propagation of golden rice and issue biosafety permits for the commercial propagation of Bt Eggplant.

The SC has yet to disclose whether they also granted other requests in the petition including stopping the DA from commercially propagating the Golden Rice and the Bt Eggplant until proof of safety and compliance with legal requirements are presented.

The petitioners want all biosafety permits for Golden Rice and Bt Eggplant nullified and voided. They also sought independent risk and impact assessments, to secure prior and informed consent of farmers and indigenous peoples and to ensure liability mechanisms in case of damage as required by law.

While the SC has yet to release the full decision, a briefer on the case showed that the MASIPAG argued that the Golden Rice, which is patented to transnational agrochemical corporation Syngenta, is a rice variety that has been modified by inserting genes from maize and bacteria found in soil. The bacteria allows the plant to biosynthesize beta-carotene in the edible parts.

“They also argued that Bt Eggplant was designed so the plant would produce its own toxin to kill the fruit and shoot borer, which is one of several common pests that consume and damage eggplants,” the briefer added.

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Who is Behind the Great Food Reset?

Who is Behind the Great Food Reset?

by **James Corbett**, *The Corbett Report*
January 23, 2023

Last week we looked at the ways that an engineered food crisis (or the *perception* of a crisis) is being used as an excuse to reengineer our food supply.

From cricket powder dumplings and bug burgers to GMOs and glyphosate to bioreactors and designer microbes to nutrigenomics and 3D printed material, the future of "food" is shaping up to be radically different from anything you've eaten before.

But in order to truly do something to derail the runaway train that is the Great Food Reset, we must first understand it. And in order to understand it, we have to know something about the people behind this agenda.

This week, we must answer the question: Who is Behind the Great Food Reset?

The Rockefeller Foundation

The Rockefeller family and their namesake foundation are in many ways the progenitors and the architects of the Great Food Reset. In fact, the very term "agribusiness" emerged from the Harvard Business School out of research conducted by Wassily Leontief under a Rockefeller Foundation grant.
From the beginning of the so-called "Green Revolution" to the so-called "Gene Revolution," the Rockefellers have been there, helping to move things along with their "philanthropic"

donations.

They created the Mexican Agricultural Program, which was criticized from its very inception for trying to standardize and commercialize traditional Mexican farming practices in order to benefit of the Rockefellers and their corporate cronies.

They created the International Basic Economy Corporation in Brazil to industrialize that nation's agricultural sector, with the explicit aim of hooking its farmers on expensive machinery and Rockefeller petroleum products and finding a sustainable business model in the process.

It was John D. Rockefeller III who, when sitting on the Board of Trustees of the Ford Foundation, convinced his fellow oiligarchs to join the "Green Revolution" by founding the Intensive Agriculture District Programme in India, which exacerbated the disparity between rich feudal landowners and poor farming peasants.

And then of course there's the Rockefeller's work in Africa, which today takes the form of the Alliance for a Green Revolution in Africa. AGRA's stated goal is to "elevate the single African voice" on the world stage. It all sounds nice and fuzzy until you learn that 200 organizations have come together to denounce the alliance and its activities. They claim that the group has not only "unequivocally failed in its mission" but has actually "harmed broader efforts to support African farmers."

As you might imagine, the Rockefellers' influence over the global agricultural sector is *not* simply a thing of the past. Their family's foundation continues to wield an inordinate amount of power over what ends up on your dinner plate and how it gets there.

One ominous case in point: the foundation's July 2020 report—released mere months into the scamdemic—"predicting"

that the generated health crisis would lead to a very real food crisis and that America would face "a hunger and nutrition crisis unlike any this country has seen in generations."

And their proposed solution to this crisis? Subsidies for small farmers? Development of community gardens? A new food sovereignty campaign encouraging people to get their hands dirty and start growing more food themselves?

Of course not. On the contrary, the Rockefeller Foundation wants a further centralization of control over the food supply, including "a new, integrated nutrition security system." Yes, you read that right, folks: feeding the hungry is now a "nutrition security" problem that can only be solved by massive federal intervention in the food sector.

Oh, and the title of this report? "Reset the Table: Meeting the Moment to Transform the U.S. Food System."

So, no, the Rockefeller Foundation is not done meddling with the food supply. In fact, they're just getting started.

Bill Gates

Given Bill Gates, Sr.'s 2009 admission that he had looked to the Rockefeller Foundation as an example to follow when helping his son set up the Bill & Melinda Gates Foundation—noting not just the Rockefellers' influence in the field of global health but also specifically citing their work in agriculture and farming—it's no surprise Bill Gates, Jr. is now so heavily invested in the Great Food Reset.

Of course, he is literally invested in the food reset through his financing of the fake meat industry. Gates was, infamously, an important early backer of "Impossible Burger" and its lab-grown synthetic biology food substitute. He also provided capital to Impossible rival Beyond Meat . . . until Beyond's stock began to crumble. Miraculously, the Bill & Melinda Gates Foundation Trust was able to divest itself of its Beyond Meat stock right before the shares tanked in 2019.

(The Gateses must be super-shrewd investors!)

But it gets worse. As PleaseStopTheRide.com has pointed out, Gates is also investing millions into "hacking your microbiome" to reengineer humans' gut bacteria. You see, as it turns out, researchers are discovering that the microbiome—the mixture of bacteria, fungi and viruses that develop in the gut—can have serious effects on children's physical and mental development, especially in the first year of life. And what does Gates do when he sees an important process that can help him to gain even further control over the human population. Hack it, naturally! But it's for your own good, of course.

Also, as many people know by now, Bill Gates became the biggest owner of US farmland in 2021. Gee, I wonder why someone who's so obsessed with completely reengineering the food supply and making us dependent on the lab-grown synthetic food substitutes he funds would be buying up farmland? A real head-scratcher, that one.

Speaking of head-scratchers, just why is Bill so passionate about pushing fake meat on the public, anyway? Why, to appease the weather gods, of course!

Speaking of fake meat . . .

World Economic Forum

Unless you've been living under a rock, you'll have heard of the "eat ze bugs" agenda by now. You know, the now-ubiquitous propaganda campaign to stop eating meat and start eating insects in the name of—what else?—"saving the planet"?
But if by chance you *were* living under that rock, you wouldn't know why it's called the eat "ze" bugs agenda. Conspiracy realists, however, will be able to clue you in: it's in (dis)honour of everyone's favourite Bond villain reject, Klaus Schwab, the founder and executive chairman of the World Economic Forum.

Yes, the WEF is behind many different aspects of the so-called

Fourth Industrial Revolution, and the eat ze bugs agenda is no exception. Never forget, it was Schwab who popularized the "Great Reset" rebranding of the very old "New World Order" idea. And Schwab's desire to get humans off of traditional sources of protein and nutrients is very much a part of that Great Reset plan.

A quick search of the word "insects" on the WEF website reveals that it has been regularly promoting such hard-hitting journalistic pieces as:

5 reasons why eating insects could reduce climate change

Why we need to give insects the role they deserve in our food systems

Insects could soon be appearing on restaurant menus in Europe

and

Good grub: why we might be eating insects soon

The fat cats are now unwinding after their hard week at Davos. You can bet they're *not* snacking down on cricket croquette or mealmoth flambé . . . though they may expect *you* to.

But the Davos despots had better watch their backs! It turns out they have competition.

The EAT Forum (Davos for Food)

The EAT Forum is an organization cofounded by the Wellcome Trust (yes, *that* Wellcome Trust). It emerged from the Stockholm Food Forum, a by-invitation-only conference on the business, science and politics of food production that is sometimes billed as the "Davos for Food."

Never heard of EAT? Its "About" page reads like the usual corporate whitewash: "EAT is a non-profit dedicated to transforming our global food system through sound science, impatient disruption and novel partnerships."

But if the very idea of a "Davos for Food" puts you off your lunch and EAT founder and executive chairman Gunhild Stordalen gives you some strong Lieutenant Ilia vibes, then you might want to take a look at Dr. Joseph Mercola's assessment of the group in his article on the global technocrat cabal:

> *The EAT Forum's largest initiative is called FReSH, which aims to transform the food system as a whole. Project partners in this venture include Bayer, Cargill, Syngenta, Unilever and Google. EAT also collaborates with nearly 40 city governments in Europe, Africa, Asia, North America, South America and Australia, and helps the Gates-funded United Nations Children's Fund (UNICEF) create updated dietary guidelines.*

Given a pedigree like that, you'd expect that EAT Forum's advisory board to be stacked with globalists, insiders and career supergophers for the world's elite . . . and you'd be right!

Unsurprisingly, among its many initiatives is "Shifting Urban Diets," a plan to "demonstrate how scientific targets for food systems can be operationalized in the city context" by adopting the *Lancet's* "Planetary Health Diet," a WEF-promoted response to climate change hysteria that says you should eat more vegetables to stop hurricanes . . . or something like that.

Yes, the EAT Forum may not have crossed your radar yet, but if its track record, ambition to become the "Davos for food" and connections to seemingly every globalist insider and crony corporation in the industrial food system indicate anything, we'll be hearing a lot more about this group in the near future.

USAID

Remember last week, when I discussed Henry Kissinger's 1974

plan to start using foreign aid as a weapon to encourage developing countries to start sterilizing their population? Well, then, it won't shock you to learn that another organization with its hands in the Great Food Reset pie is USAID. (Yes, *that* USAID.)

The Board for International Food and Agricultural Development (BIFAD) is, according to USAID's website, "a seven-member, presidentially appointed advisory board to USAID established in 1975 under Title XII of the Foreign Assistance Act, as amended, to ensure that USAID brings the assets of U.S. universities to bear on development challenges in agriculture and food security and supports their representation in USAID programming."

Last year, BIFAD, in conjunction with "Feed the Future" (the U.S. government's global hunger and food security initiative), released a working paper titled "Systemic Solutions for Climate Change Adaptation and Mitigation." The paper argues that:

> *. . . a perfect storm of circumstances in which supply chain issues, regional agricultural and nutrition challenges, the ongoing effects of the COVID-19 pandemic, and regional conflict have combined to form a looming food security crisis.*

After shoehorning in some climate change hysteria for good measure, they call for—you guessed it—a complete transformation of the food supply and global agriculture!

Specifically, BIFAD's "Systemic Change" subcommittee has been tasked with providing "evidence-based recommendations to accelerate inclusive systems change to achieve transformative climate change adaptation and mitigation outcomes in agriculture, nutrition, and food systems." The subcommittee's proposals for achieving this ambitious goal include:

- linking "carbon markets" to "regenerative agriculture"

(i.e., the financialization of nature that is all the rage in globalist circles these days);
- using ESG scores as a way to pressure companies into acquiescing to the vague, nebulous and ever-shifting demands of the Food Reset mafia;
- and, of course, "the promotion of insects as sustainable sources of proteins."

The whole document is couched in the bland bureaucratic doublespeak of "equity," "inclusion" and "sustainability." Of course, it avoids delving too deeply into the specifics of this fundamental transformation of the food system that BIFAD is ostensibly investigating. But, if you know how to read between the lines, it isn't hard to understand what the report is really saying. USAID's "leverage" over developing countries—specifically referenced no less than 125 times—gives an insight into the Kissingerian food-as-a-weapon mentality that is the very basis of USAID and its mission. The entire enterprise reeks of a neocolonial landgrab masquerading as "philanthropy"—the kind of territorial taking that people in Africa and elsewhere have been warning about for decades.

What Can We Do?

This list of Great Food Reset culprits is of course incomplete. I haven't even mentioned the participants in the "Food Chain Reaction Game" or the "nitrogen reduction" schemes being pushed by national governments around the world or the Global Crop Diversity Trust and its ominous Svalbard seed vault or any of a million other relevant players and factors in this grand transformation.

But from this (admittedly incomplete) exploration we can derive a general understanding of the types of players that are behind this push to "transform the global food supply" and can accurately describe their methods and motivation. This is enough for us to start formulating our own plans for counteracting this agenda.

And *that* is the topic for next week. . . .

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GMO Mustard: An Unnecessary, Toxic, and Failed Technology

GMO Mustard: An Unnecessary, Toxic, and Failed Technology

by **Vandana Shiva**, *Navdanya International*
November 10, 2022

Mustard is the colour of our spring – basant. It is the flavour, and aroma, of our foods. It is a warm massage for a baby, and the glow of our oil-lamps on Diwali. Mustard has been central to the cultural and food identity of the diverse cultures that make up India. Mustard was the colour of freedom during our freedom movement. India's mustard cultures and seed freedom are being threatened by the Poison Cartel, and Bayer-Monsanto.

There is a desperate push for introducing GMO Mustard, which will be the first GM food crop introduced into India. The attempt was made in 2016 to 2017, but it failed. And now another attempt is being made. On the 3rd of October 2022, the Supreme Court told the government to maintain the status quo till a hearing on the introduction of GM mustard was completed.

The push for this GMO is anti-science and anti-democracy. GMO mustard approval is a handing over of our democratic institutions to the Poison Cartel.

Thanks to the case of Bt Cotton, we have already seen what GMO crops can do in terms of destruction. Farmers have been committing suicide because of debt due to the high cost of seeds. Since Bayer-Monsanto has been focused on extracting patent royalties, the price of seed has jumped 80,000%. They have extracted Rs 7000 crores as illegal royalties. Under Indian Patent law article 3j, Bayer-Monsanto does not have a patent on BT cotton seed, since the law does not allow patents on seeds, plants and animals. But they have been manipulating and attacking India's courts to weaken article 3j, thus attacking our democratic and farmers rights. This article is the legal expression of the concept of *Vasudhaiva Kutumkam*, or the Earth as one family.

For the poison cartel, there are no plants and animals with their own integrity. Life is a corporate "invention". For Bayer-Monsanto GMO means God Move Over, we will now pretend to be creators of life to collect royalties and Lagaan. Patents and royalty collection is the endgame; GMOs are the excuse.

When the Competition Commission of India started an inquiry because 95% of the seed is controlled by Monsanto, Monsanto dragged the Competition Commission to court. The Monsanto and Bayer merger intensified the threat of monopoly over seed, the first link in the food chain. And when corporations get as big as Bayer-Monsanto, manipulating the courts and the government becomes very easy. If the Seed Price Control order is dismantled, and if the 3j article is removed, the GM mustard will fully become a Bayer-Monsanto mustard.

Sarson Satyagraha in Rajasthan, 2015 – Photo credits: Navdanya

Risky Genetic Transformations

In other words, the basic patents on the GM Mustard technology, as well as agrichemical package, are all owned by Bayer, as the Glufosinate (commercially called "Basta") to be used with the GM mustard is also a Bayer herbicide.

The gm crop is based on multiple genetic transformations, and introduction of genes from unrelated organisms. These include the *barnase gene* for male sterility, *bar-star gene*, *bar gene* for herbicide resistance to Glufosinate (Basta, Bayer's herbicide analogous to Monsanto's Glyphosate), *TA29* for regulator, *CaMV 35S*, *Cauliflower Mosaic Virus* (as a viral promoter), *AMV*, *Alfa-alfa Mosaic Virus* (as a viral promoter), and *Agrobacterium tumefaciens* as Terminators.

The original Food and Environmental safety assessment of the plant reveals that the barstar gene is to be found in the leaves, stem and roots of the GMO Mustard, and the Barnase gene is found in various vegetative tissues. The Bar gene is

also found in the leaves, oil and oilseeds of the new plant. These are proteins that are not present in traditional mustard varieties.

However, the plant (as food) has not been assessed for safety, in its expression of the "layered" Bar "Trans Gene", that has been implanted into the GMO mustard. What is tested, is surrogate proteins expressed in E Coli Bacteria. Isolated proteins expressed in bacteria are not equivalent to transgenes expressed in plants, which are much more complex organisms. Instead of testing for difference, a false assertion is dictated – that the two are equivalent.

The assessment also casually states, on page 63, "*The data showed that the Barnase expression levels are below the detection level and yet the expression level is sufficient to create the male sterility trait*". As it is the expression of the trait that makes the difference in living systems, it is this trait that needs to be assessed in transgenic mustard as food.

Barnase is an enzyme that breaks down RNA indiscriminately and is known to be an extremely potent cell poison. Traces of barnase have been found to be toxic to rat's kidneys and to human cell linings (Ilinskaya and Vamvaka, 1997; Prior et. Al., 1996).

The Barnase enzyme is also inhibited by the barstar protein. Both are produced by the soil bacterium *Bacillus amyloliquefaciens.* In the soil bacteria, these enzymes are bound, so barnase can do no harm. But when present in the plant, and when it is secreted from the cell, it is no longer bound and is thus harmful to other cells. It is exactly this harm that has not been scientifically assessed.

Additionally, there have been no official tests done on the safety of viral promoters.This is especially concerning as the Cauliflower Mosaic Virus, for example, is notoriously unstable

(Ho, Ryan and Cummins, 1999). The CaMV 35S promoter taken from the Cauliflower Mosaic Virus is a DNA sequence used in commercial GMO crops for almost twenty years. It is also a classic example of how DNA can still reveal unexpected functions, even decades after discovery or use in a GM crop. The CaMV 35S DNA is described in every application for commercial use as a simple DNA "promoter" (as in, an "on" switch for gene expression). In 1999, however, the CaMV 35S "promoter" was found to encode a recombinational hotspot, meaning implanted genes were more likely to be unstable, resulting in likely horizontal gene transfer (Kohli et al., 1999). In 2011, it was found to produce massive quantities of small RNAs. These RNAs probably function as decoys to neutralize the plant immune system (Blevins et al., 2011). One year later still, regulators found these plants to contain an overlapping viral gene whose functions are still being elucidated (Podevin and du Jardin, 2012).

It is important to note that when first released in 2002, Pro-Agro's (Bayer) application for the approval of commercial planting of GM mustard, based on the same transformations, was rejected by the Genetic Engineering Appraisal Committee (GEAC).

Basant Panchami celebration at Navdanya Farm, 2017 – Photo credits: Navdanya

The risk of GM Mustard is not necessary

Besides the instability and clear risks of the genetic transformations, there are many other risks associated with GMO-Mustard. With its Herbicide Resistant Trait, the new GMO will displace native mustard varieties, just like GMO-Cotton displaced Desi-Cotton in India. Genetic contamination from GM mustard will also be irrevocable and irreversible. Furthermore, mustard is grown as a mixture, with chana and wheat. Agrichemical spraying will also destroy the biodiversity of associated crops.

The sterility trait is introduced to produce non-renewable seeds. Just as has previously been the case, farmers will have to re-buy seeds every year, leading them to be trapped in debt, and be driven to suicide like the farmers growing GMO Bt cotton. An unnecessary violence, as in India, there already exists a diversity of local varieties of mustard coupled with traditional farming practices which give more yield without

chemicals. The push for this GMO is therefore anti-science, especially as the main justification given for the necessity to genetic engineer with herbicide resistant traits, to resist Bayer's herbicide, is to increase yields and curve the dependency on edible oil imports. The GMO mustard has lower yields than non-GMO alternatives available in the country. The government itself has admitted in the Supreme Court that increased yields are not being claimed, yet in the media this is the false claim being spun.

HT hybrid mustard DMH 11 has failed the first criteria of a test risk protocol of a GM crop, of whether the GM Crop is required in the first place. The answer in "No" based on the admission of the Union of India itself in their 'Reply' Affidavit in the Supreme Court. They said: "*No such claim has been made in any of the submitted documents that DMH 11 out-performs Non-GMO hybrids. The comparison has only been made between hybrid DMH 11, NC (national Check) Varuna and the appropriate ZC (zonal checks) – MSY of 2670 Kg/ha has been recorded over three years of BRL trials which is 28% and 37% more than the NC & ZC respectively*" (At 88, pg.56).

India can produce enough oilseeds that are diverse, healthy, safe, and culturally appropriate. In the 1990's India had become self-sufficient in edible oils as a consequence of the conscious commitment to grow more oilseeds. The policy was called the "Yellow Revolution", and it worked. In 1993-94 India was producing 97% of her requirements.

Native Mustard Seeds – Photo credits: Navdanya

Import Manipulation

In 1998, the same year that Monsanto sneaked in its BT cotton, the multinational companies (MNC) in India manufactured a crisis to get indigenous oilseeds banned and dumped GMO soya oil on India by manipulating a drop on import duties. India had bound its import duties at 300% in the WTO. The United States lobby had soya oil import duties reduced to 45%. In the manipulated crisis of 1998, the duties were dropped to 0%. In addition, the soya bean was subsidized by $190/tonne by the US government, and Rs 15/kg by India. It is no wonder then that India was flooded with imports. It was not because of domestic scarcity, but because of manipulated prices, manipulated trade and manipulated policy .

At that time, the women of the slums of Delhi called me to say their children could not eat the food cooked in soya oil. They wanted the mustard oil back. So we organized the "Sarson Satyagraha" in 1998 and saved our mustard. But the imports

kept increasing through dumping and manipulation of policy. Compared to 1.02 million tonnes edible oil imports in 1996-97, India's imports doubled to 2.98 million tonnes in 1998-99, and then jumped to 5 million tonnes in 1999-2000.

Today we are importing more than 60% of our domestic requirements. And destroying our coconut, sesame, groundnut, safflower, niger, mustard, and linseed diversity. All for GMO soya which is destroying the Amazon, and palm oil which is destroying the Indonesian rainforests. This has directly caused Indian farmers to lose livelihoods, and health.

We can grow enough oilseeds to meet India's needs. As the farmers organizations wrote in a letter to the Environment Minister, Anil Dave: *"Oil seed production has taken a hit due to bad pricing/procurement support from the government, and inappropriate anti-farmer import policies adopted by the government. It is not because we are unable to produce enough or do not have the seeds or know how. If the pricing, procurement and import policies are made farmer friendly we assure you that we can produce all the mustard and other oil seeds the country needs*."

Today, the government of India is again being manipulated by the same interests that forced the edible oil imports on India, to now force GMO Mustard in the name of reducing import dependence.

The unscientific and corrupt approval for GMO Mustard is simultaneously an approval to 100 other crops that are undergoing trial. We stopped Bt Brinjal in 2010. There was a democratic consensus in India that we would not become victims of GMO foods. The 2020 decree by Mexico President Andres Manuel Lopez Obrador aims to phase out GM corn and the herbicide glyphosate by 2024.

The decision about GMO Mustard is not merely a technological choice. It is about our Seed Freedom and Food Freedom. Since

GMO technology has been pushed primary to own the seed through patents to collect royalties, since such patents cannot be granted without dismantling the public interest and national interest built into our structures, laws and policies, GMO mustard is a recipe for the colonization of India by the Poison Cartel Bayer- Monsanto. If GMO mustard is approved, India as a free, democratic, sovereign country dies. If GMO crops are approved, and article 3j of our patent laws is diluted, misinterpreted, and distorted, India as a civilization dies and becomes a colony in the toxic empire of the Poison Cartel.

This is why we are continuing the Sarson Satyagraha we started in 1998 – to keep India free, healthy and prosperous.

(Dr. Vandana Shiva was appointed by the UN to an expert group to create the Biosafety Framework to implement art 19.3 of the Convention on Biodiversity (CBD). This framework evolved into the Cartagena Protocol on Biosafety. Dr Shiva has also served on the National Expert Group which drafted India's National Biodiversity Act, and the Plant Variety Protection and Farmers Rights Act.)

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cover image credit: Finmiki

Bill Gates' 'Magic Seeds' Won't Solve World Hunger But Will 'Create Ecological Disaster'

Bill Gates' 'Magic Seeds' Won't Solve World Hunger But Will 'Create Ecological Disaster'

> ***Bill Gates is rebranding genetically engineered seeds as "magic seeds" and says they're the answer to world hunger, but according to Vandana Shiva, Ph.D., a "failed, clumsy crude manipulation of living systems does not create 'magical seeds.' It creates an ecological disaster."***

by **Susanne Burdick, PhD**, *The Defender*
September 22, 2022

Bill Gates said he believes the global community must invest in engineered crops using what he calls his "magic seeds" to solve world hunger.

Food aid alone cannot address the problem, Gates said in an essay accompanying the Bill & Melinda Gates Foundation's (BMGF) Goalkeepers 2022 Report, released earlier this month.

What is needed, he said, are "magic" seeds that have been genetically engineered to be resistant to hot and dry climates or to grow three weeks faster than natural seeds.

"Temperature keeps going up," Gates said. "There is no way, without innovation, to come even close to feeding Africa. I mean, it just doesn't work."

However, André Leu, organic farming expert, former president of IFOAM Organics International and author of "Growing Life: Regenerating Farming and Ranching," criticized Gates for calling his genetically modified seeds "magical."

"This is patently false and an example of spin doctoring by public relations companies to rebrand products that are widely regarded as Frankenfoods," Leu told The Defender.

According to Vandana Shiva, Ph.D., environmental activist, author and founder of Navdanya International, "[Natural] seeds as the source of life are magical. They hold their implicate order within them, and unfold to relocate the unique patterns and structures of life in its diversity."

In contrast, Shiva said, "Genetically engineered seeds have been made to own life through patents."

Shiva told The Defender:

"[Genetically engineered seeds] are a failed technology.

"Herbicide-resistant crops were supposed to control weeds. They have created superweeds. Bt toxin crops were supposed to control pests. They have created super pests, increased the need for pesticides, increased farmers' debt and driven farmers to suicide in India.

"A failed, clumsy, crude manipulation of living systems does not create 'magical seeds.'

"It creates an ecological disaster of monocultures of GMOs [genetically modified organisms] displacing the rich diversity of crops that we need for the health of people and the health of the planet."

According to Gates, he's concerned about the planet – at least how it may be impacted by climate change.

The BMGF on Sept. 6 released an "Agriculture Adaptation Atlas"

that uses predictive modeling to estimate how climate change may affect growing conditions for crops in African countries.

The BMGF is also promoting the use of artificial intelligence (AI) that processes the genome sequences of crops along with this environmental data to conjure up a data-based vision of what farms should look like in the future.

"From this computer model, researchers can identify the optimal plant variety for a particular place," Cambria Finegold, director of digital development for CABI, an intergovernmental organization that is developing models for the BMGF, earlier this month told The Associated Press (AP). "Or they can do the reverse: pinpoint the optimal place to grow a specific crop."

Finegold added:

"It's not just, 'how do we get through this crisis and get back to normal?' It's, 'what does the future normal look like?'"

But critics pointed out this reliance on AI and genetically modified seeds would exacerbate environmental issues because the modified seeds require heavy use of fossil-fuel fertilizers, which must be transported across great distances, and pesticides that threaten biodiversity.

According to Alliance for Food Sovereignty in Africa and AGRA Watch, a group that "works with partner organizations in Africa and the US to support sustainable, agroecological, socially responsible, and indigenous alternatives," the BMGF's industrial agricultural programs in Africa, including its Alliance for a Green Revolution in Africa (AGRA), cause biodiversity loss, hurt small-scale farmers and cause environmental harm – all while failing to solve hunger.

Rachel Bezner Kerr, a professor of global development at Cornell University, told the AP there are existing

alternatives – such as locally managed seed banks, composting systems that promote healthy soil and non-chemical pesticide interventions – that can build more resilient farming systems and reduce the need for food aid.

Kerr, a lead author of the food chapter of the latest report from the United Nation's Intergovernmental Panel on Climate Change, said that although the panel doesn't make recommendations, "overall, the kind of focus on a few technologies and reliance on fossil fuel-based inputs isn't in line with ecosystem-based adaptation" or a biodiverse future.

However, BMGF CEO Mark Suzman contended fertilizer is necessary. "You simply cannot meet overall productivity gains without it," he said on a call with reporters, according to the AP.

Gates also dismissed alternative ideas.

"If there's some non-innovation solution, you know, like singing 'Kumbaya,' I'll put money behind it," Gates told the AP in an interview. "But if you don't have those seeds, the numbers just don't work."

Gates said, "When researchers in Kenya compared plots of this new [genetically modified] maize, which they called 'DroughtTEGO®,' with the old one, they saw the DroughtTEGO farms were producing an average of 66% more grain per acre."

Shiva said genetically engineered crops and seeds aren't the answer.

"To end world hunger we must stop treating food as a commodity and seeds as corporate 'intellectual property,'" she told The Defender.

"To solve world hunger every farm must become biodiverse and ecological. Biodiversity intensification produces more nutrition per acre, with no dependence on external inputs of

seeds and toxic agrochemicals as our report 'Health Per Acre' shows."

"We can feed the people while regenerating the biodiversity of the planet," Shiva said.

Leu agreed. "The scaling up of regenerative organic agriculture based on the science of agroecology would easily solve the global food insecurity crisis. It is low-cost, proven, and effective, and scaling it up globally would be less than the cost of developing one GMO crop."

Claiming GMOs have no place in solving world hunger, Leu said:

"Despite more than 40 years of hype that GMO seeds were going to dramatically increase yields, solve pest and disease problems, reduce pesticide use, drought-proof crops, allow them to be grown in saline soils, and numerous other extravagant claims, this has not been achieved.

"The research by independent scientists — not by the scientists employed by the biotech companies who have an obvious conflict of interest — clearly shows that there have been no yield increases over conventional breeding.

"The only two things GMO crops have succeeded in doing are dramatically increasing the use of toxic pesticides such as glyphosate (Roundup) in our food, bodies, and environment and the profits of the large agribusiness pesticide companies."

Leu emphasized the effectiveness of teaching organic farming methods to small-scale farmers to address hunger.

"The majority of food-insecure people are smallholder family farmers and others who depend on them in rural communities," he said.

"We have proven many times that teaching good organic farming practices can increase their yields by over 100% so they can

feed their families and local communities. They also get an income to pay for healthcare, education and many other things that are important for a good quality of life."

Who really suffers and who profits from 'philanthrocapitalism based on biopiracy'?

The BMGF and the Gates-led AGRA say they aim to transform agriculture in Africa by increasing incomes and food security for millions of smallholder farmers.

On July 13, Gates pledged to donate $20 billion to the BMGF so it can increase its annual spending to "mitigate some of the suffering people are facing right now." The donation brought the foundation's endowment up to $70 billion, CNBC reported in July.

The BMGF has spent $1.5 billion on grants focused on agriculture in Africa, according to Candid, a nonprofit that researches philanthropic giving.

But an independent evaluation of AGRA's efforts, released in late February by the consulting firm Mathematica, found "mixed" outcomes on inclusive financial, output markets and farmer outcomes, The Defender reported.

According to Joeva Rock, Ph.D., assistant professor of development studies at the University of Cambridge who wrote a not-yet-released book about food sovereignty in Ghana, activists in Africa questioned whether the funds could have been better spent elsewhere.

In Ghana, field trials for four varieties of genetically modified seeds began in 2013, Rock told the AP.

"What would happen if those went into increasing funds to the national research centers in Ghana, to building roads, to building storage, to building silos or helping to build markets?" Rock said.

Food insecurity is not caused by low yields, Leu told The Defender. "It is caused by unfair and inefficient food distribution systems."

Leu said:

"Industrial farming systems are not designed to feed the poor. The COVID-19 pandemic lockdowns and war in Ukraine are examples of why it is the wrong model.

"Growing food thousands of miles away from where it is needed instead of growing it locally is the problem. People are dependent on supply chains that can easily be disrupted.

"Also, food-insecure people are the poorest on the planet. Even if the food gets to their country, they can't afford to buy it.

"On the other hand, we now have an obesity epidemic in the more affluent countries and regions due to an oversupply of calories empty of nutrition from industrial agriculture."

In 2006, the BMGF joined with the Rockefeller Foundation to spur a "green revolution" in Africa by creating AGRA.

"Over the long term, the partnership, called Alliance for a Green Revolution in Africa (AGRA), intends to improve agricultural development in Africa by addressing both farming and relevant economic issues, including soil fertility and irrigation, farmer management practices, and farmer access to markets and financing," the groups said.

At its inception, AGRA declared Africa deficient in what it referred to as "improved inputs," such as fertilizer and "advanced" seeds, and has worked to implement policies that would make African farmers use manufactured fertilizers, pesticides and engineered seeds – which are all patented products that generate profits for their owners.

AGRA Watch – founded to respond to and challenge AGRA's

policies – calls BMGF's efforts "philanthrocapitalism based on biopiracy."

Although the BMGF and AGRA claim to be "pro-poor" and "pro-environment," their alignment with transnational corporations such as Monsanto, and foreign policy groups such as the U.S. Agency for International Development (USAID), makes their motives suspect, according to AGRA Watch:

"[BMGF] takes advantage of food and global climate crises to promote high-tech, market-based, industrial agriculture and generate profits for corporations even while degrading the environment and disempowering farmers."

A three-part video series "Rich Appetites: How Big Philanthropy Is Shaping the Future of Food in Africa" explains why exporting the U.S. agribusiness model to Africa is a "grave mistake" and exposes how "Big Philanthropy" – namely the BMGF – is destroying farming and food in Africa by seizing control from local interests.

As of Sept. 20, Forbes estimated Gates' net worth to be around $104.4 billion.

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Argentina: GMO Wheat Banned in the Province of Buenos

Aires

Argentina: GMO Wheat Banned in the Province of Buenos Aires

> ***Judge says GMO wheat could cause "serious and irreversible damage" to human health and the environment***

by **Tierra Viva** (in Spanish)
English version sourced from GM Watch
July 11, 2022

Bioceres – the "Argentine Monsanto" – is racing to get its GMO HB4 wheat accepted by regulators around the world. It has already got food approval in Australia and partial approval in the US – from the FDA but not yet the USDA. And, according to the Argentine journalist Patricio Eleisegui, Bioceres is also heavily targeting the countries of Latin America, where it has already obtained partial approvals in Colombia and Brazil.

But while Bioceres is rushing to create markets for its GMO wheat abroad, within Argentina itself its commercialisation is facing widespread resistance. And it appears to have received a major setback in the province of Buenos Aires, the very heart of agribusiness in Argentina.

A judge in Mar del Plata has issued a precautionary ruling that suspends the use and release of GMO HB4 wheat in Buenos Aires until a commission is formed to evaluate its effects, reports the news agency Tierra Viva. The ruling responds to a collective suit brought by farmers, social and environmental organisations and Indigenous peoples. They emphasise that the action could be replicated in other provinces where this GMO wheat is already being grown.

The temporary measure is in place until an Agricultural Biotechnology and Biosafety Commission is formed, which will be responsible for preparing a report on the introduction and release of the GMO crop and its effects on natural resources, health, production and marketing. The precautionary measure was issued by the Juvenile Criminal Responsibility Court No. 2 of Mar del Plata.

The decision of the Buenos Aires judge Néstor Adrián Salas is relevant because it confirms that although the national State has the authority to approve the commercialisation of GMOs and agrochemicals, it is the provinces that retain the authority for their effective release in the territories because they have control over natural resources.

For Judge Salas, the release of the first GMO wheat approved in the world could cause "serious and irreversible damage" to human health and the environment. He refers to both the crop itself and the associated agrochemicals; in this case, glufosinate ammonium, a herbicide that is more toxic than glyphosate.

"If the material is released in Buenos Aires territory, this being the first GMO event to be applied to wheat seed, the crossbreeding of the material with non-GMO wheat can be irreversibly introduced," Salas warned. To support his decision, he cited – among others – a document from the National Biotechnology Commission (Conabia) that details "the potential horizontal transfer or exchange of genes" between GMO wheat and other seeds.

The precautionary measure is based on the precautionary principle present in the General Law of the Environment, which establishes that in the face of danger of serious or irreversible damage, measures to avoid it should not be delayed on the grounds of lack of information or scientific certainty.

The Commission for Biotechnology and Agricultural Biosafety of the Province, which the judge ruled must be put into operation, should have been formed more than 20 years ago, when Law 12.822 was approved. However, no provincial administration implemented the law and formed the commission.

Lawyer Lucas Landivar, who represents the group of organisations, producers and Indigenous peoples who brought the suit, stressed the importance of complying with article 124 of the National Constitution. This establishes that the provinces are responsible for the natural resources in their territory. “The provinces cannot allow their cultural heritage and biodiversity to be affected,” he noted. In this sense, he stressed that the seeds used in agriculture are a cultural heritage of the people, which the provinces must preserve.

Fernando Cabaleiro, a lawyer for the organisation Nature of Rights, which is also involved in the suit, stressed that this same action can be replicated in different provinces. “There is the General Environmental Law and at the same time, each province has its legislation on this matter. This is environmental pollution and it is the duty of the provinces to protect their natural assets,” he said.

Provincial law 12.822 of 2001 ordered the creation – 90 days after it came into effect – of the Agricultural Biotechnology and Biosafety Commission. The objective of this body is to prepare a report with its recommendations regarding the introduction and release of GMOs and their effects on natural resources, health, production and marketing.

In writing this law, the legislators at that time considered, “Given the vertiginous increase in the use of GMO seeds, we believe it is necessary that there should be a provincial body that has the function of controlling their use.”

Likewise, they understood that this commission had to answer a series of questions that Judge Salas transcribed verbatim in

his resolution:

* Have enough tests been done with these organisms so that we will not have to repent in the near future?

* What are the mechanisms that different countries have to assess their danger to the ecosystem and to human health?

* Why do some countries accept GMOs and others do not?

* Has the Ministry of Health or another official body certified the harmlessness of GMOs to human beings? Has the risk to human or animal health been assessed, such as the danger of antibiotic resistance?

* Should the release of GMOs undergo a mandatory environmental impact study?

* Is the introduction of GMOs in Argentina assimilated from a public debate, or is it a simple concept of genetic innovation to reap greater profits through patents in some countries?

* Does the new technology commonly called terminator affect traditional crops and biodiversity in general? [GMW: Terminator seeds are genetically engineered to be sterile after first harvest. Thus far this GMO technology has not been commercialised due to overwhelming public and scientific opposition. More information is here.]

Lawyer Landivar argued that it is very striking and worrying that the Provincial Executive has spent so many years without enforcing a decision of the Legislative Power. “This omission violates the precautionary preventive regime and deepens a practice that has generated adverse consequences and negative effects on health and the environment for 20 years,” he warned.

The marketing of HB4 wheat, from Bioceres – owned by Hugo Sigman and Gustavo Grobocopatel, among other businessmen – was authorised on May 12 by the National Ministry of

Agriculture. The decision ignored the claims of hundreds of social and peasant organisations and thousands of scientists who denounced the lack of transparency in the approval procedure for HB4 wheat, the contamination it will produce on other non-GMO wheats and the increased use of agrochemicals that it will entail. its cultivation.

On May 19, federal prosecutor Fabián Canda reiterated before federal judge Santiago Carrillo the request to urgently suspend the authorisation of HB4 GMO wheat due to "the irreparable damage" it could cause to the environment and the health of the population.

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The Extinction of Species, Bill Gates, and the US Military

The Extinction of Species, Bill Gates, and the US Military

by **Jon Rappoport**, *No More Fake News*
May 2, 2022

There is a technology called gene drives.

It asks the question: what species should we make extinct today?

Why are Bill Gates and the US military involved in forwarding that technology?

A gene-drive scientist might say, “I have a plan. By manipulating genes, we can make invasive rodents extinct, on an island where humans are living.”

In the next fraction of a second, a flurry of questions pops up.

The overarching question is: Does this mean genetic manipulation can make ANY species extinct?

Here is a passage from Gene Drive Files, a site with a referenced information on the subject:

“Gene drives are a gene-editing application that allows genetic engineers to drive a single artificial trait through an entire population by ensuring that all of an organism’s offspring carry that trait. For example, recent experiments are fitting mice with ‘daughterless’ gene drives that will cascade through mouse populations so that only male pups are born, ensuring that the population becomes extinct after a few generations.”

“Proponents have framed gene drives as a breakthrough tool for eradicating pests or invasive species. However, the Gene Drive Files reveal that these ‘conservation’ efforts are primarily supported by military funds.”

Gene drive technology could be deployed to wipe out troublesome plant-parasites, weeds, crops, animal pests, animals, and…what about humans? Mull that over with your morning coffee.

Several years ago, UN member nations were considering a recommendation to call a moratorium on the use of gene drives.

However, Bill Gates showed up to try to squash the moratorium.

The Gene Drive Files reports: “Documents received under Freedom of Information requests reveal that the Bill and Melinda Gates Foundation paid a private agriculture and biotechnology PR firm $1.6 million for activities on Gene Drives. This included running a covert ‘advocacy coalition’ which appears to have intended to skew the only UN expert process addressing gene drives…”

“Following global calls in December 2016 from Southern countries and over 170 organizations for a UN moratorium on gene drives, emails to gene drive advocates received under a Freedom of Information request by Prickly Research reveal that a private public affairs firm ‘Emerging Ag’ received funds from the Bill and Melinda Gates Foundation to co-ordinate the ‘fight back against gene drive moratorium proponents’.”

There’s more from the Gene Drive Files. It involves the military:

“A trove of emails (The Gene Drive Files) from leading U.S. gene drive researchers reveals that the U.S. Military is taking the lead in driving forward gene drive development.”

“Emails obtained through a freedom of Information request by U.S.–based Prickly Research reveal that the U.S. Defense Advanced Research Projects Agency (DARPA) has given approximately $100 million for gene drive research, $35 million more than previously reported, making them likely the largest single funder of gene drive research on the planet. The emails also reveal that DARPA either funds or co-ordinates with almost all major players working on gene drive development as well as the key holders of patents on CRISPR gene editing technology.”

“These funds go beyond the US; DARPA is now also directly funding gene drive researchers in Australia (including monies given to an Australian government agency, CSIRO) and

researchers in the UK. The files also reveal an extremely high level of interest and activity by other sections of the U.S. military and Intelligence community."

For the moment, put aside the notion of intentional extinction of species. Consider unintended consequences.

As I've shown in past articles, the latest and greatest gene-editing tools (e.g., CRISPR), which are used for gene drives, are far from slam-dunk precise, despite official assurances.

For example, this study: Genome Biology, July14, 2017, titled, "CRISPR/Cas9-mediated genome editing induces exon skipping by alternative splicing or exon deletion." An exon is "a segment of a DNA or RNA molecule containing information coding for a protein or peptide sequence." So you can see that exon skipping or deletion is a very bad outcome.

ANY gene editing done on ANY species opens the door wide to all sorts of errors and unforeseen consequences.

As for intentional destruction, we have this: MIT Technology Review, 2/8/16: "We have the technology to destroy all Zika mosquitoes."

"A controversial genetic technology able to wipe out the mosquito carrying the Zika virus will be available within months, scientists say."

"The technology, called a 'gene drive,' was demonstrated only last year in yeast cells, fruit flies, and a species of mosquito that transmits malaria. It uses the gene-snipping technology CRISPR to force a genetic change to spread through a population as it reproduces."

"Three U.S. labs that handle mosquitoes, two in California and one in Virginia, say they are already working toward a gene drive for Aedes aegypti, the type of mosquito blamed for spreading Zika. If deployed, the technology could

theoretically drive the species to extinction."

"…a gene drive [gene editing] can…make mosquito populations disappear. The simplest way to do that is to spread a genetic payload that leads to only male offspring. As the 'male-only' instructions spread with each new generation, eventually there would be no females left, says Adelman. His lab discovered the Aedes aegypti gene that determines sex only last spring. The next step will be to link it to a gene drive."

Bill Gates favors this technology. So shouldn't we? After all, Bill is the number one humanitarian on the planet, right?

Right?

No?

Oops.

Connect with Jon Rappoport

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The Corporate Push for Synthetic Foods: False Solutions That Endanger Our Health and Damage the Planet

The Corporate Push for Synthetic Foods: False Solutions

That Endanger Our Health and Damage the Planet

~Forward~

Artificial Food is Detrimental to Ecological Transition

by **Dr. Vandana Shiva**, *President of Navdanya International*
March 31, 2022

How can we heal our relationship with food in the age of artificial food? In response to the crises in our food system we are witnessing the rise of technological solutions that aim to replace animal products and other food staples with lab-grown alternatives.

Artificial food advocates are reiterating the old and failed rhetoric that industrial agriculture is essential to feed the world. Real, nutrient-rich food is gradually disappearing, while the dominant industrial agricultural model is causing an increase in chronic diseases and exacerbating climate change.

The notion that high-tech, “farm free” lab food is a viable solution to the food crisis is simply a continuation of the same mechanistic mindset which has brought us to where we are today – the idea that we are separate from and outside of nature.

Industrial food systems have reduced food to a commodity, to “stuff” that can then be constituted in the lab. In the process both the planet’s health and our health has been nearly destroyed.

Industrial agriculture is re-inventing its future based on “fake farming” with “fake food”, with chemicals and GMOs,

surveillance drones and spyware. Farming without farmers, farming without biodiversity, farming without soil, is the vision of those who have already brought us to the brink of catastrophe.

This is why artificial meat, invested in by the giant tycoons of factory farming, are not viable alternatives. They are just additional sources of profit for the same players and take political power away from regenerative farmers and local communities.

These modes deny the essential symbiotic relationships between humans, plants, animals and microorganisms and, in turn, deny their potential to maintain and regenerate the web of life. Food is the web of life and we cannot separate food from life. Similarly, we cannot separate ourselves from the Earth.

Solutions to our global crises already exist and they come from building cultures of interconnection and regeneration, as well as healing our relationships with food, nature and community. We need to become aware of the connections that hold the opportunity to regenerate the earth, our health, our food economies and food cultures through a real agriculture that cares for the earth and for people. Real food is not created in a laboratory, but comes from biodiverse farms that take care of the land by embracing a regenerative agriculture model.

We must therefore work actively to renew and regenerate the Planet by participating in ecological processes of reciprocity and restoring biodiversity. For this to happen, the act of eating must once again become an ecological act, so that the false solutions proposed by the advocates of artificial food, which do nothing to counter the profit-driven agri-food industry, do not create further crises.

The Corporate Push for Synthetic Foods: False Solutions That Endanger Our Health and Damage the Planet

by **Navdanya International**
March 31, 2022

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The corporate push for synthetic foods

Fully artificial food is an increasingly popular trend focused on developing a new line of synthetically produced, ultra-processed food products by using recent advances in synthetic biology, artificial intelligence, and biotechnology. These new products seek to imitate and replace animal products, food additives, and expensive, rare, or socially conflictive ingredients (such as palm oil). Biotech companies and agribusiness giants are seeing the opportunity to move into this promising market of "green" consumption and hence these products are marketed to a new generation of environmentally conscious consumers who are growing critical of the grim realities of industrial food production. As a result, meatless burgers and sausages, as well as imitations of cheese, dairy products, seafood, and others, have begun to flood the market, being found anywhere from fast food chains to local grocery stores.

Although these products market themselves as 'eco-friendly', 'healthy', and 'sustainable', they are no such thing as they do little to truly address the root problems of industrial agriculture and its environmental, and health consequences. Consequences that can be largely blamed on the same circle of businessmen who today finance the development of this biotech industry. These products instead represent the next generation of ultra-processed junk foods that work to further entrench industrial agriculture models due to their direct dependence on globalized commodity chains, agrochemicals, GMOs,

monocultures, and even conventional animal production. In other words, synthetic foods are quickly becoming a next means to consolidate even more power and profit into the hands of a few food giants without facing the implications of ecological devastation, worsening human health, and exacerbated climate change.

One of the key differences between conventional junk food products and these new synthetic foods is the use of new technological innovations such as synthetic biology and genetic engineering. Synthetic biology is a new type of biotechnology which is now creating entirely new organisms and microorganisms through the genetic modification or engineering of an organism's internal genetic parts to reconfigure them in new ways. By implanting pieces of other organisms' DNA into microorganisms, or reconfiguring internal genetic information, these new technologies trigger microorganisms, cells, or other forms of genetic material to 'ferment' and reproduce in order to trigger them to create new, completely synthetic ingredients. The use of the word 'fermentation' in synthetic biology hence creates a false analogy between traditional forms of natural microbial fermentation and these new, completely artificial biotechnologies.

These new technologies are now being used by companies such as Beyond Meat, Motif Foodworks, Ginkgo Bioworks (custom-built microbes), BioMilq (lab-grown breast milk), Nature's Fynd (fungi-grown meat and dairy alternatives), Eat Just (egg substitutes made from plant proteins), Perfect Day Food (lab-grown dairy products) or NotCo.

Companies such as Beyond Meat and Impossible Foods use a DNA coding sequence derived from soybeans or peas to create a product that looks and tastes like real meat. Imitations of cheese and dairy products are also starting to pop up. For instance, companies like Formo are using synthetic biology to synthesise milk proteins through fermentation for mozzarella and ricotta cheeses without cows.

Filler ingredients for these products also still rely heavily on the extensive processing of conventionally cultivated and mostly GMO crops. For instance, the Impossible Burger is made almost entirely from industrially produced wheat, maize, soya, coconut and potato, in addition to additional bioengineered ingredients. Proteins, carbohydrates from these conventional crops are chemically extracted, cooked and then extruded through machines that blend and shape them into strands resembling short muscle fibers, allowing manufacturers to convincingly imitate a range of processed meat products[1].

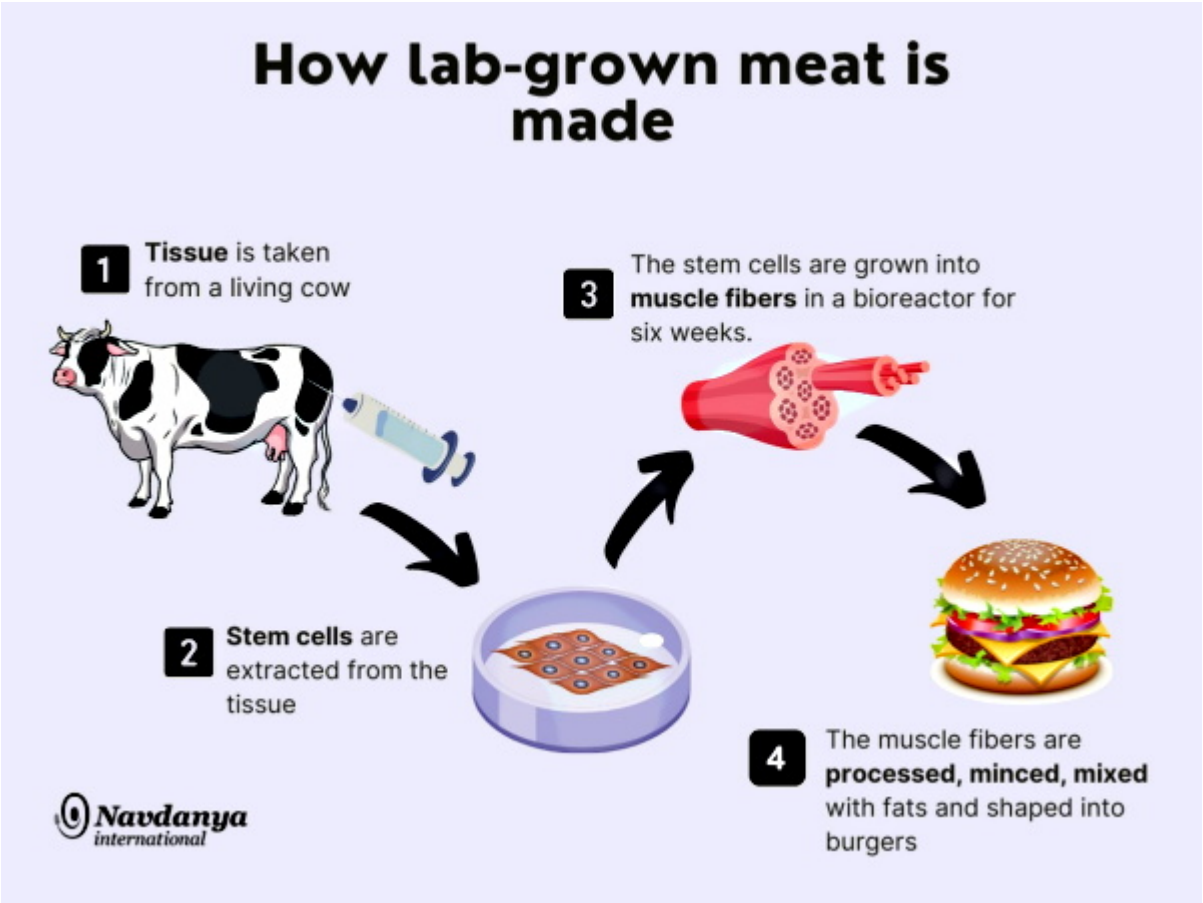
Cell-Cultured Synthetic Meat and Dairy

Lab-grown or cultured meat and dairy products are now also being marketed as yet another alternative to animal products, with many companies investing in cell-culturing or 'fermentation' of foods made from real animal cells. In the case of cell-based meat, tissue is taken from a living cow and combined with extracted stem cells to grow into muscle fibers in the lab. Once enough (over 20,000) have been obtained from this process they are colored, minced, mixed with fats, and shaped into burgers.

For instance, Upside Foods (previously known as Memphis Meats) produces meat through this method, by using self-reproducing animal cells. The rationale is that such an approach would eliminate the need to breed and slaughter a huge amount of animals, thus ironing out many ethical and ecological concerns along the supply chain. While lab-grown meat is not yet available to the public, companies like Upside Foods are heavily investing in research and development in order to make their products economically affordable over the long term to compete with commercial meat options. The Canadian company Better Milk, for instance, is also investing heavily in the production of cow's milk using bovine mammary cells.

Yet, whether upscaling lab-grown food will one day be economically viable remains very doubtful. An article from the

Counter reflects on the limits of the transformative potential of this emerging technology, with particular attention to the many obstacles faced by cultured meat companies. Through a rigorous review of scientific data, the article demonstrates that cultivated meat gives rise to a lot of inefficiencies and limitations in scalability, embodied by the need for intensive and sophisticated machinery, structural limitations on cell metabolisms and immunity to foreign contaminants, and a series of complex processes that all place a strict limit on the expansion of production. These factors contribute to a lack of cost competitiveness in comparison with the conventional meat products they wish to replace, as cultured meat production would amount to far less than conventional slaughterhouses. Especially when cell-culturing facilities at the scale needed have previously never been made viable.



Who is behind the surge of fake food and who benefits?

Over the last couple of years, and following the relentless emergence of new startups, the market for synthetic and plant-

based alternatives has been rapidly expanding, with financial backing skyrocketing in 2020. The Good Food Institute, a lobby advocate group for the adoption of animal product alternatives, reports that in the United States, the plant-based market has already grown from 4.9 billion in 2018 to 7 billion in 2020, which represents an overall increase of 43% in dollar sales over the last two years. Similarly, the plant-based meat market is also booming, having reached a value of 1.4 billion and registered a growth of 72% by 2020. Beyond Meat has been one of the "hottest" stocks in 2019. The plant-based meat company's shares grew a whooping 859% during its first three months.

The synthetic biology industry is also right behind. It has reached a value of $12 billion in the last decade and is expected to double by 2025, and to reach $85 billion in 2030. Companies specializing in this field have also grown six-fold in the last ten years.

Clearly it is agribusiness that stands to profit from this lucrative and quickly expanding market. Therefore, It should not come as a surprise that a lot of meat industry giants like Tyson foods, JBS, Cargill, Nestlé, and Maple Leaf Foods are investing in this blossoming market. Moreover, high profile big tech investors such as Microsoft founder Bill Gates and Amazon founder Jeff Bezos have also joined in by providing substantial financial backup to startups and biotechnology companies pursuing innovations in the sector. In fact, Bill Gates alone has already invested 50 million dollars in Impossible Foods and actively finances Beyond Meat, Ginkgo Bioworks, BioMilq, Motif Foodworks, C16 Biosciences, and Memphis Meats (now Upside Foods) through his Breakthrough Energy Ventures investment fund.

Other prominent start-ups funded by this billionaire investment include- Eat Just (egg substitutes made from plant proteins), Perfect Day Food (lab-grown dairy products), and NotCo (plant-based animal products made through AI), to name a

few.

Given the widespread success of the plant-based industry, it is not surprising that big plant-breeding companies like Bayer also see a great opportunity for investment and expansion in this market. As put by Bob Reiter, Bayer's head of research and development at the company's crop science division, in reference to plant based-meat companies: "*They are sourcing different types of crops and that could also create opportunity for us, being a company that is a plant-breeding company*".

An ecological choice or a wolf in sheep's clothing?

Many studies are questioning the alleged sustainability of this industry, which now comprises a constellation of new 'green-conscious' start-ups. It is not surprising that the tremendous rise of synthetic foods is happening at a time when ethical concerns linked to the meat and dairy industry are increasingly under the spotlight. As the industrial agrifood industry is threatened by consumer apathy, big companies that stand to lose significant profits are trying to tap into a new market of environmentally aware consumers looking for alternatives. Hence, the promotion of these synthetic foods is nothing more than a clever way to reorient profits back to the same old companies by re-purposing the destructive technologies of the Green Revolution combined with new biotechnologies as a well-disguised 'sustainable alternative'.

This reinforcement of the industrial agriculture production model becomes evident when one looks at the ingredients that make up these synthetic foods. Primarily made up of conventionally grown peas, potatoes, soya, coconut, and maize, these products rely on heavy processing, monocultures, agrochemicals, GMOs, deforestation and a contaminating global-supply chain.

Yet, companies remain adamant in their claims that their plant-based meats require less water, less land, and produce

less greenhouse gases than their counterparts, as well as simultaneously ironing out animal welfare concerns. In so doing, they deliberately sidestep the impacts of the toxic industrial supply chain their products depend on.

In addition, lab-grown counterparts also require massive bioreactors, and the use of sterile single-use plastic equipment. To come close to matching current meat consumption, for example, production facilities would need to number in the tens of millions, increasing problematic plastic consumption and increasing energy requirements, all while still relying on globalized industrial agriculture models and supply chains.

Most significantly, to run, these bioreactors require large amounts of nutrients for cells to grow and reproduce. Given the limited production of individual amino acid formulations suited for cell culture globally, one hope is to use soy to derive the full amino acid profile necessary for cell growth. This would work to only further entrench the already destructive cultivation of soy.

Gruesomely and ironically, other parts of the nutrient broth used to culture cells also directly derive from current industrial animal production, as some of them are made using fetal cow's blood obtained from conventionally slaughtered pregnant cows. Stem cells necessary for cell reproduction during the cell culturing process also come from fetal cows. Without the mass abundance of slaughtered fetal cows, can cell-cultured meat scale up? And so, can lab-grown meat be considered to solve the problem of animal welfare and environmental degradation if it is completely dependent on ingredients that derive from industrial beef production? This gruesome reality says otherwise.

Meat analogs and cell-based meats are also much more carbon intensive than we are led to believe. A recent study has shown that the fossil fuel energy required for the production of lab meat is not sustainable and could by far surpass the output of

livestock like pigs and poultry.

Vast amounts of energy are required for the production of synthetic foods. These include several energy intensive steps such as the operation of the bioreactors, temperature controls, aeration, and mixing processes. Thus, on the basis of these indicators, the sector is in no position to claim that synthetic meat production is inherently more sustainable than traditional production systems. Studies like these further point to how upscaling synthetic meat production is not the way towards a carbon free society, especially when we consider the scaling needed to match current consumption levels of the products this industry is trying to replace.

Are plant-based foods healthier? Not if they are ultra-processed

It is now widely known how industrial processing can make food less nutritious and thus harmful to human health, and according to a recent report, the latest generation of junk

synthetic foods is no exception. In order to make their products, chemically extracted protein isolates from commodity crops such as soy, peas and potatoes are used and mixed in with added flavorings, food additives, and now, perhaps most dangerously, genetically engineered artificial ingredients to try to approximate the taste and texture of real animal products. As a result, these ultra-processed foods typically contain high levels of sodium, fats and artificial food enhancers in order to be palatable, placing them under the same categories as junk foods.

Moreover, ultra processed foods are made from refined ingredients which means that they lack many of the nutrients found in traditional animal products such as zinc, iron and vitamin B-12. These nutrients and fortifiers thus need to be added as separate ingredients in synthetic meat, but cannot be absorbed as effectively as they would from whole foods, and can cause harmful interference with other nutrients. As a result our bodies may derive less health benefits from them and therefore they should not be part of a nutritious and environmentally friendly diet.

The safety of new ingredients and additives used is also a cause for concern. For example, to make the Impossible Burger appear to "bleed" like real meat, a synthetically produced "heme" molecule is added which comes from soy leghemoglobin, a colorant produced in genetically engineered yeast. The adoption of this patented new ingredient has been nothing short of controversial. According to the Center for Food Safety, the FDA did not conduct adequate long-term testing before approving the additive in 2019, and after a short-term rat trial, several potential adverse effects were detected like changes in weight gain, changes in the blood that can indicate inflammation or kidney disease, disruptions in the reproductive cycle and possible signs of anemia. Despite the lack of evidence that the additive is safe, Impossible Foods' products containing genetically engineered

heme are now being sold in supermarkets across the United States, exemplifying the lack of testing and regulation for these new products and technologies.

Highly toxic glyphosate has also been found in the Impossible Burger with amounts being more than enough to have a variety of negative health effects.This is also not mentioning synergistic effects this might have with the variety of toxic food additives these companies mix in to mask flavors, and the unknown health effects of synbio-produced additives.

Profitable Patents

Synthetic foods symbolize yet another profit-making machine used by billionaires and big corporations to capitalize on proprietary technology and increase their control over the world's resources. This is reflected in companies' ceaseless pursuit of patents for anything from novel processes of synthetic biology, genetically engineered ingredients like soy leghemoglobin, protein texturizing processing and even the patenting of genetic materials used as raw materials. As was shown in the Navdanya International Gates to a Global Empire report, 27 patents have been assigned to Impossible Foods, with over 100 additional patents pending for other fake meat proxies, from chicken to fish.

The patenting logic that underlies the synthetic food movement, sees animals and nature as disposable elements that can simply be replaced by more efficient technologies such as lab-engineered products. This dangerous way of thinking reduces animals to mere inputs in a production system, thus completely ignoring our relationship with nature and further creating a rift separating humans from nature and food from life.

Handing over control of our food to a handful of multinational companies does not only make us increasingly dependent on them, it can also have detrimental consequences on local food

systems and erode the food sovereignty of organic farmers.

International appetites for ultra-processed foods

In addition to conquering our plates and diets, synthetic food is slowly starting to take over multi-level governance arenas. This was most apparent in last years' UN Food Systems Summit, as well as the COP26. Both serving as forums to showcase the true intentions of agribusiness and food giants– namely, to keep the system unchanged. As anticipated, both summits marked yet another failed attempt at addressing power imbalances in the food system, with sustainable farming practices like agroecology only playing a marginal role. The summits were thus met with resounding backlash from environmental associations and civil society organizations.

Reflected in the themes and proposals of both international events was the willingness to keep business as usual and continuing to rely on the failed industrial agricultural model by allowing big actors to dictate terms. For instance, during both the UNFSS and the COP26 there was explicit promotion of artificial and ultra processed plant-based foods, under the language of achieving 'protein diversification' and 'sustainable diets'. During the COP26 the "Plant-Based Treaty" was promoted and backed by all the above-mentioned actors, and during the UNFSS under similar initiatives were promoted in Action Track 2 led by Nestlé, Danone and the controversial EAT organization.

There are many dangers associated with the above discourses of these ultra-processed, synthetic foods being cornerstones of 'sustainable diets' entering the global governance arena. This is especially true if they are further consolidated into policies that shift attention and resources away from organic farmers and local markets toward a handful of biotech companies. Despite food advocates' claims that the proliferation of synthetic alternatives to animal products can resolve animal welfare concerns and solve many of our ongoing

crises, the ‘plant-based’ label means very little if it is based on industrial models, monocultures, GMOs, pesticides, and other chemically intensive agricultural practices that lead to biodiversity loss and ecological degradation.

Which future for our food?

There are many dangers associated with the above discourses entering the global governance arena. Especially if they mean a further consolidation of policies that shift attention and resources away from organic farmers and local markets toward a handful of biotech companies. Despite food advocates’ claims that the proliferation of synthetic alternatives to animal products can resolve animal welfare concerns and solve many of our ongoing crises, the ‘plant-based’ label means very little if it is based on industrial models, monocultures, GMOs, pesticides, and other destructive agricultural practices that lead to biodiversity loss, ecological degradation and worsening health.

Synthetic food is thus nothing more than a fake solution that aims to replace products without challenging the power structures that underlie the corporate agricultural model. Moreover, it completely ignores the solutions offered by the growing regenerative agriculture movement and completely disregards the role of small producers and food communities in shaping our food systems. This mindset explains why we will soon see Beyond Meat burgers in McDonald’s plant-based menus when we should instead focus on the necessity for real regenerative agriculture and systemic change to protect nature and people’s health.

What We Need is Real Food

In the end, these artificial, synthetic foods dismantle our connection with nature and in doing so, they completely disregard the role of natural processes and the laws of ecology that are at the heart of real food production. By promoting the illusion that we live outside of nature’s

ecological processes, this new technology will only serve to increase corporate control over food and health, accelerate the collapse of local food economies and further destroy food democracy. The real solution to the environmental, and health crises should be based on an active rejuvenation and regeneration of the planet by working with ecological processes through agroecological and regenerative farming practices.

Contrary to the claims of the agro-industry and food tech companies, food cannot be reduced to a commodity to be put together mechanically and artificially in labs and factories. Food is the currency of life and it holds the contribution of all beings involved at all stages of production. Claiming otherwise would be a negation of local indigenous knowledge and pastoralist cultures that have evolved alongside diverse ecosystems over the centuries to regenerate biodiversity and contribute to the diversity of farming systems.

Animals, humans, and nature have always lived in interconnected, symbiotic relationships which in turn regenerate all systems that support life. This synergy is vital to the renewal of soil fertility, the creation of habitat for biodiversity, and the rejuvenation of Earth's water, carbon, and nutrient cycles. While concerns about the meat industry are legitimate, animals integrated into a biodiverse, agroecological system can provide a viable alternative to an agricultural system based on exploitation and environmental destruction. Animals have always held a central function in agroecological systems, since when they feed on grass, pests, and weeds, they, in turn, fertilize the soil, improve biodiversity at all levels, and help sequester carbon back into the earth. Animals in symbiotic and balanced relationships with plants, soils, and humans have also formed central parts of cultural and agricultural reproduction for millennia, contributing to much more than just meat production.

On the other hand, the industrial raising of animals through CAFOs (Concentrated Animal Farm Operations) who are force-fed industrially grown grains and soy, contribute to the expansion of GHG-emitting industrial agriculture, causing a greater release of methane and the pollution of air and water sources. It is important to emphasize how these two systems are not at all alike, as meat consumption per se is not the problem, rather it is the industrial meat production model hand in hand with the industrial agriculture model that is responsible for the majority of GHG emissions, animal suffering, and environmental degradation. Therefore, the real solution does not lie in creating substitutes for food, it lies in understanding the needs of the ecosystems we are embedded in and healing our connection with nature.

Real food made through real farming is the direct result of a process of care for the land, animals, and fellow humans that celebrates the connection between food and life. It protects the life of all beings on Earth while also nourishing our health and wellbeing. Artificial food is a direct manifestation of years of food imperialism and colonization that has denied our diverse food knowledge, food cultures, and disregarded the biodiversity of the earth and its ecosystems.

Hope does not lie in pursuing technological innovations such as lab-grown synthetic foods that see nature as a dead and unimprovable technology, but in participating and rejuvenating the earth's natural processes. The question of what we eat, how we grow the food we eat, and how we distribute it has become a survival imperative for the human species and all beings that make up the web of life. When we farm with real knowledge of how to care for the Earth and her biodiversity, when we eat real food which nourishes the biodiversity of the Earth, our cultures, and our gut microbiome, we are then participating in real and living economies that regenerate the well-being of all. All over the world, small farmers and gardeners are already preserving and developing their soils

and their seeds through the practice of agroecology. They are feeding their communities with healthy and nutritious food while also rejuvenating the planet.

Read the article: An Impossible Menu: Fake Food is taking over our tables

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Billions of GMO Mosquitoes Set to Be Released in California, Florida

Billions of GMO Mosquitoes Set to Be Released in California, Florida

> ***The U.S. Environmental Protection Agency approved the world's largest release of genetically***

engineered mosquitoes, despite warnings by public health experts.

by **Center for Food Safety**
sourced from Children's Health Defense
March 8, 2022

In defiance of science and public health concerns, Monday the Environmental Protection Agency (EPA) approved the mass release of billions of experimental genetically engineered (GE) mosquitoes into the U.S.' most populous and agriculturally significant states.

The British biotechnology company Oxitec was granted an experimental use permit for the release of a genetically engineered version of the species Aedes aegypti across Fresno, Tulare, San Bernadino and Stanislaus Counties in California and in Monroe County in Florida.

This will be the biggest release of GE insects in the world.

EPA's approval came despite growing concerns raised by scientists, public health experts and environmental groups about potential impacts of the experimental releases on public health, the environment and endangered species.

No publicly available data supports Oxitec's claims that GE mosquitoes will reduce incidence of mosquito-borne diseases.

An independent peer-reviewed study from Yale University scientists revealed that over two years of continual releases of the GE mosquitoes at a test site in Brazil failed to reduce populations of Aedes aegypti.

The Yale study also found that the GE mosquitoes bred with local Aedes aegypti, resulting in hybrid mosquitoes in the wild that may be more aggressive, more difficult to eradicate and may increase the spread of mosquito-borne disease.

“Scientists have found genetic material from GE mosquitoes in wild populations at significant levels, which means GE mosquitoes are not sterile. GE mosquitoes could result in far more health and environmental problems than they would solve,” said Dana Perls, food and technology program manager at Friends of the Earth, and a California resident.

“EPA needs to do a real review of potential risks and stop ignoring widespread opposition in the communities where releases will happen.”

The experimental release will purportedly investigate whether the GE mosquito can reduce the population of Aedes aegypti mosquitoes – one species that can carry yellow fever, dengue, chikungunya and Zika.

However, California does not have any cases of these diseases, as reported by the Centers for Disease Control and Prevention. In addition, the Aedes aegypti mosquito is not prevalent in California.

“This experiment is unnecessary and even dangerous, as there are no locally acquired cases of dengue, yellow fever, chikungunya or Zika in California,” said Jaydee Hanson, policy director for the International Center for Technology Assessment and Center for Food Safety.

”Releasing billions of GE mosquitoes makes it likely that female GE mosquitoes will get out and create hybrid mosquitoes that are more virulent and aggressive. Other public health strategies, including the use of Wolbachia infected mosquitoes, could better control the Aedes aegypti in California and Florida.”

The EPA did not publicly release any data from Oxitec field trials in Florida or Brazil and key information about health effects, including allergenicity and toxicity, was redacted from the company’s application for a permit.

EPA did not require key scientific assessments, including an endangered species assessment, public health impact analysis or caged trials ahead of any environmental release. The EPA declined to convene a Scientific Advisory Panel as it does for other new pesticides.

“Once released into the environment, genetically engineered mosquitoes cannot be recalled,” said Dr. Robert Gould, president of San Francisco Bay Physicians for Social Responsibility and California resident. “Rather than forge ahead with an unregulated open-air genetic experiment, we need precautionary action, transparent data and appropriate risk assessments.”

Despite strong public opposition, in April 2021, Oxitec and the Florida Keys Mosquito Control Board began the release of half a billion genetically engineered mosquitoes into Monroe County, Florida.

Neither the mosquito control board nor Oxitec informed community residents about the locations of release until three days beforehand, and there was no informed consent by affected community members prior to release.

Following the EPA’s approval, California’s Department of Pesticide Regulation and local mosquito abatement districts will also decide whether to approve the permit for release.

If approved, billions of GE mosquitoes will be released over a 2-year period in 4 counties in California, beginning in 2022, and the current GE mosquito release in Monroe County, Florida, will be extended for another 2 years.

***Center for Food Safety**‘s mission is to empower people, support farmers and protect the earth from the harmful impacts of industrial agriculture.*

The Agriculture Cartel: Cotton, Concentration Camps and Conspiracies

The Agriculture Cartel: Cotton, Concentration Camps and Conspiracies

by **Ryan Matters**, *OffGuardian*
February 1, 2022

In part 1 of this 3-part series ("The True Cost of Rockefeller Agriculture and the New Food Agenda"), we examined a recent Rockefeller report calling for "transformative change" in food production.

In part 2, we will examine the history of modern agribusiness, Bill Gates' plan to centralize control of the world's seed supply and the depopulation threat posed by gene drive technology.

Every day we consume food grown in the toxic chemicals produced by the global agriculture conglomerates, who, like

their pharmaceutical compatriots, may be described as profit-hungry monstrosities, well versed in the art of killing.

As explained by Dr Vandana Shiva in her book Oneness vs the 1%, the agrichemical industry we know today is nothing more than a continuation of the toxic tools and poisons from the post World World 2 labs of IG Farben.

> A century ago, the money and oil of the Robber Barons came together with the finances and toxic technologies from the labs of IG Farben to form the Toxic Cartel that evolved the tools of killing. This is how a century of ecocide and genocide through poisons and toxic chemicals began. Chemicals developed to kill people in Hitler's concentration camps during WWII became the agrichemicals for industrial agriculture when the war ended. This industrial agriculture was then forced on people everywhere."[1]

Interessengemeinschaft Farbenindustrie AG, more commonly knows as IG Farben was a German chemical and pharmaceutical giant formed in 1925. IG Farben was formed from a merger of 6 separate chemical companies – BASF, Bayer, Hoechst, Agfa, Chemische Fabrik Griesheim-Elektron, and Chemische Fabrik vorm.

Two years later in 1927, IG Farben partnered with Standard Oil (one of the largest oil refiners in the world, founded by John D. Rockefeller) to exchange patents and dominate economies on both sides of the Atlantic.

Standard Oil sent IG Farben their patents regarding the coal hydrogenation process and IG Farben reciprocated by offering up their own patents on the process of manufacturing synthetic rubber.

Some years after partnering with Standard Oil, IG Farben helped found the Auschwitz concentration camp, where they used Jewish prisoners as slave labour to produce

synthetic rubber and liquid fuels.

At the end of the war, the Nuremberg War Criminal Tribunal convicted 24 IG Farben executives for crimes against humanity including mass murder and slavery. However, most of them were released within 2-6 years and immediately began consulting for American agritech companies.

IG Farben and its partner corporations, which included Bayer, were Hitler's suppliers of Zyklon-B, a cyanide-based pesticide that was used to murder Jews in the extermination camps.

In 1948, IG Farben bigwig and Nazi party member, Fritz ter Meer, was convicted of "mass murder and enslavement" and sentenced to 7 years in prison. After his early release in 1950, he became chairman of the board of directors for Bayer, a position he held until 1964. What is today called the "Bayer Science & Education Foundation", an initiative that awards scholarships to chemistry students, was originally set up to honour ter Meer.

After merging with Monsanto in a $62 billion dollar deal, Bayer became the largest agrichemical company in the world (The takeover was financed by European taxpayers without them even knowing about it).

Monsanto, an American agrichemical giant and mass-producer of genetically modified crops, was founded in 1901 by John Francis Queeny.

The company's first product was the artificial sweetener, saccharin, which it sold to Coco-Cola. In 1977, the FDA proposed restricting the use of Saccharin on account of research suggesting its consumption was associated with an increased risk of cancer, primarily of the urinary bladder.

Not only is saccharin associated with an increased risk of cancer, but artificial sweeteners of all kinds have been linked with increased rates of diabetes, obesity, intestinal

dysbiosis as well as an acceleration of atherosclerosis and ageing.

During World War 2, Monsanto contributed to research for the Manhattan project, which would eventually lead to the creation of the atomic bombs that were used to murder thousands of innocent people in Japan.

Around the same time, Monsanto became one of the leading manufacturers of polystyrene – a synthetic, non-biodegradable plastic whose production generates massive amounts of hazardous waste.

Moreover, styrene has been linked to adverse health effects in humans, including cancer. The styrene molecule is metabolized to styrene oxide, a highly reactive (and toxic) epoxide that can interact with DNA, causing harmful mutations.

Monsanto was also known for producing DDT, a highly toxic insecticide that played a serious role in the 20th-century polio epidemics.

Despite years of Monsanto propaganda, insisting that DDT was perfectly safe, by 1972 the research indicating its toxicity had mounted to the point that it was banned throughout the US. But this did not dissuade Monsanto from its goal of poisoning the world, for, in the 1960s, they became one of the principal producers of Agent Orange, a herbicide used for chemical warfare during the Vietnam war.

During the 10-year aerial bombardment that saw gallons of Age Orange rain from the Vietnamese skies, millions of innocent people were seriously poisoned, resulting in deaths, disabilities, birth defects, and widespread, irreversible environmental destruction.

Spina bifida, cerebral palsy, missing or deformed limbs and intellectual disabilities were some of the serious birth defects caused by Agent Orange that are still affecting

Vietnamese children today. Agent Orange is also responsible for killing an estimated 300,000 US veterans.

These days, most people know Monsanto as the producer of glyphosate (the active ingredient in "Roundup", a highly toxic herbicide promoted heavily around the world). Glyphosate has been implicated in the rise of food allergies, including "celiac disease", a severe intolerance to gluten causing skin rashes, gut dysbiosis, nausea, diarrhoea, and depression.

Unsurprisingly, there have been virtually no studies conducted in the US, the largest consumer of GMO frankenfoods (Americans eat their bodyweight in GMOs each year), to assess glyphosate levels in human blood or urine.

However, a large study in Europe found quantifiable levels of glyphosate in the urine of nearly half of the participants, all of which were city dwellers who could only have been exposed to glyphosate through food consumption.

The merger of Bayer and Monsanto came alongside the merger of Dow Chemical and Dupont, as well as Syngenta and ChemChina. These mergers placed the vast majority of the global agriculture industry in the hands of just three corporations.

Through these various mergers and acquisitions, the biotech industry has become a modern-day IG Farben – functioning as a singular global chemical-military-industrial complex, the real owners of which are the investment firms like Vanguard and Blackrock.

The mergers are more like musical chairs, organised by the real owners, investment funds like Vanguard, Blackrock, Capital Group, Fidelity, State Street Global Advisors, Norges Bank Investment Management (NBIM), and others. This game of musical chairs has two objectives—to expand markets and shrink liability."[1]

Three-fourths of the world's GMO seeds come from Monsanto

labs. Monsanto extracts royalties for its seeds and the high cost of the seed and chemicals push farmers into a debt trap.

As farmers fall deeper into debt, the wealth of Monsanto grows. There have been cases of GMO seeds blowing over onto the land of unsuspecting farmers who are then sued and forced to surrender their produce. Monsanto illegally introduced its Bt cotton in India in 1995, leading to an epidemic of suicide in regions along India's cotton belt.

ROCKEFELLER AGRICULTURE

The role of the Rockefellers in the rise of chemical farming and GMOs is not to be understated, for they were instrumental in the promotion of new agricultural technologies that resulted in modern "agribusiness".

This began during the early days of World War 2 when the Rockefeller Foundation funded a secret policy group called the War and Peace Study Group of the New York Council on Foreign Relations. The purpose of this group was to shape the US post-war economy in order for it to replace the British Empire as the new global superpower[2].

It was within this context that John D. Rockefeller III was pursuing his eugenics agenda through the American Eugenics Society as well as his Population Council. At the same time, his brother Nelson was seeking new methods to increase worldwide food production.

One of the post-war goals of the War and Peace Study Group was for the US to dominate global agriculture and food production. This led to the infamous "green revolution" promoted in India and other developing countries in South America and parts of Asia.

One of the results of this increased agricultural efficiency was the mass exodus of peasants from the farmlands to the city slums where they were exploited for cheap labour by various US

multinational companies[3].

This elite propensity for experimenting on more "primitive" communities represents the occult contempt for the "lower" orders of society.

Nowhere is this contempt more obvious than in the "philanthropy" of Bill Gates who, in 2019, unleashed genetically modified mosquitos in Burkina Faso under the fallacious pretext of "fighting malaria". But more on Gates and his gene drive technology later.

Before moving on, it's important to consider the parallels between eugenics and genetics, which, some researchers have branded the "new eugenics". In the 1980s, researchers at the Rockefeller Foundation were determined to map the structure of the gene and, according to Philip Regal, the ultimate motivation behind this quest was "to correct social and moral problems including crime, poverty, hunger and political instability".

As William Engdahl notes, research into genetics was carried forward by generous grants given to up and coming scientists, eager to make a name for themselves in a new and exciting field:

> Many of the younger generation of biologists and scientists receiving Rockefeller research grants were blissfully unaware that eugenics and genetics were in any way related. They simply scrambled for scarce research dollars, and the dollars all too often had the name and strings of the Rockefeller Foundation attached."[3]

Perhaps a fuller understanding of the Rockefeller pursuits in eugenics and genetics is gained by seeing the two as separate but related parts of a materialist agenda mirroring the alchemical pursuit for the transformation of man. Regal describes this alchemical pursuit as follows:

> From the perspective of a theory reductionist, it was logical that social problems would reduce to simple biological problems that could be corrected through chemical manipulations of soils, brains, and genes. Thus the Rockefeller Foundation made a major commitment to using its connections and resources to promote a philosophy of eugenics."[3]

In relation to this Rockefeller initiative, Regal goes on to mention Francis Bacon's *New Atlantis*, a highly esoteric work that speaks of a hidden scientific elite with the goal of "enlarging of the bounds of human empire, to the effecting of all things possible".

In Bacon's work, "Atlantis" refers to America. Therefore, as noted by Dr Farrell and Dr. De Hart in their book "Transhumanism: A Grimoire of Alchemical Agendas", according to Bacon, America "was to become the great laboratory for a grand esoteric experiment being run by a hidden and ancient elite."[2]

Now let us return to the history of Rockefeller involvement in global agriculture…

It was in 1941 when Nelson Rockefeller and then US vice president, Henry Wallace sent a group to Mexico to meet with the Mexican government regarding the possibility of increasing food production. Noteworthy is that Henry Wallace was a high-ranking Freemason who convinced fellow Freemason, President Franklin D. Roosevelt to place the occult symbol of the uncapped pyramid and the eye of Horus on the US one-dollar bill[2].

The Rockefeller take over of global agriculture involved the promotion and spreading of genetically modified crops around the world. But in order for their GMOs to catch on, the Rockefellers needed to manipulate the perceptions of scientists engaged in genetic and environmental research.

They did this by deploying US university professors to select Asian universities to train a new generation of scientists. The best of these graduates were then sent to the US to pursue a doctorate in agricultural sciences, ensuring they were wholly indoctrinated into the Rockefeller outlook on agriculture and food production[2].

In the 1970s, the Rockefeller Foundation, with aid from the World Bank, FAO and UNDP, established a worldwide network of agricultural research centres, called CGIAR ("Consultative Group for International Agricultural Research"). The alleged goal behind the creation of CGIAR was to coordinate global agricultural research in an effort to reduce poverty and improve food security in developing countries.

Thus, the Rockefellers constructed a global network of scientists and institutions ready to play their part as ambassadors of this new agricultural paradigm. This had the result of "socially engineering" a scientific culture that promoted the use of genetically modified crops and new agriculture technologies.

The Rockefellers went on to invest hundreds of millions of dollars into genetic research that would further the development of GMO crops and increase their uptake around the world. Thanks to patent law, this transformed many a humble farmer into a captured slave, indebted to big agribusiness conglomerates.

A similar tactic has been used in Africa where the Gates-funded Cornell Alliance for Science (CAS) trained 112 African scientists to fight for GMOs and corporate involvement in farming.

The CAS is linked to the Open Forum on Agriculture Biotechnology (OFAB) which in turn is an offshoot of the African Agriculture Technology Foundation (AATF), an organization founded by the Rockefellers.

Perhaps the biggest boon for the agribusiness industry came n 1986, when US Vice President Herbert Bush hosted a “special White House strategy meeting”, inviting executives from Monsanto to discuss plans relating to the deregulation of agritechnologies.

This meeting resulted in the adoption of “substantial equivalence” – the erroneous notion that agronomy (traditional methods of animal/plant breeding) was “substantially equivalent” to genetic modification – thereby evading the increasing pressure from scientists calling for more rigorous testing of GMO crops[3].

Thanks to the Rockefellers, the US people are now the largest consumers of GMO foods. In fact, the research literature clearly indicates that large populations around the world have been forced to consume GMO toxins despite a complete lack of any reliable safety data, and overwhelming evidence to suggest that such toxins cause biological harm.

Animal studies have demonstrated that exposure to GMO toxins causes an increase in inflammatory cytokines associated with nearly all human diseases. If these changes also occur in humans then this would go some way towards explaining the massive increase in autoimmunity, autism, and other chronic and allergic diseases[4].

Both the WHO and the American Medical Association (AMA), which, ironically, claims to “promote the art and science of medicine and the betterment of public health” have been utterly complicit in allowing this global experiment to take place[4].

Though this shouldn’t come as a surprise considering the profound early influence that the Rockefeller Foundation had on the AMA and their role in the capture of American medical education.

This began with the publishing of the “Flexner Report” in 1908

which lay the groundwork for a reformation of medical education, encouraging the acceptance of a drug-based curriculum. Universities that failed to conform to the tenets of drug-based medicine and research were deprived of their funding and eventually forced to close down[5].

BILL GATES AND THE AGENDA FOR CONTROL

Since 2003, the Gates Foundation has poured nearly $6 billion into global agriculture. In 2017, Gates became the largest funder of CGIAR, which now holds the largest and most widely used collections of seed crops in the world. Gates' interest in world agriculture serves two purposes:

1. To centralize control of the world's seeds supply and,
2. To shift global farming towards a reliance on technology and external inputs, sold to farmers by the agritech conglomerates in which he holds stock.

According to Navdanya:

> By far the largest funder of the CGIAR, Gates has successfully accelerated the transfer of research and seeds from scientific research institutions to commodity-based corporations, centralizing and facilitating the pirating of intellectual property and seed monopolies through intellectual property laws and seed regulations."

In 2019, CGIAR began a process of reformation with the aim of consolidating its 15 cooperating centres into a single, legal entity, presided over by an international board.

The impetus for this restructuring came from the organization's largest funders, notably the Gates Foundation. CGIAR claims the change is necessary because,

> "A unified and integrated CGIAR will be much better equipped to tackle threats to food, nutrition and water security posed by climate change."

The recommendation for this dramatic restructuring came from CGIAR's System Reference Group (SRG), at the time co-chaired by Tony Cavalieri, Senior Program Officer at the Gates Foundation, and Marco Ferroni, ex-head of the Syngenta Foundation.

In other words, the CGIAR reformation will result in greater centralization of the global agriculture industry, with a greater blurring of lines between the private and public sectors.

In direct contradiction to Gates' claims of helping smallholder farmers, a detailed analysis of the grants given by the Gates Foundation revealed that the majority went to research institutes and not farmers.

These grants were also directed towards lobbying groups that pressure government to institute policies that favour big agribusiness such as introducing laws allowing the privatization of seeds.

One of Gates' primary objectives is to open up the African market and institute a corporate takeover of the region. In aid of this goal, he founded AGRA (The Alliance for a Green Revolution in Africa) in 2006. Through the promotion of commercial seeds and inorganic fertilizers, AGRA set out to double crop productivity, increase incomes and halve food insecurity by 2020.

In July 2020, Timothy Wise of Tufts University published an analysis of AGRA's impact in Africa. His research found that not only did AGRA fail in reaching a significant number of smallholder farmers (a finding that is consistent with the analysis on Gates Foundation grants, the majority of which are directed towards scientists, not farmers), but that undernourishment increased by a startling 30% in AGRA countries.

Overall staple crop yields have grown only 18% over 12

> years. Meanwhile, undernourishment (as measured by the FAO) has increased 30% in AGRA countries. These poor indicators of performance suggest that AGRA and its funders should change course."

Many Africans are now beginning to question Gates' involvement in the region, calling for the end of his industrial agriculture model. In September 2020, SAFCEI (Southern African Faith Communities' Environment Institute) sent an open letter to the Bill and Melinda Gates Foundation warning that the Foundation's current approach to food security will do more harm than good. The letter states that

> The Gates Foundation promotes a model of industrial monoculture farming and food processing that is not sustaining our people".

In June 2021, AFSA (The Alliance for Food Sovereignty in Africa) wrote to AGRA's major institutional donors calling for them to shift their support away from big agribusiness and towards sustainable, agroecological approaches to farming.

Together, AFSA's member network represents millions of African citizens across 50 countries. AFSA stated that they received very few responses to their letter and that none could provide any evidence that AGRA had achieved any of its stated aims.

In the shadow of AGRA's failure, in 2020, the Gates Foundation launched "Gates Ag One", a subsidiary of the Gates Foundation. The alleged aim of Gates Ag One is to "Advance innovations that improve agricultural outcomes for smallholder farmers".

By "innovations", they evidently mean the promotion of GMOs as Gates Ag One backs multiple research labs pursuing genetic engineering technologies aimed at increasing yields.

Gates Ag One is headed up by Joe Cornelius, a former executive at Bayer, and Al Gallegos, who has previously held positions at both DuPont and Monsanto.

Thus “Gates Ag One”, though claiming to empower small farmers will actually lead to the further enrichment of corporations. As Navdanya writes:

> They are hoping to artificially accelerate the process of introducing “new technologies” to farmers through increased investment and public and private partnerships while having total freedom in their business model as a separate entity to the Bill and Melinda Gates Foundation.”

The rhetoric expounded by Gates and his posse of corporate backers is that smallholder farmers are unproductive and unable to provide for a rapidly evolving world. Gates claims that what they really need is *“new digital tools and technologies”*.

However, considering the failure of the Green Revolution, the soil crisis and the widespread health effects of chemical inputs, is that really true? Or is Gates Ag One simply the latest attempt to bring world agriculture firmly under the control of Big Agribusiness?

GENE DRIVE ORGANISMS AND SCULPTING EVOLUTION

The Gates Foundation, along with US military group DARPA, has been the driving force behind the development of gene drive technology. Gates’ funding of gene drive technology began in 2005 with an $8.5 million grant given to Austin Burt and Andrea Chrisanti, biologists working at Imperial College, London.

This line of development eventually led to the invention of CRISPR in 2015, a genetic engineering tool that allows scientists to cut, insert and replace genes in a DNA sequence. According to a report by ETC Group (Action Group on Erosion, Technology and Concentration),

> Gene drive organisms are created by genetically engineering a living organism with a particular trait, and then

> modifying the organism's reproductive system in order to always force the modified gene onto future generations, spreading the trait throughout the entire population."

As mentioned earlier in this article, one of Gates' initiatives led to the release of genetically modified mosquitos in Burkina Faso. However, this was but the first phase in a long-term project, the third phase of which is the release of GDO mosquitos (modified via gene drive technology). ETC Group explains the significance of this [emphasis added]:

> …A a gene drive is designed to interfere with the fertility of the mosquito: essential genes for fertility would be removed, preventing the mosquitoes from having female offspring or from having offspring altogether. These modified mosquitoes would then pass on their genes to a high percentage of their offspring, spreading auto-extinction genes throughout the population. **In time, the entire species would in effect be completely eliminated**."

Following calls in 2016 for a global moratorium on the use of gene drive technology, the Gates Foundation paid $1.6 million to Emerging Ag (a private PR firm) to coordinate the push-back against proponents of the moratorium.

> Emerging Ag recruited and coordinated over 65 experts, including a Gates Foundation senior official, a DARPA (Defense Advanced Research Project Agency) official, and government and university scientists, in an attempt to flood the official UN process with their coordinated inputs."

Another group developing gene drive technology is the Sculpting Evolution group, run out of the Gates-funded MIT Media Lab, the same institution that received donations from Jeffery Epstein, and the same institution that houses Robert Langer, co-founder of the controversial biotech company, and Covid-19 "vaccine" manufacturer, Moderna.

The leader of Sculpting Evolution is Kevin Esvelt, one of the pioneers of CRISPR and (allegedly) the first person to identify the potential for gene drive systems to alter wild populations of organisms.

Esvelt's lab seeks to apply "robotics and machine learning to evolve new molecular tools and techniques". Another of their aims is to "Work with the guidance of interested communities to safely and humanely edit wild populations and ecosystems".

The Sculpting Evolution Group also advises governments on *"pressing issues of biodefense"*.

> Our challenge is to prevent the immense power of biotechnology from being misused. Historical pandemics killed tens of millions of people, and engineered agents could be even more destructive."

One of the ways Sculpting Evolution proposes thwarting future pandemics or bioweapon attacks is by the construction of a "Global Nucleic Acid Observatory" (NAO) to "monitor humanity and the environment for any and all biological threats". The group claims that by continual genomic testing at sites around the world, the "NAO could detect any virus or invasive organism undergoing exponential growth".

In support of this radical proposal, the group references a case study from Israel [emphasis added]:

> In 2013, Israel's poliovirus-specific environmental monitoring program detected a nascent outbreak in wastewater samples from the town of Rahat using plaque assays **and swiftly initiated mass oral vaccination**, eliminating the virus before even a single child came down with paralytic symptoms".

The disturbing nature of such a system thus becomes immediately apparent: governments would be able to initiate vaccination programs and institute other pandemic measures

without the need for, or proof of, an actual threat, only the claimed "detection" of one. This begs the all-important question: who would decide when a "threat" is detected, and on what basis?

While virologists expound on the dangers of zoonotic coronaviruses and climate scientists rage on about the evils of carbon dioxide, the *real* environmental crises go largely unnoticed. And perhaps that is the point. We will explore these other crises – crises that threaten our very existence as a species – in part 3.

To be continued…

You can read part one here.

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Sri Lanka's Shift Towards Organic Farming With Ban of Agrochemicals

Sri Lanka's Shift Towards Organic Farming With Ban of Agrochemicals

by **Navdanya International**
June 16, 2021

On April 27, 2021, the Sri Lankan government decided to ban importing chemical fertilizers, pesticides and herbicides and to replace them with organic inputs and methods. This decision was supported by many, including the Global Alliance for Organic Districts, who petitioned for the President's collaboration in order to include Sri Lanka to an international network of local organic districts. Sri Lanka's shift towards organic farming was also heavily discussed by both local and foreign researchers and activists. On the 7th and 9th of June, Dr. Vandana Shiva, President of Navdanya International, took part in two online workshops on the Sri Lankan government's project to go towards organic agriculture and ban agrochemicals.

The first webinar– "*Regenerative Organic Farming for Economy*

of Permanence and Prosperity for All", was organized by the National Institute of Plantation Management (NIPM), a Sri Lankan government institute conducting research, consultancy and training on plantation management. The webinar was on the subject of regenerative organic farming for the economy of permanence and prosperity for all. Dr. Shiva noted that organic farming is not a new method, but that it was a part of the traditional farming techniques in certain countries including Sri Lanka. According to her, Sri Lanka's shift to become a 100% organic country means turning to an economy of permanence and prosperity for all beings, one that does not destabilise the climate and instead protects all species.

The second international webinar– "*The Commitment of the Sri Lankan Government to Go Organic*", organized by IFOAM Asia, also allowed speakers to discuss the commitment of the Sri Lankan government in making a shift towards organic agriculture. Apart from Dr. Vandana Shiva, other speakers included Andre Leu, director of Regeneration International, Dr. Hans Herren, president of the Millennium Institute, and Dr. Ranil Senanayake, founder of the International Analog Forestry Network. They all endorsed Sri Lanka's decision, albeit the remark that this huge step forward needs to be implemented according to a plan which ensures a smooth transition for farmers and the local economy. Dr. Shiva said: "The reason I am glad about the approach of the Sri Lankan government is because it connects three things, namely stopping dependency on imports, non-sustainability and the ruination of the ecosystems and of health. The minute we connect sustainability and health, organic becomes the only way we can move forward."

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Swiss Citizens Are Called to Vote on June 13th for the Outlawing of Synthetic Pesticides

Swiss Citizens Are Called to Vote on June 13th for the Outlawing of Synthetic Pesticides

Pesticides: The Swiss Popular Vote Reminds Us That Citizens Have the Ultimate Say

by **Vandana Shiva**, *Navdanya International*
June 8, 2021

On June 13, 2021, Swiss citizens are called to vote for the outlawing of synthetic pesticides. A citizens' initiative, turned referendum, supported and endorsed by Navdanya International on the path towards a true agrofood systems transition. In case the 'Yes' vote should win, the ban would extend from agriculture, to private use, and to the import and marketing of foodstuffs containing synthetic chemicals. Voters will also have to decide on the proposal to remove public subsidies for farmers who are not willing to convert to ecological production practices.

The initiative holds significant symbolic value as Switzerland is home to one of the most powerful agribusiness corporations in the world, Syngenta. Recently acquired by ChemChina, Syngenta was recently at the center of the Paraquat

Papers scandal, named after the herbicide produced by the company and considered one of the most toxic and dangerous in the world.

The Swiss initiative is intended to inspire similar actions in other countries.

The president of Navdanya International, Vandana Shiva, commented: “We are members of one Earth family. Poisons and pesticides kill insects and biodiversity, they are destroying the infrastructure of life. Poisons are causing a health emergency, as chronic diseases such as cancer, autism, infertility are connected to toxins in food and environmental pollution. Through knowledge manipulation and propaganda, the Poison Cartel also undermines independent science and threatens democracy by trying to silence citizens’ efforts towards pesticide-free communities. The health of the planet, her biodiversity, our health makes poison-free food and farming a survival imperative. As our work in Navdanya over 3 decades has shown, we can grow more and better food through biodiversity-intensive, chemical-free organic farming. I congratulate and support the Swiss Referendum as a significant step towards Earth Democracy to defend the rights of the biodiversity of species, including all human beings. Poison free food and farming is our birthright.”

Navdanya International

> *Good news: Vandana Shiva supports our initiative! «We are members of One Earth Family. Poisons and Pesticides kill insects and biodiversity, they are destroying the infrastructure of life. Poisons are causing a health emergency. (…) (1/6) pic.twitter.com/Pg0G7ovxDH*
>
> *— #PestizidinitiativeJA am 13. Juni (@LebenstattGift) June 4, 2021*

cover image credit: acandraja / pixabay

Glyphosate Associated With 503 Infant Deaths Per Year in Brazil – Study

Glyphosate Associated With 503 Infant Deaths Per Year in Brazil – Study

> ***Researchers find deterioration in health conditions at birth in areas downstream from intensive GM soy production***

by **GM Watch**
June 2, 2021

The following is a slightly shortened version of a BBC Portuguese-language report on a carefully conducted study published in 2020, which has been largely overlooked till now. The study shows that glyphosate contamination of water, driven by expanded GM soy production, leads to a large increase in infant mortality, as well as a higher probability of low birth weight and a higher probability of premature births.

Glyphosate is the most popular pesticide in Brazil. It represents 62% of the total herbicides used in the country

and, in 2016, sales of this chemical in thousands of tons were higher than the sum of the seven other pesticides most commercialised in the national territory.

Used on GM glyphosate-tolerant soybeans, the herbicide contributed to Brazil becoming the largest producer of the grain in the world, surpassing the United States.

As a result, the GDP (Gross Domestic Product) of soy-producing states has grown far above the economy of the country as a whole in recent decades. And the income generated by agricultural activity has stimulated other economic sectors in the producing regions.

But the new study, carried out by researchers at the universities of Princeton, FGV (Fundação Getulio Vargas) and Insper, reveals that this generation of wealth has a high cost. According to the study, the spraying of glyphosate on soybean crops led to a 5% increase in infant mortality in southern and central-western municipalities that receive water from soybean regions.

This represents a total of 503 more infant deaths per year associated with the use of glyphosate in soy production.

“There is great concern about the effects of herbicides on populations that are not directly involved in agriculture, who are not directly exposed to pesticides,” Rodrigo Soares, full professor at the Lemann Foundation Chair at Insper and one of the authors of the study, alongside Mateus Dias (Princeton) and Rudi Rocha (FGV), told the BBC.

“Although these substances are present in the body of more than 50% of the western population, we do not know if this is harmful or not,” added the researcher.

“Our article is one of the first to credibly show that this should indeed be a concern, as it demonstrates contamination through watercourses in areas far from the areas of use, in a

way that has never been done before.”

Bayer, owner of Monsanto since 2018 – the company that launched glyphosate on the market in 1974, under the trade name Roundup – assesses the study as “unreliable and poorly conducted” and says the safety of its products is the highest priority of the company.

Aprosoja (Brazilian Association of Soy Producers), in turn, states that “the conclusions pointed out in the study do not seem to be supported by the scientific facts and reality found in the practice of Brazilian agriculture”.

Finally, CropLife Brasil, which represents the pesticide sector in the country, said that “for more than 40 years, glyphosate has undergone extensive safety tests, including 15 studies to assess the potential toxicity to human development and 10 studies to assess potential reproductive toxicity”.

“Regulatory authorities in Brazil, Europe, the USA and around the world have reviewed these studies and concluded that glyphosate does not pose a risk to human development or human reproduction,” said the organisation.

The use of glyphosate in Brazil

The most widely used herbicide in the world today, glyphosate was discovered by Monsanto in 1970. The pesticide is used to eliminate weeds in agriculture, acting by blocking an enzyme that is part of the synthesis of essential amino acids for plant development.

Glyphosate is a non-selective herbicide – that is, it kills most plants. Because of this, it became widely used on crops genetically modified to resist the chemical, such as GM soybeans, marketed by Monsanto under the name Roundup Ready. Glyphosate herbicides were first sold by the company under the name Roundup. In 2000, however, the glyphosate patent expired, and the product is currently offered by several manufacturers

under different trade names.

Genetically modified soy was first marketed by Monsanto in the United States in 1996.

In Brazil, a first authorization for use was granted in 1998, but was almost immediately suspended by the courts. In 2003, the government granted a temporary marketing authorization, which required the incineration of the remaining seeds to prevent their reuse in the following year.

In September of that year, a provisional measure allowed producers to reuse the seeds and, in October 2004, the temporary sale concession was renewed. Finally, in March 2005, the Biosafety Law permanently authorized the production and sale of transgenic soybean seeds.

The use of genetically modified soy has spread rapidly in Brazil since 2004, representing 93% of the grain-planted area in the mid-2010s, according to data from the United States Department of Agriculture (USDA), cited by the study of researchers from Princeton, FGV and Insper.

Along with the productivity gain of the soybean crop, the use of glyphosate grew strongly in the country, more than tripling in volume between 2000 and 2010, from 39,500 tons to 127,600 tons.

Differences between Brazil and other countries

In the European Union, since 2015, there has been a wide debate about the possibility of banning the use of glyphosate, after a report by the International Cancer Research Agency (Iarc) that year classified the substance as “probable human carcinogen”, that is, as a possible cancer-causing agent.

In the United States, Bayer has already disbursed billions of dollars in deals to settle lawsuits over allegations that glyphosate causes cancer.

“In the European Union, unlike Brazil, the registration of pesticides is always for a finite time. Here, when a pesticide is registered, this registration is eternal, until it eventually comes to be questioned”, explains Alan Tygel, member of the coordination of the Permanent Campaign Against Pesticides and For Life.

In Europe, currently, the authorization for the use of glyphosate is valid until December 2022. Austria became the first country in the region to ban the product in 2019, while Germany plans to do without the herbicide from 2024.

Another important difference, according to the activist, concerns the maximum allowed value of concentration of the pesticide in water, so that it is considered suitable for human consumption.

“Brazilian water can be considered potable containing up to 500 micrograms of glyphosate per litre, while water in the European Union can have a maximum of 0.1 micrograms of glyphosate,” said Tygel. “So, the Brazilian limit is 5,000 times higher than the European Union limit.”

If these existing regulatory differences were not enough, Brazilian agribusiness has been pressing in recent years for the approval of the Bill of Law 6,299/2002, which eases the rules for inspection and application of pesticides.

In addition, within the federal government there has been a change in the correlation between forces opposed to and in favour of the use of pesticides.

“Until 2016, there was within the government a certain balance of forces between agribusiness, family farming and public policies to encourage agroecology,” said Tygel.

“From that year on, one of the first actions of the Michel Temer government [MDB] was to end the Ministry of Agrarian Development, which developed these organic agriculture

policies. Since then, we have seen an exponential increase in the number of pesticide registrations," he said.

In 2020 alone, Brazil approved the registration of 493 pesticides, the largest number ever documented by the Ministry of Agriculture, which has compiled this data since 2000.

Glyphosate and infant mortality

The authors of the study "Down the River: Glyphosate Use in Agriculture and Birth Outcomes of Surrounding Populations" say that they decided to study the relationship between pesticide and infant mortality due to the heated debate over the use of genetically modified seeds and their combination with herbicides.

"We thought the debate was very passionate and very uninformed," says Rodrigo Soares, from Insper. "Then we realized that the expansion of GM soy in Brazil, mainly in the Midwest and the South, as it was very fast and very marked after the introduction of the GM seeds, could be an interesting context for analysis."

The regulatory change that allowed the use of transgenic soybean seeds in Brazil has generated what is called in economics a "natural experiment" – an event brought about by external causes, which changes the environment in which individuals, families, companies or cities operate, and that makes it possible to compare groups affected and not affected by this event.

"One concern that existed is that there could be water contamination, since toxicological studies in the United States, Argentina and Brazil detected the presence of glyphosate in rivers, but in a one-off, non-systematic way," says Soares.

"To evaluate this, we used information about the hydrographic basins in the country and the relative position of the

municipalities – above or below areas of intensive use of glyphosate," explained the researcher.

"It was a way of understanding how the expansion of the use of transgenic soy and glyphosate in a given municipality could affect the municipalities that receive water that passes through that region where pesticides are used."

What the researchers did then was to analyze, for the period between 2004 and 2010, when the greatest expansion of transgenic soybean production occurred in Brazil and the use of glyphosate tripled, the birth statistics of these municipalities "downstream" from areas of use intensive herbicide.

"What we have shown is that there is a deterioration in health conditions at birth in these municipalities downstream from the municipalities that expanded soy production," said the professor at Insper.

Within this deterioration in health conditions at birth are: a higher probability of low birth weight, a higher probability of premature births and – the most serious – an increase in infant mortality.

"We have also produced a series of other empirical analyzes to show that this was in fact associated with water and that this in fact appears to be associated with the expansion of soy."

Isolating the effect of glyphosate

For example, comparing data from municipalities "downstream" with municipalities "upstream" – which therefore do not receive water that has passed through areas of use of glyphosate – the researchers find that municipalities "upstream" are not affected by this worsening of birth statistics.

The researchers also demonstrate that the negative effects on health outcomes at birth are particularly strong for

pregnancies most exposed to the period of application of glyphosate, which in Brazil typically occurs between October and March, since soybeans are planted in the country between October and January.

The worsening of birth data is also greater when it rains more in the glyphosate application season, which the researchers showed by crossing health statistics with rainfall data. This finding is in line with the idea that more of the product reaches the rivers when soil erosion by rain is most significant.

Mateus Dias, a doctoral student at Princeton University and coauthor of Soares in the study, explained the researchers' decision to analyse municipalities downstream and upstream, instead of the municipalities that apply the glyphosate itself.

"Glyphosate use has an impact on soybean productivity, and this may end up affecting child mortality in that municipality in other ways – for example, higher productivity can generate higher income and this will reduce child mortality," he said.

The researchers also assessed whether the expansion of soybeans affected soil erodibility due to the advancement of agriculture over forested areas.

"We showed that this did not happen, because these areas that started to plant soy seem to have been pastures before, so there was no radical change in vegetation and consequently, there was no significant change in soil erodibility," says Dias.

Study results may contribute to better regulation

According to the researchers, the objective of the study is not to "demonise" glyphosate, but to contribute to an improvement in public policies to regulate the use of pesticides in the country.

“We know what the use of agricultural substances in general has meant throughout human history – fertilizers, herbicides, pesticides. They have indeed enabled a revolution in terms of agricultural production and, in the net result, I believe that the effect was very positive,” said Soares, from Insper.

“We only have the production we have today, with its impact on the price of food and on the populations involved in agriculture that benefit from productivity gains, because of these substances,” he adds.

“This does not mean that we should not be aware of the potential negative effects,” he saod, defending changes in the regulations for the use and management of pesticides and the protection of water courses and water tables.

Alan Tygel, of the Permanent Campaign Against Pesticides and For Life – created in 2011 and composed of more than a hundred social movements, trade unions and class entities, NGOs, cooperatives, universities and research institutions, has a more radical opinion.

“We believe that the central objective is in fact to end the use of these substances, especially since today there is no doubt about the technical capacity to produce food without the use of chemical and synthetic pesticides,” the activist said.

According to him, the campaign’s proposals are contained in a bill (PL 6670/2016), which institutes a National Pesticide Reduction Policy, with measures that range from the ban on aerial spraying, through state support for agroecology, to the ban on pesticides banned in their countries of origin and the end of tax exemptions for pesticides.

“We will fight for every small gain that we may have, because we know that each percentage less of pesticides used results in lives saved,” says Tygel.

“But we know that there is no possible coexistence between

organic production and the massive use of pesticides. The path that we envision is a production model that can be adopted nationally and is totally free of pesticides and transgenics.”

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The study:

Down the river: Glyphosate use in agriculture and birth outcomes of surrounding populations
Mateus Dias, Rudi Rocha, Rodrigo R. Soares
Latin American and the Caribbean Economic Association
Dec 2020
http://vox.lacea.org/files/Working_Papers/lacea_wps_0024_dias_rocha_soares.pdf

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IG Farbensanto’s Scheme to Limit Liability Shot Down

IG Farbensanto’s Scheme to Limit Liability Shot Down

by **Joseph P. Farrell**, *Giza Death Star*
May 31, 2021

You may be wondering what’s been happening to I.G. Farbensanto lately. It’s been a while since we’ve heard from, or about, them, so it may be worthwhile to newer readers to apprise them of whom we’re talking about. I.G. Farbensanto is our nickname for Big Agribusiness, and we used to call it Mon(ster)santo, until the big German chemical firm Bayer – a former component

of I.G. Farben, the notorious German chemicals cartel that included not only Bayer, but BASR (also a still existing company, *Badische Anilin und Soda-Fabrik)* and some other companies – Bayer bought Monsanto (and Monsanto's legal problems) a few years ago. Accordingly, we changed our nickname for Big Agribusiness to IG Farbensanto. Our other reason for the monikers was the dubious history of Big Agribusiness and its practices regarding GMOs, which I assume most readers here are familiar with.

So now we come to the story, shared by M.W.:

https://usrtk.org/monsanto-roundup-trial-tracker/judge-shoots-down-bayers-plan-to-limit-future-roundup-legal-liability-issues-harsh-criticism/

Here's the story in a nutshell:

> *The federal judge overseeing nationwide Roundup litigation on Wednesday denied Bayer's latest attempt to limit its legal liability from future cancer claims associated with its glyphosate-based herbicides, citing numerous "glaring flaws" in a settlement proposed to apply to Roundup users who have not yet sued the company but may want to do so in the future.*
>
> *Saying parts of the plan were "clearly unreasonable" and unfair to cancer sufferers who would be part of the class settlement, U.S. Judge Vince Chhabria castigated Bayer and the small group of lawyers who put the plan together in conjunction with Bayer.*
>
> *He pointed out that the company has been "losing trials left and right" in claims brought by people suffering from non-Hodgkin lymphoma (NHL) who alleged exposure to Monsanto's Roundup and other glyphosate-based herbicides were the cause.*
>
> *Bayer has owned Monsanto since 2018 and has been struggling to defend the cancer claims ever since. Cancer victims have won three trials held to date, and tens of thousands of other*

> *plaintiffs have filed lawsuits alleging exposure to Monsanto's herbicides caused them to develop NHL while Monsanto spent decades hiding the risks.*
>
> …
>
> *Judge Chhabria said in his decision that the company's desire to set up a "science panel" to determine whether or not the herbicides actually cause cancer rather than leave that question to future juries is because of the trial losses the company has so far suffered.*
>
> *The "reason Monsanto wants a science panel so badly is that the company has lost the 'battle of the experts' in three trials, the judge wrote in his order. "At present, the playing field on the issue of expert testimony related to causation is slanted heavily in favor of plaintiffs."*

Gee… fancy that. A multinational corporation which was formerly a part of I.G. Farben seeks to avoid legal liability for its products? Color me *not* surprised.

The article goes on to mention various other plans I.G. Farbensanto has for avoiding its mounting legal problems.

Here I have a suggestion for the I.G. Farbensanto board: why not take a page out of Big Pharma's playbook, and invest heavily (and covertly) in gain-of-GMO-function research? This could easily be tied to quackcine research ala the suggestion of some scientific papers a few years ago where this very thing was being proposed: GMOs doubling as quackcines. With a few donations into the right pockets, one might be able to get the National Institute of Health, the Center for Disease Control, and the World Health Organization on board. At this point, you could hire a couple of Harvard chemistry professors, and locate your research facility in – oh, I don't know, say, in Wuhan, China – and perhaps even be able to create a quackcine which is the "only" cure for a new kind of

virus (that you could also support gain-of-function research into). Then you could use all of your influence on the propotainment media networks (which get lots of advertising revenue from you to begin with) to "fudge the numbers" a bit, and create a worldwide campaign of fear, while simultaneously getting your newly installed puppet in the White House to approve a slap-dash emergency GMO-quackcine approval plan (you could maybe call it Operation Warp Speed), bypassing the normal long-term trials, and, for good measure, exempting your firm from any liability for any "adverse GMO consumption reactions" because your new plants were rushed into production because the world was facing a *crisis*. On the way to achieving all this, you could also persuade your rubber glove company to support a campaign of food distancing, and wearing rubber gloves at all times, especially while dining. You could also persuade social media platforms to hire "fact checkers" in return for some carefully laundered donations, and censor any contrarian views. This way you won't have to worry about any pesky lawsuits from whatever long-term effects of your products as might pop up in a few years.

In the meantime, one way to implement this would be to set up liaison committees with with various Big Pharma companies, to learn their techniques for avoiding legal liabilities for dubious products. While doing this, you could also donate heavily to the campaigns of Congressmen and Senators, and get special legislation passed to limit your liability, and establish "GMO courts" resembling "vaccine courts" to ensure that your liability is strictly limited.

Just a thought.

See you on the flip side…

Connect with Joseph P. Farrell

Important Court Ruling in Argentina in Favor of the Freedom of Seeds and Nature

Important Court Ruling in Argentina in Favor of the Freedom of Seeds and Nature

by **Naturaleza de Derechos**
sourced from Navdanya International
May 15, 2021

The Federal Civil and Commercial court of the City of Buenos Aires rejected the lawsuit filed by the Monsanto/Bayer company in which it claims patent rights regarding seeds.

This is a legal claim filed in early 2016 by Monsanto (a firm absorbed by the Bayer corporation in 2017) against the National Institute of Industrial Property (INPI), in order to be granted a patent application for what it considers an invention that refers – according to the agribusiness corporation – to a novel artificial DNA sequence that encodes a protein tolerant to the herbicide glyphosate and its use to prevent gene silencing in plants.

The case is part of a triad of legal actions for patent rights over genetically modified seeds focused on the claim of property rights over genetic sequences, initiated and activated by the firms Monsanto and Bayer (now unified in Bayer) as of 2016, following the ruling of Chamber III of the Civil and Commercial Chamber of the City of Buenos Aires, which in November 2015 rejected Monsanto's main lawsuit in

which it claimed the patent on a double-stranded recombinant DNA molecule that gives plants tolerance to the herbicide glyphosate and plant cells with the insertion of such molecule (the plant itself).

With the patent claim based on genetic sequences – no longer of a DNA molecule – Bayer/Monsanto consider that they can circumvent the Chamber's decision under the argument that genetic sequences are artificial constructions made in the laboratory, and therefore, they would be patentable subject matter.

In that decision, the Chamber was forceful, stating that the recombinant DNA molecule, the plant cells transformed by it and the plants generated from the latter, are not included in the protection provided by the patent system, since they do not comply with the provisions of the law. The court considered that any technical contribution made in the field of biotechnology that has an industrial application is not necessarily patentable, since the mere innovation is not comparable to inventiveness, since it is only a modification of matter already existing in nature that does not constitute any human creation, an essential requirement for patenting under the law.

In 2019, the first of the three cases initiated after this adverse decision, the Federal Civil and Commercial Court No. 7 dismissed the legal claim – filed on behalf of the Bayer company – which focused on a genetic sequence that provided soybean and corn plants with greater tolerance to the herbicide Glyphosate. The court held that there was no inventive step and rejected Bayer's claim, who accepted the ruling, leaving it firm at first instance.
https://www.facebook.com/naturalezadederechos/photos/a.819769728105416/2664533746962329/

The second case was favorably accepted by the Federal Civil and Commercial Court No. 8 of the City of Buenos Aires, in

November 2020, and granted Monsanto (now in the hands of Bayer) the patent right on the genetic sequence that gives tolerance to a greater amount of the herbicide glyphosate to soybean crops ("robust tolerance" says the company in the lawsuit), and would also give a higher yield (+7%). According to Monsanto, this is the result of an inventive task that deserves the granting of a patent right (sic). The case is now under review by the Federal Civil and Commercial Court and is being monitored by Naturaleza de Derechos. A ruling is expected during the course of the year.
https://www.facebook.com/naturalezadederechos/photos/a.819769728105416/3702121933203500/

In this third case, whose court decision is dated May 13, 2021, Monsanto/Bayer alleged that the developed sequence meets a need in agribusiness, (sic) recognizing that the technology (transgenesis) developed so far to obtain plants with tolerance to the herbicide glyphosate "was exposed to problems" which it then describes as gene silencing and which the company itself has come to solve (sic) with a new procedure which it considers to be the result of an inventive activity that is related to an artificial DNA sequence that allows transgenic plants to obtain "greater tolerance" to the herbicide glyphosate.

The interesting thing about this judicial process is that the company judicially acknowledges that the transgenesis technique has shown unexpected effects such as gene silencing, which contradicts the historical arguments that agribusiness, led by Monsanto, presented regarding the insertion of transgenes as a safe methodology with predictable results.

The sentence considered that the grounds of the INPI that motivated the rejection of the patent application could not be reversed in the judicial process by Monsanto/Bayer. Specifically, the magistrate held that the plaintiff failed to prove that the objections made by the INPI Examiner when conducting the preliminary and substantive examinations during

the procedure established in articles 24 and 28 of Law 24.481 had been corrected or that they were unfounded in the light of the national patent regime.

What is important about the court decision is that Judge Dr. Javier Pico Terrero went into depth in his rejection of Monsanto/Bayer's request, thus closing the historical claim of agribusiness corporations on patent rights on seeds, following the line of argument of the decision of Chamber III of the Federal Civil and Commercial Court.

In this sense, he pointed out that the plaintiff's claim is based on the idea that any technical contribution he makes in the field of biotechnology and which has an industrial application is patentable, but such an idea is not compatible with our Patent Law because it implies equating inventive activity to mere innovation (Mathély, Paul, Le droit europé en des brevets d'invention, Paris, 1978, Journal des Notaires, pp.120-122, especially p.121).

The magistrate then adds that, on the other hand, Monsanto/Bayer's argument leads to disregarding the problem of assessing the inventiveness of this type of contribution, in which there is a modification of matter already existing in nature that does not constitute any human creation whatsoever.

Thirdly – he points out – it is important to overlook the fact that the development of biotechnological research tends to be favored by discoveries and improvements that do not reach the level of an invention. In this respect, there is a certain consensus in conceiving technology as a "non-rival public good" that offers innovations of two kinds: radical and incremental (Correa, Carlos, Propiedad intelectual e innovación. La excepción de experimentación, ED t.171-850). The former, also called "major", are discontinuous events resulting from deliberate research and development efforts. On the other hand, the latter occur more or less continuously in any industrial activity and, more often than not, are the

consequence of the gradual improvement of the original product suggested by engineers involved in the production process (Freeman, Christopher, El reto de la innovación, Caracas, 1987, Editorial Galac, pp.78-79, quoted by Correa, C. in the article referred to, p.851; conf. Chamber, III, "Monsanto Technology LLC c/ Instituto Nacional de la Propiedad Industrial s/ denegatoria de patente" Expte.Nº 8.044/07 del 26.11.2015). Incremental innovation is based on the stock of accumulated knowledge and on the routine exploration of existing technologies, which makes it difficult to appreciate the creative aspect that the interested party claims (conf. Cám. Nac. Civ. y Com. Fed. Sala, III, causa "Monsanto Technology LLC c/ Instituto Nacional de la Propiedad Industrial", aforementioned), as it happens in the present case.

In this way, the magistrate sealed with legal forcefulness his judicial decision, as well as the fate of the company in the first instance. This case has been monitored by Naturaleza de Derechos since mid-2016. That task will continue if the company Bayer/Monsanto decides to appeal the ruling before the Chamber.

Finally, it is worth highlighting the work of the lawyers of INPI, María José Vásquez, Viviana Ines Anzil, Gonzalo Lavalle and Aldo Petrone, who have maintained an impeccable defense against the Bayer/Monsanto corporation's attempt to insist on the patenting of nature.

This post is also available in: Spanish

Translation: Carla Ramos Cortés, Navdanya International

Parallels Between GMO COVID Vaccine and GMO Crops; Lessons Not Learned

Parallels Between GMO COVID Vaccine and GMO Crops; Lessons Not Learned

> ***"Although gene therapy has never cured a disease across the board, it's extraordinarily safe and effective, because we say it is."***

by **Jon Rappoport**, *No More Fake News*
May 5, 2021

The COVID vaccine is a gene treatment. RNA is injected into the body, for the purpose of forcing cells to manufacture a protein. The promise? Protection against a purported virus.

The first generation of Monsanto crops followed the same pattern. Genes were injected into plants. Like a vaccine, its purpose was protection; in this case, against Monsanto's own herbicide poison, Roundup.

The overall health of the crops and the human body were reduced. The nutritive value of the crops diminished; super-weeds on the GMO farms flourished. The huge number of adverse effects from the vaccine testify to expanding human damage.

The Monsanto genes in the plants drifted. They were found in non-GMO plants, in soil bacteria, and human gut bacteria.

The RNA in the vaccine and/or its products appear to have shed

and drifted from person to person, given the large numbers of reports from unvaccinated women who, after coming into contact with vaccinated persons, experienced interrupted patterns of menstruation, bleeding, and miscarriages.

As I wrote the other day, Pfizer's own warnings about its COVID vaccine include pregnant women coming into the proximity of vaccinated persons ("inhalation, skin contact" mentioned).

Both GMO crops and the GMO vaccine are imposed, top-down, on the population, from corporate giants who are reaping massive profits. Continuing propaganda campaigns are designed to convince famers and the general population to accept and celebrate the dangerous GMO crops and the GMO vaccine.

Governments protect and run interference for the companies who produce the GMO crops and the vaccine.

Bill Gates is an ardent supporter, publicist, and funder of GMO crops and GMO vaccines. He keeps asserting, like a psychotic baron living in a castle on top of a mountain, that the crops and the vaccine will save the world.

Many critics of the GMO vaccine are unaware of (or have forgotten about) the dangers of GMO crops. And many critics of GMO crops fail to realize (or are afraid to criticize) the dangers of the COVID GMO vaccine.

Huge numbers of people in the general public blithely accept the (fake) science surrounding GMO crops and the GMO vaccine. "The experts must know what they're talking about."

The patents on both GMO crops and the GMO vaccine are jealously guarded by the corporations who control them. In both cases, ignorant people are calling for these patents to be made into open-source information—unaware that both technologies are highly dangerous and destructive.

The general field of genetics research—of which these crops

and vaccines are products—is filled with liars, who claim their experimental work is safe and foolproof, when in fact the literature is rife with examples of ripple effects. The introduction of genes into organisms creates many unpredictable changes in genomes. “We have everything under control”—the battle cry of vaccine and crop researchers.

Agriculture and the human body are both viewed, from the ivory tower, as deficient and diseased, in need of genetic alteration.

Overall, genetic tinkering is a disaster already happening.

Ethical scientists who want to put moratoria on this research are being sidelined and ignored.

Manic technocrats see genetic modification as the massive gateway into a Brave New World, where humans are divided into gen-rich and gen-poor classes, from birth. From before birth.

Here are two mind-bending quotes from admired experts:

Lee Silver, Princeton University molecular biologist, predicts our future:

“The GenRich—who account for ten percent of the American population—all carry synthetic genes. All aspects of the economy, the media, the entertainment industry, and the knowledge industry are controlled by members of the GenRich class…”

“Naturals work as low-paid service providers or as laborers. [Eventually] the GenRich class and the Natural class will become entirely separate species with no ability to crossbreed, and with as much romantic interest in each other as a current human would have for a chimpanzee.”

“Many think that it is inherently unfair for some people to have access to technologies that can provide advantages while others, less well-off, are forced to depend on chance alone,

[but] American society adheres to the principle that personal liberty and personal fortune are the primary determinants of what individuals are allowed and able to do."

"Indeed, in a society that values individual freedom above all else, it is hard to find any legitimate basis for restricting the use of repro-genetics. I will argue [that] the use of reprogenetic technologies is inevitable. [W]hether we like it or not, the global marketplace will reign supreme."

As shocking as Lee Silver's assessment is, it's mild when put up against the pronouncement of Gregory Stock, former director of the program in Medicine, Technology, and Society at the UCLA School of Medicine:

"Even if half the world's species were lost [during genetic experiments], enormous diversity would still remain. When those in the distant future look back on this period of history, they will likely see it not as the era when the natural environment was impoverished, but as the age when a plethora of new forms—some biological, some technological, some a combination of the two—burst onto the scene. We best serve ourselves, as well as future generations, by focusing on the short-term consequences of our actions rather than our vague notions about the needs of the distant future."

But don't worry, be happy. Anthony Fauci, who has a direct pipeline to God, tells us the COVID vaccine is extraordinarily safe and effective. That's all we need to know. I'll take the Pfizer, the Moderna, and two AstraZeneca to go. Gift wrap? No, they're for me. Just put the vials and syringes in a brown bag. I'll shoot up while I watch the news on CNN. Their experts are reassuring…

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‘Sick Is the New Normal’ for Today’s Kids, Pediatrician Says

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> ***Author and pediatrician Dr. Michelle Perro discusses the impact of environmental toxins and genetically modified foods on children’s health in an interview with Robert Verkerk, Ph.D., founder, Alliance for Natural Health International.***

by **Rob Verkerk Ph.D.**, *Alliance for Natural Health*
sourced from The Defender
April 29, 2021

Dr. Michelle Perro is a renowned, California-based pediatrician of some 40 years standing. She began her career in acute care, where she went on to run an emergency department and then to work with sexual assault and abuse victims, including children.

But Perro’s professional life changed dramatically in 2006. A parent of a patient introduced her to the impact to a child’s health caused by environmental toxicants and genetically modified foods which ignited her deep passion for making change. Michelle Perro hasn’t looked back since.

Perro’s book, “What’s Making Our Children Sick?,” co-authored with Vincanne Adams Ph.D. in 2018, was prompted by her horror

of the change in the landscape of children's health. It offers a "bird's eye view" of the effects of genetically modified organisms and associated pesticides on her patient's health and what then goes wrong.

Perros is is also a co-founder and executive director of GMO Science, a science-based website focusing on the relationships between genetic modification, environmental toxicants and health. You can also find her column, "Pediatric Pearls," in the integrative journal, The Townsend Letter.

Perro's newest project is linked to the launch of a new website expected in July 2021. The project will include a weekly zoom meeting aimed at empowering parents to take back the health of their children and community. Her intent is to reach more parents who need her support and vast expertise wherever they may be in the world. The new initiative will be a membership program with barriers to access removed for the financially challenged.

Perro says:

> *"If I could use any meme for how children are today, I would say that sick is the new normal. And sick has become so commonplace that diseases that are indeed dis-eases have become normalized, such as chronic asthma, allergies, gut issues, neurologic issues – ADHD to autism spectrum disorders. And there are many others, obesity, metabolic disturbances and every other disorder is becoming normalized because they are so commonplace."*

Science today is very good at looking at individual factors that may be contributing to children's health issues, but they don't look at the combined miasma of chemicals and radiation to which kids are now exposed. Every disorder mentioned has increased in recent decades and many are now at epidemic proportions. Have you noticed the difference between the kids of the '60s and '70s and those of today? They just don't look

the same anymore on the outside – and that's before you start looking at what might be happening within their bodies.

One of the few good things one might be able to say about the pandemic is that flawed science has been widely on display. Once people become more aware of this, it's not inconceivable that the current, almost ubiquitous, blind worship of science, regardless of its quality, the extent to which data have been massaged or its biases, might become a thing of the past.

Genetic engineering, gain of function and the V

Perro says:

> *"I have been concerned about genetic engineering from many perspectives. In terms of microbes, in terms of gain of function … We've been experimenting with microbes and making them more harmful for decades … We've done some pretty good damage … Trying to make organisms more lethal for warfare.*
>
> *"I don't mind sharing that I'm of the mindset that it's a genetically engineered organism. It doesn't act like a typical virus. It acts very uniquely.*
>
> *"By the definition of what a vaccine is – these jabs are not vaccines. These are genetically produced compounds made with messenger RNA that then tells your DNA what to transcribe … Some of these medical interventions have been created using adenoviruses. Adenoviruses are common infections in kids … That they don't react with our own DNA is misguided."*

Watch here as Perro shares a wealth of information in her very clear, "shoot-from-the-hip," no messing style. Imagine what children's health would look like if all pediatricians were on a similar page?

Cause and effect

All of the body systems work and communicate together forming a complex network. Unlike mainstream medical practitioners, integrative medicine physicians look at the body as a whole organism. A soul encased in a body.

Mainstream medicine is outdated and no longer relevant to the dangers facing our children today. No one is looking at environmental toxicity nor are they looking at multiple exposures. There are very few data on the "toxic soup" – the mixture of chemicals and human-made radiation sources – in the scientific literature.

Perro says:

> *"Mainstream medicine is outdated and no longer relevant to the dangers facing our children today. I'd say the leading cause of children's demise right now is the alterations to the microbiota, the microbiome."*

Censorship and marginalization

Because we are a threat to the corporatocracies, it's created a neat way to package those who oppose its narrative and create doubt about the veracity of the message from anyone who dares to speak out. Creating fear and doubt in a person's mind is the start of when you bring them over to your way of thinking.

Perro says:

> *"We as integrative medicine practitioners, particularly during this particular era in this last year, have been marginalized with our integrative tools. I think it's horrific how we've been marginalized to kind of promote a single-minded agenda and to discredit those of us that practice holistically. There has been a campaign to discredit and censor our group."*

She says medical education hasn't changed much in 40 years because of the ownership by Big Pharma. M.D.s have the least knowledge of holistic health.

Perro makes a strong call for us to take back our power. The big corporatocracies are doing everything they can to remove local control of local communities. Every citizen can become an activist. Every citizen can become their own scientist. Every citizen can become their own legislator. We need to come together to form a stronger voice. There is power in positive thinking. Your brain changes your gut, your gut changes your brain. When you think that way your health will change.

Perro adds:

> *"By keeping us separate, by keeping us masked, they're trying to stop us aligning … We have more power in groups and organizing ourselves … We can do something!"*

That's what we do at Alliance for Natural Health. It's all about bottom up. It's all about empowerment. It's all about change.

Originally published by Alliance for Natural Health International.

cover image credit: pixabay

Connect with Children's Health Defense

RFK, Jr. w/ Vandana Shiva: Farmers Standing in Fearlessness & Truth "Fighting for the Soil & Soul of India"

RFK, Jr. w/ Vandana Shiva: Farmers Standing in Fearlessness & Truth "Fighting for the Soil & Soul of India"

by **Robert F. Kennedy, Jr.** w/ **Vandana Shiva**, *Children's Health Defense*
February 5, 2021

[Truth Comes to Light editor's note: RFK, Jr. and Dr. Vandana Shiva share a powerful overview of how Big Food & Big Pharma billionaires are attempting to crash the global economy & colonize the entire planet. These courageous farmers in India are standing in truth on behalf of all humanity.]

> ***"I think that is the clash we are living through. You know, the billionaires wanting to turn everything into their portfolio. And the ordinary people saying 'no, we want to protect our land'."*** **~ Vandana Shiva**

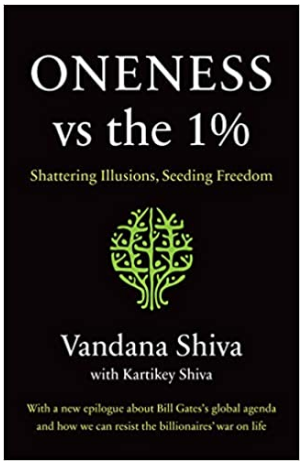
Original video is available at Children's Health Defense YouTube channel.

*[As a service to protect truth from censorship and to share widely, mirrored copies of this video are available at Truth Comes to Light **BitChute**, **Brighteon**, **Lbry**/**Odysee** channels. All credit, along with our sincere thanks, goes to the original source of this video. Please follow links provided to support their work.]*

Article referenced by RFK, Jr. : **Bill Gates and Neo-Feudalism: A Closer Look at Farmer Bill**

Connect with and support the work of Vandana Shiva at **Navdanya International**

Connect with and support the work of Robert F. Kennedy, Jr. at **Children's Health Defense**



Oneness vs the 1%
by Vandana Shiva

With a new epilogue about Bill Gates's global agenda and how we can resist the billionaires' war on life

Widespread poverty and malnutrition, an alarming refugee crisis, social unrest, and economic polarization have become our lived reality as the top 1% of the world's seven-billion-plus population pushes the planet—and all its people—to the social and ecological brink.

In *Oneness vs. the 1%*, Vandana Shiva takes on the Billionaires Club of Gates, Buffet, and Zuckerberg, as well as other modern

empires whose blindness to the rights of people, and to the destructive impact of their construct of linear progress, have wrought havoc across the world. Their single-minded pursuit of profit has undemocratically enforced uniformity and monocultures, division and separation, monopolies and external control—over finance, food, energy, information, healthcare, and even relationships.

Basing her analysis on explosive, little-known facts, Shiva exposes the 1%'s model of philanthrocapitalism, which is about deploying unaccountable money to bypass democratic structures, derail diversity, and impose totalitarian ideas based on One Science, One Agriculture, and One History. She calls for the "resurgence of real knowledge, real intelligence, real wealth, real work, real well-being," so that people can reclaim their right to: Live Free. Think Free. Breathe Free. Eat Free.

Dr. Mercola w/ Dr. Vandana Shiva, PhD: Oneness vs the 1%

Dr. Mercola w/ Dr. Vandana Shiva, PhD: Oneness vs the 1%

by **Dr. Joseph Mercola, MD** **with** **Dr. Vandana Shiva, PhD**
October 16, 2020

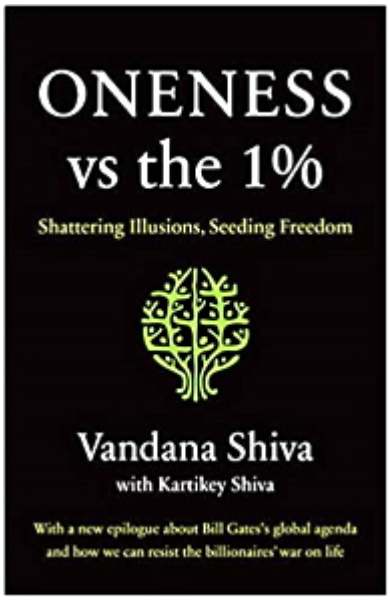
Video available at Mercola BitChute & Mercola YouTube channels.

In this interview, social justice and anti-GMO advocate Vandana Shiva, Ph.D., discusses her book, "Oneness Vs. the 1%: Shattering Illusions, Seeding Freedom," which she co-wrote with her son, in which she argues that the ultra-wealthy elite are responsible for a majority of the environmental, financial and health crises currently facing us.

• In "Oneness Vs. the 1%: Shattering Illusions, Seeding Freedom," Vandana Shiva, Ph.D., argues that the ultra-wealthy elite are responsible for a majority of the environmental, financial and health crises currently facing us
• Bill Gates' wealth and "philanthropic" efforts, for example, have allowed him to gain unprecedented influence over agriculture and global health policies that threaten food security and human health
• The COVID-19 pandemic has catalyzed a massive transfer of wealth to the rich
• While global lockdowns have decimated small businesses and left many to struggle financially, wealthy globalists have amassed immense profits, and lockdowns have prevented public mobilization against tech and retail giants
• To facilitate the transfer of wealth, the elite lobby for the elimination of labor and environmental laws, as well as human and farmer's rights

Connect with Dr. Mercola and subscribe for the latest health news: https://www.mercola.com/

Connect with the work of Dr. Vandana Shiva: http://www.navdanya.org/



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“resurgence of real knowledge, real intelligence, real wealth, real work, real well-being,” so that people can reclaim their right to: Live Free. Think Free. Breathe Free. Eat Free.

“Gates to a Global Empire” – Bill Gates’ Web of Power Threatens All Life on Earth

Bill Gates’ ‘Web of Power’ Threatens Life on Earth, New Report Shows

by **Children’s Health Defense Team**
October 15, 2020

Philanthrocapitalism – epitomized by the Bill & Melinda Gates Foundation – has emerged over the last 30 years as a major force with the potential to “push the future of our planet towards extinction and ecological collapse,” according to a report launched Wednesday by Navdanya International.

“Gates to a Global Empire” sheds light on how philanthrocapitalism accelerates the corporate takeover of our seed, agriculture, food, knowledge and global health systems, and how it manipulates information and erodes democracies – all in the name of corporate profits.

The report explores how the Gates Foundation, powered by an “unholy alliance” between big capital, science and technology institutions and states, has established a global empire over life, through monocultures, patents and monopolies designed to

destroy the natural world of diversity, self-organization and freedom.

In her introduction to the report, Navdanya International's founder, Vandana Shiva, said:

"The European Court of Justice has ruled that gene-edited organisms are GMOs. However, Gates is hastily pushing for deregulation with no regard for caution or potentially dangerous consequences. His 'Gates AgOne' … initiative is a clear declaration of his intent to create an Empire over life and biodiversity, over food and farming, and over our daily bread."

With a net worth of nearly $117 billion, Gates is now the most powerful philanthropist in modern history, according to a synthesis of the report. After making technology available to the masses through his popularization of the at-home personal computer, the founder of Microsoft has "taken to reinventing himself as a benevolent philanthropist who uses his technologic influence and private market savvy to solve the world's most pressing problems through his and his wife's foundation: The Bill & Melinda Gates Foundation."

Through its various initiatives, sub-organizations, development schemes and funding mechanisms, Gates weaves, according to the report, "an intricate web of wide-ranging power and influence."

Truth Comes to Light Editor's note:

See also:

Navdanya International website

Download the Report Synthesis

Download the Full Report

“Gates to a Global Empire” Report Launch and Online Conference
by Seed Freedom

Original video available at Seed Freedom YouTube channel.

*[As a service to protect truth from censorship, mirrored copies of this video are available at Truth Comes to Light **BitChute**, **Lbry**, **Odysee** & **Brighteon** channels. All credit, along with our sincere thanks, goes to the original source of this video.]*

cover image credit Navdanya International