



Republic of the Philippines

HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

Fifteenth Congress
First Regular Session

4468

HOUSE BILL NO. _____

Introduced by Hon. Sharon S. Garin and Hon. Juan Edgardo M. Angara

EXPLANATORY NOTE

The Philippines has an average annual rainfall of about 2,400 mm which is enough to meet the annual water demand for crop production. However, this amount of rainfall is not evenly distributed throughout the year in most parts of the country. In some areas, there is "too much" rainfall, resulting to excessive surface run-off, severe erosion, siltation of rivers, and flooding during the rainy season. And in other parts of the country, there may be "too little" to provide a sustained base flow to support crop production especially during the dry season, particularly in the upland areas.

The situation is further aggravated by the continuous degradation of our watersheds. Watersheds have been subjected to various forms of degradation such as indiscriminate logging and slash-and-burn practices ("kaingin") with the resulting loss of forest cover from 27 million hectares in 1984 to only about 9.35 million hectares in most recent estimates (LGSP, 2003). But if properly managed, watersheds can provide a continuing flow of water to a particular water body (e.g. river, creeks and streams) and to man-made "water use outlets" such as dams, irrigation systems, or water supply take-off points.

Moreover, about 45% of the arable lands in the Philippines have been moderately to severely eroded, triggering the movement of subsistence farmers to marginal lands with the hope of meeting their day-to-day food requirement. Approximately 5.2 M ha are severely eroded and 8.5 M ha are moderately eroded resulting to 30-50% reduction in soil productivity and water retention capacity. This situation will predispose the degraded lands to drought and other water availability problems.

A related challenge is the country's perennial problem of food insufficiency in light of our growing population. This calls for the development of new areas for food production.

The development and management of the country's water resources are critical interventions because the availability of water (or lack of water) impacts on the country's ability to increase agricultural productivity, which is fundamental to food security. Protection and efficient management of the watersheds ensure the continuous water base flow and contribute to environmental sustainability. There is a need, therefore, to ensure water availability for sustainable agricultural development while parallel interventions should be pursued to arrest rapid environmental degradation.

The bill, thus, aims to promote soil and water conservation technologies and practices through the National Soil and Water Conservation Program. The targeted sector of the program consists of local government units and marginalized farmers in the rain-fed uplands.

Under the water conservation efforts in the Program, environment-friendly rainwater harvesting structures will be constructed in the middle to upper reaches of the uplands and watersheds with predominantly rolling to hilly topography. The depressions and small inland valleys in these areas can be harnessed for small water reservoir development which would then be utilized by poor upland farming communities for agricultural production. The envisaged Program will also include watershed protection, development and management as major components.

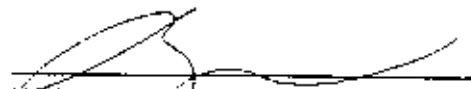
Likewise, sustainable upland development is also one of the priority thrusts of the government under Executive Order 606 (*Pursuing Sustainable Upland Development Anchoring on Food, Wood and Non-Wood Security and Economic Productivity*). Rainwater harvesting can contribute to the attainment of sustainable upland development through the involvement of local communities who will manage and maintain both the rainwater harvesting systems and the local watersheds, which are important in recharging ground and surface water that will feed into the water impounding dams.

Concomitant to water conservation activities are soil conservation activities. There are various soil conservation measures that could be implemented in the uplands to protect the environment while attaining agricultural productivity. These will reduce the risks of natural disasters and enhance the adoption mechanism of farmers and communities to climate change. Moreover, it will also enhance food security, improve farm household income, protect resource base and/or environment and prepare the community against the threats of upcoming natural calamity.

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



HON. SHARON S. GARIN
AAMBIS-Owa Party List



HON. JUAN EDGARDO M. ANGARA
Lone District, Aurora



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AN ACT
PROMOTING SOIL AND WATER CONSERVATION TECHNOLOGIES AND APPROACHES
FOR SUSTAINABLE LAND MANAGEMENT IN THE PHILIPPINES
AND FOR OTHER PURPOSES

SECTION 1. *Short Title.* - This Act shall be known as the "*Soil and Water Conservation Act of 2011*".

SECTION 2. *Declaration of Policy.* It is hereby declared the policy of the State to promote and support soil and water conservation technologies and approaches through the development, promotion, and implementation of soil and water conservation facilities including rainwater harvesting systems in the country. Towards this end, the State shall support sustainable land management (SLM) programs for livelihood improvement, prevention of land degradation and protection of the environment and natural resource base.

SECTION 3. *Definition of Terms.* - As used in this Act, the following terms shall mean:

- a) "Rainwater harvesting system" refers to a system composed of three subsystems - collection, storage and distribution, which aim to store water in containers above or below ground and for groundwater recharge.
- b) "Soil Conservation" refers to the management of soil to prevent or reduce soil erosion and depletion by wind and water.
- c) "Water Conservation" refers to the protection, development, and efficient management of water resources for beneficial purposes.
- d) "Land degradation" refers to the reduction in the capacity the land to perform ecosystem functions and services that support society and development.
- e) "Pump Irrigation System for Open Sources (PISOS)" refers to system in which a pump lifts water from streams, rivers, lakes, reservoirs and other surface water sources to the main canal for distribution in the target service area.
- f) "Rain-fed" refers to an area not served by any irrigation facilities and relies on rainfall for crop and animal production.
- g) "Sustainable Land Management (SLM)" refers to the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human

needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions.

- n) "Soil and Water Conservation Technologies" refers to measures that control soil and water degradation and enhance productivity in the field.
- o) "Soil and Water Conservation Approaches" refers to ways and means of support that help to introduce, implement, adapt, and apply soil and water conservation technologies in the field.
- p) "Upland" refers to the extensive portion of land located within 100-500 masl with slope of less than 18%.

SECTION 4. *The National Soil and Water Conservation Program.* -- In order to address the problem of land degradation which affects the state and management of our natural resources, a National Soil and Water Conservation Program, hereinafter referred to as the Program, is hereby established. The Program shall foment synergies between agricultural productivity improvement and sustainable land management through the promotion and implementation of soil and water conservation technologies and approaches.

The Bureau of Soil and Water Management shall prepare the National Soil and Water Conservation Program subject to the approval of the Secretary of the Department of Agriculture. Upon implementation, the Bureau of Soil and Water Management shall submit an annual status report within five (5) years to the Secretary of the Department of Agriculture for review and assessment.

SECTION 5. *Goals and Objectives.* -- Pursuant to the above declaration, the Program shall adopt the following objectives:

- a) To establish one thousand (1,000) Soil and Water Conservation Guided Farms within five (5) years from the effectivity of this Act to showcase sustainable land management best practices such as but not limited to sloping agricultural land technology, organic-based agriculture, farm waste and residue management, wastewater recycling and re-use, rainwater harvesting or combination of two or more of these practices including approaches to implement these practices;
- b) To establish ten thousand (10,000) units of small-scale rainwater harvesting systems consisting of rainwater reservoir development, watershed management, and service area development in strategic upland areas in 80 provinces, within five (5) years from the effectivity of this Act; and
- c) To capacitate and empower LGUs and farmers associations in the implementation and operation and maintenance of soil and water conservation model farms and rainwater harvesting system.

SECTION 6. *Implementing Agency.* -- The Bureau of Soil and Water Management under the Department of Agriculture shall serve as the technical and administrative secretariat of the Program, formulate and implement the Program and all other policies and objectives of this Act, and perform such other duties as may be assigned to it by the Secretary of the Department of Agriculture in relation to the principles of this Act.

SECTION 7. *Farmers and Irrigators' Associations.* -- The Bureau of Soil and Water Management in coordination with the local government units shall encourage and assist farmers and irrigators to organize themselves into associations and/or cooperatives, equip them with greater capability through technical assistance on soil and water conservation, and

assist them in obtaining more credit facilities to develop and operate soil and water conservation facilities;

The Bureau of Soil and Water Management in coordination with the local government units shall also register and accredit such associations and cooperatives for purposes of participation in the National Soil and Water Conservation Program: *Provided*, That the Bureau of Soil and Water Management and local government units shall not directly or indirectly influence the farmers in the exercise of their choice or selection of candidates or leaders in the organizations.

Section 8. *Soil and Water Conservation Guided Farms.* – The Bureau of Soil and Water Management in partnership with the Department of Agriculture-Regional Field Units (DA-RFU) and concerned Civil Society Organizations (CSOs) shall establish one thousand (1,000) Soil and Water Conservation Guided Farms (SWCGF) for the next five (5) years upon effectivity of this Act as model farms that will showcase soil and water conservation approaches and technologies.

Potential sites shall be identified and selected, using approved site selection criteria, in coordination with concerned local government units and farmers associations. Selected sites shall be subjected to various field surveys, bio-physical characterization, and socio-economic profiling as inputs in the preparation of Soil and Water Conservation Farm Plan. *Provided*, it shall be prepared in consultation with farmers based on the sites' bio-physical characteristics, market potential of crops to be produced, capability and resources of farmer-cooperators to manage the farm. The Soil and Water Conservation Guided Farms shall be established in accordance with the of Soil and Water Conservation Farm Plan, farmers' capabilities and preferences, and available resources.

The concerned local government units through the Office of Municipal Agriculturist shall provide agriculture support and services to the farmer-cooperators of Soil and Water Conservation Guided Farms to ensure its sustainability and facilitate broader adoption by more farmers within a locality.

SECTION 9. *Rainwater Harvesting Structures.* – The Bureau of Soil and Water Management Department of Agriculture-Regional Field Units shall facilitate the construction of not less than ten thousand (10,000) units of small-scale rainwater harvesting structures in strategic upland areas for the next five (5) years upon effectivity of this Act; *Provided, however*, That the Bureau of Soil and Water Management shall not deduct more than ten percent (10%) for engineering, technical, and other overhead expenses or fees.

The Bureau of Soil and Water Management shall turn over the small-scale rainwater harvesting structures to the local government unit wherein said structure is located. Subject to the requirements to be set by Bureau of Soil and Water Management, the local government unit shall accordingly select farmer and/or irrigator's associations to operate, manage, and maintain the structure.

SECTION 10. *Watershed Management Plan.* – The Bureau of Soil and Water Management shall provide technical support and assistance to the local government units in the preparation of Watershed Management Plan (WMP) in critical watersheds including watersheds of Rainwater Harvesting facilities that will be established through this Act.

SECTION 11. *Research, Development and Extension Services.* – The Bureau of Soil and Water Management and the Agricultural Training Institute under the Department of Agriculture, and the State Universities and Colleges with agricultural programs, shall provide comprehensive technical assistance in research, development and extension services on soil and water conservation approaches and technologies to local government units and farmers and irrigators' associations.

The Bureau of Soil and Water Management Department of Agriculture-Regional Field Units are further directed to assist the local government units in the conduct of trainings for beneficiaries and/or cooperators of Soil and Water Guided Farms and small-scale rainwater harvesting systems prior to operation and/or turn-over of said facilities. As such, the Bureau of Soil and Water Management shall develop appropriate training modules and cooperate with the Agricultural Training Institute in the conduct training of trainers for agricultural technicians of local government units.

SECTION 12. *Implementing Rules and Regulations.* – A Committee, composed of a representative from the Department of Agriculture, Bureau of Soils and Water Management, Agricultural Training Institute, National Irrigation Administration, National Water Resources Board, Department of Environment and Natural Resources, Department of the Interior and Local Government, Philippine Information Agency together with a representative from the State Universities and Colleges with agricultural programs, duly recognized farmers' and irrigators' associations, and duly recognized agricultural engineers' association, shall formulate and prescribe, after public hearing and publication as required by law, the implementing rules and regulations in order to carry out the provisions of this Act. The representatives from the Department of Agriculture and Bureau of Soil and Water Management shall be the chairman and the vice-chairman, respectively, of the Committee.

SECTION 13. *Appropriations.* – The amount necessary to carry out the purposes of this Act is hereby authorized to be appropriated in the General Appropriations Act to be made available within one (1) year from the approval of this Act. Thereafter, continuing appropriations shall be appropriated in subsequent General Appropriations Acts: *Provided, That* the appropriation, for the purposes of this Act, shall not be reduced by Congress below the amount appropriated for the previous year and, after approval, shall be automatically and regularly released.

SECTION 14. *Repealing Clause.* – All laws or parts thereof, decrees, orders, rules and regulations inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

SECTION 15. *Separability Clause.* – If any of the provisions of this Act is declared invalid, the other provisions which are not affected thereby shall remain to be in full force and effect.

SECTION 16. *Effectivity Clause.* – This Act shall take effect immediately following its publication in a newspaper of general circulation or in the Official Gazette, whichever comes first.

Approved