

# Biosafety in Belize



Belize Biosafety policy for LMOs states that:

- Section 4.4.19 “ *Given the risk involved this legislation shall have provisions for the implementation of a moratorium on the development or importation of GMOs for planting for commercial purposes into Belize until such time that Belize has capacity for Assessment.*”
- Section 4.4.5 “ *Risk assessment and management of GMO and GMOs used in FFP shall be carried out according to national biosafety regulations. Decisions shall be based on the evaluation of the risks that may result from a biotechnology product, application or procedure*”



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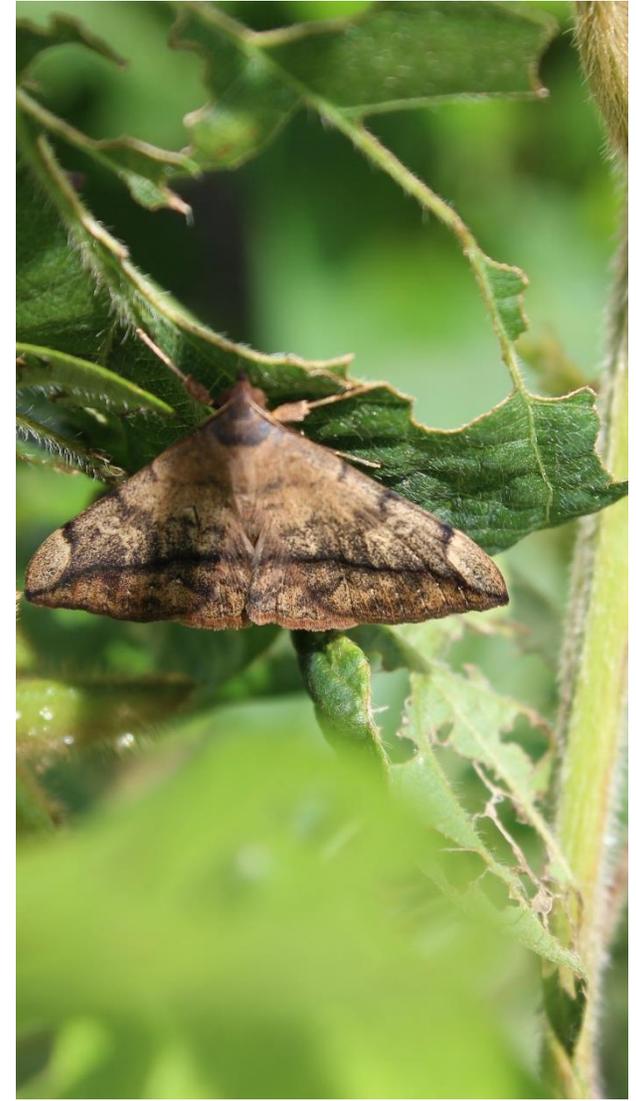
## CARIBBEAN BIOSAFETY FRAMEWORKS PROJECT

This project is developing the National Biosafety Frameworks that will provide Legal systems, Diagnostic and Risk Assessment Capacities to address safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.



Global Environmental Facility

## MODERN BIOTECHNOLOGY



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## The Cartagena Protocol on Biosafety

On 29 January 2000, the Conference of the Parties to the Convention on Biological Diversity adopted a supplementary agreement to the Convention known as the Cartagena Protocol on Biosafety. This Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms (LMOs or GMOs) resulting from modern biotechnology. The agreement entered into force on 11<sup>th</sup> September 2003.

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## Potential Benefits of Modern Biotechnology

Genetic engineering promises remarkable advances in medicine, agriculture, and other fields. These may include new medical treatments and vaccines, new industrial products, and improved fibers and fuels. Proponents of the technology argue that Biotechnology has the potential to lead in food security, decrease pressure on land use, sustainable yield increase in marginal lands or inhospitable environments and reduce use of water and agrochemicals in agriculture.

Examples: Drought Tolerance varieties (Corn), Nutritional Enhancement (Increase of Vitamin A on Golden Rice), Pest resistance in varieties which reduces the need for some pesticides and also improve yield by protecting the yield potential of plants (Bt and Roundup ready crops),



Technologies such as Insect Annihilation techniques (GM mosquitos against *Aedes aegypti* vector of *dengue and chikungunya*), Papaya (Coat Protein gene used from papaya ring spot virus against the same ring spot virus), Citrus ( Spinach gene used against HLB: Citrus Greening)

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## Potential Risks of Modern Biotechnology

Biotechnology is a very new field, and much about the interaction of LMOs with various ecosystems is not yet known. Some of the concerns about the new technology include its potential adverse effects on biological diversity, and potential risks to human health. Potential areas of concern might be unintended changes in the competitiveness, virulence, or other characteristics of the target species, the possibility of adverse impacts on non-target species (such as beneficial insects) and ecosystems,

agronomic or environmental effects (the potential for weediness in genetically modified crops where a plant becomes more invasive than the original, perhaps by transferring its genes to wild relatives or by the proliferation of herbicide resistant species, the stability of inserted genes ; gene flow and introgression (the possibilities that a gene will lose its effectiveness or will be re-transferred to another host); possibility of toxic or allergenic effects from consuming GM products.

