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Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

FIFTEENTH CONGRESS
First Regular Session

HOUSE BILL NO. 67

Introduced by HONORABLE LUIS R. VILLAFUERTE

EXPLANATORY NOTE

Malunggay, with scientific name of *Moringa Oleifera* is a multi-function plant. This plant has been well-documented for its medicinal importance for a long time. Knowledge on the medicinal uses of *malunggay* were mainly considered as alternative science and a herbal remedy but in the past years modern medical science is beginning to validate through several international studies and scientific evidences the ancient traditional therapeutic uses of moringa.

The numerous health benefits of *Moringa* (malunggay), its several economic applications and its facility of propagation is creating a growing international interest. To name a few of the international organizations now promoting the healthy use of *Moringa* (malunggay) include: the *International Eye Foundation* based in Maryland, USA; the *National Science Foundation*; *National Geographic Society*; *Ander Mellon Foundation*; *Church World Service*; *Britain's University of Leicester*; *Tokyo University of Agriculture* (Department of Nutritional Science), *Canada Micronutrient Initiatives*, *German Development Services*, *Royal Institute of Technology Sweden*, *University of Kansas School of Medicine*, and many more.

The following are just a few of the attributes of *Moringa* that make it a truly "*unique super food*" compared with other plants:

- many of the vitamins in moringa have powerful *anti-oxidant* and *anti-aging* properties;
- few plant foods like moringa, are known to contain ALL essential amino acids. Some of the amino acids such as *lysine* and *tryptophan* which is available in moringa are poorly represented in most plants;

- moringa is also considered to have the *highest protein* content among plant foods. The moringa leaves are about 40% protein;
- moringa is also one of the *best and richest* sources of *beta-carotene*. Moringa has *more* beta-carotene than carrot which is famous for its beta-carotene content;
- moringa contains *high concentrations* of *zeatin* (prevents brain-aging) compared with most plants studied so far;
- moringa contains *beta-sitosterol* (anti-cancer; anti-diabetic) and related substances which is absent from other plant foods
- although most plants have *chlorophyll*, moringa is only one of the few food plants that contain chlorophyll **together with** so many other nutrients;
- moringa is very rich in calcium, has more iron than spinach, and rich in other essential micronutrients such as zinc and selenium

For the past many years, *malunggay* in the Philippines has largely remained to be a backyard crop and was considered mainly as a lowly plant due to ignorance and lack of promotion and publicity that it is actually a powerful weapon against two great scourges: *malnutrition* and *water-borne diseases*, aside from it being a powerhouse of vitamins and minerals.

Plant medicine is the most ancient form of healthcare known to mankind. Many cultures have grown and collected plants for the prevention and treatment of diseases. Plants are considered today as the main source of powerful antioxidant and anti-aging substances. The global market for herbal medicines currently stands at over US\$60 billion (*source: ahajournals.org*). The widespread and increasing use of herbal medicines throughout the world cannot be ignored any longer by western medicine. As stated in the *Ethno Botany Journal*: "*The World Health Organization (WHO) estimates that more than 70% of the world's population, especially those who reside in the tropics, rely almost exclusively on plants as a primary source of medicine*".

Botanical or plant medicine should become an important component of national economic strategy. The *Moringa* tree (*malunggay*) is one of the most important plants that deserve national and international promotion

and support due to the many bio medical endowments and numerous socio-economic benefits that can be derived from it.

The past two decades have seen a worldwide upsurge in the use of traditional medicine and alternative plant-based medicine. Given the magnitude of the global potential of *Moringa* (malunggay), it is high-time that the Philippine government aggressively prioritize, pursue and give all-out support for the establishment of the *Philippine Moringa Research and Development Authority* to fully realize *Moringa's* agri-business potential as part of the government's poverty-alleviation and healthcare programs in line with the vision of a united, globally competitive and efficient *Moringa* industry.

Considering the merits of this bill, approval hereof is earnestly requested.



LUIS R. VILLAFUERTE

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AN ACT ESTABLISHING THE PHILIPPINE MORINGA RESEARCH AND DEVELOPMENT AUTHORITY (PMRDA) TO ENABLE THE GOVERNMENT TO SUPPORT, OVERSEE AND ASSIST THE STRATEGIC, COORDINATED AND COMPREHENSIVE DEVELOPMENT PROGRAM OF THE MORINGA (MALUNGGAY) INDUSTRY IN ALL ITS ASPECTS; AND TO ENHANCE THE CAPACITIES AND SOCIO-ECONOMIC WELFARE OF MORINGA FARMERS, PRODUCERS, BY-PRODUCT MANUFACTURERS AND ALL THOSE DIRECTLY AND INDIRECTLY ENGAGED IN ALL ASPECTS OF THE MORINGA INDUSTRY BY ASSISTING AND PROVIDING EDUCATION, SERVICE, DEVELOPMENT, FINANCING, GATHERING INDUSTRY INFORMATION/ PRODUCER AND CONSUMER INFORMATION, RESEARCH, PROMOTION, AND TO DEVELOP GLOBALLY COMPETITIVE PRODUCTS REQUIRED TO MAINTAIN NATIONAL SELF SUFFICIENCY AND EXPORT CAPACITY MARKETS FOR MORINGA AND MORINGA BY-PRODUCTS

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

1 **SECTION 1. Title** – This Act shall be known as “***The Philippine***
2 ***Moringa Research and Development Authority (PMRDA)*”.**

3 **SEC. 2. Declaration of Policy** – It is declared to be the policy of
4 Congress that it is in the public interest to authorize the establishment,
5 through the exercise of the powers provided herein, of an orderly procedure

1 marketing strategies, increased efficiency, and activities to
2 enhance the image of the *Moringa* industry;

3 (5) The term "***promotion***" means any action, including paid
4 advertising, to advance the image and desirability of *Moringa*
5 and *Moringa* by-products with the express intent of improving
6 the competitive position and stimulating sales of *Moringa* and
7 *Moringa* by-products in the marketplace

8 (6) The term "***research***" means studies which tests the effectiveness
9 of market development and promotion efforts; studies relating to
10 the nutritional value of *Moringa* and its by-products; other
11 related food science and industrial science research, and new
12 product development;

13 **SEC. 4. *Mandate* of the Philippine *Moringa* Research and**
14 **Development Authority** – To oversee the growth and development of the
15 *Moringa* industry in all aspects; and to ensure that the *Moringa* farmers,
16 producers and manufacturers become direct participants in, and
17 beneficiaries of such growth and development.

18 **SEC. 5. *Mission* of the Philippine *Moringa* Research and**
19 **Development Authority** – To promote the development of a globally
20 competitive *Moringa* industry that would contribute to food security,
21 prevention of malnourishment, improved public health, improved income,
22 conservation of environment, and enhanced participation of stakeholders.

1 **SEC. 6. Purposes, Objectives and Functions** of the **Philippine**

2 **Moringa Research and Development Authority** – The *objective* of
3 enhancing the sustainable use and promotion of *Moringa* is for food security,
4 public health, income generation, conservation of biodiversity and
5 environmental services as well as to help make *Moringa* not only one of the
6 top export earners of the Philippines but to aim to be the world's largest
7 exporter of *Moringa*. A consolidated and coordinated strategy in the
8 research, promotion and development of the *Moringa* will help achieve this
9 objective.

10 The *purpose* is to formulate, implement and promote a **National Plan**
11 **of Action** for a strategic and comprehensive development program which
12 will include the following:

13 **I. PRODUCTION:**

- 14 1. a) to organize, implement ,coordinate, sustain a nationwide *Moringa*
15 *planting, re-planting, rehabilitation* and other farm
16 productivity programs that will include the **conservation,**
17 **propagation, cultivation, production,** proper *pre* and *post*
18 **harvest handling** and **processing, sustainable use,** of the
19 Philippine *Moringa*;
20 b) the establishment of nurseries and repositories in strategic
21 locations as well as bio commerce centers to **improve seed**

1 **supply systems / to ensure ample adequate supply of**
2 **seeds; and to establish quality standards for seeds;**

- 3 c) **increase competitiveness** of Moringa to ensure that farmers,
4 producers, manufacturers, traders take full advantage of
5 positive world market developments; **maintain** and **increase**
6 **productivity** of *Moringa* production; increase agricultural
7 output through capitalization and technology;
8 d) systematic attempt to **maximize the use of the Moringa** in
9 all its agronomic attributes and nutritional, cosmeceutical and
10 pharmaceutical values for domestic and export purposes;
11 e) stabilize agricultural markets; establish information systems
12 on market prices, etc.

13 **II. RESEARCH**

- 14 2. a) to **research, gather information**, and if possible to **collect,**
15 **plant, and propagate** in the Philippines **all the thirteen (13)**
16 **different species** of the *Moringa* for study and research
17 purposes; to coordinate and collaborate with the current work
18 being done by the *National Geographic Society* and other
19 international organizations in this regard;
20 b) to monitor and try to provide solutions, and promote true
21 species recovery and prevent actual extinctions for some of the
22 *Moringa* species that seem to be at the edge of extinction

c) to **Interact, network, cooperate , collaborate, exchange information, studies** and **ideas** with the different experts and those concerned and involved with the study on the **therapeutic, nutritional, medicinal properties** of the 13 different species of the *Moringa* in other countries and cultures propagating and cultivating *Moringa*;

3. a) to subject the *Moringa* plant and its different parts to **scientific review, science-based researches, clinical trials** and **to gather scientific evidence** and **scientific methods of validation** of traditional use to **authenticate** existing **nutritional and medicinal claims** from various sources;

b) **documentation/ synthesis** of existing information and success stories; documentation of indigenous knowledge on nutritional and medicinal properties of *Moringa*; link local and international scientific knowledge;

4. to **research** and **gather information** on the different important roles the *Moringa* plays in the maintenance of health in all parts of the world and on the introduction of **new treatments, new uses** and **applications** of the *Moringa* not just in the Philippines, but in other countries as well;

- 1 5. launch new research strategies on the *Moringa* initiative and give
2 **technical advise** on **product development ,diversification;**
3 and farm productivity;

4 **III. QUALITY ASSURANCE:**

- 5 6. to **establish general standards for good agricultural and**
6 **manufacturing practices** for the production of *Moringa*
7 agricultural commodities, including requirements related to
8 manure, animals, water and environmental conditions; develop
9 quality control **training programs;**
- 10 7. to **develop science-based safety standards** for processors of
11 *Moringa* food and its by-products; to **safeguard public health**
12 by ensuring that all *Moringa* raw materials and *Moringa*-based
13 food products and other by-products meet **appropriate**
14 **standards of safety, quality and efficacy** to ensure the
15 security of the food supply from all forms of contamination.
- 16 8. to **establish a traceability system** for all stages of *Moringa*
17 manufacturing, processing, packaging and distribution from point
18 of origin to retail sale.
- 19 9. to **certify Moringa** products; promote organic and other **quality**
20 **standards** for the *Moringa* and come up with **published official**
21 **organic standards;**

22 **IV. EDUCATION and PROMOTION**

- 1 10.a) designing and implementing an **education program**
2 promoting the use of the *Moringa* through the optimum use of
3 mass media: put together and disseminate informational
4 materials, brochures, seminars, radio/ TV spots ; fairs; folk
5 songs, **develop information tools**, etc. - promoting the
6 health benefits and business opportunities on *Moringa* and its
7 by products; increase public awareness through recipes for food
8 preparation, etc;
9 b) make available the most relevant information to as wide an
10 audience as possible; **provide useful information** to anyone
11 including farmers, manufacturers, medical practitioners,
12 suppliers, traders, exporters, importers, retailers, researchers,
13 and to anyone interested in the *Moringa*;
14 c) through publications, inform all sectors involved with the
15 cultivation, propagation, manufacture, processing ,sale and
16 regulation on any latest findings regarding all issues that are of
17 critical importance to the *Moringa* industry;

18 **V. COMMUNITY DEVELOPMENT**

- 19 11.a) to study how to adopt **community forest ownership**
20 **strategies** in the rural areas where *Moringa* can improve
21 human and animal nutrition by adopting and **establishing**
22 **communal Moringa fields** to contribute to cultural identity,

- 1 empowerment of local communities and to improve much-
2 needed citizen planning for local neighborhoods and idle lands;
3 b) to study other means and ways to meet the basic needs of the
4 poor through *community-focused actions* such as **Moringa**
5 **home gardening programs** and integrate it with relevant
6 health-care, nutrition and agricultural training activities;
7 12) train a network of government health workers (doctors, nurses,
8 midwives) in ways of using *Moringa*;

9 **VI. TECHNOLOGY TRANSFER**

- 10 13) to apply and integrate scientific knowledge and research studies
11 with agricultural production, processing and marketing into
12 systems which optimize resource management and facilitate the
13 transfer of technology to users

14 **VII. JOB CREATION**

- 15 14) the **creation of alternative job** and **income opportunities** for
16 farmers and their families through the *Moringa* initiative;
17 15) promote access to credit for the development of new *Moringa*
18 products;

19 **VII. MONITORING**

- 20 16) provide for a special simplified registration procedure for *Moringa*
21 farmers, plantation owners, manufacturers, traders, exporters

and others involved in the *Moringa* trade and industry to monitor its size and growth;

VIII. PROMOTE TRADE

- 17) promote producers associations;
- 18) explore national and international markets;
- 19) network through inter-agency working groups;

IX. OTHERS

and other related activities for the research, promotion and development of the *Moringa* industry.

SEC. 7 Implementing Rules and Regulations. - The Secretary of Agriculture, Secretary of Health, and the Secretary of the Department of Science and Technology in collaboration with the their attached Agencies and Bureaus shall issue the rules and regulations necessary to carry out the purpose of this Act.

SEC. 8 Effectivity Clause - This Act shall take effect fifteen (15) days following its publication in the Official Gazette or in two (2) national newspapers with general circulation

Approved.