

FIFTEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES
HOUSE OF REPRESENTATIVES
H.B. No. 3204

INTRODUCED BY THE HONORABLE ANGELO PALMONES

**AN ACT PROVIDING FOR THE ESTABLISHMENT OF A CRYOGENIC SEED
BANK FOR INDIGENOUS PLANT SPECIES TO BUFFER AGAINST
EXTINCTION DUE TO CLIMATE AND OTHER CAUSES, PROVIDING FUNDS
THEREFOR, AND FOR OTHER PURPOSES**

Explanatory Note

Per square kilometer the Philippines probably contains more biodiversity than any country in the world. It has several centers of biodiversity and endemism and its biological richness has been as "Galapagos times ten"¹. The country has more that 52,177 described species and the number continues to be updated as new species are discovered². Half of the described species are found no where else in the world. The Philippines is considered one of the 18 mega-diversity countries which together contain 70-80% of the global diversity. More than one half of the recorded 1,130 terrestrial wildlife species are found no where else in the world.

On plants alone, the diversity is equally amazing. More than half of the 10,000 to 14,000 species of vascular and non-vascular plants are endemic (peculiar to a particular location) in the country.

However, the country is also one of 25 biodiversity hot spots of the world. One of the reasons for this is the destruction of the habitat of wildlife. More than 93% of the country's forest has been lost in the last 500 years. The more than 500,000 ha of mangrove at the turn of the 20th century have been reduced to only about 247,000 ha. As a result of all these, 418 species were already listed in the 2000 IUCN Red List as threatened.

¹ Heaney, R. L and J Regalado 1998. The vanishing treasures of the Philippine Rainforest. The Field Museum, University of Chicago Press, Chicago, USA.

² Mittermeier, R. A., P Robles Gil and C. G. Mittermeier 1997. Megadiversity Earth Biologically Wealthiest Nations, CEMEX Monterrey, Mexico, 501 pp

To address the conservation of biological diversity of the country Congress has passed RA 7586 in 1992 known as the National Integrated Protected Area System (NIPAS). The purpose of this Act is to protect biodiversity through the establishment of Protected Areas. As of 2007 there were already 107 Protected Areas covering 3.34 million hectares, 77 of which are terrestrial and 30 marine Protected Areas.

Another major reason for the disappearance of many plants and animals and their becoming threatened to extinction is the impacts of climate change. Many plants cannot adjust to rising temperature and they become extinct. Many crops and forest plants have been affected by climate change.

To buffer against the impacts of diminishing habitat and disastrous effects of climate change that could cause the extinction of crops and forest plants there is a dire need to establish a facility where seeds could be stored without negatively affecting their viability. Such is a cryogenic facility where seeds could be stored for decades and still retain their germinative capacity.



ANGELO B. PALMONES

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

ARTICLE I

Title, Declaration of Policy and Objectives

SECTION 1. *Title* - This Act shall be known as the Cryogenic Seed Bank Act of 2010.

SECTION 2. *Declaration of Policy and Objectives* – The destruction of forests has concomitantly destroyed much of the biodiversity that was contained therein such that the Philippines has been identified as one of the biodiversity hot spots of the world. This has brought about the inclusion of 418 native species in the International Union for the Conservation of Nature (IUCN) Red List as threatened species. The situation has been aggravated by the escalating impacts of climate change where plant species that could not adjust and adapt to increasing temperature of the atmosphere has the possibility of becoming extinct. Recognizing the critical importance of maintaining the biodiversity in the country in sustaining human life and development, it is hereby declared the policy of the State to secure the existence for posterity for the present and future Filipinos native crops and other plants through the establishment of facilities that will ensure their viability thus ensuring sustainable sources of planting materials and buffer them against extinction.

It is the objective of this Act to establish at least one cryogenic seed bank where seeds of native crops and forest plants are stored for posterity and secure them from extinction.

SECTION 3. *Definition of terms* – For the purpose of the Act the following terms shall have following meaning:

Cryogenic facility

Seed bank

Endemic species

Vascular species

Non-vascular species

Biodiversity

Threatened species

SECTION 4 – *Establishment of a cryogenic seed bank* – For the purpose of storing seeds of important native crops and forest plants a cryogenic seed bank shall be established with in campus of the University of the Philippines Los Baños (UPLB).

SECTION 5 – *Management of the cryogenic seed bank* – The cryogenic seed bank shall be managed by the UPLB. For this purpose UPLB shall formulate and promulgate protocols for the use of the facility, Provided that it will ensure that seeds of important crops and forest plants shall be collected and stored. UPLB is also mandated to maintain the facility.

SECTION 6 – *Funding sources* – For the construction of the facility it is hereby allocated One Billion Pesos (P1,000,000,000) from the unallocated funds of the National Treasury. Another 500 Million pesos shall be allocated from the income of PAGCOR.

The UPLB is hereby authorized to seek funding from multilateral and bilateral sources for the maintenance of the facility.

Funds for the first year of operation of the facility shall come from the original allocation for the establishment of the facility. Funds for subsequent years for operations shall be included as additional appropriations in the annual budget of UPLB.

SECTION 7 *Role of the Department of Agriculture and the Department of Environment and Natural Resources* – The Department of Agriculture and the Department of Environment and Natural Resources shall assist actively the UPLB identify, collect seeds and provide the same to UPLB for inclusion for storage in the cryogenic seed bank. The Department shall establish within their programs projects for the collection of the seeds.

SECTION 8. *Implementing Rules and Regulations* – The University of the Philippines Los Banos shall promulgate the implementing rules and regulations of this Act within a period of 180 days from its approval. It shall become effective after thirty (30) days

following their publication in the Official Gazette or in two (2) major daily newspapers of general circulation.

SECTION 9. *Separability clause* – If any section or provision of this Act shall be declared invalid or unconstitutional, such shall not invalidate any other section or provision of this Act.

SECTION 10. *Repealing Clause* – All laws, decrees, executive orders, rules and regulations or parts thereof which are in conflict with the provisions of this Act are hereby repealed or modified accordingly.

SECTION 11. *Effectivity* – This Act shall take effect thirty (30) days following its full publication in the Official Gazette or two (2) major daily newspaper of general circulation.

Approved