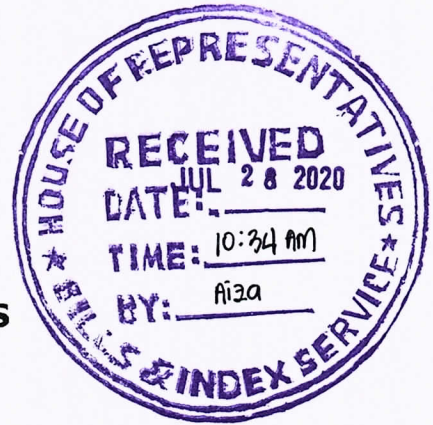




Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

EIGHTEENTH CONGRESS
Second Regular Session



HOUSE BILL NO. 7193

Introduced by Representative Sharon S. Garin

EXPLANATORY NOTE

This bill seeks to institutionalize the Science for Change Program (S4CP) as a national strategy to accelerate the development of science, technology and innovation in the country.

It has been established that the partnership between sustainable development and science is essential for a country to accelerate progress. The United Nations Educational, Scientific and Cultural Organization (UNESCO) stated that *"creating knowledge and understanding through science equips us to find solutions to today's acute economic, social and environmental challenges and to achieving sustainable development and greener societies. As no one country can achieve sustainable development alone, international scientific cooperation contributes, not only to scientific knowledge but also to building peace."* To make significant advances in science, technology and innovation (STI), UNESCO recommends that developing countries must have at least 380 researchers, scientists and engineers per million populations and at least one percent (1%) of gross domestic product (GDP) expenditure on research and development.

Sadly, the budget of the Department of Science and Technology (DOST) has decreased from P21.02 billion in 2018 to P20.1 billion in 2020. Allocations for research and development and STI initiatives have not reached one percent (1%) of the GDP even after experts have recently recommended to raise them to two percent (2%), or P240 billion annually. The budget cut has proven to be disastrous, particularly at this time when the country is grappling with the coronavirus disease (COVID-19) pandemic.

Despite its limited resources, the DOST has launched the S4CP based on a harmonized national research and development agenda, with emphasis on collaborative research among stakeholders in the government, academe, and private sector. Given this effort, the Philippines now ranks 54th in the 2019 Global Innovation Index out of 129 countries. However, with more research and development funding, the Philippines could have ranked higher and coped better with any crisis.

Humanity has been constantly facing enormous challenges. Social conditions are worsening and are taking on worldwide dimensions. Aside from a booming population, food sources getting scarce, and severe environmental degradation, the COVID-19 pandemic brought the world to a public health emergency that also affected societies and economies at their core. All nations are racing against time to develop a cure and while doing so, are struggling to formulate responses to manage the effects of the pandemic on societies, economies, and vulnerable groups.

The preparedness and response plans of a country to any crisis depend upon its capability to develop new technologies. This bill specifies the areas that need to be prioritized in the formulation of a national research and development agenda and lays the foundations for new approaches, solutions and technologies.

This measure complements the Philippine Development Plan for 2017-2022 by the National Economic Development Authority which aims to promote STI as a strategy for the country to become an active player in the global knowledge economy. The bill is also guided by the DOST Strategic Plan for 2017-2022: Science for the People (SFTP) which aims to use science to enhance innovation and the creative capacity of the Filipinos towards the achievement of inclusive and sustainable development. By institutionalizing the S4CP, a massive increase in investments and a robust policy-making measure are permanently put in place.

In view of the foregoing, approval of this bill is earnestly sought.



SHARON S. GARIN
AAMBIS-Owa Party-list



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HOUSE BILL NO. 7193

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AN ACT

**INSTITUTIONALIZING THE SCIENCE FOR CHANGE PROGRAM (S4CP) AS A
NATIONAL STRATEGY TO ACCELERATE THE DEVELOPMENT OF SCIENCE,
TECHNOLOGY AND INNOVATION IN THE COUNTRY, AND APPROPRIATING
FUNDS THEREFOR**

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

SECTION 1. **Short Title.** – This Act shall be known as the "*Science for
Change Act.*"

SEC. 2. **Declaration of Policy.** – The State recognizes the importance of
science and technology for national development and progress. Thus, it gives priority
to research and development, invention, innovation, and their utilization; and to
science and technology education, training, and services. Likewise, the State supports
indigenous, appropriate, and self-reliant scientific and technological capabilities, and
their application to the country's productive systems and national life.

17 Towards these ends and in pursuit of excellence in the field of science,
18 technology and innovation (STI), the State needs to accelerate the development of
19 STI in the country through a massive increase in investment, expansion of existing
20 STI initiatives, creation of new programs, development of human resources in STI,
21 and capacity building of research and development institutions.

22 SEC. 3. **Objectives.** – The objectives of this Act are the following:

23 (a) Achieve a higher standard of STI in contribution to the development of
24 the economy and society;

25 (b) Improve the welfare of the nation by providing comprehensive and
26 systematic policies for the progress of STI; and

27 (c) Help the country gain a competitive edge against other countries in the
28 field of research and development.

29 SEC. 4. **Science for Change Program.** – The Science for Change Program
30 (S4CP), an existing program of the National Government being implemented by the
31 Department of Science and Technology (DOST), is hereby institutionalized to
32 accelerate the development of STI in the country.

33 SEC. 5. **Implementing Agency.** – The DOST shall oversee the
34 implementation of this Act. In addition to its existing functions, the DOST shall:

35 (a) Formulate a comprehensive harmonized national research and
36 development agenda as the basis of the S4CP;

37 (b) Coordinate and collaborate with National Government agencies (NGAs),
38 local government units (LGUs), the private sector, academe,

39 international institutions, and other stakeholders to ensure the effective
40 formulation and implementation of the S4CP;

41 (c) Prescribe policies and regulations, and enter into contracts to undertake
42 the effective implementation of this Act, subject to existing laws, rules
43 and regulations;

44 (d) Arrange funding for the S4CP from any legitimate source, whether
45 private, government, foreign or domestic, including official
46 development assistance and bilateral or multilateral loans, subject to
47 existing laws, rules and regulations;

48 (e) Undertake the creation, establishment, construction, maintenance and
49 operation of infrastructure, equipment, systems or such other
50 requirements necessary for the program;

51 (f) Avail of the expertise of any particular employee, technician, or group
52 of persons in any bureau, office, or department of the National
53 Government whose services are urgently needed for the
54 implementation of the S4CP;

55 (g) Establish regional offices, if it deems necessary, for the attainment of
56 the objectives of this Act;

57 (h) Train personnel for the implementation of the S4CP, including in
58 instances where the implementation is outsourced to a qualified private
59 entity;

- (i) Include resource requirements for a nationwide implementation of the S4CP in its annual budget priority and such other appropriate funding sources as the Department of Budget and Management may identify; and
- (j) Perform such other acts that are necessary for the effective implementation of the S4CP.

SEC. 6. ***National Research and Development Agenda.*** – The DOST, in consultation with government research institutions and other NGAs, shall formulate a harmonized and comprehensive national research and development agenda, to be used as the basis for crafting the S4CP, which prioritizes the following STI areas:

- (a) Health which covers epidemiology or study of infectious diseases and their causation and prevention particularly during a pandemic, drug discovery and development, diagnostics, genomics or molecular technology, functional foods, hospital equipment and biomedical devices, information and communication technology for health, nutrition and food safety, disaster risk reduction for health, and climate change adaptation for health;
- (b) Water security, clean energy, sustainable communities, and nation-building;
- (c) Agriculture, aquatic and natural resources which cover crops, livestock, fisheries and aquaculture, forestry, natural resources and environment, and technology transfer;

(d) Industry, energy and emerging technology which covers food and nutrition security, countryside development, competitive industry, delivery of social services, and national security; and

(e) Disaster risk reduction and climate change adaptation which covers observation and monitoring networks, technology development and application for monitoring, modeling and simulation for improvement of monitoring and forecasting, hazards, vulnerability and risk assessment, warning and communication of information, technology development and application for climate change mitigation and adaptation, and technology development and application for disaster risk management.

The Secretary of Science and Technology shall submit for approval the proposed national research and development agenda to the Secretary of the National Economic and Development Authority (NEDA) within three (3) months from the effectivity of this Act.

The approved national research and development agenda shall be submitted to the Secretary of Budget and Management, the Speaker of the House of Representatives, and the President of the Senate either in printed form or by way of an electronic document, and shall be posted on the website of the DOST.

SEC. 7. *Framework and Components of the S4CP.* – The framework of the S4CP is anchored on the national research and development agenda and shall have the following components:

(a) Expansion of existing STI programs of the DOST including:

- 105 1. Health self-sufficiency;
- 106 2. Renewable energy;
- 107 3. Nuclear science for energy, health and agriculture, climate and
- 108 environmental sciences;
- 109 4. Food and nutrition;
- 110 5. Agriculture and aquatic productivity;
- 111 6. Biotechnology for industry, agriculture, health, and environment;
- 112 7. Technology business incubation;
- 113 8. Foreign scholarships for STI; and
- 114 9. Promotion of a culture of science.

115 (b) Creation of new STI programs including:

- 116 1. National health strategy research and development to address public
- 117 health emergencies during pandemics, natural disasters or
- 118 contamination of the environment;
- 119 2. Human security research and development;
- 120 3. Improvement, upgrading or construction of infrastructures such as
- 121 research and development centers or testing facilities in the regions;
- 122 4. Space technology development;
- 123 5. Promotion of creative, tourism and service industries; and
- 124 6. Artificial intelligence.

125 (c) Human resource development in the field of STI; and

- 126 (d) Accelerated research and development programs for capacity building
- 127 of research and development institutions and industrial

competitiveness, including related existing programs being implemented by the DOST such as:

1. Research and Development Leadership Program (RD Lead);
2. Niche Centers in the Region for Research and Development (NICER);
3. Collaborative Research and Development to Leverage Philippine Economy (CRADLE) Program; and
4. Business Innovation through Science and Technology (BIST) for Industry Program.

SEC. 8. *Coordination with Agencies.* – The DOST shall formulate and develop the S4CP in coordination with other government agencies, including state universities and colleges (SUCs) and representatives from the private sector undertaking research and development, and shall ensure that the S4CP is aligned with the priorities stated under the Philippine Development Plan.

The whole-of-government approach in policy and decision making shall be used to recognize the inputs from the National Government, LGUs, non-government organizations, private sector, and other stakeholders within the country in the implementation of the S4CP.

SEC. 9. *Submission of the S4CP.* – The Secretary of Science and Technology shall submit for approval the proposed S4CP to the President within three (3) months after the approval of the national research and development agenda.

SEC. 10. *S4CP Management Council.* – The S4CP Management Council, hereinafter referred to as the “Council,” is hereby created under the supervision of the

DOST to oversee the management of projects funded under the S4CP. The Council is composed of the following:

(a) Secretary of Science and Technology, as chairperson;

(b) Secretary of Health;

(c) Secretary of NEDA;

(d) One (1) representative from the National Research Council of the Philippines;

(e) One (1) representative from the National Academy of Science and Technology;

(f) One (1) representative from the academe or research and development field, to be appointed by the President upon the recommendation of the chairperson; and

(g) Two (2) representatives from the private sector who are involved in any of the STI areas mentioned in this Act, to be appointed by the President upon the recommendation of the chairperson; as members.

The representatives from the academe and private sector shall hold office for three (3) years from the date of appointment and are eligible for reappointment upon completion of the term.

The members of the Council or their respective alternates are entitled to receive *per diem*, allowances, and incentives in accordance with the guidelines promulgated by the Governance Commission for Government-Owned or Controlled Corporations.

171 SEC. 11. ***Functions of the Council.*** – The Council shall exercise the following
172 functions:

173 (a) Define and approve the programs, plans, policies, procedures, and
174 guidelines for the development and implementation of the S4CP;

175 (b) Oversee the implementation, monitoring, maintenance, and
176 sustainability of the projects and activities funded under the S4CP;

177 (c) Recommend to and, whenever necessary, call upon the appropriate
178 agencies of the National Government and any of its instrumentalities,
179 to lend the necessary technical support for, assistance and prioritization
180 in the implementation of the S4CP; and

181 (d) Exercise all the functions and powers necessary or incidental to attain
182 the purposes and objectives of this Act.

183 SEC. 12. ***Mandatory Adaptation of Publicly Funded Technologies.*** –

184 Mandatory adaptation of publicly funded and generated technologies, whenever
185 feasible and practicable, shall strictly be implemented by all government entities or
186 instrumentalities utilizing public funds for any purpose. All National Government
187 agencies (NGAs), government-owned and controlled corporations (GOCCs), SUCs, and
188 LGUs performing STI initiatives are mandated to help develop and implement critical
189 and strategic technology development projects and adopt government-funded locally
190 developed technologies.

For this purpose, all research and development activities performed by the NGAs, GOCCs, SUCs, and LGUs under their respective mandates shall be put under the control and supervision of the DOST.

SEC. 13. ***Assessment and Reporting.*** – The DOST shall assess the S4CP and make a report once every three (3) years, the results of which shall be utilized to stimulate more program lessons exchange, dialogues, policy discussions, and generating inputs for innovation. Mechanisms for promoting third-party monitoring and evaluation by other government agencies and private organizations may also be established.

The DOST shall submit the report to the President of the Philippines, Senate President, Speaker of the House of Representatives, and Committees on Science and Technology in both houses of Congress. The report must be published and regularly updated for the information of the public.

SEC. 14. ***Science for Change Program Fund (S4CPF).*** – The Science for Change Program Fund (S4CPF) is hereby created to be used exclusively for the implementation of the projects and activities under this Act. The S4CPF shall be administered by the DOST in accordance with existing government budgeting, accounting, and auditing rules and regulations. The S4CPF shall be sourced from the following:

- (a) The initial amount of Twenty billion pesos (P20,000,000,000.00) to be taken from the General Appropriations Act (GAA) and other unutilized funds or savings from the GAA of the preceding year, in case the GAA was approved before this law is enacted. Such amount shall be released

to the DOST after the effectivity of this Act. The yearly budget for the S4CP shall double yearly for the next four (4) years;

(b) Income produced by the S4CP; and

(c) Loans, contributions, grants, bequests, gifts, and donations whether from local or foreign sources.

The Secretary of Science and Technology, with the approval of the Secretary of NEDA and the Secretary of Finance, is hereby granted the authority to enter into loan agreements with foreign financial institutions for purposes of this Act.

SEC. 15. **Appropriations.** – For the initial organizational and operational requirements of the S4CP, there is hereby appropriated out of any fund in the National Treasury not otherwise appropriated, the sum of Twenty billion pesos (P20,000,000,000.00). Thereafter, the amount necessary for the continued implementation of this Act shall be included in the annual General Appropriations Act.

SEC. 16. **Implementing Rules and Regulations.** – Within six (6) months from the effectivity of this Act, the Secretary of Science and Technology shall, in coordination with the Secretary of NEDA, promulgate the necessary rules and regulations for the effective implementation of the provisions of this Act.

SEC. 17. **Separability Clause.** – If any part or provision of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected shall remain in full force and effect.

234 SEC. 18. **Repealing Clause.** – All laws, presidential decrees, executive orders,
235 and rules and regulations contrary to or inconsistent with the provisions of this Act are
236 hereby repealed or modified accordingly.

237 SEC. 19. **Effectivity.** – This Act shall take effect fifteen (15) days after its
238 publication in the *Official Gazette* or a newspaper of general circulation.

239 Approved,