

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City



FIFTEENTH CONGRESS
Third Regular Session

HOUSE BILL NO. 6454

INTRODUCED BY ANAKPAWIS PARTY-LIST REPRESENTATIVE
RAFAEL V. MARIANO

There is a wider range of agricultural knowledge, practice and technologies being introduced nowadays. Of these, perhaps the most popular were the products of biotechnology known as genetically modified crops or transgenic crops. Biotechnology, is defined by Convention on Biological Diversity as "any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for a specific use." Moreover, the Cartagena Protocol on Biosafety used the term modern biotechnology and commonly understood as "the manipulation of genetic material and fusion of cells beyond normal breeding barriers," with the most common example is genetic engineering.

Genetic engineering involves the insertion and deletion of genes through transgenic technologies to create genetically modified organisms (GMOs). The application of modern biotechnology to food production has resulted to debates and various related issues. Several studies have been released raising the potential effect on human health and environment through genetic modification.

Based on the report of the International Assessment of Agricultural Science and Technology for Development (IAASTD), a radical transformation of the world's food and farming systems – especially on policies is necessary if we are to overcome converging economic and environmental crises and feed the world sustainably. Techniques such as genetic engineering are no solution for soaring food prices, hunger and poverty. Instead, locally, socially and environmentally responsible methods are the solution. Community experiences in food production within small and household based farming approaches using sustainable, culturally imbued with time-tested indigenous farming practices produced more safe and nutritious food. In areas where these are adopted, farmers experienced reduction in cost and met some of their household food requirements. In essence, GMOs will not play a substantial role in addressing poor farmer's needs and attaining food security. The assessment suggests that government and policy makers should shift their focus on more sustainable means of producing food and also on the role of small and resource poor farmers as stewards of biodiversity.

Republic Act No. 10068 or the Organic Agriculture Act of 2010 was passed into law to promote, propagate, further develop and implement the practice of organic agriculture in the Philippines. Moreover, section 3(b) of R.A. 10068 defines

organic agriculture as that “includes all agricultural systems that promote the ecologically sound, socially acceptable, economically viable and technically feasible production of food and fibers.” While it also includes the use of biotechnology and other agricultural practices, it is implicitly stated that “shall not include genetically modified organisms.” The production and importation of genetically modified crops and by-products puts organic production and the country’s genetic resources at great risk.

Furthermore, the Cartagena Protocol on Biosafety, in which the Philippines is one of the signatories, makes clear that products from new technologies must be based on the precautionary principle and allow developing nations to balance public health against economic benefits. Governments can invoke the precautionary principle until such time that the public sector are assured of the safety of the product. For example, a country may ban imports of a living modified organism if there is not enough scientific evidence that the product is safe and require exporters to label shipments containing genetically altered commodities.

There are provincial and municipal governments in the Philippines which have taken the initiative of establishing GMO-free zones because of the growing worldwide concerns about environmental and health impact of GMOs. They are as follows:

- a. In Bohol, Resolution 2003-235 was unanimously passed by the *Sangguniang Panlalawigan* declaring the province free of GMO to protect the ecological balance of the province and health safety of *Boholanos* from the adverse effects of GMOs. The resolution was followed by Provincial Ordinance 2003-010, known as the “Safeguards against GMOs,” which enumerated the conditions against the entry of Genetically Modified (GM) plants, animals and microorganisms into the province.
- b. The provinces of Oriental Mindoro and Marinduque as part of the ‘Organic Haven Island of MIMAROPA, both have Provincial Environmental Code and Administrative Order banning the entry of GMOs in their areas.
- c. In 2007, Negros Occidental passed Provincial Ordinance 2007-007 or “The Safeguard Against Living Genetically-Modified Organisms” in line of the province’s goal of becoming the organic food bowl of Asia. Along with Negros Oriental, Negros Occidental signed in a memorandum of agreement committing to 10% island-wide organic production by the year 2010 and to the banning of GMOs.
- d. Some towns in Iloilo and Davao City have expressed their apprehension on the ongoing field testing in their area and have called for the suspension of planting BT eggplant, a genetically modified crop.

The Philippines has a rich agrobiodiversity, with rice varieties numbering to more than 4,000 kinds. Yet, the threat from genetically engineered crops and food products is fast rising. Currently, the International Rice Research Institute (IRRI), in partnership with the Philippine Rice Research Institute (Philrice) is field testing Golden Rice or Vitamin A Rice in experimental farms in Nueva Ecija. Golden Rice is a genetically engineered (GE) rice that contains beta-carotene to produce Vitamin

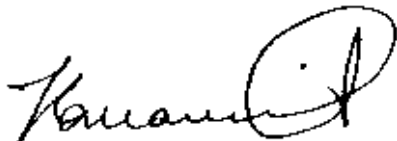
A. Allegedly, it is being developed and tested to address the problem of Vitamin A deficiency. However, some organizations asserted that the development and promotion of Golden Rice illustrate an industrial model of agriculture that limits bio-diversity and lessens dietary diversification, which primarily causes malnutrition.

Genetically modified food also poses risk to consumers, as more and more independent scientific experiments reveal that GMOs may cause health problems. However, risk assessments done in the country are inadequate and only on a case-to-case basis, and will be done only if a GM product is suspected to produce unwanted effects to health and the environment. There is also a clamor on how the country is regulating the entry or approval of GMOs. To date, there are about 67 GMOs approved for direct use as food, feed and processing. While countries in Europe and China has either banned or put a moratorium on GMOs so as to protect their crops from GM contamination.

The filing of this bill does not mean that the author is against the use of science and technology in food and agriculture. On the contrary, the proponent firmly believes that science should serve the people and society, and not of the few. Science and technological advancement should not cause harm and damage to both people and the environment. The known and suspected environmental and health risks related to unchecked race to embrace the unproven technology of genetic engineering should not be underestimated. Other countries have acted through legislation to protect their citizens and environments from the threat of genetically engineered crops and food. Clearly, we must do the same.

Genetic engineering in food and agriculture is not the answer to overcome the crisis of hunger and malnutrition today. The answer lies in our structural changes in the access to land, food and productive resources and political power, combined with ecological technologies via farmer-led research and development as well as harnessing indigenous knowledge and participatory technology development across sectors including the crucial role of women in agriculture. According to Dr. Michael Hansen, a Senior US scientist and critical of genetic engineering in agriculture, *"genetically modified crops are not the panacea for food security. Rather, the answer to food security lies with small scale, ecologically rational, sustainable agriculture that focuses on local food systems."*

In view of the foregoing, the discussion and approval of the essence and intent of this measure is earnestly sought.


REP. RAFAEL V. MARIANO

Republic of the Philippines
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FIFTEENTH CONGRESS
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HOUSE BILL NO. 3454

**INTRODUCED BY ANAKPAWIS PARTY-LIST REPRESENTATIVE
RAFAEL V. MARIANO**

**AN ACT
PROHIBITING THE USE OF PRODUCTS CONTAINING
GENETICALLY MODIFIED ORGANISMS (GMOs)
IN PHILIPPINE AGRICULTURE,
AND FOR OTHER PURPOSES**

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

Section 1. Short Title. This Act shall be known as the "GMO-Free Agriculture Act of 2012."

Section 2. Declaration of Policy. It is hereby declared the policy of the State to protect and advance the right of the people to a safe poison-free agriculture, secure livelihood, a balanced and healthful ecology in accord with the rhythm and harmony of nature.

To this end, the State shall follow the precautionary principle in relation to the field testing of genetically-engineered crops and the processing and distribution of seeds, crops and food products consisting of, containing or derived from genetically modified organisms (GMOs) so as to protect the people, the country's agriculture and environment for the sake of present and future generations. The possible harmful effects of genetically modified crops and food on human health and environment are irreversible. Thus, the burden of proof as to the safe use of GMOs must be on the proponents of genetic engineering in agriculture.

Section 3. Scope. This Act shall cover the release, field testing, processing and sale of crops and food products containing genetically modified organisms (GMO) in the country.

Section 4. Definition of Terms. For purposes of this Act, the following terms shall be understood as follows:

1. "DNA" refers to deoxyribonucleic acid, a very long molecular structure, consisting of a string of units or genes that encode all the

information regarding the structure and functioning of a living organism for its entire lifespan, as well as biological information that is passed on from one generation to the next.

2. *"Field Testing"* refers to the deliberate release or intentional introduction into a controlled environment of a GMO or a combination of GMOs with provisions for containment such as physical barriers, or a combination of physical barriers together with chemical and/or biological barriers used to limit their contact with the general population and the environment.
3. *"Genetically modified organism"* (GMO) means an organism in which the genetic material has been altered or modified in a way that does not occur naturally by mating and/or natural recombination.
4. *"Genetically modified crops and products"* refers to the harvests and commodities consisting of, or containing a GMO or a combination of GMOs.
5. *"Genetic engineering"* is also called genetic modification. It is the term given to the manipulation in the laboratory of the genetic code of a living organism, plant or animal involving the introduction of foreign DNA or synthetic genes into the organism.
6. *"National Committee on Biosafety of the Philippines"* refers to an attached agency of the Department of Science and Technology (DOST) created by virtue of Executive Order 430 (s. 1990) and tasked, among others, to identify potential risks associated with experiments involving GMOs and to recommend measures to minimize such risks.
7. *"Organism"* means any biological entity capable of replication or of transferring genetic material.
8. *"Precautionary principle"* is a precept that any action should not be pursued if the consequence is not certain or potentially dangerous.
9. *"Processing"* means the breeding, preparation and other activities which through physical or chemical or biological processes alter the exterior texture or form or inner substance of a product in such manner as to prepare it for special use to which it could not have put in its original form or condition.
10. *"Precautionary risk assessment"* means to identify and evaluate the potential adverse effects of living modified organisms which the deliberate release of GMOs into the environment may pose. It should be carried out in a scientifically sound and transparent manner.
11. *"Sale"* refers to the act of selling and/or supplying and/or making a product available to other parties.

SECTION 5. Prohibition. The release, laboratory and field testing, processing, sale and similar acts, of crops and food products consisting of, containing or derived from genetically modified organisms (GMOs), shall be prohibited in the country.

SECTION 6. *Exempting Clause.* Studies on crops and products containing genetically modified organisms by the independent panel of scientists to be selected and supervised by the National Committee on Biosafety of the Philippines (NCBP) and Food and Drugs Administration (FDA) together with concerned non-government and people's organizations shall be exempted from the prohibition.

SECTION 7. *Existing GMO Products.* The National Committee on Biosafety of the Philippines (NCBP), in coordination with Department of Agriculture (DA), Food and Drugs Administration (FDA) and non-government organizations involved in monitoring genetically modified crops and products, is hereby directed to determine existing GMO products at its various levels: under laboratory testing, pilot testing, multiple location testing or if it is already into commercial distribution in the Philippines prior to the effectivity of this Act, and thereafter issue a list of said products to the public, make a precautionary risk assessment of the same and come out with recommendations on the proper disposition of such products. The subsequent sale, processing, laboratory and field testing, release and similar acts, of such products in the list shall be prohibited indefinitely until such time that said products have been declared free from genetically modified organisms.

SECTION 8. *Monitoring.* A monitoring committee composed of the Department of Trade and Industry (DTI), Department of Agriculture (DA), Department of Health (DOH), Department of Science and Technology (DOST), Bureau of Customs (BOC), non-government organization/s and people's organization/s shall closely monitor the sale, processing of products consisting of, containing or derived from genetically engineered organisms. The monitoring committee shall recommend for disposition of any product found to be containing genetically-engineered organisms.

SECTION 9. *Penalties.* Any person or persons found violating the provisions of this Act shall be penalized with imprisonment of not less than five (5) years and not more than fifteen (15) years and a fine of not less than One Hundred Thousand Pesos (PhP 100,000.00) but not more than One Million Pesos (PhP 1,000,000.00), at the discretion of the court depending on the gravity of the offense. Repetition of the offense shall entail maximum limit of the penalty and fine.

SECTION 10. *Implementing Rules and Regulations.* Within ninety (90) days from the effectivity of this Act and after initiating a highly consultative process involving sectoral representations, the National Committee on Biosafety of the Philippines (NCBP), Department of Agriculture (DA) and Food and Drugs Administration (FDA) shall formulate and publish the implementing rules and regulations for the effective implementation of this Act.

SECTION 11. *Separability Clause.* If for any reason that any section or provision of this Act shall be declared unconstitutional or invalid, the other provisions which are not affected thereby shall remain valid.

SECTION 12. *Repealing Clause.* All laws, decrees, executive orders, rules and regulations and other issuances or parts thereof which are inconsistent with this Act are hereby repealed or modified accordingly.

SECTION 13. *Effectivity Clause.* This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved.