

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

Fifteenth Congress
Third Regular Session

COMMITTEE REPORT NO. 2660

Submitted by the Committee on Agriculture and Food on 30 JAN 2013
Re: House Bill No. **6881**
Recommending its approval in substitution of House Bill No. 4468
Sponsors: Representatives Mark Llandro L. Mendoza, Sharon S. Garin and Juan
Edgardo M. Angara

Mr. Speaker:

The Committee on Agriculture and Food to which was referred House Bill No. 4468, introduced by Representatives Sharon S. Garin and Juan Edgardo M. Angara, entitled:

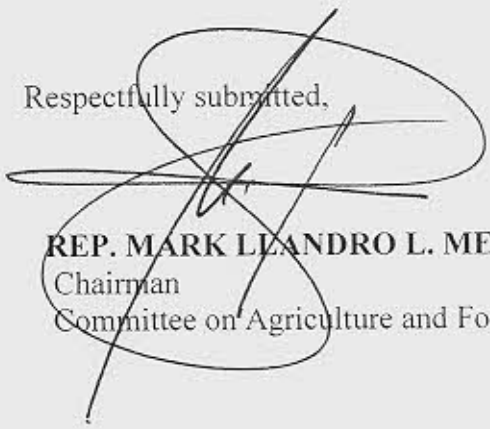
**AN ACT PROMOTING SOIL AND WATER CONSERVATION
TECHNOLOGIES AND APPROACHES FOR SUSTAINABLE LAND
MANAGEMENT IN THE PHILIPPINES AND FOR OTHER
PURPOSES**

has considered the same and has the honor to recommend to the House that the attached House Bill No. **6881**, entitled:

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

be approved in substitution of House Bill No. 4468, with Reps. Sharon S. Garin and Juan Edgardo M. Angara as authors thereof.

Respectfully submitted,


REP. MARK LLANDRO L. MENDOZA
Chairman
Committee on Agriculture and Food

FACT SHEET

House Bill No. 6881
(In substitution to House Bill No. 4468)

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

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

Committee Referral: **COMMITTEE ON AGRICULTURE AND FOOD**
Committee Chairperson: **REPRESENTATIVE MARK LLANDRO L. MENDOZA**

OBJECTIVE:

- To ensure water availability for sustainable agricultural development by promoting soil and water conservation technologies and practices through the National Soil and Water Conservation Program.
- To address the problem of land degradation which affects the state and management of our natural resources.

KEY PROVISIONS:

- Establishes the National Soil and Water Conservation Program which shall encourage synergies between agricultural productivity improvement and sustainable land management through the promotion and implementation of soil and water conservation technologies and approaches.
- Establishes 1,000 Soil and Water Conservation Guided Farms to showcase soil and water conservation approaches and technologies. The potential sites shall be identified and selected, in coordination with concerned Local Government Units (LGUs) and farmers association.
- Establishes 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.
- Empowers LGUs and farmers associations in the implementation and operation and maintenance of soil and water conservation model farms and rainwater harvesting system.
- Provides agriculture support and services to the farmer-cooperators.



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

Fifteenth Congress
Third Regular Session

HOUSE BILL NO. **6881**
(In substitution of House Bill No. 4468)

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

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 2013’.**

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 measures and practices including rainwater harvesting to enhance decision-making, planning, and potential up-scaling of good practices. Towards this end, the State shall support Sustainable Land Management (SLM) programs for livelihood improvement particularly of upland farmers and indigenous people, and for the prevention of land degradation and protection of the environment and natural resource base.

SECTION 3. *Definition of Terms.* For purposes of this Act, the following terms are defined as follows:

- a) ***Land Degradation*** refers to the reduction or loss of the biological or economic productivity and complexity of rain-fed cropland, irrigated cropland, range, pasture, forest, and woodlands resulting from land use or from processes or combination of processes arising from human activities and habitation pattern such as a) soil erosion caused by wind and/or water; b) deterioration of the physical, chemical, and biological or economic properties of soils, and c) long term loss of natural vegetation.
- b) ***Organic Agriculture*** refers to production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic

- 1 agriculture combines tradition, innovation, and science to benefit the shared
2 environment and to promote fair relationship and good quality of life for all involved.
- 3 c) **Rain-fed Area** refers to an area not served by any irrigation facilities and mainly relies
4 on rainfall for crop and animal production.
- 5 d) **Rainwater Harvesting System** refers to a system that collect, accumulate, and store
6 rainwater and surface runoff for purposes of supplemental irrigation, inland fish
7 production, and other agricultural purposes. For the purpose of this act, small-scale
8 rainwater harvesting system refers to reservoir storage facilities with a height of not
9 less than 5 meters and a surface area of not more 2, 500 sq. meters.
- 10 e) **Sloping Agricultural Land Technology (SALT)** refers to a simple, applicable, low-
11 cost method of upland farming which consists of alley farming in which field and
12 perennial crops are grown in bands 4-5 meters wide between contoured rows of
13 leguminous trees and shrubs.
- 14 f) **Soil and Water Conservation Technologies** refer to measures that control soil and
15 water degradation and enhance productivity in the field.
- 16 g) **Soil and Water Conservation Approaches** refer to ways and means of support that
17 help to introduce, implement, adapt, and apply soil and water conservation
18 technologies in the field.
- 19 h) **Soil and Water Conservation Guided Farm (SWCGF)** refers to a farm established to
20 showcase appropriate soil and water conservation technologies for possible replication
21 and up-scaling. It is also an approach that facilitates the proper implementation of soil
22 and water conservation technologies through the provision of technical assistance in
23 the field survey, soil and water conservation farm planning, and implementation of the
24 plan.
- 25 i) **Soil and Water Conservation Farm Plan** refers to a plan that considers the right mix
26 of farm enterprises and appropriate soil and water conservation technologies, which is
27 formulated with reference to existing bio-physical and socio-economic conditions of
28 the farm and in consultation with farmer-cooperators.
- 29 j) **Soil Conservation** refers to the management of soil to prevent or reduce soil erosion
30 and depletion by wind and water.
- 31 k) **Sustainable Land Management (SLM)** refers to the use of land resources, including
32 soils, water, animals and plants, for the production of goods to meet changing human
33 needs, while simultaneously ensuring the long-term productive potential of these
34 resources and the maintenance of their environmental functions.
- 35 l) **Upland** refers to the extensive portion of land located within 100-500 meters above sea
36 level (masl) with slope of less than 18%.
- 37 m) **Water Conservation** refers to the protection, development, and efficient management
38 of water resources for beneficial purposes.
- 39 n) **Watershed** refers to a land area drained by a stream or fixed body of water and its
40 tributaries having common outlet for surface runoff. This include small watershed with
41 area of 10,000 hectares and below; medium scale watershed with area of more than
42 10,000 hectares to 50,000 hectares; and large scale watershed with an area of 50,000
43 hectares and above.
- 44 o) **Watershed Management** refers to the process of guiding and organizing land and other
45 resource uses in a watershed to provide desired goods and services without adversely
46 affecting soil, water and other natural resources.

- 1 p) *Watershed Protection* refers to a management strategy to control soil erosion and
2 prevent illegal cutting of vegetations and other land degrading activities in the
3 watershed.

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

10 The Bureau of Soils and Water Management (BSWM), in consultation with
11 concerned agencies and other stakeholders, shall prepare the National Soil and Water
12 Conservation Program subject to the approval of the Secretary of the Department of
13 Agriculture (DA). Upon implementation of this Act, the BSWM shall submit Annual Report,
14 and Progress Report as may be required, within five (5) years to the Secretary of the Department
15 of Agriculture for review and assessment.

16 **SECTION 5. *Goals and Objectives.*** Pursuant to the above declaration, the Program shall
17 support the implementation of Sustainable Land Management (SLM) projects for livelihood
18 improvement and prevention of land degradation in the uplands. As such, it adopts the
19 following specific objectives:

- 20 a) To establish One Thousand (1,000) Soil and Water Conservation Guided Farms
21 within five (5) years from the effectivity of this Act to showcase sustainable land
22 management best practices such as but not limited to sloping agricultural land
23 technology, organic-based agriculture, farm waste and residue management,
24 wastewater recycling and re-use, rainwater harvesting or combination of two or more
25 of these practices including approaches to implement these practices;
26
27 b) To establish Ten Thousand (10,000) units of small-scale rainwater harvesting systems
28 consisting of rainwater reservoir development, watershed management, and service
29 area development in strategic upland areas throughout the country, within five (5)
30 years from the effectivity of this Act; and
31
32 c) To capacitate and empower Local Government Units (LGUs) and farmers
33 associations in the implementation and operationalization and maintenance of soil and
34 water conservation model farms and rainwater harvesting systems.

35 **SECTION 6. *Implementing Agency.*** The Department of Agriculture (DA), through the
36 Bureau of Soils and Water Management (BSWM) and the DA-Regional Field Units (DA-
37 RFUs), shall provide the technical and administrative support in the implementation of the
38 Program and all other policies and objectives of this Act, and perform such other duties as
39 may be assigned to it by the Secretary of the Department of Agriculture.

40
41 **SECTION 7. *Farmers Associations.*** Farmer-cooperators and program recipients shall be
42 organized into associations and/or cooperatives and shall be capacitated on soil and water
43 conservation. As such, the BSWM and DA-RFUs in coordination with concerned local
44 government units (LGUs) shall provide trainings on soil and water conservation and shall

1 assist them in accessing available credit windows to sustain the operation and maintenance
2 soil and water conservation facilities to be established.

3 The BSWM and DA-RFUs, in coordination with concerned LGUs, shall assist and
4 facilitate the registration of such associations and/or cooperatives for purposes of
5 participation in the National Soil and Water Conservation Program: *Provided*, That the
6 farmers shall select their leaders in accordance with the constitution and by-laws that they
7 will formulate and firm up.

8 **Section 8. Soil and Water Conservation Guided Farms.** Soil and Water Conservation
9 Guided Farms (SWCGF) shall serve as model farms that will showcase soil and water
10 conservation approaches and technologies in the uplands. These will provide a multiplier
11 effect by encouraging other farmers to engage in soil and water conservation. For this
12 purpose, SWCGF shall be established in cluster within high impact areas such as watershed.
13

14 Potential sites shall be identified and selected, using approved site selection criteria, in
15 coordination with concerned LGUs and farmers associations. Selected sites shall be subjected
16 to various field surveys, bio-physical characterization, and socio-economic profiling as inputs
17 in the preparation of Soil and Water Conservation Farm Plan: *Provided*, it shall be prepared
18 in consultation with farmers based on the sites' bio-physical characteristics, market potential
19 of crops to be produced, and capability and resources of farmer-cooperators to manage the
20 farm. The Soil and Water Conservation Guided Farms shall be established in accordance with
21 the of Soil and Water Conservation Farm Plan, farmers' capabilities and preferences, and
22 available resources.
23

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

28 **SECTION 9. Small-scale Rainwater Harvesting Structures.** Small-scale rainwater
29 harvesting structures shall be designed and established in cluster to store rainwater and
30 surface runoff within a watershed. Potential sites shall be identified and selected using
31 approved site selection criteria in coordination with concerned LGUs and farmers
32 associations. Selected sites shall be subjected to various field surveys, bio-physical
33 characterization and socio-economic profiling. The small-scale rainwater harvesting
34 structures shall be implemented in accordance with the approved engineering plans and
35 design, and field distribution which shall be prepared by concerned LGUs with technical
36 assistance from BSWM and DA-RFUs.
37

38 The BSWM shall turn over the small-scale rainwater harvesting structures to the
39 concerned LGUs wherein said structures are located. Subject to the requirements to be set by
40 BSWM, the LGU shall accordingly entrust and delegate the operation and maintenance of
41 structures to duly organized farmers associations as recipients.
42

43 Appropriate cropping pattern and calendar that will optimize the use of stored
44 rainwater shall be prepared by farmers with technical assistance from the LGUs through the
45 Office of the Municipal Agriculturist.
46

SECTION 10. *Research, Development and Extension Services.* Research and development and extension on soil and water conservation shall be an important component of the program to provide a dynamic technology development, information dissemination and extension support in the implementation of the program. Research and development shall cover but not limited to the following areas: rainwater harvesting design methods, runoff management technologies, soil moisture conservation impacts, and groundwater recharge enhancement.

The BSWM, the Bureau of Agricultural Research (BAR) and the Agricultural Training Institute (ATI) of the DA; the Ecosystem Research and Development Bureau (ERDB) of the Department of Environment and Natural Resources (DENR); and concerned State Universities and Colleges (SUCs), through proper and appropriate institutional arrangements, shall provide technical support and assistance in the conduct of research and development and in the provision of extension services on soil and water conservation to LGUs and farmers associations and cooperatives.

The BSWM and ATI are further directed to assist the LGUs 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.

SECTION 12. *Implementing Rules and Regulations.* The Department of Agriculture and the Bureau of Soils and Water Management, in consultation with other concerned agencies and stakeholders, shall promulgate the necessary rules and regulations to implement this Act.

SECTION 13. *Appropriations.* - The amount necessary for the initial implementation of this Act shall be charged to the budget of the Department of Agriculture under the current General Appropriations Act. Thereafter, such sums as may be necessary for its continued implementation shall be included in the annual General Appropriations Act.

SECTION 14. *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 15. *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 16. *Effectivity Clause.* - This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in at least two (2) newspapers of general circulation.

Approved,



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



Canal
[Signature]

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 17 million hectares in 1934 to only about 5.33 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



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

Fifteenth Congress
First Regular Session

HOUSE BILL NO. 4468

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

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.

- h) "Soil and Water Conservation Technologies" refers to measures that control soil and water degradation and enhance productivity in the field.
- i) "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.
- j) "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 ~~the~~ 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,

AGENDA :

HB No. 4036 – An Act Promoting the Production, Processing, Marketing and Distribution of Philippine Mango, Mandating the Creation of a Framework for Development Plan, introduced by Rep. Sharon S. Garin.

HB No. 4468 – An Act Promoting Soil and Water Conservation Technologies and Approaches for Sustainable Land Management in the Philippines, introduced by Reps. Sharon S. Garin and Juan Edgardo M. Angara.

I. CALL TO ORDER/ROLL CALL

The meeting was called to order at 9:58 a.m. Upon motion duly made and seconded, the roll call was dispensed with.

II. A. Deliberation on HB 4036 – An Act Promoting the Production, Processing, Marketing and Distribution of Philippine Mango, Mandating the Creation of a Framework for Development Plan, introduced by Rep. Sharon S. Garin

Remarks of the Author, Rep. Sharon S. Garin:

- There is a need for an agency that will focus primarily on the potentials of the Philippine mango, and at the same time handle the issues besetting the industry;
- Private investors / corporations take the lead in research and development in the mango industry;
- Mango production is declining; the quality is deteriorating because of the farmers' lack of knowledge and limited access to information on how to grow mango properly.

Comments /Observations of the House Members:

Rep. Randolph S. Ting

- The Department of Environment & Natural Resources (DENR) is encouraging the planting of the native mango throughout the country under its reforestation project – the National Greening Program.
- The Department of Science and Technology (DOST) should be included in the bill as recommended by the Bureau of Plant and Industry (BPI).
- The funding requested for in the bill is necessary;

Rep. Angelo B. Palmones

- The primordial concern of the bill is to strengthen the research program on mango production;
- The latest significant research about mango production is the *sterile insect technique* used by the Guimaras mango growers;
- The Department of Trade and Industry (DTI) must be required to give inputs in terms of product promotion.

Rep. Cresente M. Paez

- A separate agency should be created instead of giving the task to the DA;
- Mango production is lagging in terms of research and development- research must be done proactively;
- A separate entity must be tasked to do research and development programs instead of placing it under DA.

- Requested the DA to answer on some points of section 4 of the bill: *first*, do we have an existing mango development framework; *second*, do we have a program on investment promotion and facilitation; *third*, the extent of research and development, market promotion and quality assurance; *fourth*, soil fertility mapping in all areas planted with mango and all areas suitable for mango plantation.

Rep. Pryde Henry A. Teves

- The simplest way to improve the quality of mango is periodic reciprocal production – with this, farmers do not need high technology;
- Research and development is very important – no one collates the experiences of successful mango growers and best management practices in the mango industry in the country.

Comments/observations from the concerned agencies:

From Mr. Noli P. Garcia
Bureau of Plant and Industry, DA

- Small-scale mango growers rely on their traditional knowledge to propagate mango;
- Mango growers have very limited knowledge in the application of pesticides;
- Mango growers rely on loan sharks for their capitalization.

Mr. Pol E. Rubia
Agri-Aqua Network International (AANI)

- Demand for organic mango is increasing;
- DOST plays a major role in assisting small-scale growers, especially in post-harvest.

A Technical Working Group (TWG) was created to further study the bill. The TWG is composed of Rep. Sharon S. Garin as head of the TWG, and Reps. Pryde Henry Teves, Angelo B. Palmones and Cresente Paez and representatives from concerned agencies as members.

B. Deliberation on HB 4468 – An Act Promoting Soil and Water Conservation Technologies and Approaches for Sustainable Land Management in the Philippines

Objectives of the Bill as discussed by Rep. Sharon S. Garin:

- Establish a National Soil and Water Conservation Program – to address the problem of land degradation; The Program shall generate synergies between agricultural productivity improvement and sustainable land management through the promotion and implementation of soil and water conservation technologies and approaches;
- Establish 1,000 soil and water conservation guided farms within five years;
- Install 10,000 units of small scale rainwater harvesting systems within five years in 80 provinces;
- Construct water reservoir for small scale irrigation system.

On the query of the Members of the Committee, hereunder are the comments of the resource persons:

Comments of Mr. Pedro Atega
Ecosystems Research & Development Bureau, DENR

- DENR is doing research on hydro-meteorological monitoring and embarking to install modified rain gauges in the highlands and also doing research on the documentation of rainwater harvesting technology;
- Include ‘*watershed protection*’ in the definition of terms – the rationale is that in any water

- impounding or water conservation strategy, watershed should first be protected;
- The definition of 'upland' should not be limited to 100 meters and 500 meters above sea level – as there is an increase of upland/highland residences in the country;
- DA should continue its Small Water Impounding Program, which is complementary with the DENR's research on Water Harvesting Technology;
- DENR and the LGUs should share the responsibility in protecting the watershed.

Comments of Mr. Silvino Tejada
Bureau of Soils and Water Management, DA

- Mentioned the following definition of terms, as used by the United States Environment and Protection Agency:
 - a. *Watershed* – is the area of land where all of the water under it or drains of it goes into the same place.
 - b. *Watershed Management* – refers to the management of water resources within specific watershed by knowing how much water is in the system, where it comes from, who is using it, and how it is being contaminated and where it ends up.
- On the query regarding the limitation on the definition of 'upland', he said that the BSWM does not want to encroach on the mandate of the DENR but, if DENR would agree, the BSWM will consider the proposal to change the definition of upland.
- The annual budget for Small Water Impounding Projects (SWIP) is P 500 million. At P 5 million/project, it can cover about 250 to 500 hectares;

BSWM Recommendations as stated in their position paper:

- Supports the establishment of the National Soil and water Conservation Program, however, the program should be a product of a broad stakeholders' consultation to be conducted upon the enactment of this Act;
- Soil and Water Conservation should be fully integrated in the budgetary processes, programming and implementation levels;
- Soil and water conservation activities should also be mainstreamed to the routine and regular functions of the LGUs so that the efforts of the various national government agencies under Section 11 'Research, Development and Extension Services' will be sustained and carried out continuously on the ground;
- In Section 2, Declaration of Policy, delete 'including rainwater harvesting systems in the country' and instead put 'micro-watershed management and farm wastes recycling and reuse'.
- In Section 3, Definition of Terms, suggests that the following definition be added and/or revised to conform to internationally accepted definitions:
 - a. *Land Degradation* – any form of deterioration of the natural potential of land that affects ecosystem integrity either in terms of reducing its sustainable ecological productivity or in terms of its native biological richness and maintenance of resilience (Global environment Facility);
 - b. *Organic-based agriculture* – a farming system focusing on judicious usage of inorganic fertilizer in combination with the application of organic fertilizer to attain optimum crop yield;
 - c. *Sloping Agricultural Land Technology (SALT)* –for of alley farming in which field and perennial crops are grown in bands 4-5 m wide between contoured rows of leguminous trees and shrubs; a simple, applicable, low-cost method of upland farming based on the use of tree and shrub legumes;

- d. *Watershed* – the area of land where all of the water that is under it or drains off of it goes into the same place (US EPA);
 - e. *Watershed Management* – management of water resources within specific watersheds by knowing how much water is in the system, where it comes from, who is using it, how it is being contaminated and where its ends up.
- In support of Section 11, suggests that another section focusing on 'incentive mechanism' be formulated to encourage active participation of concerned stakeholders in the program and provide LGUs, Farmers Groups, research institutions and academe, NGOs and private sector that will create significant changes through community mobilization;
 - Suggests to include a section on '*Knowledge Management*', so that best practices and success stories on soil and water conservation will be properly documented, processed, and packaged, using available and acceptable tools.

Comments of Mr. Samuel M. Contreras
Bureau of Soils and Water Management, DA

- The bill will strengthen the on-going convergence initiative among the three departments – DA, DENR and DAR;
- The bill must also create another agency that will take care of the social and tenurial security aspects of the particular area covered by the program.

Comments of Mr. Bonifacio S. Labiano
National Irrigation Administration (NIA)

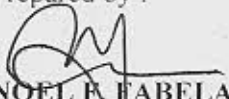
- Suggested to include, not only the uplands, but also the highlands which is 500 meters and above sea level. This will include the rehabilitation of the rice terraces. However, NIA has no program for the rehabilitation of the rice terraces or its irrigation systems.

A Technical Working Group (TWG) was created to further study the bill. The TWG is composed of the principal sponsor as head of the TWG and Reps. Pryde Henry Teves, Angelo B. Palmones and Cresente Paez and representatives from the concerned agencies as members.

III. ADJOURNMENT

The meeting adjourned at 11:19 am.

Prepared by :


NOEL F. FABELA
Supervising Legislative Staff Officer II

Corrected by 
CONSOLACION P. GALANG
Acting Committee Secretary

Noted:

HON. MARK LLANDRO L. MENDOZA
Chairman