Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. 2511

Introduced by **HON. MIGUEL LUIS R. VILLAFUERTE, HON. VINCENZO RENATO LUIGI R. VILLAFUERTE, HON. TSUYOSHI ANTHONY G. HORIBATA, AND HON. TERRY L. RIDON**

EXPLANATORY NOTE

This proposed National Precast and Industrialized Construction Promotion Act is being introduced with the purpose of maximizing our government's efforts to solve the country's housing backlog, construction delays, and high costs associated with traditional building methods.

It aims to adopt modern solutions in the construction industry by promoting the use of precast concrete and other industrialized construction techniques, which offer faster, more efficient, and potentially more sustainable building solutions. According to a study conducted by Xiong and Baccay (2025) entitled 'Economic Benefits of Adopting Prefabricated Building Systems in the Philippines', "*Prefabrication is characterized by the off-site manufacturing of building components for on-site assembly offers significant economic benefits, including reduced construction time, lower labor costs, and improved quality control".*

With this study, the filing of this proposed measure is timely and efficient as the following measures shall be advantageous to the progress of the country:

Addressing the Housing Shortage

The Philippines faces a significant housing backlog, currently at 8.25M units as of March 2025. Since the initiative of the government of 'Build, Build, Build', the construction sector of the our country continues to face rapid urbanization which likewise resulted to an increase in infrastructure. However, traditional construction methods are often slow and expensive, making it difficult to meet the demand for affordable housing. Precast and industrialized construction can accelerate the building process, allowing for faster delivery of housing units and potentially reducing costs while being environmentally friendly.

Improving Construction Efficiency and Sustainability

Precast construction allows for the mass production of building components in a controlled factory environment, leading to greater precision and faster assembly on-site. Reduced construction time translates to lower labor costs and faster project completion, making it more attractive for developers and investors.

Moreover, precast construction can contribute to more sustainable building practices by reducing waste, optimizing material usage, and minimizing on-site disturbances, especially in large-scale constructions such as buildings, bridges, and airports. The controlled environment of precast factories allows for better waste management and recycling of materials to reduce carbon emission.

Economic Benefits and Keeping with International Standards

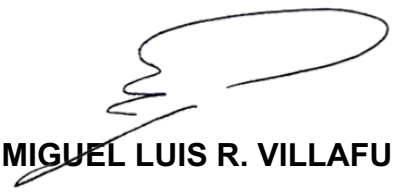
While precast construction may require higher initial investment, the long-term cost savings due to reduced labor, faster construction times, and lower maintenance costs can make it a more cost-effective solution. In addition, our adoption of such technologies can boost employment and productivity by creating demand for skilled labor and local precast plants. It also supports the government's green building goals through lower site waste, faster builds, and energy-efficient production. Such measure can attract investors and developers into the country that will definitely aid in boosting our economic status, as well as, keep up with international standards and trends.

Precast and industrialized construction methods are seeing an increased international adoption due to their numerous benefits, including faster construction times, cost-effectiveness, and improved sustainability. Western countries like the United States, the United Kingdom, and Germany have seen widespread adoption of prefabrication in both residential and commercial projects. Countries like China and those in the Asia-Pacific region are experiencing rapid growth in precast concrete construction due to industrialization and infrastructure development.

This bill seeks not only the promotions of such technologies but also proposes the adoption of national standards for the use of these technologies similar to what India did with its Global Housing Technology Challenge and Singapore's Prefabricated Prefinished Volumetric Construction.

The National Precast and Industrialized Construction Promotion Act is a strategic measure to modernize the construction industry, address the housing crisis, improve efficiency and sustainability, and ultimately contribute to the country's economic development.

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



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AN ACT ADOPTING AND PROMOTING PRECAST, PREFABRICATED, AND MODULAR CONSTRUCTION TECHNOLOGIES IN NATIONAL AND LOCAL HOUSING AND INFRASTRUCTURE PROGRAMS IN THE PHILIPPINES, AND APPROPRIATING FUNDS THEREOF

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

Section 1. Short Title. This act shall be known as the "*National Precast and Industrialized Construction Promotion Act*".

Sec. 2. Declaration of Policy and Objectives. - It is hereby declared to be the policy of the State to safeguard life, health, property, and public welfare, consistent with the principles of sound environmental management and control; and to this end, make it the purpose of this act to adopt and promote the use of precast, prefabricated, and modular construction systems across public and private sectors to address the need for sustainable, fast, and resilient construction methods for housing, infrastructure, and disaster-resilient development in the Philippines.

Sec. 3. Objectives of the Act. The Objectives of the Act are as follows:

a) To promote faster, cleaner, and cost-efficient construction methods through means of streamlining the construction process by manufacturing precast and prefabricated components to boost the construction economy;

b) To reduce construction-related carbon emissions and minimize on-site waste that shall be aligned with green building standards globally;

c) To ensure resilience during natural disasters through quality-controlled precast systems;

d) To build institutional and technical capacity for off-site construction methods nationwide; and

e) To attract local developers and investors, as well as foreign entities, to invest on their small, medium, and large-scale construction projects in the country for its economic development.

Sec. 4. Definition of Terms. - As used in this Act and the implementing rules and regulations (IRR) to be issued pursuant thereto, the following shall be defined as follows:

a) *Prefabricated Construction* – refers to any building or component that is manufactured off-site in a factory environment, then transported and assembled on-site. It includes, but is not limited to, steel frames, wooden panels, light gauge steel, and concrete components. Prefab systems are not limited to volumetric modules and may be 2D (panels), 3D (modules), or hybrid.

b) *Modular Construction* – a subset of prefabricated construction where entire 3D sections or volumetric modules (including walls, floors, ceilings, wiring, and plumbing) are built in a controlled factory setting and transported to the site for final assembly. Modular buildings can be permanent or relocatable and are designed to comply with local building codes.

c) *Industrialized construction* – refers to the integration of manufacturing processes and advanced technologies into the construction industry to improve efficiency, precision, and sustainability. This approach involves prefabrication, automation, robotics, and digital technologies like Building Information Modeling (BIM) to streamline the design, fabrication, and assembly of building components.

d) *Precast construction* – refers to construction materials that are manufactured off-site in controlled environments and then transported to the construction site for installation. It is made by pouring concrete into molds or forms, where it can cure and harden before being lifted and transported. Precast concrete comes in various shapes and sizes, including panels, beams, columns, and modules, and it is used in a wide range of construction projects, from buildings and bridges to infrastructure and landscaping.

e) *Modular Building Code* - refers to standards set for building methods where sections of a structure, or modules, are built in a factory setting and then transported to a construction site for assembly.

Sec. 5. Scope and Coverage. - The provisions of this Act shall apply by the following within their respective jurisdictions:

a) National Government Agencies (NGAs);
b) Local Government Units (LGUs);
c) Government-Owned and Controlled Corporations (GOCCs);
d) Public-Private Partnership (PPP) Projects; and
e) Private developers availing of government incentives for housing, tourism, and infrastructure.

Sec. 6. Priority Implementation in Public Housing and Public Infrastructure Projects. – The following implementing agencies shall prioritize to implement the following:

a. *The National Housing Authority (NHA) and Department of Human Settlements and Urban Development (DHSUD)* shall prioritize to implement precast construction or industrialized construction for all housing projects including the 4PH (Pambansang Pabahay Para sa Pilipino).

b. *The Department of Public Works and Highways (DPWH) and the Department of Transportation (DOTr)* shall prioritize to industrialize construction technologies in public infrastructure projects such as bridges, public terminals, drainage, and highway components whenever feasible.

Sec. 7. Integration into the National Building Code of the Philippines. The DPWH, DPWH-BRS (Bureau of Research and Standards) and DHSUD shall update the National Building Code to integrate the following:

a) Precast design standards
b) Modular Building Code
c) Earthquake- and typhoon-resilient design requirements

Sec. 8. Capacity Building and Research and Development. – The following shall integrate within their mandates the following:

a) The Technical Education and Skills Development Authority (TESDA) and the Commission on Higher Education (CHED) shall develop and roll out curriculum and training programs for precast manufacturing, installation, and inspection.

b) The Department of Science and Technology (DOST) shall perform local research and development on local or indigenous materials for precast or industrialized construction.

Sec. 9. Incentives for the Private Sector. The following are mandated to study the grant of benefits or incentives for housing developers using precast systems in mass housing or climate-resilient infrastructure:

a) *Local Government Units (LGUs)* - for the expedited issuance of building permits;

b) *Department of Finance (DOF)* - for tax deductions or income tax holidays or duty-free importation for investors or businesses involved in precast construction or industrialized construction technologies;
c) *Development Bank of the Philippines (DBP), Landbank of the Philippines and Pag-IBIG* - for eligibility in low-interest green financing and similar programs;

d) *Board of Investments (BOI)* - for the inclusion of a registration system for precast manufacturers to give fiscal and non-fiscal incentives including VAT exemptions and investment facilitation support and inclusion in the Investment Priorities Plan (IPP).

Sec. 10. Technology Accreditation Program. A Philippine Precast and Industrialized Construction Accreditation System (PPICAS) shall be created by the Construction Industry Authority of the Philippines (CIAP) to vet technologies, perform pilot demonstration projects and local adaptation testing, and fast-track the approval or certification of qualified precast and industrialized construction technologies.

Sec. 11. Monitoring and Evaluation. A National Committee on Industrialized Construction (NCIC) shall be formed comprised of agency representatives from the DPWH, DOTR, DHSUD, and the Department of Economy, Planning and Development (DepDev), and shall primarily be responsible for tracking adoption metrics, drafting Annual Progress Reports, and recommending supporting policy refinements and funding, among others.

The NCIC shall likewise be responsible for international benchmarking and collaboration, including the establishment of international partnerships, exchange of best practices and engineering standards, and the facilitation of technology transfer and training programs.

Sec.12. Appropriation. The amount needed for the initial implementation of this Act is hereby appropriated under the unappropriated funds of the National Treasury. Thereafter, Congress shall provide for the appropriations needed for the implementation of this Act to be included in the General Appropriations Act.

Sec. 13. Implementing Rules and Regulations. The DPWH, DOTR, DHSUD, and DepDev, in consultation with relevant stakeholders, shall issue the rules and regulations

necessary for the implementation of this Act within ninety (90) days from the effectivity of this Act

Sec. 14. Mandatory Review. This Act shall undergo a mandatory review of its provisions every five (5) years to make the law more responsive to the needs of the times. The review shall be made by Congress, which shall conduct public hearings and evaluate the accomplishments and impact of this Act, which shall be the basis of any amendment or modification of this Act.

Sec. 15. Repealing Clause. - Any law, presidential decree or issuance, executive order, letter of instruction, administrative order, proclamation, charter, rule or regulation, and/or parts thereof contrary to or inconsistent with the provisions of this Act is hereby repealed, modified or amended accordingly.

Sec. 16. Separability Clause. - If, for any reason, any section or provision of this Act is declared unconstitutional or invalid, the other sections or provisions which are not affected hereby shall continue to be in full force and affect.

Sec. 17. Effectivity. - This Act shall take effect fifteen (15) days following its publication in the *Official Gazette* or in two (2) newspapers of general circulation.

Approved,