

NATIONAL BIOSAFETY FRAMEWORK (NBF) PROJECT.

Introduction

The National Biosafety Framework Project is about setting up a framework that will work well to ensure an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology. The concerns focuses on these issues regarding their impacts that may have adverse effect on the conservation and sustainable use of biological diversity and also taking into account risks to human health and as well as focusing on transboundary movement.

The main Elements of the Biosafety Frameworks include:

- Policy on Biosafety
- Regulatory system to address the safety in the field of modern biotechnology.
- An administrative system to handle requests for importation of Living Modified Organisms (LMOs) and Genetically Modified Organisms (GMOs)
- A decision making system that includes risk assessment and management.
- Mechanisms for public participation and information sharing.

The Convention on Biological Diversity and its Cartagena Protocol on Biosafety.

Genetic manipulation is not new. For millennia, farmers have relied on selective breeding and cross-fertilization to modify plants and animals and encourage desirable traits that improve food production and satisfy other human needs. Artisans have exploited traditional fermentation techniques to transform grains into bread and beer and milk into cheese. Such intentional modification of the natural world has contributed enormously to human well-being. Over the past 30 years, however, our ability to alter life-forms has been revolutionized by modern biotechnology. Scientists have learned how to extract and transfer strands of DNA and entire genes – which contain the biochemical instructions governing how an organism will develop – from one species to another. Using sophisticated techniques, they can precisely manipulate the intricate genetic structure of individual living cells. For example, they can insert genes from a coldwater fish into a tomato to create a frost resistant plant, or use bacterial genes to make herbicide-tolerant corn. The results are known as living modified organisms (LMOs) or, more popularly, genetically modified organisms (GMOs). Since the first genetically modified tomato became available in shops in the United States in 1994, dozens of food crops and animals have been modified for greater commercial value.

While modern biotechnology may have great potential, it must be developed and used with adequate safety measures, particularly for the environment.

Biotechnology will boost food security for the world's growing population by raising sustainable food production. It will benefit the environment by reducing the need for more farmland, irrigation and pesticides. It will also provide better medical treatments and vaccines, new industrial products and improved fibres and fuels. It will produce crops with higher yield, improved nutrition, or resistance to pests and diseases.

For many people, however, this rapidly advancing science raises a tangle of ethical,

environmental, social and health issues. Because modern biotechnology is still so new, they say, much is unknown about how its products may behave and evolve, and how they may interact with other species. Could an ability to tolerate herbicides, for example, transfer from GM crops to related wild species? Might plants that have been genetically modified to repel pests also harm beneficial insects? Could the increased competitiveness of a GMO cause it to damage biologically- rich ecosystems?

Summary of the Biosafety Survey Findings

One of the major activities in the project is to carry out surveys to collect and analyse existing information on specific areas such as biotechnology, biosafety, legislations, bill or acts and any on-going activities in regards with the status of the Living Modified Organisms/Genetically Modified Organisms in Samoa and other Pacific Regions. Findings are as followed:

- There is possibility of dealing with LMOs in Samoa in the near future
- There is no official records to show that an LMO is already in Samoa
- There are commercial products in Samoa that are potentially genetic engineering derived
- There is no existing national legislation directly addresses the use and application of modern biotechnology