

PRepublic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

EIGHTEENTH CONGRESS
1st Regular Session

House Bill No. 651



Introduced by Hon. Francis Gerald Aguinaldo Abaya

EXPLANATORY NOTE

The growth of a country's economy is aided by a number of important factors: a huge reservoir of inexpensive but skilled workers, a vibrant business sector, sound government policies and growing confidence among investors. However, even leapfrogging attempts, e.g. importation of turnkey technology or adoption of so-called "leading-edge" or non-traditional technologies (e.g. nanotechnology, new materials, biotechnology, etc.) will fall short of their target in the absence of a sound technological springboard. More important than the sophistication of the transplanted technology is the ability of the recipient nation to absorb, hone and bring it to bear on its needs. Thus, every country needs a technological base on which to nurture, grow and bring to fruition its commerce and industry.

The country's scorecard of its technological base is relatively poor. Because newly industrialized country (NIC) status is synonymous with global competitiveness, Philippine science and technology (S&T) must be measured against international standards. Here, some of the parameters compared are: (1) the number of research scientists and engineers (RSEs) per million of the population, and (2) the proportion of national research and development (R&D) expenditures in relation to the size of their economies.

The so-called economic superpowers (Japan, Singapore, and South Korea) have the highest number of RSEs, followed by the Asian dragons (China, Thailand and Malaysia). Sadly, the Philippines trails behind by a formidable margin. The number of true RSEs in the country is very low, at only 108 per million of the Filipino population in 2002. In stark contrast is the number in other developing countries such as Thailand, Malaysia and Indonesia who have 340 per million of their population. This shortage threatens to prevent further acceleration of economic growth. As the economy becomes vibrant, businesses will tend to diversify, expand and encounter competition. Hence, technological flexibility will be greatly required.

Based on another parameter, a study by the American Association for the Advancement of Science (AAAS) showed that there is a direct proportion of the national R&D expenditures of various countries in relation to the size of their

economies. In 2004, U.S. R&D represented 2.6% of its GDP while Japan spent 3.3%. The World Bank data analyzed by nationmaster.com shows that the Philippines spends only a very small 0.2% of GDP on R&D.

There have been numerous initiatives, both from the government and the private sector, and in some cases, a collaboration of both, to address the dire state of the country's S&T situation.

The National Science Complex (NSC), created by Executive Order No., 583 (Dec. 8, 2006) and operated by UP Diliman's College of Science, now serves as the national hub for the generation and application of new scientific knowledge in the natural and applied sciences and mathematics. The Government has invested Php1.7B between 2006 and 2009 to complete the infrastructure requirements of the NSC and to establish technology incubation centers to benefit scientists, researchers and entrepreneurs.

A Php 3.5B investment for three (3) years starting 2008 until 2010 by the Government in Engineering Research and Development for Technology (ERDT) was also made, Php 1.7B of which is for the completion of the infrastructure development of the UP College of Engineering's Engineering Complex. ERDT is a program of the ERDT Consortium Universities all of which offer masters and doctoral degrees in various engineering fields. The Consortium is led by the University of the Philippines-Diliman and includes: University of the Philippines – Los Banos, Ateneo de Manila University, Central Luzon State University, De La Salle University, Mapua Institute of Technology, Mindanao State University-Iligan Institute of Technology, and University of San Carlos. The ERDT Consortium Universities share a common vision of a globally competitive Philippines, with engineers equipped with advanced degrees to make science and technology work for Filipinos from disaster mitigation to poverty alleviation, from agriculture to semiconductor industries; with emphasis on ensuring a sustainable environment and affordable energy for the future and producing indigenous technologies to improve the lives of Filipinos.

A steady and productive support and funding for the Engineering Research and Development for Technology (ERDT) and the National Science Complex (NSC) objectives, which are vital to the satisfactory implementation of the Constitution's statements of policy on education, science and technology, and the need to further develop, beyond 2010, emerging technologies (e.g. Nanotechnology, bioengineering, and renewable energy) that will make the country more competitive, is therefore imperative.

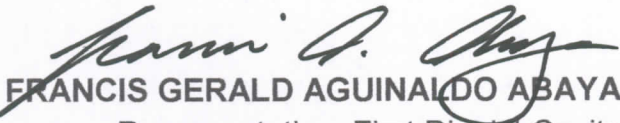
The proposed bill seeks to address this pressing concern by creating the ASSET Scholarship Center to sustain and institutionalize these initiatives in the ERDT and NSC, as well as to ensure continuous progress in science and technology.

The proposed bill also seeks to institutionalize reforms in the procurement and fund disbursement systems in science, engineering and technology programs in line with the Government's program of good governance where there is a need to streamline procedures for science and technology contracts

for the expeditious implementation of research projects and the speedy response to the fast changing demands of science and technology while promoting transparency, impartiality and accountability in government transactions.

Finally the proposed bill also seeks to provide for the establishment of the ASSET Fund, a funding mechanism to augment the massive budgetary requirements needed to sustain and maintain the various programs of the ASSET Scholarship Center.

For the foregoing reasons, the approval of this bill is earnestly sought.


FRANCIS GERALD AGUINALDO ABAYA
Representative, First District Cavite

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

EIGHTEENTH CONGRESS
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Introduced by Hon. Francis Gerald Aguinaldo Abaya

AN ACT ADVANCING AND SUSTAINING SCIENCE, ENGINEERING AND TECHNOLOGY RESEARCH AND EDUCATION, CREATING THE ASSET SCHOLARSHIP CENTER, PROVIDING FOR ITS FINANCING, AND MANDATING IT TO INSTITUTIONALIZE REFORMS IN THE PROCUREMENT AND FUND DISBURSEMENT SYSTEMS IN SCIENCE, ENGINEERING AND TECHNOLOGY SCHOLARSHIP PROGRAMS, AND FOR OTHER PURPOSES

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

1 **SECTION 1. *Short Title.*** – This Act shall be known as the “The Asset Act of
2 2019”.

3 **SECTION 2. *Declaration of Policies.*** –

4 a. In furtherance of the explicit provisions of the 1987 Philippine
5 Constitution, especially in Article XIV, recognizing that science and
6 technology are essential for national development and progress and
7 mandating that the State shall give priority to education, science and
8 technology, sustained efforts to promote the advancement of
9 science, engineering and technology research and education is
10 hereby declared as a national priority concern in view of their
11 indispensability in achieving national development and growth and
12 international competitiveness of the Philippines in the fields of
13 science, engineering, and technology.

14 b. Recognizing the need to bolster interest and appeal of science,
15 engineering and technology among the citizens, the State shall
16 promote and provide incentives, including tax exemptions,
17 scholarships, grants-in-aid, or other forms of incentives to deserving

1 science students, researchers, scientists, inventors, technologists,
2 and specially gifted citizens to encourage continuous and higher
3 learning and education, research and activities in science,
4 engineering and technology.

5 **SECTION 3. *Definition of Terms.*** – For purposes of this Act:

- 6 a. **ASSET** is an acronym that refers to Advancing and Sustaining Science,
7 Engineering and Technology;
8 b. **ASSET FUND** refers to the Fund created under Section 8 of this Act;
9 c. **ASSET Scholarship Center** refers to the scholarship center created
10 under Section 4 of this Act;
11 d. **ERDT** refers to Engineering Research and Development for Technology. It
12 is a consortium of eight member universities comprising, at present, of
13 University of the Philippines-Diliman, University of the Philippines – Los
14 Banos, Ateneo de Manila University, Central Luzon State University, De
15 La Salle University, Mapua Institute of Technology, Mindanao State
16 university – Iligan Institute of Technology, and University of San Carlos.
17 e. **NSC** refers to the National Science Complex and Technology Incubation
18 Park created by virtue of Executive Order (EO) 583 dated Dec. 8, 2006.

19 **SECTION 4. *Creation and Establishment of the ASSET Scholarship***
20 **Center.** – The ASSET Scholarship Center is hereby established as an institute in an
21 area within the University of the Philippines, Diliman.

22 **SECTION 5. *Functions of the ASSET Scholarship Center.*** –

- 23 a. Undertake or sponsor technical studies and researches in the fields
24 of Science, Engineering, and Technology;
25 b. Implement graduate degree programs, certification programs and
26 scholarship programs in all fields of engineering and science, in
27 collaboration with the Department of Science & Technology (DOST),
28 Commission on Higher Education (CHED) and the University of the
29 Philippines (UP);
30 c. Undertake the buildup of infrastructure and other physical facilities
31 and software for instructional and R&D work;
32 d. Undertake the training of faculty members, support staff and
33 research staff in order to make them more suited to the goals of the
34 ERDT and NSC;

- 1 e. Undertake scientific, engineering and technological studies and
2 researches on request from the various agencies of the government
3 concerned with the applied sciences, where expertise is available in
4 ERDT and NSC;
- 5 f. Undertake the publication of studies, monographs, research papers,
6 articles, and other works or writings on science, engineering and
7 technology, with special emphasis on those related to its general
8 objectives, subject to rigorous and scientific scrutiny under pertinent
9 laws on national security and intellectual property;
- 10 g. Adopt a procurement ad fund disbursement system for the ASSET
11 Scholarship Center that will ensure timely delivery of scientific tools
12 and equipment and other logistical requirements with the
13 appropriate quality and quantity;
- 14 h. Adopt measures that will ensure that the Filipino people shall benefit
15 from the activities of the ASSET Scholarship Center. To this end,
16 the ERDT and NSC may: (1) Delegate authority to government-
17 owned, government-operated institutes – to enter into cooperative
18 research and development agreements with laboratories, foreign
19 governments, local government units (LGUs), universities, and the
20 private sector, and to license, assign, or waive rights to intellectual
21 property developed by the ERDT and NSC either under such
22 cooperative research or development agreement and from within
23 individual laboratories; (2) Identify and encourage persons to act as
24 conduits between and among the NSC, ERDT universities, and the
25 private sector for the transfer of technology developed from NSC or
26 ERDT-funded research and development efforts; (3) Ensure that the
27 national government, local government units, universities, and the
28 private sector are provided with information on the technology,
29 expertise, and facilities available in the ERDT and NSC, as well as
30 adequate access thereto as may be deemed reasonable and
31 appropriate; (4) Promote the commercialization, in accordance with
32 pertinent laws, of patentable results of ERDT- and NSC-funded
33 research by granting to all contractors, regardless of size, the title to
34 patents, made in whole or in part, with ERDT and NSC funds, in

1 exchange for royalty-free use by or on behalf of the government; (5)
2 Administer all patents and licenses to inventions made with ERDT
3 and NSC, which are owned by the non-profit contractor or grantee,
4 in accordance with an Institutional Patent Agreement that shall be
5 drafted with the help of the University of the Philippines Law
6 Complex; and (6) Implement, as expeditiously as practicable,
7 royalty-sharing programs with inventors who were employees of the
8 agency at the same time their inventions were made, and cash
9 award programs.

10 i. Perform all other acts as may be necessary for the achievement of
11 its objectives and functions, including the adoption of implementing
12 rules and regulations in accordance with the pertinent rules and
13 regulations; and

14 j. Organize such other additional institutes, centers, departments and
15 laboratories in the future, which it may deem proper to create,
16 utilizing the staff, physical facilities and programs of the consortium
17 universities and their constituent units as appropriate. The ASSET
18 Scholarship Center shall issue such rules, regulations, and other
19 issuances as may be necessary to ensure the effective
20 implementation of this law.

21 **SECTION 6. *Appointments to the Administrative and Research Staff.* –**

22 Any provision of law to the contrary notwithstanding, appointments to the
23 administrative or research staff of the ASSET Scholarship Center may be on a part-
24 time basis and shall be exempt from the requirements and restrictions of the Civil
25 Service Law, the Retirement Law, and Section 259 of the Revised Administrative
26 Code; Provided, that any retiree employed in the ASSET Scholarship Center shall
27 not be required to reimburse or refund any gratuity received from the Government
28 nor shall any pension or annuity to which he/she is entitled be suspended or reduced
29 on account of his employment in the Center.

30 **SECTION 7. *Provisions on Copyright.* –** In order to enhance the facilities of
31 the ASSET Scholarship Center, no book, treatise, or other literary work on science,
32 mathematics, and engineering, which shall have been directly produced using the
33 time, facilities and materials of the ASSET Scholarship Center and/or under its
34 auspices, shall be deemed entitled to copyright protection as provided in the laws on

1 copyright, unless, in addition to the requirements therein prescribed, two copies
2 thereof shall have been previously filed with the Center, as shown by an official
3 receipt thereof. The materials thus gathered shall be open to all researchers,
4 whether in the government service or otherwise.

5 **SECTION 8. *Establishment and Sources of ASSET Fund.*** – In order to
6 provide for the support of the ASSET Scholarship Center, a Science, Engineering, &
7 Technology Research & Education Fund (ASSET Fund) is hereby established.

8 The Government's share in the ASSET Fund shall be composed of:

- 9 a. One percent (1%) of the total filing fees collected by their respective
10 administrators, or equivalent functionary, for each application or pleading
11 filed with the Department of Health¹, the Department of Environment and
12 Natural Resources², the Department of Public Works and Highways, the
13 Department of Science and Technology, the Department of Trade and
14 Industry, the Department of Energy, National Mapping and Resource
15 Information Administration, Commission on Information and
16 Communications Technology, the Department of Transportation and
17 Communications, Professional Regulatory Commission, local government
18 units handling building occupancy, fire, zonal clearances, and real
19 property taxes, and the attached agencies of all the foregoing, if
20 applicable. Such additional amounts shall be receipted for separately as
21 part of the ASSET Fund;
- 22 b. One percent (1%) of the gross sales of the lotto operation of the Philippine
23 Charity Sweepstakes Office (PCSO);
- 24 c. One percent (1%) of the road users tax;
- 25 d. Government financing institutions identified and requested by the ERDT
26 and the NSC must contribute to the ASSET Fund an amount equivalent to
27 not less than one percent (1%) but not more than three percent (3%) of
28 their unimpaired surplus realized during the immediately preceding year;
29 and
- 30 e. The ERDT and NSC share in projects, research and any other income-
31 generating venture.

¹ Includes the BFAD

² Includes the PENRO, CENRO, Mines and Geosciences Bureau etc.

1 The ASSET Fund shall also have a private portion to be raised from donations, gifts,
2 and other conveyances including materials, equipment, properties and services by
3 gratuitous title.

4 **SECTION 9. *Disposition of Funds.*** – Fifty percent (50%) of the ASSET Fund
5 shall, upon collection, be immediately remitted to the NSC and deposited in a
6 separate account in any authorized government depository bank in the name of the
7 NSC. The remaining 50% of the ASSET Fund shall, upon collection, be immediately
8 remitted to the ERDT and deposited in a separate account in any authorized
9 government depository bank in the name of the ERDT. No more than twenty percent
10 (20%) of the said allocated ASSET Fund may be used for general administration
11 purposes. The Office of the Solicitor General is directed to aid the NSC and ERDT to
12 ensure the prompt collection of the ASSET Fund.

13 **SECTION 10. *Creation and Mandate of the Office on Internal Control.*** –
14 The Office on Internal Control is hereby created to serve the ASSET Scholarship
15 Center.

16 **SECTION 11. *Duties and Functions Regarding Institutional Reforms in***
17 ***the Procurement and Fund Disbursement System in the ASSET Scholarship***
18 ***Center.*** – The Office on Internal Control shall perform the following functions:

- 19 a. Recommend and implement improvements in the Procurement and Fund
20 Disbursement Systems of the ASSET Scholarship Center, and ensure
21 timely delivery of scientific equipment and tools and other logistical
22 requirements with the right quality and quantity;
- 23 b. Ensure the efficiency of the ASSET Fund vis-à-vis the delivery of the
24 respective mandate and functions of these institutions;
- 25 c. Ensure that adequate internal controls are in place at the ASSET
26 Scholarship Center in the areas of procurement and fund disbursement
27 systems, determine adherence to existing rules and regulations and their
28 responsiveness to operational requirements. The Office shall therefore
29 facilitate the establishment of Internal Audit Service Units at the ASSET
30 Scholarship Center to fulfill this objective in accordance with R.A. No. 3456
31 as amended by R.A. No. 4177, and Administrative Order (A.O.) No. 278 as
32 amended by A.O. No. 70.
- 33 d. Coordinate with concerned government and non-government institutions
34 regarding the conduct of capacity-building activities and skills-

enhancement trainings in the areas of procurement and fund disbursement, to equip the latter with appropriate tools and techniques on the same;

- e. Facilitate the establishment of a single Bids and Awards Committee (BAC) in the ASSET Scholarship Center for procurement contracts over Php 50 million, such as centrally managed and peculiar items;
- f. Procure by negotiated purchase highly specialized items for research, locally or by importation subject to approval by the BAC. For this purpose, "highly specialized items for research" shall be understood to be analogous to "other causes where immediate actions is necessary", as used in Section 53 (b) of the Implementing Rules and Regulations of RA 9184.

SECTION 12. *Tax Provisions.* –

- a. All donations to the ASSET Fund are tax-exempt;
- b. As a non-profit educational institution, the ASSET Scholarship Center shall also be exempt from income tax as well as real property tax;
- c. All purchases made by the ASSET Scholarship Center shall also be exempt from Value Added Tax (VAT) as well as customs duties.

SECTION 13. *Effectivity.* – This Act shall take effect fifteen (15) days following its publication in the Official Gazette or in a newspaper of general circulation.

Approved,