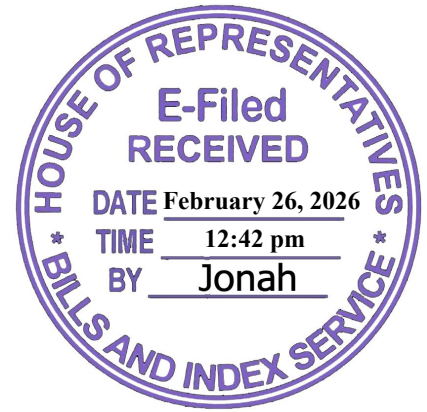




Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. **8117**



Introduced by:

HON. CHRISTOPHERSON “COCO” M. YAP

AN ACT
ESTABLISHING PROVINCIAL SOIL LABORATORY FACILITIES IN ALL
PROVINCES OF THE PHILIPPINES, STRENGTHENING SOIL HEALTH
MANAGEMENT AND APPROPRIATING FUNDS THEREFOR

EXPLANATORY NOTE

Agricultural productivity and long-term food security in the Philippines are highly dependent on the proper management and conservation of soil resources. However, many Filipino farmers continue to rely on generalized fertilizer recommendations and limited field-based Soil Test Kits (STK), which provide only basic soil information. The absence of accessible and comprehensive soil laboratory services at the provincial level results in inefficient fertilizer use, declining soil fertility, increased production costs, and environmental degradation.

While soil testing initiatives exist, their availability remains uneven and often inaccessible to farmers, particularly those in rural, island, and geographically isolated areas. Without accurate and localized soil data, farmers are unable to adopt science-based nutrient management practices necessary to improve productivity while protecting soil health and natural resources.

This bill seeks to establish Provincial Soil Laboratory Facilities in all provinces of the Philippines under the Department of Agriculture, through the Bureau of Soils and Water Management, to provide accessible, reliable, and comprehensive soil testing and advisory services. Unlike conventional soil test kits, these laboratories shall be capable of conducting advanced soil analysis, including macro- and micronutrient evaluation, soil organic matter assessment, soil structure analysis, and other diagnostic procedures necessary for precision agriculture.

The measure further institutionalizes a Site-Specific Nutrient Management framework to ensure that fertilizer recommendations are based on laboratory-generated data and localized field conditions rather than uniform application practices. By promoting

science-based fertilizer optimization, the proposed measure aims to reduce input waste, lower production costs, improve crop yields, and minimize adverse environmental impacts.

Through strengthened soil health monitoring and data-driven agricultural planning, the establishment of provincial soil laboratories will enhance climate resilience, support sustainable farming systems, and empower farmers with the knowledge needed to increase productivity while preserving soil resources for future generations.

In view of the foregoing, **ug sa ngalan sa SERBISYONG TINUORAY**, the undersigned respectfully requests the immediate passage of this measure.


CHRISTOPHERSON "COCO" M. YAP
Representative, Second District of Southern Leyte



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

Section 1. *Short Title.* – This Act shall be known as the "Provincial Soil Laboratory Development Act."

Section 2. *Declaration of Policy.* – It is hereby declared the policy of the State to accelerate agricultural development by optimizing the use of resources such as soils with the goal of attaining food security through science-based soil management. The state shall ensure that farmers have accessible soil testing services to guide efficient fertilizer use, improve soil fertility, and enhance climate-resilient agricultural practices.

Section 3. *Establishment of Provincial Soil Laboratory Facilities.* – There shall be established at least one (1) Provincial Soil Laboratory Facility in every province of the Philippines to provide soil testing, analysis, and technical advisory services to farmers and local government units.

Section 4. *Implementing Agency* – The Department of Agriculture (DA), through the Bureau of Soils and Water Management (BSWM), shall serve as the lead implementing agency and shall:

- (a) Establish, operate, and supervise provincial soil laboratories;
- (b) Develop uniform soil testing standards and protocols;
- (c) Provide technical assistance to provincial governments;
- (d) Maintain quality assurance and laboratory accreditation systems;

- (e) Establish partnerships with state universities and colleges and research institutions; and
- (f) Develop a nationwide soil health monitoring program.

Section 5. *Functions of Provincial Soil Laboratories.* – Each provincial soil laboratory shall:

- (a) Conduct soil fertility and nutrient analysis;
- (b) Provide crop-specific fertilizer and amendment recommendations;
- (c) Support sustainable and climate-resilient farming practices;
- (d) Assist in soil mapping and land suitability assessment
- (e) Provide training and extension services to farmers and agricultural technicians; and
- (f) Generate soil data for agricultural planning and policy development.

Section 6. *Comprehensive Soil Testing and Advanced Analysis.* – In addition to standard soil testing services, Provincial Soil Laboratory Facilities established under this Act shall be equipped and authorized to conduct comprehensive and advanced soil analysis beyond the capabilities of conventional Soil Test Kits (STK).

Such testing shall include, but shall not be limited to:

- (a) Macro- and micronutrient analysis, including nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, zinc, iron, manganese, copper, and boron;
- (b) Soil organic matter and carbon content determination;
- (c) Soil texture, structure, and water-holding capacity analysis;
- (d) Salinity, sodicity, and cation exchange capacity assessment;
- (e) Contaminant and heavy metal testing when necessary;
- (f) Soil biological and microbial activity assessment, where applicable; and
- (g) Crop- and site-specific nutrient management recommendations based on laboratory results.

The Department of Agriculture, through the Bureau of Soils and Water Management, shall ensure that provincial laboratories are provided with appropriate equipment, technical standards, and trained personnel to enable more exhaustive and science-based soil evaluation compared to field-based Soil Test Kits.

Results generated from comprehensive testing shall serve as the basis for precision agriculture programs, fertilizer optimization initiatives, and sustainable land management policies.

Section 7. *Site-Specific Nutrient Management and Fertilizer Optimization.* – The Department of Agriculture (DA), through the Bureau of Soils and Water Management (BSWM), shall adopt and implement a Site-Specific Nutrient Management (SSNM) Framework utilizing data generated from Provincial Soil Laboratory Facilities established under this Act.

Accordingly:

- (a) Fertilizer recommendations issued to farmers shall, as far as practicable, be based on laboratory-generated soil analysis and localized field conditions rather than uniform or blanket fertilizer application rates;
- (b) Provincial Soil Laboratories shall generate crop-specific and location-specific nutrient management advisories to guide farmers in the efficient and sustainable use of fertilizers and soil amendments;
- (c) The DA shall progressively integrate soil laboratory results into existing agricultural support programs, including fertilizer assistance, crop production programs, and extension services;
- (d) Agricultural extension workers and local government unit personnel shall be trained to interpret laboratory results and assist farmers in adopting precision and climate-resilient nutrient management practices; and
- (e) The DA shall promote reduced input waste, improved soil health, increased farm productivity, and minimized environmental impact through science-based fertilizer optimization.

Section 8. *Accessibility and Farmer Support.* – Soil testing services shall be made affordable and accessible, with subsidized rates prioritized for smallholder farmers, agrarian reform beneficiaries, agricultural cooperatives, and farmers in geographically isolated and disadvantaged areas.

Mobile soil testing services may be deployed to remote municipalities and island provinces.

Section 9. *Personnel and Staffing.* – The Department of Agriculture, in coordination with provincial governments, shall ensure the hiring, training, and continuous capacity development of soil scientists, laboratory technicians, and support personnel necessary for effective operations.

Section 10. *Appropriations.* – The amount necessary for the initial implementation of this Act shall be charged against the current appropriations of the Department of Agriculture. Thereafter, such sums as may be necessary shall be included in the annual General Appropriations Act.

Section 11. *Implementing Rules and Regulations.* – Within ninety (90) days from the effectivity of this Act, the DICT, in consultation with concerned agencies and stakeholders, shall promulgate the implementing rules and regulations.

Section 12. *Separability Clause.* – If, for any reason, any part or provision of this Act shall be declared as unconstitutional or invalid, the remaining parts or provisions not affected shall remain in full force and effect.

Section 13. *Repealing Clause.* – All laws, presidential decrees, executive orders and rules and regulations contrary to or inconsistent with the provisions of this Act are hereby repealed, amended, or modified accordingly.

Section 14. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in the *Official Gazette* or in a newspaper of general circulation.

Approved,