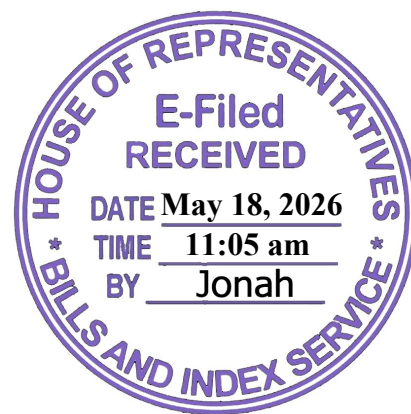


Republic of the Philippines
HOUSE OF REPRESENTATIVES
Constitution Hills, Quezon City

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. 9277



Introduced by Lone District of Agusan del Norte Representative
HON. DALE B. CORVERA

AN ACT
MAINSTREAMING GREEN INFRASTRUCTURE AND NATURE-BASED SOLUTIONS IN NATIONAL DEVELOPMENT, ESTABLISHING IMPLEMENTATION AND FINANCING MECHANISMS, AND FOR OTHER PURPOSES

EXPLANATORY NOTE

The Philippines is among the countries most vulnerable to climate change, experiencing increasingly severe typhoons, flooding, sea-level rise, and coastal erosion, as shown in global climate risk assessments.¹ These hazards place growing strain on public infrastructure and expose the limitations of conventional “gray” infrastructure such as seawalls, drainage systems, and flood control facilities, which are often rigid, costly to maintain, and increasingly insufficient under intensifying climate conditions.²

In response, Green Infrastructure (GI) and Nature-based Solutions (NbS) have emerged as globally recognized approaches to climate adaptation and disaster risk reduction. International institutions such as the World Bank, Organisation for Economic Co-operation and Development (OECD), United Nations Environment Programme (UNEP), and International Union for Conservation of Nature (IUCN) recognize that these approaches can complement or outperform traditional infrastructure by enhancing resilience while delivering multiple environmental and socio-economic benefits.³ These systems use natural assets such as mangroves, wetlands, river corridors, watershed forests, and urban green spaces to manage water flows, reduce flooding, and strengthen ecosystem resilience.

In the Philippines, these approaches are already being applied in practice and gaining institutional traction. The Asian Development Bank has supported Nature-based Solutions in selected river basin flood risk management programs in the country, demonstrating their technical and economic relevance under local hydrological and climate conditions.⁴ At the local

government level, Quezon City has recently expanded its network of flood-mitigating water catchment ponds within designated urban green spaces to temporarily store stormwater and reduce flooding during intense rainfall events, illustrating a practical and scalable form of urban Nature-based Solutions.⁵ These emerging practices reflect a growing shift among national and local stakeholders toward integrating ecological systems into infrastructure planning as a complement or alternative to conventional flood control measures.

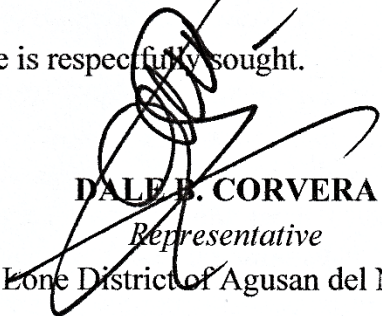
The constitutional mandate to protect and advance the right of the people to a balanced and healthful ecology provides the legal foundation for this policy direction. This is reinforced by *Oposa v. Factoran*, which recognized the doctrine of intergenerational responsibility and affirmed the State's duty to safeguard the environment for present and future generations, and is further strengthened by Republic Act No. 11995, which institutionalizes ecosystem valuation in national planning and investment.

Despite these advances, there remains no unified national framework that treats ecosystems as infrastructure assets or requires systematic evaluation of green, gray, and hybrid options in public investment decisions. This gap has led to underinvestment in natural systems that could improve resilience and reduce long-term costs.

This bill therefore seeks to institutionalize Green Infrastructure and Nature-based Solutions as a core national strategy for sustainable development, climate adaptation, and disaster risk reduction. It establishes a national policy framework, strengthens inter-agency coordination through a National Green Infrastructure Council, and introduces sustainable financing mechanisms such as a Green Infrastructure Fund and Payment for Ecosystem Services.

These proposed reforms are designed to ensure that environmental assets are no longer treated as incidental public goods but as strategic infrastructure that delivers measurable economic value and risk reduction benefits. By embedding nature-based investments into local and national planning and financing systems, the State is expected to reduce long-term disaster recovery costs, improve the efficiency of public infrastructure spending, and build a more resilient and climate-adaptive development pathway for all levels of governments.

In view of the foregoing, the approval of this measure is respectfully sought.


DALE B. CORVERA
Representative
Lone District of Agusan del Norte

1. Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report* (2023); World Bank, *Philippines Country Climate and Development Report* (2022).
2. Organisation for Economic Co-operation and Development, *Nature-based Solutions for Flood Management in Asia and the Pacific* (2024).
3. World Bank, *Implementing Nature-Based Flood Protection: Principles and Implementation Guidance* (2017); Organisation for Economic Co-operation and Development, *Nature-based Solutions for Flood Management in Asia and the Pacific* (2024); United Nations Environment Programme, *Nature-based Solutions for Climate Resilience* (2022); International Union for Conservation of Nature, *Global Standard for Nature-based Solutions* (2nd ed., 2020).
4. Asian Development Bank, *Nature-Based Solutions for Flood Risk Management: Revitalizing Philippine Rivers to Boost Climate Resilience and Enhance Environmental Stability* (2022).
5. GMA News report on Quezon City flood-mitigating ponds (May 2025)

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

SECTION 1. *Title.* This Act shall be known as the “*Philippine Green Infrastructure Act.*”

SECTION 2. *Declaration of Policy.* In fulfillment of the constitutional mandate of the State to protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature, it is hereby declared the policy of the State to pursue a transformative shift toward Green Infrastructure and Nature-Based Solutions as a cornerstone of sustainable development.

This approach seeks to optimize the management of the nation’s natural resources, reduce lifecycle costs of public infrastructure, enhance the effectiveness and climate resilience of national and local investments, and secure long-term environmental integrity and economic sustainability.

Accordingly, this Act institutionalizes Green Infrastructure and Nature-Based Solutions as the preferred and primary framework for national development, climate change adaptation, and disaster risk reduction. It shall be implemented in alignment with the *Philippine Development Plan* (PDP), the *National Adaptation Plan* (NAP), the Nationally Determined Contributions (NDC), the national strategy for a *Blue Economy*, and the long-term vision articulated in *AmBisyon Natin 2040*.

The State shall:

- a) Recognize natural ecosystems such as forests, wetlands, mangrove forests, and riverine floodplains as a vital class of public infrastructure that provides essential ecosystem services critical for public welfare and national development;

- b) Mainstream the valuation of these ecosystem services into national and local development planning, policy formulation, and public investment decisions, ensuring that the full lifecycle costs and benefits of all infrastructure options are properly accounted for;
- c) Establish clear mandates, foster inter-agency coordination, and build the capacity of national and local government institutions to plan, implement, and manage Green Infrastructure effectively;
- d) Create innovative, market-based financial mechanisms and incentives that make the protection, restoration, and establishment of Green Infrastructure economically competitive and financially sustainable; and
- e) Ensure a whole-of-government and whole-of-society approach, fostering collaboration among government agencies, local government units (LGUs), the private sector, civil society, and local communities to build a climate-resilient and sustainable Philippines.

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

- a) Ecosystem Services – The direct and indirect contributions of ecosystems to human well-being. These include provisioning services (e.g., food, water), regulating services (e.g., flood control, climate regulation), supporting services (e.g., nutrient cycling), and cultural services (e.g., recreation, spiritual enrichment).
- b) Gray Infrastructure – Engineered infrastructure that uses manufactured materials such as concrete and steel to manage natural systems, characterized by single-purpose design and hard, impervious surfaces. Examples include concrete seawalls, drainage canals, piped sewer systems, and dams.
- c) Green Infrastructure (GI) – A strategically planned network of natural and semi-natural areas with other environmental features, designed and managed to deliver a wide range of ecosystem services. It includes natural ecosystems, restored habitats, and engineered systems that mimic natural processes. Examples range from large-scale assets like national parks and coastal greenbelts to urban-scale features like green roofs, permeable pavements, constructed wetlands for wastewater treatment, phytoremediation sites for solid waste management, and urban parks designed for flood retention.
- d) Hybrid Infrastructure – A planned system that strategically combines Green and Gray Infrastructure elements to leverage the benefits of both approaches, enhancing overall performance, resilience, and cost-effectiveness.
- e) Lifecycle Cost Analysis (LCCA) – A method of project evaluation that considers all costs associated with an asset over its entire lifespan, from planning and construction to operation, maintenance, and end-of-life disposal or decommissioning. For the purposes of this Act, LCCA shall include the monetization of all quantifiable ecosystem service co-benefits generated by an infrastructure option.
- f) Nature-Based Solutions (NbS) – Actions to protect, sustainably manage, and restore natural or modified ecosystems, which address societal challenges effectively and adaptively,

simultaneously providing human well-being and biodiversity benefits, consistent with internationally recognized standards such as the IUCN Global Standard for NbS.

- g) Payment for Ecosystem Services (PES) – A voluntary transaction where a well-defined ecosystem service, or a land use likely to secure that service, is bought by at least one buyer from at least one provider on the condition that the provider secures the provision of that service.

ARTICLE I

INSTITUTIONAL FRAMEWORK AND MANDATES

SECTION 4. *Creation of the National Green Infrastructure Council.* To ensure a whole-of-government approach, there is hereby created a National Green Infrastructure Council (NGIC), which shall function as the primary body for inter-agency coordination, policy integration, and monitoring for the implementation of this Act.

The NGIC shall be composed of the following:

- Secretary of the Department of Economy, Planning, and Development (DEPDev) - Chairperson
- Secretary of the Department of Environment and Natural Resources (DENR) - Co-Chairperson
- Secretary of the Department of Public Works and Highways (DPWH) - Co-Chairperson
- Secretary of the Department of National Defense (DND), as Chairperson of the NDRRMC - Member
- Secretary of the Department of the Interior and Local Government (DILG) - Member
- Secretary of the Department of Agriculture (DA) - Member
- Secretary of the Department of Human Settlements and Urban Development (DHSUD) - Member
- Secretary of the Department of Finance (DOF) - Member
- Chairperson of the Climate Change Commission (CCC) - Member
- Three (3) representatives from the private sector, academe, and civil society, to be appointed by the President - Members

SECTION 5. *Functions of the NGIC.* The NGIC shall have the following coordinating and oversight functions:

- a) Facilitate convergence of programs and projects among member agencies;
- b) Review and endorse the National Green Infrastructure Master Plan;
- c) Serve as a forum to resolve conflicts and implementation bottlenecks;
- d) Recommend national policies, standards, and guidelines;
- e) Monitor and evaluate progress and submit annual reports to the President and Congress.

SECTION 6. *NGIC Secretariat.* The NGIC shall be supported by a permanent Secretariat housed in the Department of Economy, Planning, and Development (DEPDev), which shall provide technical and administrative support.

SECTION 7. *Mandates of Key National Government Agencies.* To operationalize this Act:

- a. DEPDev – Shall lead the formulation and periodic updating of national plans for Green Infrastructure, issue guidelines for Lifecycle Cost Analysis (LCCA) for all relevant infrastructure projects, and ensure the systematic mainstreaming of Green Infrastructure and Nature-Based Solutions across national, regional, and sectoral development plans and public investment programming;

- b. DPWH – Shall develop, adopt, and promulgate engineering and design standards that integrate Green Infrastructure and Nature-Based Solutions as preferred approaches in the planning, construction, and retrofitting of public works and infrastructure systems;
- c. DENR – Shall serve as the primary scientific and technical authority for Green Infrastructure, and shall lead the national mapping, inventory, and valuation of ecosystem assets, establish and regulate Payment for Ecosystem Services (PES) mechanisms, and develop standards to ensure ecological integrity and sustainability;
- d. DILG – Shall ensure the integration of Green Infrastructure into local governance and development planning processes, and shall design and implement comprehensive capacity-building programs to equip local government units with the necessary technical and institutional capabilities;
- e. DA – Shall promote the adoption of agro-ecological approaches and climate-resilient agricultural practices, and support the integration of Green Infrastructure within agricultural landscapes to enhance productivity, sustainability, and rural resilience;
- f. DHSUD – Shall incorporate Green Infrastructure standards into national housing, land use, and urban development policies, plans, and guidelines, and provide direction to local government units on their implementation;
- g. DOF – Shall develop and oversee financing strategies and enabling policy frameworks to support investments in Green Infrastructure, and shall manage the National Green Infrastructure Fund in accordance with this Act;
- h. CCC – Shall ensure that all Green Infrastructure strategies, plans, and programs are aligned with national climate policies, including adaptation and mitigation commitments.

SECTION 8. *Role of Local Government Units (LGUs).* Local Government Units (LGUs) shall serve as the frontline implementers of this Act and shall ensure the integration of Green Infrastructure (GI) into their respective local development plans, including but not limited to Comprehensive Land Use Plans (CLUPs), Provincial Development and Physical Framework Plans (PDPFPs), and Local Climate Change Action Plans (LCCAPs), consistent with Republic Act No. 7160.

ARTICLE II

MAINSTREAMING GREEN INFRASTRUCTURE IN PLANNING AND DEVELOPMENT

SECTION 9. *Mandatory Green-First Infrastructure Options Analysis.* All public infrastructure projects related to climate and disaster risk management shall undergo a Green-First Options Analysis comparing gray, green, and hybrid solutions, using Lifecycle Cost Analysis (LCCA). DENR consultation shall be required, and results shall form part of project approval and ECC issuance.

SECTION 10. *National Green Infrastructure Inventory and Valuation.* The DENR, with the Philippine Statistics Authority (PSA), shall establish a nationwide inventory and valuation system consistent with Republic Act No. 11995 (Philippine Ecosystem and Natural Capital Accounting System Act).

SECTION 11. *Declaration and Protection of Designated Green Infrastructure.* Ecosystems may be declared as Designated Green Infrastructure by the President upon NGIC recommendation, granting legal protection and priority land-use status.

SECTION 12. *Monitoring, Reporting, and Verification (MRV) System.* The DENR shall establish an MRV system to track the condition and performance of GI assets using tools such as GIS, remote sensing, and satellite imagery, ensuring long-term effectiveness and accountability.

ARTICLE III ECONOMIC INSTRUMENTS AND SUSTAINABLE FINANCING

SECTION 13. *Authority to Implement Stormwater Management Fees.* LGUs are hereby authorized to create, through local ordinance, a system of stormwater management fees. Such fees shall be structured as a user fee based on a property's contribution to stormwater runoff, which may be measured by its area of impervious surface. The revenue generated shall be placed in a local special account to be used exclusively for the planning, construction, and management of local Green Infrastructure for stormwater management.

SECTION 14. *Establishment of Payment for Ecosystem Services (PES) Mechanisms.* Pursuant to its mandate under Section 7(c) of this Act, the DENR is hereby authorized to establish, facilitate, and regulate PES mechanisms for Designated Green Infrastructure assets. Commercial, industrial, and other entities who are direct and measurable beneficiaries of the ecosystem services provided by such assets, including but not limited to, water purification and supply, shall be required to enter into PES agreements.

The fees collected shall be deposited into a dedicated trust fund for each Designated Green Infrastructure, to be managed by a multi-stakeholder governing body. The revenue shall be used for the conservation, maintenance, and enhancement of the asset and to provide a sustainable source of revenue and livelihood for its recognized stewards, including local communities and indigenous peoples.

SECTION 15. *National Green Infrastructure Fund.* There is hereby established a special fund to be known as the National Green Infrastructure Fund, hereinafter referred to as the Fund. The Fund shall be capitalized through an initial appropriation in the General Appropriations Act and shall be supplemented by annual appropriations thereafter. It may also be augmented by grants, donations, and other contributions from local and foreign sources.

The Fund shall be used to provide grants and concessional financing to Local Government Units, civil society organizations, and community enterprises for the development, restoration, and management of a wide range of Green Infrastructure and Nature-Based Solutions projects. It shall also provide funding for technical assistance and project preparation to develop a robust pipeline of bankable projects.

The National Green Infrastructure Council shall serve as the Governing Board of the Fund, while the Department of Finance shall act as its manager and secretariat.

SECTION 16. *Fiscal and Non-Fiscal Incentives for Private Sector Adoption.* To encourage private sector investment in Green Infrastructure, the following incentives are hereby established:

- a. *Fiscal Incentives under the CREATE Act.* – The Board of Investments (BOI), upon the recommendation of the NGIC, shall include the establishment, restoration, and management of Green Infrastructure as a priority activity in the Strategic Investment Priority Plan (SIPP). Pursuant to Republic Act No. 11534, otherwise known as the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act, and its subsequent amendments, investments by

registered business enterprises in NGIC-certified Green Infrastructure projects shall be eligible for fiscal incentives, including but not limited to, Enhanced Deductions on capital investment and labor expense, as administered by the BOI and other Investment Promotion Agencies.

- b. *Non-Fiscal Incentives.* – Pursuant to their powers under Republic Act No. 7160, and guided by standards issued by the DHSUD, relevant LGUs are hereby mandated to establish a system of non-fiscal incentives for private developers. Such incentives may include, but are not limited to, density bonuses, increased floor area ratios, and expedited permitting for projects that incorporate significant and high-quality GI features that exceed minimum national and local standards.

ARTICLE IV

CAPACITY BUILDING, RESEARCH, AND PUBLIC AWARENESS

SECTION 17. *National Capacity Building Program.* The DILG, in partnership with the DENR, DPWH, State Universities and Colleges, and qualified technical institutions, shall design and implement a continuous national capacity-building program for LGU officials, planners, and engineers on the principles, design, implementation, and maintenance of Green Infrastructure.

SECTION 18. *Research and Development.* The Department of Science and Technology (DOST), in coordination with the DENR and the Commission on Higher Education (CHED), shall develop and fund a National Green Infrastructure Research and Development Program. This program shall focus on developing locally appropriate technologies, materials, and best practices for GI and NbS tailored to the diverse ecosystems and climatic conditions of the Philippines.

SECTION 19. *Public Awareness and Education.* The NGIC, through the Philippine Information Agency (PIA) and in coordination with the Department of Education (DepEd) and the Commission on Higher Education (CHED), shall develop and implement a sustained national public information, education, and communication campaign to build broad-based support and understanding of the value and benefits of Green Infrastructure and Nature-Based Solutions.

ARTICLE V

FINAL PROVISIONS

SECTION 20. *Implementing Rules and Regulations (IRR).* Within ninety (90) days from the effectivity of this Act, the DEPDev, as Chairperson of the NGIC, shall convene the Council to develop and promulgate the necessary rules and regulations for the effective implementation of this Act.

SECTION 21. *Appropriations.* The amount necessary for the initial implementation of this Act, including the operational budget for the NGIC Secretariat and the initial capitalization of the National Green Infrastructure Fund, shall be included in the General Appropriations Act following the enactment of this law. Thereafter, each member agency of the NGIC shall include in their respective annual budget proposals the necessary funding to carry out their mandated functions under this Act.

SECTION 22. *Separability Clause.* If any provision of this Act is declared unconstitutional or invalid, the other provisions not affected thereby shall remain in full force and effect.

SECTION 23. *Repealing Clause.* All laws, presidential decrees, executive orders, rules and regulations, and other issuances contrary to or inconsistent with the provisions of this Act are hereby repealed, amended, or modified accordingly.

SECTION 24. *Effectivity.* This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Approved,