

FIFTEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES

House of Representatives

H.B. No. 844

Introduced by CONGRESSMAN ANGELO PALMONES

Explanatory Note

The last decades of the 20th century saw rapid advances in our knowledge of life and its mechanisms that have given rise to a new set of practical tools and techniques collectively referred to as biotechnology. Biotechnology, in turn, developed for the world novel products such as safer, more effective pharmaceuticals, less capital-intensive crops and less polluting industrial and agricultural production systems. In this century, with concerns about climate change, non-renewable energy sources, dwindling fresh water supply, increasing population and environmental protection on one hand, and new discoveries in biology on the other, these factors are expected to greatly increase the number of technologies developed based on biological systems. Thus, the 21st century has been hailed the biotech century.

The world biotechnology industry is a multibillion industry. Investment in medical biotechnology alone is estimated at US\$200 billion whereas investment in agricultural biotechnology was worth US\$67 billion in 2003. The start of the 21st century indicates the coming convergence of agriculture and medicine with pharmaceuticals being produced by genetically engineered plants and the greater acceptance of herbal medicine. The biotech century will further see the integration of agriculture and industry especially in energy production. Enzyme-based processing of agricultural produce and its by-products are being developed to produce biofuels, plastics and other products. It is predicted that this will eventually comprise the largest sector of the biotechnology industry.

As early as 1979, the Philippine government has invested in biotechnology with the establishment of the National Institute of Biotechnology and Microbiology (BIOTECH), now known as the National Institute of Molecular Biology and Biotechnology at UP Los Baños. This institute has been replicated in four other campuses of the University of the Philippines System. In mid-1980s, the Department of Science and Technology identified biotechnology as a priority investment area and developed the UPLB science park for business incubation. The Department of Agriculture two years ago organized its leading research centers – Philippine Rice Research Institute, Philippine Carabao Center, and National Fisheries Research Institute into a network of biotechnology research centers for crops, livestock and aquatic resources, respectively. Still these

investments have not sufficiently fostered the growth of a biotechnology industry as what was previously envisioned in the establishment of the BIOTECH at UP Los Baños.

The US, Canada, Australia and several EU countries, as well as Singapore, Malaysia, China, India and Taiwan, have put in place a policy environment that encourages bioindustry development. These policies include support for high quality research, support to rapidly develop research results into marketable products/services, support for start-up companies, and other incentives for industry to develop/adopt new technologies. Large and competitive grants are provided for high quality research work in research institutions. Huge grants are also provided for industry-public collaborations to fast-track technology development. Guarantee funds for venture capital investing in biotechnology have been provided. Science parks/bioincubators were established to provide infrastructure, technical, administrative, marketing and legal support for start-up companies. Technology transfer from public research institution is encouraged. For example, the US passed the Bayh-Doyle Act in 1980 which was credited with stimulating significant growth in university-industry technology transfer and research collaborations. France encourages scientists to become entrepreneurs by allowing them to leave their post for a maximum of 6 years and awards a maximum of 15% of capital in the creation of a start-up. Protection of intellectual property rights further encouraged technology development and biotechnology companies are graded according to their patent portfolios. In Malaysia and Singapore, foreign companies are encouraged to locate in their countries; whereas Canada requires foreign companies doing business within the country to establish R&D units.

In the Philippines, we need to put in place the appropriate policy environment to promote bioindustry development. Biodiversity, our greatest resource, remains untapped. While we continue to train scientists, lack of local employment lead them either to other occupations or to foreign shores. The cumbersome government accounting and auditing procedures often result in poor fund utilization in public research institutions and stifles scientific creativity. Industry-academe collaborations in technology development are few. Many policies encourage individual rather than multidisciplinary achievements, yet biotechnology requires a multidisciplinary approach. Government funds for research cannot be committed for terms longer than one year yet technology and product development may take years. Venture capital for biotechnology is virtually non-existent. The present bioprospecting policy is biased against a Filipino start-up and favors well-capitalized foreign companies. Many scientists are not familiar with intellectual property rights protection. Although biotechnology investment is highly profitable, it is also very risky with a long gestation period, hence, private sector investments in biotechnology R&D are low.

The proposed legislation intends to address the weaknesses of our system to enable the country to develop a biotechnology-based industry. The private sector is given incentives to invest in biotechnology R&D by allowing the total R&D cost and prices of shares of stocks in biotech companies as tax deductible. Majority of the government's investments in biotechnology

R&D is awarded through a government corporation so as to lessen the burden of an unwieldy accounting and auditing system.

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AN ACT PROMOTING THE GROWTH OF A BIOTECHNOLOGY INDUSTRY IN THE
PHILIPPINES AND THE CREATION OF WEALTH FROM BIODIVERSITY

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

ARTICLE I

TITLE, DECLARATION OF POLICY AND OBJECTIVES

Section 1. Short Title. – This Act shall be known as the Bioindustry Development Act of 2010

Section 2. Declaration of Policy. – The state fully recognizes that biotechnology is a powerful tool in the creation of wealth from human capital as well as from biodiversity.

Section 3. Objective. – The Act aims to put in place a policy environment for the continuing generation and application of biological knowledge and promote the sustainable growth of a biotechnology-based industry.

Section 4. Definition of Terms. – As used in this act, the following terms shall be taken to mean as follows:

1. *Biodiversity* refers to the variability among living organisms from all sources, including, *inter alia*, terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.

2. **Bioindustry** or biotechnology-based industry comprises of companies involved in research, development, manufacture and sale of materials such as cell cultures, catalysts, genetic materials, immune response materials, biochemicals, enzymes, proteins, bioactive molecules, genetically engineered organisms, and equipment specifically used in biological and genetic research. Also included are service organization that perform consulting, testing, processing, and storage of such products.
3. **Biotechnology** refers to a set of tools and procedures involving living organisms or parts thereof that produces a product or service.
4. **Start up** refers to a newly established biotech company for profit.

ARTICLE II

THE PHILIPPINE BIOINDUSTRY R&D CENTER

Section 5. The Philippine Bioindustry R&D Center. – To ensure the continued availability of suitable yet innovative and competitive bio-based technologies, there shall be established a Philippine Bioindustry R&D Center herein referred to as the Center.

Section 6. Functions of the Center. The Philippine Bioindustry R&D Center shall:

1. Develop and market competitive, biologically-based technologies and products
2. Harness Philippine biodiversity in developing competitive products for the world market
3. Conduct contract research and provide technical services to the public
4. Manage a Biotechnology Research Fund that will support off-Center research and development relevant to its corporate objectives as well as support a research fellowship and training program
5. Establish a state of the art facilities for research and study

Section 7. Powers of the Center. – To enable the Center to carry out its functions, it shall be endowed with the following powers:

1. To own, hold, plan and construct buildings and other facilities as may be necessary or proper to attain its purposes and objectives.
2. To purchase equipment, materials and articles, either locally or abroad, as may be necessary or proper to carry out its powers and functions and attain its purposes and objectives, and shall be exempt from the payment of any and all forms of taxes, duties, fees and charges imposed by any governmental authority, whether national or local, on

any and all such importation of equipment, materials, articles and services; Provided, however, That the same are not available locally on favorable terms.

3. To enter into, make and execute contracts and agreements of any kind or nature;
4. To borrow money and obtain loans from all sources, whether local or foreign and whether government or private, to help finance its research programs and its capital and operating expenditures;
5. To invest in, purchase or otherwise acquire, own, hold, use, lease, mortgage, pledge, encumber, sell, assign, convey, exchange, or otherwise deal in real and/or personal properties of whatever kind and nature, or any interest therein, including shares of stock, bonds, notes, securities and other evidences of indebtedness of natural or juridical persons, whether domestic or foreign and whether government or private;
6. To conduct bioprospecting activities and shall be exempted from the fees and requirements of the Republic Act No. 9147, otherwise known as The Wildlife Resources Conservation and Protection Act.
7. To acquire or obtain from any governmental authority, whether national or local, foreign or domestic, or from any person, corporation, partnership, association or other entity, such charters, franchises, licenses, rights, privileges, assistance, financial or otherwise, and concessions as are conducive to and necessary or proper for the attainment of its purposes and objectives;
8. To receive and acquire from any person and/or government and private entities, whether foreign or domestic, grants, donations and contributions consisting of such properties, real or personal, including funds and valuable effects or things, as may be useful, necessary or proper to carry out its purposes and objectives and administer the same in accordance with the terms of such grants, donations and contributions, consistent with its purposes and objectives;
9. To establish new corporations solely, in partnership, or in consortium with other entities;
10. To exercise all the powers of a corporation under the general corporation law, insofar as such powers are not inconsistent with the provisions of this Act, and
11. To exercise such other powers and functions and perform such other acts as may be necessary, proper or incidental to the attainment of its purpose and objectives.

Section 8. Composition of the Board of Directors. – The Center shall have a corporate structure and governed by a Board of Directors. The Board of Directors shall be comprised of three business leaders, two respected scientists, in any one the relevant fields of molecular biology, biotechnology, genetics, biochemistry, chemistry or chemical/bioprocess engineering, and the President of the Center. The Secretary of the Department of Trade and Industry shall serve as Chair in an ex officio capacity. Initially, the members of the Board shall be selected by the

Secretary based on a set of criteria and from nominations submitted by the Biotechnology Coalition of the Philippines (BCP), Chamber of Herbal Industries of the Philippines, Inc. (CHAPI), and Philippine Food Processors and Exporters Organization Inc. (PhilFoodex).

Section 9. Functions of the Board of Directors. – The Board shall exercise the following powers and functions:

1. To define and approve the programs, plans, policies, procedures and guidelines for the Center in accordance with its purposes and objectives, and to control the management, operation and administration of the Center;
2. To approve the Center's organizational structure, staffing pattern, operating and capital expenditure, and financial budgets, prepared in accordance with the corporate plan of the Center;
3. To approve salary ranges, benefits, privileges, bonuses, and other terms and conditions of service for all officers and employees of the Institute, upon recommendation of the President;
4. To appoint, transfer, promote, suspend, remove or otherwise discipline any subordinate officer or employee of the Institute, upon recommendation of the President;
5. To create such committee or committees and appoint the members thereof, as may be necessary or proper for the management of the Center or for the attainment of its purposes and objectives;
6. To determine the research priorities of the Center consistent with the framework of its purposes and objectives; and
7. To exercise such other powers and functions and perform such other acts as may be necessary or proper for the attainment of the purposes and objectives of the Institute.

Section 10. President and Other Officers. – The Center shall be headed by a President who shall be appointed by the Board of Directors. He/she shall serve at the pleasure of the Board of Directors.

The President shall be assisted by such Vice-president and Program managers as the Board may determine to carry out the purposes and objectives of the Center.

Section 11. Powers, Functions and Duties of the President. – The President shall be directly responsible to the Board, and shall have the following powers, functions and duties:

1. To exercise over-all supervision and direction over the implementation of all research, development and marketing programs of the Center, and in general to supervise and direct the management, operation and administration of the Center;

2. To draft a program of operation for the implementation of all activities necessary to attain the objectives of the Center for approval by the Board;
3. Within the limits of the authority delegated to him by the Board, to execute contracts, incur obligations, acquire and dispose of assets and deliver documents on behalf of the Center;
4. To implement and enforce policies, decisions, orders, rules and regulations adopted by the Board; and
5. To exercise such other powers and functions and perform such other duties as may be authorized or assigned by the Board.

Section 12. Ownership of the Center. – The Center shall exist as government owned and controlled corporation for a maximum of ten years, after which it shall be sold off to the private sector. However, should the Center become profitable earlier, it shall then be sold off to the private sector.

Section 13. Scientific Manpower. – To enable the Center to retain its scientific staff, it shall offer salaries at rates competitive with other countries. Upon the privatization of the Center, 15% of the shares shall be awarded to the scientific staff that has been with the Center for at least 5 years and has produced at least one patented technology or 8 articles published in scientific journals cited in the Institute for Scientific Information (ISI) Journal Citation Report.

Section 14. Initial Operations. – The Biotechnology Coalition of the Philippines (BCP) is hereby designated to draft a Program of Operations for the Center. The Secretary of the Department Trade and Industry is hereby authorized to provide a grant of P3.0 million to enable the BCP to carry out this function.

Section 15. Funding – The amount of P500 Million shall be released from the Agricultural Competitive Enhancement Fund (ACEF) to cover the operation of the Center for 10 years.

ARTICLE III

THE BIOTECHNOLOGY GUARANTEE FUND

Section 16. The Biotechnology Guarantee Fund. – There is hereby established a Biotechnology Guarantee Fund in the amount of P500 million to be sourced from the President's discretionary funds or from other sources to provide guarantee for venture capital invested in biotechnology companies.

ARTICLE IV

INCENTIVES FOR BIOTECH COMPANIES AND COMPANY START-UPS

Section 17. A biotech company shall, for a period of five years from the time it is subject to corporate income tax, deduct the funds expended in R&D within the country from its taxable income. Biotech companies can also avail of the Barangay Micro Business Enterprise, Philippine Export Processing Zone and Board of Investments incentives. After the Income Tax Holidays provided by such instruments, the R&D expenditures of the biotech companies can then use this tax deduction facility.

Section 18. A biotech company shall be allowed to purchase equipment, materials and articles abroad, as may be necessary or proper to carry out its powers and functions and attain its purposes and objectives, and shall be exempt from the payment of any and all forms of taxes, duties, fees and charges imposed by any governmental authority, whether national or local, on any and all such importation of equipment, materials, articles and services; Provided, however, that the same are not available locally on favorable terms. **Provided further that the biotech company is not allowed to sell or lease such equipment within a period of 5 years from date of actual importation.**

Section 19. Shareholders of new locally-based biotechnology companies shall be able to claim as tax credit the amount paid for the shares in that taxation year.

Section 20. Scientists in public institutions are hereby allowed up to 5 years leave of absence to establish a biotech start up based on technologies they themselves developed. **[check compatibility with the PCARRD technotransfer ACT]**

Section 21. In order to encourage top executives and technology investors to participate in the operation of biotech companies and R&D activities, and to share their achievements, new shares issued by a biotech company to top executives and technology investors (in return of their knowledge and technology) shall be excluded from the amount of their consolidated income or corporate income of the then current year for taxation purposes; provided, however, that if the title to the aforesaid shares is transferred with or without consideration, or distributed as estate, the total purchase price or the market value of the shares at the time of transfer as a gift or distribution as estate shall be deemed income generated in that tax year and such income less the acquisition cost shall be reported in the relevant income tax return.

Section 22. Funds from the Agricultural Competitiveness Enhancement Fund, subject to the approval of the Department of Agriculture, can be used as financial grants to technology start-ups with agricultural and aquaculture related products and services for seed capital and for subsequent expansion.

ARTICLE V

MISCELLANEOUS PROVISIONS

Section 23. Repealing Clause. – The pertinent provisions of Republic Act No. 9147, otherwise known as The Wildlife Resources Conservation and Protection Act; and all other laws, presidential decrees or issuances, executive orders, presidential proclamations, rules and regulations or parts thereof inconsistent with the provisions of this Act, are hereby repealed, modified or amended accordingly.

Section 24. Separability Clause. – If any provision of this Act is declared unconstitutional, the same shall not affect the validity and effectivity of the other provisions hereof.

Section 25. Effectivity. – This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved.