

**National Academy of Science and Technology, Philippines**

# **NAST POSITION ON HOUSE BILL 2163 CONCERNING PHILIPPINE GENETIC RESOURCES**

**HB 2163:** An Act Instituting Reforms in the Existing Policy on Access and Benefit-Sharing from the Utilization of Philippine Genetic Resources and for Other Purposes

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## **Rationale of HB 2163** (from Explanatory Notes of HB 2163)

1. The rich biological resources of the Philippines are being stolen. Among these are rare species of birds, corals, and medicinal plants.
2. Along with biological resources, related traditional knowledge is also being stolen.
3. Theft is done by researchers who collect these resources and eventually patent them.
4. The draft bill seeks to prevent theft of genetic resources so that the Philippines can have a substantial share in the wealth generated by these resources.
5. There are existing laws covering access and benefit-sharing of genetic resources. The recent Nagoya Protocol (2010) provides a mechanism for tracking how genetic resources are used, enabling provider countries to claim benefits from the use of these resources.
6. HB 2163 aims to implement the Nagoya Protocol.

## **Objectives of HB 2163**

1. To regulate the collection and utilization of genetic resources and traditional knowledge related to these.
2. To promote and facilitate the conduct of scientific research on genetic resources
3. To ensure benefit sharing
4. To institute reforms in existing laws covering the above objectives.

HB 2163 aims to institute reforms in the existing policy on access and benefit sharing from the utilization of Philippine genetic resources and other purposes. Existing policies are found in EO 247 (1995), the Philippine Wildlife Act (2001), and the International Treaty on Plant Genetic Resources for Food and Agriculture (2004). The first two policies cover a wide range of living forms: plants, animals, microorganisms; terrestrial, aquatic, and presumably even those found in the air. The last one covers only agricultural crops. The laws cover not only genetic resources but also associated traditional knowledge.

We are concerned that the existing policies are already causing unnecessary strain on the limited resources of Filipino researchers, and effectively discouraging scientific studies. If reforms are to be instituted, it should be to make the policies less instead of more, restrictive. Regrettably, the bill makes it even more difficult for Filipino researchers and creates an elaborate bureaucracy and a system of penalties to make sure that the restrictions are effectively carried out. Among these is a provision making violation of the law a criminal act, and imposing a jail term.

Why did we pass the existing laws restricting access to and utilization of our genetic resources, in the first place?

The rationale lies in the Convention on Biological Diversity (1992), an international agreement ratified by the Philippines. This convention declared that genetic resources are “properties of the state”; as such, they are subject to state regulation. The existing national policies, including HB 2163, are meant for the Philippines to implement this agreement.

Before this agreement, genetic resources were considered a “property of humankind”, like air and water, as a default practice, thus, they used to be freely accessible. Genetic resources moved freely across national boundaries and continents from antiquity. Indeed, in many cases, agricultural crops are now grown more extensively outside their center of origin and domestication. Among these are major agricultural crops in the Philippines such as rice (origin: Southern China), corn (origin: Mexico), coconut (origin: Indian and Pacific Ocean basins), camote (origin: South America), and animals such as water buffalo (carabao) (origin:

India and China). If governments in early times enacted laws like we now want to enact, we will be paying China, Mexico, India, etc., royalties (benefit-sharing) for the agricultural crops and domesticated animals we grow.

Indeed, genetic resources, being a property of humankind, draw support from tradition. This tradition is reinforced by recent knowledge about genomes that show that genes, the fundamental components of genetic resources, are widely shared across species. One can find genes of bacteria, plants, and animals in the human genome, for example. Not one species can claim ownership of genes in their natural state; not one country has the right to “own” them.

The principle of free sharing made it easy for present-day gene banks and botanical gardens to collect, maintain, and share their genetic resources. The Philippines’ own gene banks contain many imported materials, collected before the restrictive laws were enacted. Without this effort, the world would have lost many valuable genetic materials. For example, traditional varieties of rice lost by agricultural practice in the Cordilleras were recently returned to Cordillera farmers with seed obtained from the International Rice Research Institute, which collected those years ago and maintained them in special facilities at Los Baños.

The principle of free sharing is justified on moral grounds because genetic resources are a legacy of more than 3 billion years of evolution and thousands of years of domestication. This process did not occur in only one territory, and domestication was not done by only one generation of farmers, as genetic materials moved through space and time without legal restrictions. They evolved long before people, countries, and laws came to be. As such, no one territory or generation of people should claim exclusive rights to genetic resources.

## **THE POSITION OF THE NATIONAL ACADEMY OF SCIENCE AND TECHNOLOGY (PHILIPPINES)**

NAST finds no valid national interest or moral justification for restricting the collection, and utilization of genetic resources. The Philippines

should dissociate itself from the adverse provisions of the Convention on Biological Diversity, the treaty that served as the basis for the legal restrictions we now impose and take the needed steps to repeal existing policies based on this agreement. The Convention on Biological Diversity is based on the outdated assumption that genetic resources can be considered a property of the state.

If the purpose of the existing laws and HB2163 is to protect our genetic resources from “biopiracy”, as the draft bill states, the laws are not necessary. Biopiracy occurs if one party prevents another from using his own genetic resource. Patenting usually does this. But all patent laws respect the integrity of indigenous genetic materials. Traditional varieties of plants, for example, cannot be patented. In the same manner, traditional knowledge cannot be stolen because it cannot be patented.

Genetic resources and traditional knowledge can be lost, however, if not used. Indeed, we are probably losing hundreds of them every minute through deforestation, urbanization, and unsound agricultural and fishery practices. Free sharing makes it easier to conserve, use, and build on, genetic resources and traditional knowledge. The whole edifice of science is built on accumulating, improving, and sharing foundations of knowledge. If some foundations are restricted, science will suffer.

Genetic resources are unlike other forms of natural resources such as minerals and oil. If one takes out 1 kg of gold from the country, we will be poorer by one kg of gold. If one takes out one kg of the seed of rice, he may eventually be able to feed more people by propagating it and distributing to farmers, but the Philippines will not be poorer because of it unless the Philippines stop propagating this variety of rice. Thus, we should use our own genetic resources if we want to continue to benefit from it.

Yet the law is precisely making it difficult for Filipinos to access and use their own genetic resources through the existing policies that HB 2163 wants to be more restrictive. The laws ostensibly target citizens and institutions of other countries, which have historically collected and benefited from Philippine genetic resources. The laws seek to make it more difficult for them to

collect more. In practice, it is the Filipinos who suffer because they do not have the resources needed to comply with the provisions of the law. Regulatory bodies can easily monitor and regulate the work of Filipinos in the Philippines, but not work done in other countries. Thus, it is the Filipino who bear the brunt of complying with the law. In any case, a lot of our commercially useful genetic resources are already in the hands of foreign institutions, simply because they were able to collect these before restrictions were imposed.

## RECOMMENDATIONS

1. The proposed bill should be withdrawn. Instead, we should repeal or amend the existing laws that make it difficult for Filipinos to use their own genetic resources. These laws are not necessary, are burdensome, and practically unenforceable.
2. The following specific provisions of existing laws and House Bill 2163, should be reviewed/repealed:
  - a. Prior informed consent (in existing laws). This is to be obtained from the community, which presumably “owns” the resource. Requirements: inform and seek approval of the community about the study being conducted. Lots of paperwork and signatures; money for travel, meetings, even before the first step in research is done. *We have exhaustively argued that no person, community or nation can claim ownership of genetic resources in their natural state, as these are properties of humankind.*
  - b. Tracking and monitoring the utilization of genetic resources. Checkpoints are to be established “at any stage of research, development, innovation, pre-commercialization, and commercialization of the genetic resources and its derivatives...”
  - c. Requirement: More paperwork, elaborate bureaucracy, taking precious time and financial resources of scientists and the government bureaucracy away from productive work. *There are existing*

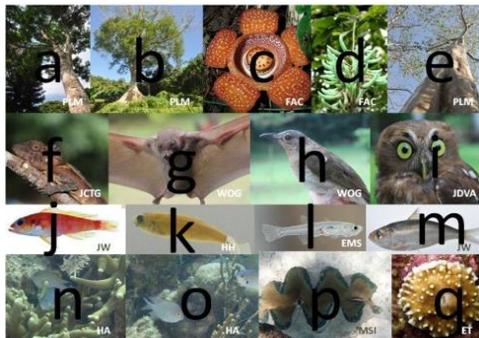
elaborate practices to keep track of/regulate all scientific work, including work on genetic resources.

- d. Penalty (new provision). Non-compliance with provisions of the proposed law... “Shall be penalized with the crime of bio piracy and shall be subject to a penalty of 6 years and one day up to 8 years, with the appropriate fine not less than P500, 000...” (Note: This is the first time that biopiracy is being declared a “crime” with such an expanded definition. One can possibly be jailed simply for failing to submit research progress reports on time!). *This provision is counterproductive in the light of the very low support for genetic resources R and D in this country.* It will further reduce interest of the local scientific community on genetic resources research.

3. At the same time, we should

- initiate a thorough review of our commitments to the ill-conceived portions of the Convention on Biological Diversity;
- provide more funds for better education for local communities and Philippine society in general, so that they can help conserve and utilize genetic resources, and;
- provide more funds and fewer restrictions on local institutions that are involved in the collection, evaluation, and sustainable utilization of our genetic resources.

**ACKNOWLEDGEMENTS:**



**Photos of endemic/indigenous Philippine species:**

- a. *Afzelia rhomboidea* (Tindalo)
- b. *Dracontomelon dao* (Dao)
- c. *Rafflesia lagascae*

- d. *Strongylodon macrobotrys*
- e. *Tectona philippinensis* (PHL teak)
- f. *Gonocephalus sophiae* (PHL Forest Dragon)
- g. *Haplonycertis fischeri* (PHL Pygmy Fruit-bat)
- h. *Hypsipetes philippinus* (PHL bulbul)
- i. *Ninox philippensis* (PHL hawk-owl)
- j. *Chelido perchlet\_santosi* (Pogi perchlet)
- k. *Stolephorus ronquilloi* (Ronquillo's anchovy)
- l. *Mistic hthys luzonensis* (Sinarapan)
- m. *Sardinella tawilis* (Tawilis)
- n. *Altrichthys azure*
- o. *Altrichthys curates*
- p. *Tridacna gigas* (giant clam)
- q. *Leptoseria kalayaanensis*

**Photo credits:**

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**i:** James DV. Alvarez (JDVA) UPLB MNH

**j,m:** Jeffrey Williams (JW), NMNH/Smithsonian Institution

**k:** H. Hata (HH)

**l:** Emerson Y. Sy (EMS), Fishbase

**n,o:** Hazel Arceo (HA), UP Marine Science Institute (MSI)

**p:** MSI

**q:** Emre Turak (ET)

[http://www.coralsofttheworld.org/media/images/1016\\_C03\\_01.jpg](http://www.coralsofttheworld.org/media/images/1016_C03_01.jpg)

**Obtained through the help of:**

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- National Scientist Edgardo Gomez, Acd. Fernando Siringan, Director, and Acd. Perry Aliño, UP Marine Science Institute.

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