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Tapping Filipino Experts Abroad for National Development Through the Philippines' Balik Scientist Program

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ABSTRACT

The Philippine's Balik Scientist Program, administered by the Department of Science and Technology, is part of the country's solution to the brain drain phenomena. The program taps Filipino expertise abroad to contribute to the development of the Philippines by encouraging them to share their time and knowledge to the R&D community and industry.

INTRODUCTION

In the Philippines, brain drain, or the phenomenon where highly educated or professional citizens leave for another country to live or work usually due to better pay or work conditions, has been a serious concern. This brain drain usually includes scientists, technologists and researchers whose work are highly valued and who feel that there are more opportunities for research activities abroad than in the country. This trend, to a certain extent, has contributed to the country's low number of researchers and scientific output. The Philippines has only around 18,000 researchers. Given the country's more than 100 million population, this is way below the UNESCO's benchmark of at least 380 researchers per million population. In addition, there is also a growing concern about ageing researchers in the country.

To address this situation, a program called "Balik Scientist Program" loosely translated into "Returning Scientist Program" was established in 1975. The importance of the contribution of this program to research and development (R&D) is well recognized, not only by the research institutions and the industry, but by legislators as well. Thus, the program, being administered by the Philippine Department of Science and Technology (DOST) was given full support through the passing of a law to provide a strong basis for its implementation, including providing funds to ensure its sustainability.

THE BALIK SCIENTIST ACT (RA 11035)

The Balik Scientist Program, or BSP, is a program that aims to strengthen the scientific and technological human resources of the academe, public, and private institutions, including locally registered enterprises in order to accelerate the flow of new technologies in the country. It is a program where foreign-based Filipino scientists, researchers and engineers are encouraged to return to the Philippines, temporarily or for good, and share their expertise, impart their technical expertise for the advancement of R&D in the country as well as addressing development gap.

The Balik Scientist Program has its beginnings from Presidential Decree 819 way back in 1975. Reinstituted in 1993 through Executive Order 130 and strengthened in 2018 by virtue of Republic Act 11035 otherwise known as An Act Institutionalizing the Balik Scientist Program Appropriating Funds Therefore and for Other Purposes, also commonly known as the Balik Scientist Act in June 2018.

Under the Act, a Balik Scientist is a *science, technology or innovation expert or professional, as certified by the DOST, who is a Filipino citizen or a foreigner of Filipino descent, accorded with benefits and incentives under this Act to undertake S&T activities along his or her field of expertise with a host institution. The Balik Scientist is either a resident of another country at the time of application or a Philippine resident for not more than three years at the time of application.*

Among others, the Balik Scientist must have made an outstanding contribution along their fields of specialization, practiced their profession abroad or a holder of graduate degree. Non-holder of graduate degrees may also qualify as long as he/she has exceptional expertise.

According to the Act, the activities where the Balik Scientist can participate in or engage with include mentorship, training, lectures, research and development, technology transfer initiatives, and other related initiatives. The terms of reference of the BSP is subject to the agreement between the DOST and the host institution in due consideration of the national priorities and agenda on science, technology or innovation, R&D and industry development.

The BS is accorded benefits and privileges such as exemption from the licensing or permitting requirements in the country, and exemption from renouncing their oath of allegiance to the country where they took the oath, unless they decide to repatriate and retain the government position. Other benefits include insurance, daily subsistence allowances (for short-and medium-term awardees), tax and duty exemption in donation of equipment, free freight and storage related to the importation and transportation of the donated equipment, instruments and materials and that of the Balik Scientist's airfare. In addition, housing allowance and transportation allowance for the long-term awardee is provided.

Types of Engagements

To provide the Balik Scientist and their host institutions the flexibility and options, there are three types of engagements to choose from, depending on the length of time and nature of activities to be conducted.

- The **short-term** engagement has a minimum duration of 15 days to a maximum of 6 months per award to be served within one year from the date of the award.
- The **medium-term** engagement, on the other hand, has a duration of more than 6 months but not to exceed one year per award. This can be served within two to three years from the date of the award.
- Finally, the **long-term** engagement has a duration of more than one to three years, subject to renewal to be determined by the DOST and to be served within five years from the date of the award.

Balik Scientists are lodged in research and development institutions (RDIs) or industry, called "host institutions." These are agencies, organizations or establishments that will undertake science, technology as well as innovation activities and R&D initiatives with Balik Scientists. A host institution may be a government agency,

public or private academic institution or locally-registered enterprise. To ensure that these Balik Scientists could accomplish their research activities and other tasks, host institutions should also work to provide appropriate resources or counterpart incentives.

Priority Areas for BSP

In order to maximize the presence of the Balik Scientists, their activities and researches have to be dove-tailed with priority areas being administered by the three sectoral planning councils of DOST: Philippine Council for Industry, Energy and Emerging Research and Development (PCIEERD), Philippine Council for Health Research and Development (PCHRD), and Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD).

For the industry, energy and emerging technology sectors under PCIEERD, Balik Scientists with their host institutions may opt to work on activities and researches relevant to food safety and quality, countryside development, competitive industry, delivery of social services, intelligent transportation solution, renewable energy and energy storage solution, human security and disaster risk reduction and adaptation.

For the health sector, collaborative work are on the following areas: drug discovery and development, diagnostics, genomics/molecular technology, functional foods, hospital equipment and biomedical devices, information and communications technology for health, research to enhance and extend healthy lives, and health resiliency.

For the agriculture, aquatic and natural resources sectors, a Balik Scientist together with his/her host institution may align their efforts in Crops R&D, Forestry R&D, Climate Change Adaptation and Risk Reduction, Aquatic R&D, Technology Transfer, Socio-economic and Policy Research and Livestock R&D. In particular, the following are covered:

- Marine resources including shellfish, blue swimming crab, sardines, sea cucumber, seaweeds and tuna;
- Inland aquatic resources including feed resources, milkfish, shellfish (mangrove crab), shrimp and tilapia;
- Forestry and environment including bamboo, industrial tree plantation, sago, rubber, cacao;
- Livestock including broiler and native chicken, dairy buffalo, ducks, goat, swine and feed resources;
- Crops including rice, abaca, mango, vegetables, tropical fruits, rootcrops, legumes, banana, coconut, sugarcane and coffee; and
- Cross-cutting concerns such as inland environmental services including biodiversity, climate change, watershed, pollution, mangrove and waste management; marine environmental services including biodiversity, climate change, corals, harmful algal blooms, coastal erosion, FISH MAPS using satellite data.

CONCLUSIONS AND WAY FORWARD

As of June 2019, there were already 669 Balik Scientist engagements with 532 Balik Scientists, with almost 70% coming from North America, while the rest came from Europe, Australia and Asia. More than half of these engagements were with the academe, but a significant number is also with the NGOs and industry. With the strengthening of the program, the targets for the three sectors are increasing, along with the budget allocation to fund these engagements. Testimonials from host institutions have indicated impacts, particularly in creating capabilities as many of these scientists have assisted in setting up laboratories, formulate proposals, provide guidance to students and conduct trainings.

REFERENCES

Department of Science and Technology. DOST Balik Scientist Program. Presentation Material.

Republic Act No. 11035. An Act Institutionalizing the Balik Scientist Program, Appropriating Funds Therefor and For Other Purposes. Retrieved from http://www.officialgazette.gov.ph/downloads/2018/06jun/20180615-RA-11035-RRD.pdf

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