

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN



MEMORANDUM

FOR

The Directors

Legal Affairs Service

Policy and Planning Service Climate Change Service

The Bureau Directors

Environmental Management Bureau Biodiversity Management Bureau Forest Management Bureau

Land Management Bureau

Ecosystems Research and Development Bureau

The Administrator

National Mapping and Resource Information Authority

The Executive Directors

National Water Resources Board Manila Bay Coordinating Office River Basin Control Office

The Officer-In-Charge

Mines and Geosciences Bureau

All Regional Executive Directors

FROM

The Director

Legislative Liaison Office

SUBJECT

INVITATION TO THE 2nd TECHNICAL WORKING GROUP (TWG) MEETING ON THE **ESTABLISHMENT** OF RAINWATER HARVESTING FACILITIES IN ALL NEW INSTITUTIONAL, COMMERCIAL. INDUSTRIAL AND RESIDENTIAL DEVELOPMENT PROJECTS FROM THE COMMITTEE ON PUBLIC

WORKS AND HIGHWAYS OF THE HOUSE OF REPRESENTATIVES

DATE

08 February 2024

In reference to the electronic letter dated 08 February 2024, the Committee on Public Works and Highways of the House of Representatives will be having its 2nd Technical Working Group (TWG) meeting on 14 February 2024, Wednesday, 10:00 AM at Speaker Belmonte Hall, South Wing Annex (SWA), House of Representatives to deliberate on the following legislative measures:

House Bill No. 2412 - "AN ACT MANDATING THE ESTABLISHMENT AND MAINTENANCE OF A RAINWATER HARVESTING FACILITY IN ALL NEW

- INSTITUTIONAL, COMMERCIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS NATIONWIDE" by Rep. Barba, Angelo M.;
- House Bill No. 2553 "AN ACT REQUIRING ALL NEW SUBDIVISIONS, CONDOMINIUM COMMUNITIES, MALLS, GOVERNMENT INSTITUTIONS, CENTRAL BUSINESS DISTRICTS AND INFORMATION TECHNOLOGY PARKS IN THE PHILIPPINES TO CONSTRUCT RAIN HARVESTING FACILITY AND FOR OTHER PURPOSES" by Rep. Momo, Romeo Sr. S.;
- House Bill No. 2753 "AN ACT MANDATING THE ESTABLISHMENT AND MAINTENANCE OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS IN METRO MANILA" by Rep. Delos Santos, Alfred C.;
- House Bill No. 3862 "AN ACT REQUIRE ALL GOVERNMENT BUILDING CONSTRUCTION TO HAVE RAIN HARVESTING FACILITY AND FOR OTHER PURPOSES" by Rep. Tambunting, Gus S.;
- House Bill No. 4441 "AN ACT MANDATING THE ESTABLISHMENT, MANAGEMENT, MAINTENANCE, AND REGULATION OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS IN METRO MANILA" by Rep. Gatchalian Rex;
- House Bill No. 4837 "AN ACT REQUIRING ALL NEW RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL BUILDINGS IN THE PHILIPPINES TO INSTALL RAINWATER COLLECTION SYSTEM, AND PROVIDING PENALTIES THEREFOR" by Rep. Barbers, Robert Ace S.;
- House Bill No. 7786 "AN ACT REQUIRING ALL NEW RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL BUILDINGS IN THE PHILIPPINES TO INSTALL RAINWATER COLLECTION SYSTEM, AND PROVIDING PENALTIES THEREFOR" by Rep. Gomez, Richard I.;
- House Bill No. 8148 "AN ACT PROVIDING FOR THE CONVERSION OF THE JUNCTION LIMOOK-DANIT-JUNCTION BADJA ROAD IN THE CITY OF LAMITAN, PROVINCE OF BASILAN, FROM PROVINCIAL ROAD TO NATIONAL ROAD AND APPROPRIATING FUNDS THEREFORE" by Rep. Hataman Mujiv S.;
- House Bill No. 9353 "AN ACT MANDATING THE ESTABLISHMENT, MANAGEMENT, MAINTENANCE, AND REGULATION OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS IN METRO MANILA" by Rep. Tulfo, Ralph Wendel P.;
- House Bill No. 5027 "AN ACT GRANTING INCENTIVES FOR COMMERCIAL AND INDUSTRIAL ESTABLISHMENTS, AND DEVELOPERS WHO WILL INCORPORATE RAINWATER HARVESTING TECHNOLOGY IN THEIR BUSINESSES, AND FOR OTHER PURPOSES" by Rep. Pancho, Augustina Dominique C.;
- House Bill No. 8833 "AN ACT PROVIDING FOR THE CONSTRUCTION OF WATER IMPOUNDING FACILITIES, FOR PURPOSES OF FLOOD CONTROL, POTABLE WATER SOURCES, AND IRRIGATION, IN EVERY CITY AND MUNICIPALITY IN THE COUNTRY" by Rep. Haresco, Teodorico Jr.;

- House Bill No. 8957 "AN ACT MANDATING THE ESTABLISHMENT OF WATER IMPOUNDING SYSTEMS FACILITIES FOR ESTABLISHMENTS WITH AN AREA OF FIVE (5) HECTARES OR MORE" by Rep. Pancho, Augustina Dominique C.;
- House Bill No. 1151 "RESOLUTION DIRECTING THE COMMITTEE ON PUBLIC WORKS AND HIGHWAYS TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, INTO THE STATUS OF THE IMPLEMENTATION OF REPUBLIC ACT 6716 WHICH PROVIDES FOR THE CONSTRUCTION OF WATER WELLS AND RAINWATER COLLECTORS IN ALL BARANGAYS IN THE PHILIPPINES" by Rep. Pleyto, Salvador A.; and
- House Bill No. 906 "RESOLUTION URGING THE COMMITTEE ON PUBLIC WORKS AND HIGHWAYS AND THE COMMITTEE ON ECOLOGY TO JOINTLY INQUIRE, IN AID OF LEGISLATION, INTO THE INADEQUATE IMPLEMENTATION OF THE 1989 LAW THAT MANDATES THE CONSTRUCTION OF RAINWATER COLLECTORS IN ALL BARANGAYS" by Rep. Campos, Luis Jr. N.

In this regard, may we respectfully request for additional comments and recommendations, if any, on the abovementioned bills, in anticipation of the Committee meeting, as requested by the Committee. Kindly send them on or before 12 February 2024, at 5 PM via email at denr.gov.ph. Further, kindly inform us of the name/s of the representative/s from your office who will participate in the meeting so we may include him/her/them as resource person/s.

Attached herewith are the Letter Invitation, Agenda, and the House bills for your reference.



Cc: Undersecretary for Special Concerns and Legislative Affairs Undersecretary for Integrated Environmental Science



CTSS-I, Committee Affairs Department, House of Representatives
3rd Floor, Ramon V. Mitra Building, Batasan Hills, Quezon City, Philippines 1126
Telefax: 9310200, TrunkLine: 9315001 local 7135

08 February 2024

HON. MANUEL M. BONOAN

Secretary

Department of Public Works and Highways (DPWH) City of Manila

HON. ARSENIO M. BALISACAN

Secretary

National Economic and Development Authority (NEDA)
Pasig City

HON. BENJAMIN E. DIOKNO

Secretary

Department of Finance (DOF) City of Manila

HON. AMENAH F. PANGANDAMAN

Secretary

Department of Budget and Management (DBM) City of Manila

HON. ROMEO D. LUMAGUI, JR.

Commissioner

Bureau of Internal Revenue (BIR) Quezon City

HON. BENJAMIN "BENHUR" ABALOS JR.

Secretary

Department of the Interior and Local Government (DILG) Quezon City

HON, JOSE RIZALINO "JERRY" L. ACUZAR

Secretary

Department of Human Settlements and Urban Development (DHSUD) Quezon City

HON. DOMINGO F. PANGANIBAN

Senior Undersecretary

Department of Agriculture (DA) Quezon City

HON. RENATO U. SOLIDUM, JR.

Secretary

Department of Science and Technology (DOST)
Taguig City

HON. MARIA ANTONIA ULO LOYZAGA

Secretary

Department of Environment and Natural Resources (DENR) Ouezon City

HON. VICENTE B. MALANO, Ph.D.

Administrator

Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) Quezon City

HON. EDUARDO EDDIE G. GUILLEN

Administrator

National Irrigation Administration (NIA) Quezon City

HON. MARK LLANDRO L. MENDOZA

Secretary

Chief of the Presidential Legislative Liaison Office (PLLO) Presidential Adviser on Legislative Affairs City of Manila

HON. REYNALDO S. TAMAYO JR.

National President

League of Provinces of the Philippines (LPP) Pasig City

HON. MICHAEL L. RAMA

National President

League of Cities of the Philippines (LCP) Quezon City

HON. JOSEPH SANTO NIÑO "JB" BERNOS

National President

Leagues of Municipalities of the Philippines (LMP) Quezon City

HON. DAX CUA

President

Union of Local Authorities of the Philippines (ULAP) Mandaluyong City

Your Honors:

Please be informed that the Committee on Public Works and Highways will hold a Technical Working Group (TWG) Meeting on the date, time, venue and agenda indicated hereunder:

DATE: 14 February 2024

TIME: 10:00 A.M.

VENUE: Speaker Belmonte Hall, South Wing Annex

House of Representatives Complex, Quezon City

AGENDA:

- 1. HBs 2412, 2553, 2753, 3862, 4441, 4837, 5640, 7786, 8148 & 9353 Mandating the establishment of rainwater harvesting facilities in all new institutional, commercial, industrial, and residential development projects (by Representatives Angelo Marcos Barba, Romeo S. Momo Sr., Alfred C. Delos Santos, Gus S. Tambunting, Rex Gatchalian, Robert Ace S. Barbers, Luis Raymund 'LRay' F. Villafuerte Jr., Richard I. Gomez, Lani Mercado-Revilla, Ralph Wendel P. Tulfo, Jocelyn P. Tulfo, Erwin T. Tulfo, Fernando T. Cabredo, Joseph Gilbert F. Violago, Noel "Bong" N. Rivera, Christopherson "Coco" M. Yap, Arthur F. Celeste, and Rosanna "Ria" V. Vergara);
- 2. HB 5027 Granting incentives for commercial and industrial establishments, and developers who will incorporate rainwater harvesting technology in their businesses (by Reps. Augustina Dominique 'Ditse Tina' C. Pancho and Danny A. Domingo);
- 3. **HB 8833** Providing for the construction of water impounding facilities, for purposes of flood control, potable water sources, and irrigation, in every city and municipality in the country (by Reps. Teodoro T. Haresco, Jr. and Loreto B. Acharon);
- 4. HB 8957 Mandating the establishment of water impounding systems facilities for establishments with an area of five (5) hectares or more (by Rep. Augustina Dominique 'Ditse Tina' C. Pancho);
- 5. HR 1151 Directing the Committee on Public Works and Highways to conduct an inquiry, in aid of legislation, into the status of the implementation of Republic Act 6716 which provides for the construction of water wells and rainwater collectors in all barangays in the Philippines (by Rep. Salvador A. Pleyto); and
- 6. HR 906 Urging the Committee on Public Works and Highways and the Committee on Ecology to jointly inquire, in aid of legislation, into the inadequate implementation of the 1989 law that mandates the construction of rainwater collectors in all barangays (by Rep. Luis N. Campos Jr.).

In line with this, we would like to invite you or your duly authorized representative/s as our resource person/s during the said TWG meeting. Kindly inform the committee as to the details of your attendees on or before 13 February 2024 for proper coordination.

Your presence will be highly appreciated.

Thank you.

Very truly yours,

FOR THE HONORABLE CHAIRMAN ROMEO S. MOMO SR.:

AILEEN UY DAPURAN

Committee Secretary

COMMITTEE ON PUBLIC WORKS AND HIGHWAYS



CTSS-I, Committee Affairs Department, House of Representatives 3rd Floor, Ramon V. Mitra Building, Batasan Hills, Quezon City, Philippines 1126 Telefax: 9310200, Trunk Line: 9315001 local 7135

19th Congress 2nd Regular Session

Technical Working Group (TWG) Meeting

14 February 2024 (Wednesday), 10:00 A.M. Speaker Belmonte Hall, South Wing Annex House of Representatives, Quezon City

AGENDA

- I. CALL TO ORDER
- II. INVOCATION
- III. ACKNOWLEDGEMENT OF MEMBERS AND GUESTS / RESOURCE PERSONS
- IV. OPENING REMARKS OF THE HONORABLE TWG CHAIRPERSON, REP. ANGELO MARCOS BARBA
- V. 2nd TWG MEETING ON THE FOLLOWING HOUSE MEASURES RE RAINWATER HARVESTING FACILITIES:
 - 1. HBs 2412, 2553, 2753, 3862, 4441, 4837, 5640, 7786, 8148 & 9353 Mandating the establishment of rainwater harvesting facilities in all new institutional, commercial, industrial, and residential development projects (by Representatives Angelo Marcos Barba, Romeo S. Momo Sr., Alfred C. Delos Santos, Gus S. Tambunting, Rex Gatchalian, Robert Ace S. Barbers, Luis Raymund 'LRay' F. Villafuerte Jr., Richard I. Gomez, Lani Mercado-Revilla, Ralph Wendel P. Tulfo, Jocelyn P. Tulfo, Erwin T. Tulfo, Fernando T. Cabredo, Joseph Gilbert F. Violago, Noel "Bong" N. Rivera, Christopherson "Coco" M. Yap, Arthur F. Celeste and Rosanna "Ria" V. Vergara);
 - 2. HB 5027 Granting incentives for commercial and industrial establishments, and developers who will incorporate rainwater harvesting technology in their businesses (by Reps. Augustina Dominique 'Ditse Tina' C. Pancho and Danny A. Domingo);
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6. **HR 906** - Urging the Committee on Public Works and Highways and the Committee on Ecology to jointly inquire, in aid of legislation, into the inadequate implementation of the 1989 law that mandates the construction of rainwater collectors in all barangays (by Rep. Luis N. Campos Jr.).

VI. ADJOURNMENT

Invited Guests / Agencies / Stakeholders:

Department of Public Works and Highways (DPWH)

National Economic and Development Authority (NEDA)

Department of Finance (DOF)

Department of Budget and Management (DBM)

Bureau of Internal Revenue (BIR)

Department of Interior and Local Government (DILG)

Department of Human settlements and Urban Development (DHSUD)

Department of Agriculture (DA)

Department of Environment and Natural Resources (DENR)

Department of Science and Technology (DOST)

Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

National Irrigation Administration (NIA)

Presidential Legislative Liaison Office (PLLO)

League of Provinces of the Philippines (LPP)

League of Cities of the Philippines (LCP)

Leagues of Municipalities of the Philippines (LMP)

Union of Local Authorities of the Philippines (ULAP)

San Miguel Corporation (SMC)

SM Prime Holdings (SMPH), Inc.

Chamber of Real Estate and Builders Associations (CREBA), Inc.

Subdivision and Housing Developers Association (SHDA), Inc.

Philippine Constructors Association (PCA), Inc.

Philippine Institute of Civil Engineers, Inc. (PICE)

United Architects of the Philippines (UAP)

NINETEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES First Regular Session RECEIVED

RECEIVED

May 16, 2023

TIME 2:54 pm

BY Reli

HOUSE OF REPRESENTATIVES

House Bill No. <u>8148</u>

Introduced by REPRESENTATIVES LANI MERCADO-REVILLA, BRYAN B. REVILLA AND RAMON JOLO REVILLA III

AN ACT

MANDATING THE ESTABLISHMENT, MANAGEMENT, MAINTENANCE, AND REGULATION OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS IN METRO MANILA

EXPLANATORY NOTE

There is a looming water crisis, but as correctly pointed out by President Ferdinand Marcos Jr.: "We all know the Philippines is not a dry place, and why do we not have enough water?" 1

Water is a scarce resource. Nevertheless, we have ample rain falling in the country. The Philippines receives around 2,400 millimeters of rainfall each year, but the country only harvests 6% of that rainfall. India, on the other hand, harvests around 60% of the 700-millimeter rainfall per year.² Evidently, the Philippines is unable to maximize its abundance of rain.

Aside from India, rainwater harvesting is also being widely practiced in countries such as Singapore, Japan, Germany, and Australia.

¹ Speech by President Ferdinand R. Marcos Jr. at the Opening and Ribbon-cutting Ceremony of the 6th Edition of the Water Philippines Conference and Exposition, published by the Presidential Communications Office – Presidential News Desk on March 23, 2023.

² According to former Agriculture Secretary William Dar during a farmers' forum held on September 20, 2019 in La Trinidad, Benguet, cited in "Rainwater harvesting seen as solution to water scarcity", published by the Department of Agriculture Communications Group on September 21, 2019.

This bill seeks to institutionalize the use of rainwater harvesting technology in all new institutional, commercial, industrial and residential development projects in Metro Manila with a building footprint area of at least one hundred (100) square meters. This bill was previously approved on Third and Final Reading by the House of Representatives during the Seventeenth and Eighteenth Congresses.

Harvesting rainwater may be a solution to the water challenges we face.

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

REP. LANÍ MERCADO-REVILLA

Representative 2nd District of Cavite REP BRYAN B. REVILLA

Representative AGIMAT Partylist

REP. RAMON JOLO REVILLA II

1st District of Cavite

NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)

HOUSE OF REPRESENTATIVES

HOUSE BILL NO. 8148

Introduced by REPRESENTATIVES LANI MERCADO-REVILLA, BRYAN B. REVILLA AND RAMON JOLO REVILLA III

AN ACT

MANDATING THE ESTABLISHMENT, MANAGEMENT, MAINTENANCE, AND REGULATION OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS IN METRO MANILA

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 "Rainwater Harvesting Facility Act."

SEC 2. Declaration of Policy. It is declared a policy of the State to protect the right of the people to a balanced and healthful ecology and advance the health and welfare of its citizens in accordance with the rhythm and harmony of nature. Pursuant thereto, the government and all its instrumentalities shall systematically integrate the concept of climate change in the various phases of policy formulation and development planning, in drawing up and implementing poverty reduction strategies and innovations that provide beneficial effects to the greatest number of people with the least cost and negative externalities.

In this light, and given the demands of a growing population, the State shall adopt measures and strategies in order to efficiently conserve water and help attain

water security. Among other strategies on water conservation, rainwater harvesting facilities shall be established not only to conserve the supply of potable faucet water but also to prevent flooding in communities that sometimes result into devastating effects to human life and property. Both the public and private sectors are urged to actively participate in flood mitigating efforts and initiatives of the government.

The State recognizes Metro Manila as one of the densest areas in the country. To mitigate the adverse effects of continuing growth in population and human settlements, the State shall ensure that Metro Manila local governments are capacitated to respond to threats wrought by natural calamities and disasters such as massive flooding. Towards this end, the State shall mandate the construction of rainwater harvesting facilities in all new public and private commercial, institutional, and residential developments in Metro Manila which will serve as a pilot area from which other similar areas can learn.

Pursuant thereto, owners and developers of all new public and private realty development projects in Metro Manila requiring the issuance of building permits are mandated to design and construct a rainwater harvesting facility to prevent or delay the release of rainwater and runoff water into the public drainage systems, creeks, and natural waterways.

- **SEC. 3**. *Purpose.* This Act seeks to establish minimum rainwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public against the ill effects of floods on one hand, and water shortage on the other. This Act pursues the following objectives:
 - a) Reduction of flooding, siltation, increases in stream temperature and stream bank erosion, and maintain the integrity of stream channel by regulating the accumulation of rainwater runoff in any proposed and existing commercial, institutional, industrial, and residential developments;
 - b) Prevention of the degradation of water quality by averting non-point source pollution caused by rainwater runoff developments;
 - c) Regulation of the annual volume of surface water runoff from any specific site during and following a development so as not to exceed the pre-development hydrologic regime in an area; and
 - d) Establishment of standards for rainwater management control to ensure that these and the facilities thus built are properly complied with and do not pose without a threat to public safety.

SEC. 4. Definition of Terms. As used in this Act:

a) Applicant – refers to a property owner or agent who has filed an application for a rainwater management permit;

- b) Building refers to any structure built for the support, shelter, or enclosure of person, animals, chattels, or moveable property of any kind and which is permanently affixed to the land;
- c) Building Official refers to a local building official as appointed or designated pursuant to Presidential Decree (PD) 1096, or the National Building Code of the Philippines (NBCP);
- d) Certificate of Occupancy refers to a permit issued by the Zoning Officer indicating that the use of the building or land is in conformity with the Zoning Ordinance or that there has been a legal variance therefrom;
- e) Channel refers to a natural or artificial watercourse with definite bed banks that conducts flowing water continuously or periodically;
- f) Contour interval refers to the vertical distance between the elevations represented by adjacent contour lines on a map;
- g) Contour line refers to a line on a map or chart connecting all points of thesame elevation or depth in a particular area;
- h) Detention refers to a rainwater management practice of temporarily storing rainwater runoff to control the peak discharge rate and to likewise induce settling of pollutants through gravity;
- i) Developer refers to a person or entity who undertakes land disturbance or land development activities; a developer may only be contracted to develop and may or may not be the owner of the development, such as a building structure being built;
- j) Development refers to any man-made change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operation;
- k) Flood frequency refers to a record of past flood events or occurrences that yield flood data estimates used principally to compare expected changes in flood damages with the economic and social costs or benefits guiding a contemplated action;
- Hydrologic regime refers to the quantity and dynamics of water flow or the variations in the state and characteristics of a water body depending on location and time of the year, which may occur in regular patterns;

- m) *Infiltration* refers to the process of percolating or gradually filtering rainwater into the subsoil;
- n) *Infiltration facility* refers to any structure or device designed to infiltrate water to the subsurface. These facilities may be above ground or below ground;
- o) Land disturbance refers to any activity which changes the volume or peak flow discharge rate of rainfall from the land surface. This may include grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse:
- p) Landowner refers to the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights over the land;
- q) Off-Site facility refers to a rainwater management installation located outside the subject property boundary described in the permit application for land development activity;
- r) On-Site facility refers to a rainwater management measure located within the subject property boundary described in the permit application for land development activity;
- s) Rainwater Design Manual refers to the Planning and Design Manual for the Control of Erosion, Sediment, and Rainwater of the Department of Public Works and Highways;
- t) Rainwater management refers to the use of structural or non-structural practices that are designed to reduce rainwater runoff pollutant loads, discharge volumes, and peak flow discharge rates;
- u) Rainwater retrofit refers to a rainwater management practice designed for an existing development site that had not implemented rainwater management measures, or had previously implemented measures that were inadequate to meet the rainwater management requirements of the site;
- v) Rainwater runoff refers to water flow on the surface of the ground, resulting from precipitation;

- w) Rainwater treatment refers to a process by which collected rainwater is filtered or cleaned through either structural or non-structural means to prevent or reduce point source or nonpoint source pollution inputs to rainwater runoff and water bodies, as well as to upgrade rainwater for reuse;
- x) Rainwater Harvesting Facility refers to a flood control structure such as a vertical detention tank, horizontal water tank, open retarding basin, and multi-water catchment area, or an on-site regulation pond used to prevent or delay the release of rainwater into the public drainage system;
- y) Return period refers to the average length of time in years for a rainrelated natural disaster of given magnitude to be equated or exceeded by the length of time that a rainwater-related disaster may probably recur;
- z) Recharge refers to the replenishment of underground water reserves;
- aa) Redevelopment refers to any construction, alteration or improvement exceeding one hundred (100) square meters in high density areas where existing land use is for commercial, industrial, institutional, or multi-family residential purposes;
- bb) Stop Work Order refers to an issuance by the Building Official that requires the discontinuance or stoppage, in part or whole, of the construction activity in a site due to a violation of the law;
- cc) Watercourse refers to a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface.
- **SEC. 5**. *Rainwater Harvesting Facility Requirement*. A project owner or developer of a new commercial, institutional, industrial, and residential development project in Metro Manila, with a building footprint area of at least one hundred (100) square meters that requires the issuance of building permit, shall reserve, develop, and maintain a rainwater harvesting facility with a minimum storage tank size in cubic meters calculated by dividing the building footprint area by seventy-five (75).

The owner or developer of an ongoing development project in Metro Manila, that has no existing provision for rainwater harvesting shall build a facility within a period of three (3) years from the effectivity of this Act, or suffer the penalty imposed in Section 13 hereof.

When additions, alterations, conversions, and renovations of an existing building constructed after the effectivity of this Act fit within the minimum building footprint, the whole building shall be subject to the applicable provisions of this Act.

To conserve potable water, rainwater collected by a harvesting facility may be used for non-potable and suitable purposes, such as gardening and air-cooling processes, provided through a distinct and separate piping system from the potable water supply system. The landowner or developer may opt to utilize a system or technology that can recycle collected rainwater for potable uses such as bathing, dishwashing, or cooking, provided it meets the water quality standard of any government water agency or duly accredited water testing center.

SEC. 6. Requirements for Rainwater Management Plan. All project owners or developers of proposed commercial, industrial, and residential development or any residential multi-dwelling units of more than One Thousand square meters (I,000 sqm) land area must submit a Rainwater Management Plan (RMP) as part of the site development application and approval process.

The RMP shall include the following information:

- a) Description of existing conditions in the location of the development site:
 - Topographic map with one (1.0) meter minimum contours line or an appropriate contour interval of the land proposed for development or redevelopment;
 - ii) Location of natural waterways including banks and centerline of streams and channels;
 - iii) Normal shoreline, coastlines, outline of lakes, natural depressions and ponds, including drainage flow lines; and
 - iv) Quantification of flows (discharge and volume) in its natural condition.
- b) Proposed Site Development Plan (SDP) in an appropriate scale and size showing the following:
 - i) Retention/detention basins and lines of inflow and outflow;
 - ii) Location, size, and slope of rainwater conduits and drainage swales;
 - iii) Rain, sanitary, and combined sewer and outfalls; and
 - iv) Delineation of upstream and downstream drainage features and watersheds which might be affected by the development; and

- v) Other environmental features including limits of wetland areas, green buffers, planting strips, and any designated natural areas for rainwater management.
- c) Description of the Proposed Rainwater Management System (RMS) to safely and completely manage rainwater runoff onsite or offsite, help maintain the natural hydrologic cycle and condition of flow in a locality, and reduce the risk of downstream flooding.

The proposed RMS shall be accompanied by hydrologic and hydraulic calculations to adequately demonstrate the effectiveness of the RMP. It shall be designed to meet the desired flood frequency which is designated to a particular drainage structure as stated in the Design Manual of the DPWH: Provided, That a 25-year flood frequency or higher may be required for major rivers and waterways, subject to the design criteria in Section 9 of this Act.

The RMP shall be accompanied by relevant information such as rainfall data in a locality, maps, and other descriptive material to include the following:

- 1) The extent of catchment and drainage channels on site, and direction of the flow of the channels including the final outfall of the discharge from the site:
- 2) Hydrologic and hydraulic design calculations for the pre-development and post development conditions of a rainwater management system as required under Section 9 hereof. The calculations for determining peak flows include a description of storm frequency, intensity, duration, time of concentration, soil curve number or runoff coefficients, peak runoff rates and total runoff volumes, infiltration rates, culvert capacities, flow velocities, data on the increase in rate and volume of runoff for the design storm; and
- 3) Technical specifications of the proposed RMS, including a description of proposed rainwater conveyance practices on-site, existing off-site rainwater conveyance systems including receiving streams, channels, and outfall and inlet locations, and elevations of locations and highwater elevations.

SEC.7. Chemicals, Effluents, and Other Contaminants. Prior to the issuance of a building permit for their development or re-development, all industrial plants and estates shall secure the appropriate certification from the Department of Environment and Natural Resources that all chemicals used in their operations, their by-products, effluents, and other operational discharges do not contain harmful contaminants that can be washed by or into the rainwater.

The type of roofing must also be identified and assessed if used for collecting rainwater as some roofing materials may seep chemicals that can cause adverse effects if ingested, used in irrigation, fishponds, groundwater recharge, among others.

- **SEC. 8.** *Utilization of Rainwater.* Rainwater shall be harvested for the following uses:
 - a) Rainwater for urban irrigation. Due to the high cost of Class A water, its use for yard irrigation shall be minimized if not prohibited and instead, water for irrigation shall come from the rainwater detention system.

Rainwater as source for urban irrigation or watering of lawns shall be indicated in all development plans. Treated grey water from effluent of treatment facility may be a secondary source of water for urban irrigation.

- b) Rainwater for groundwater recharge. The RMS is intended mainly to ensure natural balance of the hydrologic cycle by allowing rainwater to recharge the groundwater table that sustains the yield and production of deep wells. Groundwater table recharging may be in the form of the following management systems:
 - i) Lagoon or retention pond that allows for natural seepage to the ground water aquifer;
 - ii) Swales and depression storage;
 - iii) Porous or paver blocks on some developed areas;
 - iv) Retention channels

The sizes and dimensions of any of the above facilities shall be dependent on the rainfall intensity and the size of the development.

- c) Rainwater for firefighting. Rainwater may substitute or augment the firefighting requirement, subject to health and corrosion standards. A separate storage tank for fire water reserve shall be constructed. Other laws concerning the requirement of water for firefighting shall be considered.
- d) Rainwater for construction. Simple filtration systems and other applicable methods to remove suspended solids and other coarse materials may be employed to improve water quality and avert adverse effects to construction equipment and the environment.
- e) Rainwater for other non-potable water supply. Rainwater shall be subjected to primary and secondary treatment to make it a viable secondary source for the following purposes:
 - i) Washing of cars, floor yards;
 - ii) Flushing of toilet (water quality should meet certain standard to avoid discoloration of fixtures); and
 - iii) Fish ponds, aquarium and the like.
- f) Rainwater for potable uses. To make it potable, rainwater may be collected, processed, subjected to filtering innovations or technological interventions, and used for drinking, cooking, dishwashing, and bathing, subject to water standards.

Potable water quality shall at all times comply with the requirements and standards of the Philippine National Standard for Drinking Water (PNSDW).

- g) Rainwater for ecological requirements. Seasonal fluctuation of rainfall affects the rain flora and fauna of waterways. Rainwater runoff shall therefore be managed properly to allow steady release of water to waterways, thus, ensuring the continued supply of water.
- SEC 9. Preparation of the Rainwater Design Manual. The Department of Public Works and Highways (DPWH) shall prepare the Rainwater Design Manual (RDM) which must provide, among others, information on the following: (I) conveyance system of the rainwater harvesting facility, (2) make of the rainwater

retention facility, (3) management of rainwater discharge to control flooding, (4) protection of the local water bodies from pollution through rainwater discharge treatment, (5) dike or bank protection for water bodies receiving rainwater discharge, and (6) utilization options for collected rainwater.

The RDM shall contain the following guidelines:

- a) All sites shall establish a rainwater management system to control the peak flow rates of rainwater discharge and to allow the RMS facility to treat collected rainwater for both water quality and quantity. Peak postconstruction rainwater runoff should not exceed peak pre-construction rainwater runoff from the site to the greatest extent possible;
- b) All rainwater runoff generated from any development shall not discharge untreated rainwater directly into a jurisdictional wetland or local water body without adequate treatment;
- c) A structural and non-structural Rainwater Treatment System (RTS) shall be designed to treat the first twenty (20) millimeters of rainwater runoff. Thus, for every one (I) hectare of new development, a two hundred (200) cubic meter detention or retention tank shall be constructed to minimize flooding and improve water quality. Sanitary wastewater treatment facilities shall be designed and installed to comply with existing health regulations and the effluent standard of the DENR;
- d) Untreated sanitary waste shall not be discharged to waterways and land surface without proper treatment and shall not come in contact with rainwater runoff. The discharge of treated effluent to water bodies shall be in accordance with the river classification. For unclassified rivers and water courses, effluents should meet the Class C water category. To be discharged to an urban drainage system, effluents should meet the Class D water category. In all cases, the prescription provided by the DENR shall be followed;
- e) To protect stream channels from degradation, the velocity of runoff water shall be limited to less than one (1.0) mls, otherwise, bank protection shall be provided;

- f) Rainwater discharges to critical areas with sensitive resources (including shellfish beds, swimming areas, water supply reservoirs and groundwater recharge areas) may be subject to additional performance criteria and management restrictions;
- g) Rainwater discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots", must be in accordance with the specific structural and pollution prevention practices;
- h) Rainwater storage and drainage systems must be secured from mosquito breeding and those of other similar insects that may endanger public health;
- Prior to designing the RDM, an applicant for a building permit must consult with the Building Official to determine compliance with additional rainwater design requirements;
- j) For existing development or developed areas, the rainwater management system requirement must be imposed on the following conditions:
 - The owners of existing or old developments shall submit to the concerned building officials the technical design of existing rainwater management system to demonstrate its contribution to flood control and mitigation and the rainwater management program;
 - 2) The total required storage volume of rainwater may be the cumulative volume stored from various sources such as cistern, lagoon onsite or offsite, and a depression storage; and
 - 3) That at least 50% of the required volume shall be met within five (5) years from the effectivity of this Act.

The Department of Public Works and Highways, Department of Human Settlements and Urban Development (DHSUD), Department of Environment and Natural Resources, and local government units (LGUs) shall require the incorporation of a Rainwater Management System in the design of all new commercial, institutional, industrial, and residential development projects in Metro

Manila. The LGUs shall ensure that these facilities are built during the construction phase of the projects.

In formulating the design manual, the DPWH shall consult the experts or the Department of Science and Technology (DOST) and DENR on requirements that entail scientific bases or study.

SEC.10. Construction Inspection.

- a) The applicant for a building permit must notify the concerned building official in advance before the commencement of construction;
- b) All applicants for a building permit for commercial buildings and multifamily residential buildings over four (4) units are required to submit actual drawings of the rainwater management facilities located on-site after final construction. The rainwater facility plan must show the final design specification for all rainwater management facilities and must be certified by a licensed engineer. A final inspection of the rainwater facility is required before the release of any performance security, performance bond, or guaranty between the owner or developer of the contractor or builder;
- c) The City or Municipal Engineer shall inspect all drainage facilities while under construction. When facilities are not constructed according to approved plans the local government unit (LGU) shall require the project owner or developer to make the necessary corrections. All drainage facilities, whether or not these are owner by or assigned to the LGU, located on private property, shall be accessible at all times for inspection by the City or Municipal Engineer or other responsible public official;
- d) The City or Municipal Engineer shall inspect all sanitary waste treatment facilities while under construction of building and upon completion to insure proper installation and connection to waste water collection systems when applicable. The City/Municipal Engineer shall ensure that sanitary waste treatment facilities are properly functioning before issuing the required certificate of occupancy.

Any contracted architect or civil engineer employed by the owner or developer to plan and supervise the construction of the facility shall not be precluded from inspecting the construction work to check and determine compliance with the plans and specifications of the building, pursuant to the provisions under Inspection and Supervision of Work or Section 308 of the National Building Code of the Philippines.

SEC. 11. Maintenance and Repair of Rainwater Facilities. The owner or developer is expected to perform regular maintenance and repair of the rainwater facility whenever necessary to make sure that this is in working condition, safe for public use and the environment. At the minimum, the following must be undertaken: (1) visual inspection and cleaning of the facility after major rain events, (2) regular clearing of all sediments, silts, and debris, (3) drainage clean-up, and (4) replacement of filters and insect screens as necessary.

In addition, the owner or developer shall comply with the following requirements:

- a) All rainwater management facilities must undergo a yearly or regular inspection process at a frequency sufficient to determine the functioning ability of the conveyance system and any repair needs; this shall include inspection prior to the beginning of the Typhoon Season or any forecasted major rains that may equal the design requirements, and after any major rain events;
- b) All drainage and sanitary waste treatment facilities located on private property, whether dedicated to the LGU or not, shall be accessible at all times for inspection by the City/Municipal Engineer or other responsible public officials, especially when there is reason to suspect that a malfunction has resulted in rainwater runoff pollution by unsanitary wastes;
- c) Depending on the type of facility, mosquito or insect screens must be replaced as necessary to avoid infestation or breeding ground for pathogens;
- d) Parties responsible for the operation and maintenance of a rainwater management facility shall make and keep records of the installation, maintenance, and repairs, and shall retain these records for at least five years. These records shall be made available to the City or municipality during inspection of the facility and other reasonable times upon request;
- e) The concerned Building Official shall notify the owner of a rainwater facility in writing that maintenance work is required on it. The owner will have sixty (60) days from the receipt thereof to ensure that the facility is in proper working condition.

SEC. 12. Reportorial Requirements. The DPWH shall require the owner or developer of all new commercial, institutional, industrial, and residential development projects to submit a compliance report within twelve (12) months from the date of the completion of the project.

The DPWH shall henceforth require the building owners covered under Sections 5 and 6 of this Act to submit an annual report of the performance of such rainwater retention facility which may include information on the total volume of retained rainwater and its utilization.

SEC. 13. Enforcement and Penalties.

- a) Any person found to be in violation of any of the provisions of this Act shall be guilty of a misdemeanor and shall be penalized with a fine not to exceed Fifty Thousand Pesos (Php50,000.00) or imprisonment for no more than ninety (90) days, or both. A continuance of a violation without reasonable effort on the part of the violator to correct the same shall constitute a new and separate offense each day;
- b) In the case of a partnership, association, corporation, or any juridical person, the penalty shall be imposed upon the president, treasurer, or any other officer or person responsible for the violation;
- c) If the offender is a foreigner, the foreigner shall be deported immediately without further proceedings after payment of fine;
- d) If the concerned Building Official shall find that any provision of this Act is violated, the person responsible for such violation shall be notified in writing, about the nature of the violation and the proper action necessary to correct it, such as the discontinuance of any construction on site.
- SEC. 14. Incentives. Landowners or developers of existing structures built prior to the implementation of this Act who may opt to install a rainwater harvesting system or a rainwater retrofit in accordance with this law shall receive a realty tax incentive from the local government which may be in the form of a tax discount of not less than three percent (3%) per annum over and above the regular discount provided by the local government. An additional two percent (2%) tax discount per annum will be granted to those who will invest in any innovation or a technology that will recycle collected rainwater for potable uses within the standard prescribed by law.

- **SEC. 15.** Obligation of the Regulatory Agencies. The DPWH, DENR, DOST, LGUs, their sub-agencies, and subsidiaries are mandated to provide full assistance to every project owner or developer covered in this Act in order that the requirements and standards prescribed herein may be properly executed in the design and construction of rainwater harvesting facilities. Agency assistance shall include proper advice, technical guidance, provision for needed data and facilitation of required documents. As much as practicable, all technical and documentation requirements must be at zero to minimal cost to the applicant project owner or developer who shall establish, manage, and maintain a rainwater harvesting facility.
- SEC. 16. *Implementing Rules and Regulations*. Within sixty (60) days from the effectivity of this Act, the Secretary of Public Works and Highways shall, in coordination with the Secretary of the Interior and Local Government, Secretary of Environment and Natural Resources, Secretary of Human Settlements and Urban Development, and Secretary of Science and Technology, promulgate the rules and regulations for the effective implementation of this Act. The implementing rules and regulations shall include the standards and guidelines for the design, construction, installation, materials, site selection and planning, site-specific considerations, and maintenance of the rainwater harvesting facility.
- **SEC. 17.** Separability Clause. If any provision or part of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected shall remain in full force and effect.
- **SEC. 18.** Repealing Clause. All other laws, rules and regulations, orders, circulars, and other issuances or parts thereof, which are inconsistent with the provisions of this Act are hereby repealed, modified, or amended accordingly.
- **SEC. 19.** *Effectivity.* 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 Queson City

NINETEENTH CONGRESS

First Regular Session

HOUSE BILL NO. <u>5640</u>



introduced by HON. LUIS RAYMUND "LRAY" F. VILLAFUERTE, JR.

EXPLANATORY NOTE

Metro Manila is annually drenched with some 20,000 millimeters of rainwater. A significant part of the National Capital Region (NCR) and other major cities are unable to absorb the rainwater they receive. Instead of undergoing the earth's natural process of recycling rainwater through its aquifers, the rainwater proceeds to the sewers—polluting the surrounding bodies of water and flooding roads. It is lamentable that despite the incessant flooding of major thoroughfares resulting in heavy traffic, the State has failed to come up with measures to address the situation.

The bill hereby requires the installation of rainwater retention facilities in all new commercial, institutional, and residential infrastructure projects in Metro Manila and other major cities with the primary goal of preserving, restoring, or mimicking the natural hydrology of the soil. These rainwater retention facilities shall capture the rainwater, purify the same, and store it for non-potable uses thereby effectively reducing the amount of rainwater that submerges Metro Manila roads during the rainy season, as well as feeding the demand for water in the cities.

Places like Cebu, Baguio, and Nueva Ecija have already adapted measures to utilize rainwater for non-potable uses. Internationally, the state of California passed its own Rainwater Capture Act back in 2012 to address the widespread drought that its residents suffer during the dry season. In Australia, most buildings use captured rainwater for fountains and flush toilets.

Rainwater is a free, abundant, and regular natural resource that the Philippines is fortunate to receive year in and out. It is high time that we make of it for the general advantage of our people.

In consideration of the foregoing premises, the swift passage of this bill is sought.

LUIS ŔAYMUND "LRAY" F. VILLAFUERTE, JR.

Republic of the Philippines HOUSE OF REPRESENTATIVES

Queson City

NINETEENTH CONGRESS

First Regular Session

HOUSE BILL NO. 5640

Introduced by HON. LUIS RAYMUND "LRAY" F. VILLAFUERTE, JR.

AN ACT

REQUIRING NEW COMMERCIAL, INSTITUTIONAL, AND RESIDENTIAL INFRASTRUCTURE PROJECTS IN METRO MANILA AND MAJOR CITIES IN THE PHILIPPINES TO INSTALL RAINWATER RETENTION FACILITIES, AND IMPOSING PENAL PROVISIONS IN CASE OF VIOLATIONS

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 "Rainwater Harvesting Facility Act."

SECTION. 2. *Declaration of Policy*. – It is the declared policy of the State to promote the health and welfare of its citizens, and exercise sufficient powers to preserve the natural ecology within its territory.

The State recognizes the urgent need to address the adverse effects of dramatic climate change, including typhoons of unprecedented strength, speed, and consequent damage. Flooding has become a regular occurrence in the busy roads of Metro Manila

SECTION. 3. *Definition of Terms.* – As used in this Act, the following terms shall be defined as:

- a) Department refers to the Department of Public Works and Highways (DPWH);
- Green infrastructure means any storm water management technique or practice employed with the primary goal of preserving, restoring, or mimicking natural hydrology;

- c) Rainwater means precipitation on any public or private parcel that has not entered an offsite storm drain system or channel, a flood control channel, or any other stream channel, and has not previously been put to beneficial use;
- d) Rainwater harvesting facility refers to a flood control structure such as a vertical detention tank, horizontal water tank, open retarding basin, and multi-use water catchment area, or an on-site regulation pond used to capture, retain, and store rainwater flowing off a building, parking lot, or any other manmade, impervious surface consequently preventing or delaying the release of rainwater into the public drainage system; and
- e) Return period refers to the average length of time in years for a rain-related natural disaster of given magnitude be equaled or exceeded by the length of time that a rainwater-related disaster may probably recur.

SECTION. 4. Rainwater Harvesting Facility Requirement. – An owner or developer of a new commercial, institutional and residential development project in Metro Manila and other major cities, with an area of at least one thousand five hundred (1,500) square meters and requiring the issuance of building permit shall reserve, develop, and maintain at least three (3%) of the total area, exclusive roads, service streets and alleys, as a rainwater harvesting facility.

The owner or developer of an on-going commercial, institutional, and residential development project in Metro Manila and other major cities that has no existing provision for a rainwater facility shall build the facility within a period of three (3) years from the effectivity of this Act, or suffer the penalty imposed in Section 8 hereof.

To conserve potable water, rainwater collected by a harvesting facility may be used for non-potable and suitable purposes, such as gardening and air-cooling processes.

It is the intent of the Legislature that the use of rainwater for non-potable uses should not be constrained by standards for drinking water or recycled water but shall fully comply with water quality requirements.

SECTION. 5. *Design Approval.* – The provision for a rainwater harvesting facility shall be required by the Housing and Land Use Regulatory Board (HLURB) and local

government units (LGUs) to be incorporated in the design of all new commercial, institutional, and residential development projects in Metro Manila and other major cities, and no project design shall be approved for construction unless it includes such facility. The HLURB and the LGUs shall ensure that these facilities are built during the construction phase of the projects.

SECTION. 6. *Design Requirements.* – The rainwater harvesting facility must be designed to cope with a pre-determined flood and rain return period and must have a storage capacity prescribed by the Department of Public Works and Highways (DPWH). The design of the rainwater harvesting facility include the following:

- a) Size, shape and physical characteristics of available space:
- b) Construction plans with specified material type including lining and coating requirements;
- Detailed drawing on how the installation will drain into an outfall structure as a drywell or a percolation chamber, storm drain system, drainage channel, or natural wash; and
- d) Mechanism to exclude mosquitoes and not permit mosquito production.

SECTION. 7. *Building Permits.* – If the design of a new commercial, institutional, and residential project in Metro Manila and other major cities with an area of at least one thousand five hundred (1,500) square meters does not provide for a rainwater harvesting facility, the LGU concerned shall deny the request for issuance of a building permit for such project.

SECTION. 8. Reportorial Requirements. – The DPWH shall require the owner or developer of all of all new commercials, institutional, and residential development projects covered under this Act to submit a compliance report within 12 months from the date of the completion of the project.

The DPWH shall henceforth require the building owners to submit an annual report of the performance of such rainwater retention facility which may include, but is not limited to information on the total volume of retained rainwater and its utilization. **SECTION. 9.** *Penalties.* – The owner or developer of all new commercial, institutional, and residential development projects in Metro Manilla and other major cities who fails to construct a rainwater harvesting facility in violation of Section 4 of this Act shall suffer the penalty of a fine of not less than Five hundred thousand pesos (P 50,000.00), but not more than Two million pesos (2,000,000.00) for every year of noncompliance.

In the case of a partnership, association, corporation or any juridical person, the fine shall be imposed upon the president, treasurer, or any officer or person responsible for the violation.

If the offender is a foreigner, the foreigner shall be deported immediately without further proceedings after payment of fine.

The head of the government institution who violates Section 4 of this Act, or government officials, employees, and agents who issue licenses or permits in violation of Section 8 of this Act, shall suffer the penalty of suspension of not less than ten (10) days, but not more than one hundred eighty (180) days after due notice and hearing in an appropriate administrative proceeding.

SECTION. 10. Implementing Rules and Regulations (IRR). – Within sixty (60) days from the effectivity of this Act, the Secretary shall, in coordination with the Secretary of the Department of Interior and Local Government (DILG), the Chief Executive Officer (CEO) of the Housing and Land Use Regulatory Board (HLURB), and the Administrator of the Philippines Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), promulgate the rules and regulations for the effective implementation of this Act. The implementing rules and regulations shall include the standards and guidelines for the design, construction, installation, materials, site selection and planning, site-specific considerations, and maintenance of the rainwater harvesting facility.

SECTION. 11. Separability Clause. – If any provision or part of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected shall remain in full force and effect.

SECTION. 12. *Repealing Clause.* – All other laws, ordinances, rules, regulations, issuances or parts thereof inconsistent with this Act are hereby repealed or modified accordingly.

SECTION. 13. *Effectivity Clause.* – This Act shall take effect fifteen (15) days following its publication in at least (2) newspapers of general circulation.

Approved,

Republic of the Philippines **HOUSE OF REPRESENTATIVES**Quezon City

NINETEENTH CONGRESS First Regular Session

HOUSE BILL NO. <u>3862</u>



Introduced by HON. GUSTAVO S. TAMBUNTING

AN ACT TO REQUIRE ALL GOVERNMENT BUILDING CONSTRUCTION TO HAVE RAIN HARVESTING FACILITY AND FOR OTHER PURPOSES

EXPLANATORY NOTE

Water is one of the basic elements for survival. We use it for various purposes such as drinking, cleaning, taking a bath, washing clothes, and a lot of other things. It is a very valuable resource that we have taken for granted over the years.

The advent of climate change has certainly affected the weather patterns not only in the Philippines but around the world. Polar ice caps are melting, heat indices have significantly increased and countries experience extreme weather conditions – from torrential rains that cause massive flooding, to dry spells that go on for months on end.

With our continuously growing population, our need for water will also increase. And with this in mind, the undersigned proposes this bill to help conserve water and to equip our buildings with facilities that will enable us to cope with the changing times. Especially in the mid-rise housing and relocation projects of the National Housing Authority, having rain harvesting facilities will greatly help lessen the problem of water sources at the same time help in conserving the environment.

It is for these reasons that the passage of this bill is being sought by the undersigned.

REP. GUSTAVO S. TAMBUNTING2nd District, Parañague Ci

Republic of the Philippines HOUSE OF REPRESENTATIVES

Quezon City

NINETEENTH CONGRESS First Regular Session

HOUSE BILL NO. 3862

Introduced by HON. GUSTAVO S. TAMBUNTING

AN ACT TO REQUIRE ALL GOVERNMENT BUILDING CONSTRUCTION TO HAVE RAIN HARVESTING FACILITY AND FOR OTHER PURPOSES

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

SECTION 1. *Title.* – This Act shall be known as the "Rain Harvesting Facility for Government Building Act of 2022".

SECTION 2. *Policy Statement.* – It is the policy of the State to provide an adequate supply of clean and unpolluted water for domestic purposes and for sanitation to reduce health risks. Pursuant thereto the State shall take necessary measures to capture rainwater and stave off a water crisis.

SECTION 3. Rain-water harvesting facilities in all government and government-constructed buildings. – It is hereby prescribed that all new government buildings shall incorporate in their design a rain-water harvesting facility and facility for storage. It is also prescribed that such rain-water harvesting and storage facilities shall be constructed in all old government buildings.

SECTION 4. Approval of designs of public buildings. – The Department of Public Works and Highways shall not approve designs of public buildings that do not contain rain-harvesting and storage facilities. The Department shall also ensure that these are included in the actual construction of buildings.

SECTION 5. *Issuance of building permit.* – Local Government Units shall not issue building permits to government building construction projects that do not incorporate rain-water harvesting and storage facilities.

SECTION 6. Penalties. – Approval of building designs without incorporating the design for rainwater harvesting and storage facilities shall incur a penalty of a fine of Two Hundred Thousand Pesos (Php200,000.00) or imprisonment of 6 months or both as the Court so decides. Likewise,

the non-construction of rain-harvesting and storage facilities that are incorporated in the design of the building shall incur the same penalty as the above.

The issuance of a building permit for the construction of government buildings without the incorporation of rain-harvesting and storage facilities shall incur the penalty, to the signatory of the permit, of Two Hundred Thousand Pesos (Php200,000.00) or imprisonment of 6 months or both as the Court so decides.

SECTION 7. *Implementing Rules and Regulations.* – The DPWH in consultation with Local Government Units shall issue within 90 days from the date of approval of this Act, the implementing rules and regulations for this Act.

SECTION 8. Separability Clause. – Any portion or provision of this Act that may be declared unconstitutional or invalid shall not have the effect of nullifying other portions or provisions hereof.

SECTION 9. *Repealing Clause.* – All other laws, ordinances, rules, regulations, and other issuances or parts thereof, which are inconsistent with this Act, are hereby repealed or modified accordingly.

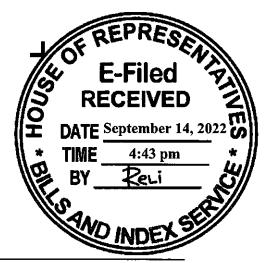
SECTION 10. *Effectivity Clause.* – This Act shall take effect immediately after its publication in two (2) newspapers of general circulation.

Approved,

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS
First Regular Session

House Bill No. <u>4837</u>



Introduced by Hon. Robert Ace S. Barbers

AN ACT REQUIRING ALL NEW RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL BUILDINGS IN THE PHILIPPINES TO INSTALL RAINWATER COLLECTION SYSTEM, AND PROVIDING PENALTIES THEREFOR

EXPLANATORY NOTE

Rainwater collection is the practice of accumulation and storage of rainwater for later use. This practice helps conserve water and save money. It is also beneficial to our environment as it reduces stormwater runoff which carries debris and other pollutants that can cause stress on local waterways and sewerage systems, thereby improve water quality in lakes and streams.

The concept is not new in the Philippines, particularly in rural areas with limited water supply, where pipes or diverters connected to big barrels are used to collect and store rainwater.

Urban areas, however, put little to no emphasis on rainwater collection due to the presence of service companies like Maynilad and Manila Water that provide stable and abundant water supply.

But as water levels of Angat Dam continue to decrease and cause water service interruptions, it is one's best interest to establish a sustainable rainwater supply system.

Lastly, rainwater collection will help mitigate the country's flooding problems brought about by severe weather conditions due to climate change.

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

REP. ROBERT ACE S. BARBERS

2nd District, Surigao del Norte

Republic of the Philippines HOUSE OF REPRESENTATIVES

Quezon City

NINETEENTH CONGRESS

First Regular Session

House Bill No. <u>4837</u>

Introduced by Hon. Robert Ace S. Barbers

AN ACT REQUIRING ALL NEW RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL BUILDINGS IN THE PHILIPPINES TO INSTALL RAINWATER COLLECTION SYSTEM, AND PROVIDING PENALTIES THEREFOR

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 "Rainwater Collection Act of 2022."

SEC. 2. Declaration of Policy. – It is the policy of the State to protect and advance the rights of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature. Pursuant thereto, the State shall mandate the installation of rainwater collection systems to promote sufficient water supply in times of calamities or weather disturbances brought about by climate change and to reduce the flooding problems in the country.

SEC. 3. *Definition of Terms.* – For purposes of this Act, the term:

- a. Rainwater shall mean water that falls on a roof or other hard, impervious non-pedestrian, non-vehicular surface and is captured, filtered and stored.
- b. Rainwater collection shall mean the capture, diversion and storage of rainwater for a number of different purposes including, but not limited to, landscape irrigation;
- c. Rainwater collection system (RCS) shall mean a facility designed to capture, retain, and store rainwater flowing off a building, parking lot, or any other manmade, impervious surface, for subsequent onsite use;
- d. Institutional building shall mean civic building that can be funded privately or by the government. It also refers to any structure that fulfills a role related to healthcare, education, recreation, or public works. It shall include city, municipal and barangay halls, court houses, judicial centers, executive and legislative buildings, police headquarters, detention facilities, military bases, police and fire stations, transportation terminals, schools and universities, museums, art galleries, cultural centers and the like.

SEC. 4. Rainwater Collection System. – The owner or developer of a new residential, commercial and institutional building shall include in its building plan a rainwater collection system consistent with the purpose of this Act.

A Rainwater Collection System (RCS) installed pursuant to this section shall not be made with toxic materials and shall be designed, constructed, and maintained in such a way as to exclude mosquitoes and other contaminants. The size of the container for the rainwater collection system shall be at least 10 cubic meter and its operation and maintenance shall be the sole responsibility of the owner or possessor of the building.

The rainwater collected by rainwater collection system may be used for non-potable and suitable purposes, such as cleaning, gardening and air-cooling processes.

- SEC. 5. Design/Plan Approval. The local government units (LGUs) and the Housing and Land use Regulatory Board (HLURB) shall require rain water collection facility/system to be incorporated in the design or plan of all new residential, commercial and institutional buildings; otherwise such building shall not be approved for construction by the concerned agency.
- SEC. 6. Issuance of Building Permit. If the design of a new residential, commercial and institutional building does not provide for a rainwater collection sytem, the LGU concerned shall deny the application for issuance of a building permit for such building.
- SEC. 7. Rainwater Treatment Facility To New Government Institutional Buildings and Large Commercial Establishments. The Department of Public Works and Highways (DPWH), through its attached agencies, shall install a rainwater treatment facility to all new government institutional buildings. It shall supervise the filtration and purification processes to ensure that the rainwater is safe for drinking.

The rainwater treatment facility or device shall be regularly monitored and evaluated by the Department of Interior and Local Government (DILG) through the LGUs concerned.

For all new private institutional buildings such as private schools and universities, including large commercial establishments like malls, supermarkets and companies, they are mandated to install rainwater filtration facilities connected to the rainwater collection systems so that the rainwater can be used as potable water.

SEC. 8. *Penalties.* – The owner or developer of a new residential, commercial and institutional building who fails to install a rainwater collection system in violation of Section 4 of this Act shall suffer the penalty of not less than One Hundred Thousand Pesos (P100,000.00), but not more than Five Hundred Thousand Pesos (P500,000.00) for every year of non-compliance.

The same penalty shall be applied to those who fail to install a rainwater treatment facility in violation of the third paragraph of Section 7 of this Act.

The head of the government institution who violates Section 4 and Section 7 of this Act, or any government officer or employees who issues permits in violation of this Act shall suffer the penalty of suspension of not less than ten (10) days but not more than one hundred eighty (180) days after due notice and hearing in an appropriate administrative proceeding.

- SEC. 9. Tax Incentives. To encourage the public to promote the installation of rainwater collection system, the owner of an existing residential or commercial building who install a rainwater collection system in his/her property shall be entitled to a tax credit of 10% but not exceeding ten thousand pesos (P10,000.00) of the total real property tax of the said property for a period of two (2) years.
- SEC. 10. Issuance of Certification. The LGU concerned through its engineering office, after proper inspection, shall issue a certification that the owner of an existing residential and commercial building has installed a rainwater collection system in his/her property. Such certification can be used as proof for tax credit purposes.
- SEC. 11. Implementing Rules and Regulations. To ensure the effective implementation of this Act, the Secretary of the Department of Public Works and Highways (DPWH), in coordination with the Secretary of the Department of Interior and Local Government, the Chief Executive of the Housing and Land Use Regulatory Board (HLURB), and the Administrator of the Philippine Atmospheric, Geophysical and Astronomical Services Administration, shall promulgate the rules and regulations within sixty (60) days from the its effectivity.

The above-mentioned regulations shall include guidelines for the design, construction, installation, materials, site-selection and planning, including the maintenance of the rainwater collections system.

- SEC. 12. Repealing Clause. All laws, orders, issuances, circulars, rules and regulations or parts thereof, which are inconsistent with the provisions of this Act are hereby repealed, modified, or amended accordingly.
- SEC. 13. Separability Clause. If any provision of this Act is declared unconstitutional or invalid, other parts or provisions hereof not affected thereby shall continue to be in full force and effect.
- SEC. 14. Effectivity Clause. The Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved.

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

NINETEENTH CONGRESS First Regular Session

HOUSE BILL NO. 2753



Introduced by **ANG PROBINSYANO**Party-List Representative Alfred Delos Santos

EXPLANATORY NOTE

In 1989, Republic Act. No. 6713 ("An Act Providing For The Construction Of Water Wells, Rainwater Collectors, Development Of Springs And Rehabilitation Of Existing Water Wells In All Barangays In The Philippines") was enacted. Under Section 1 thereof, it became the "national policy to promote the quality of life of every Filipino through the provision of adequate social service including, but not limited to, the provision of adequate potable water supply made conveniently available to every barangay in the country." To carry out this policy, the Department of Public Works and Highways was charged with the following duties:

SECTION 2. Water Wells, Rainwater Collectors and Spring Development. — The Department of Public Works and Highways (DPWH) shall, within thirty (30) days after the approval of this Act, undertake construction of water wells, rainwater collectors, development of springs and rehabilitation of existing water wells in all barangays in the Philippines in such number as may be needed and feasible, taking into consideration the population, hydrologic conditions, costs of project development and operations, financial and economic factors and institutional arrangements: Provided, however, That the DPWH shall deduct not more than five percent (5%) for supervision, engineering, technical and other overhead expenses or fees: Provided, further, That each barangay in the country shall have at least one additional potable water source.

SECTION 3. Operation and Maintenance. — In order to ensure the proper use of the water facilities herein provided, a Barangay Waterworks and Sanitation Association, herein referred to as BWSA, shall be formed and organized for the purpose of maintaining the water facilities: Provided, That pending the organization of the BWSA, the water facilities shall be operated and maintained by the barangay council.

The BWSA shall be composed of the member-consumers who shall administer, operate and maintain the completed water facility and shall be registered with the corresponding municipal or city council.

The BWSA may impose such minimal charges as may be necessary for the maintenance and normal repairs of said facility. Nothing herein shall

prevent any resident of the locality from using the water facility under the same terms and conditions as the member-consumers of the BWSA.

Organizing and training the recipient communities in the operation and maintenance of water systems shall be conducted by the DPWH prior to the turnover of such facilities to the BWSA subject to the guidelines to be formulated by the Department.

SECTION 4. Submission of Report. — The Department of Public Works and Highways shall, within ninety (90) days after the approval of this Act and every one hundred eighty (180) days thereafter, submit periodic reports to the respective Committees on Public Works and Highways of both Houses of the Congress of the Philippines for evaluation and consideration.

Then in 2017, to enforce R.A. No. 6713, the Department of the Interior and Local Government (DILG) issued Memorandum Circular No. 76:

- 5.1 Construction and Installation of Rainwater Collection Systems
 - 5.1.1. All local government public infrastructure, whenever applicable, shall pursue the construction of [Rainwater Collection Systems (RWCS)] and the use of collected rainwater for non-potable purposes. The LGU shall seek the assistance of the DPWH District Offices in its construction, following DPWH prototype designs.
 - 5.1.2. LGUs shall not issue building permits to applicants who qualify under Section 8 (Building Use/Occupancy Coverage and Application) of the Philippine Green Building Code of 2016 (PGBC) who, among others, fail to meet the requirements under Section 11 (Water Efficiency) of the same Code.
 - 5.1.3. LGUs are encouraged to pass ordinances integrating RCWS in their environmental laws and subsequently granting benefits and incentives that may take the form of tax incentives to encourage compliance of establishments and infrastructures, specially those who adopt the same, though not required to do so, under Section 8 of the PGBC.
 - 5.1.4. LGUs shall incorporate in their Climate Action Plans, and their Comprehensive Development Plans the promotion and establishment of RCWS technologies.

But even with these measure in place, the water and sanitation crisis in the country has yet to be abated:¹

Out of 105 million people living in the Philippines, nearly seven million rely on unsafe and unsustainable water sources and 24 million lack access to improved sanitation. Despite its growing economy, the Philippines faces significant challenges in terms of water and sanitation access. The country is rapidly urbanizing, and its growing cities struggle to provide new residents with adequate water and sanitation services.

¹ "Philippines' water and sanitation crisis," Water.org, available at https://water.org/our-impact/where-we-work/philippines/.

In 2010, the government of the Philippines developed a road map to achieve universal water and sanitation services coverage by 2028. Water.org is working to support this goal.

In the Philippines and around the world, people are navigating the COVID-19 pandemic, and millions are striving to endure this crisis with an added challenge. They lack access to life's most critical resource – water. Now more than ever access to safe water is critical to the health of families in the Philippines.

Just in 2019, Metro Manila underwent one of the worst spells of water shortage in its history:²

Since early March [2019], the Manila metropolitan region has been in the grips of a water shortage, as the El Nino phenomenon has contributed to a 60% decline in rainfall, compared the country's long-term average, across half the country's provinces in the first part of the year, according to the government.

In Manila, that has exposed shortfalls and delays in the region's water infrastructure.

At the peak of the shortage in March, supply was 30 percent lower than normal in the city's East Zone, according to Manila Water, the private company responsible for providing water to almost seven million people living in the zone.

While commercial centers and heavily touristed areas were largely unaffected, some of the city's more neglected areas had no running water for seven days or more, the company said.

This bill is offered as a solution to this continuing problem. This Bill aims to require an owner or developer of a new institutional, commercial or residential development project in Metro Manila, with an area of at least 1,500 square meters and is required to secure a building permit, to reserve, develop, and maintain at least 3% of the total area, exclusive of roads, service streets, and alleys, as rainwater harvesting facility.

It is for the foregoing premises that the approval of this Bill is earnestly sought.

ALFRED C DELOS SANTOS

Representative, Ang Probinsyano Party-List

² Matt Blomberg, "As rains fall short, Manila trickles into a water crisis," *Reliefweb*, May 17, 2019, available at

https://reliefweb.int/report/philippines/rains-fall-short-manila-trickles-water-crisis.

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

NINETEENTH CONGRESS First Regular Session

HOUSE BILL NO.	2753
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Introduced by **ANG PROBINSYANO**Party-List Representative Alfred Delos Santos

AN ACT

MANDATING THE ESTABLISHMENT AND MAINTENANCE OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS IN METRO MANILA

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 "Rainwater Harvesting Facility Act."

SECTION 2. Declaration of Policy. – It is declared the policy of the State to protect and advance the rights of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature. Pursuant thereto, the State shall mandate the establishment of rainwater harvesting facilities to reduce flooding and relieve the metropolis of the devastating effects of typhoons and other weather disturbances, shall urge the conservation of potable water, and shall engage the active participation of the public and private sector in the flood mitigation efforts and initiatives of the government.

The State recognizes Metro Manila as one of the densest areas in the country. To mitigate the adverse effects of the continuing growth in population and widening community developments, the State shall ensure that Metro Manila local governments are capacitated to respond to threats brought by natural calamities and disasters such as massive flooding. To this end, the State shall mandate the construction of rainwater harvesting facilities in all new public and private institutional, commercial, and residential development projects that will prevent or delay the release of rainwater and runoff water into the public drainage system, creeks, and natural waterways prior to the issuance of building permits.

SECTION 3. *Definition of Terms.* – For the purpose of this Act:

- a) Rainwater harvesting facility. A flood control structure such as a vertical detention tank, horizontal water tank, open retarding basin, and multi-use water catchment area, or an o-site regulation pond used to prevent or delay the release of rainwater into the public drainage system; and
- b) Return period. The average length of time in years for a rain-related natural disaster of given magnitude to be equaled or exceeded by the length of time that a rainwater-related disaster may probably recur.

SECTION 4. Rainwater Harvesting Facility Requirement. – An owner or developer of a new institutional, commercial, or residential development project in Metro Manila, with an area of at least one thousand five hundred (1,500) square meters and is required to secure a building permit, shall reserve, develop, and maintain at least three percent (3%) of the total area, exclusive of roads, service streets, and alleys, as rainwater harvesting facility.

The owner or developer of an ongoing institutional, commercial, or residential development project in Metro Manila that has no existing provision for a rainwater harvesting facility shall build the facility within a period of three (3) years from the effectivity of this Act, or suffer the penalty imposed in Section 8.

To conserve potable water, rainwater collected by a harvesting facility may be used for non-potable and suitable purposes, such as gardening and air-cooling processes.

- **SECTION 5**. Design Approval. The provision for a rainwater harvesting facility shall be required by the Housing and Land Use Regulatory Board (HLURB) and local government units (LGUs) to be incorporated in the design of all new institutional, commercial, and residential development projects in Metro Manila and no project design shall be approved for construction unless it includes such facility. The HLURB and the LGUs shall ensure that these facilities are built during the construction phase of the projects.
- **SECTION 6.** Design Requirements. The rainwater harvesting facility must be designed to cope with a predetermined flood and rain return period and must have a storage capacity prescribed by the Department of Public Works and Highways (DPWH). The design of the rainwater harvesting facility shall include the following:
 - a) Size, shape, and physical characteristics of available space;
 - b) Construction plans with specified material type, including lining and coating requirements; and

- c) Detailed drawing on how the installation will drain into an outfall structure such as a dry well or percolation chamber, storm drain system, drainage channel, or natural wash.
- **SECTION 7**. Building Permits. If the design of a new institutional, commercial, or residential development project in Metro Manila with an area of at least one thousand five hundred (1,500) square meters does not provide for a rainwater harvesting facility, the LGU concerned shall deny the request for issuance of a building permit for such project.
- **SECTION 8.** Penalties. The owner or developer of all new institutional, commercial, and residential development projects in Metro Manila who fails to construct a rainwater harvesting facility in violation of Section 4 of this Act shall suffer the penalty of a fine of not less than five hundred thousand pesos (P500,000.00), but not more than two million pesos (P2,000,000.00) for every year of non-compliance.

In the case of a partnership, association, corporation, or any juridical person, the fine shall be imposed upon the president, treasurer, or any other officer or person responsible for the violation.

If the offender is a foreigner, the foreigner shall be deported immediately without further proceedings after payment of a fine.

The head of the government institution who violates Section 4 of this Act, or government officials, employees, and agents who issue licenses or permits in violation of this Act, shall suffer the penalty of suspension of not less than ten (10) days, but not more than one hundred eighty (180) days after due notice and hearing in an appropriate administrative proceeding.

- **SECTION 9**. Implementing Rules and Regulations. Within sixty (60) days from the effectivity of this Act, the Secretary of Public Works and Highways shall, in coordination with the Secretary of the Interior and Local Government, the Chief Executive Officer of the HLURB, and the Administrator of the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA), promulgate the rules and regulations for the effective implementation of this Act. The implementing rules and regulations shall include the standards and guidelines for the design, construction. installation, materials, site selection and planning. site-specific considerations, and maintenance of the rainwater harvesting facility.
- **SECTION 10**. Separability Clause. If any provision of this Act shall be declared unconstitutional or invalid, such declaration shall not invalidate other parts thereof which shall remain in full force and effect.
- **SECTION 11**. Repealing Clause. All laws, executive orders, presidential decrees or issuances, letters of instruction, administrative

orders, rules, and regulations contrary to or inconsistent with the provisions of this Act are hereby repealed, amended, or modified accordingly.

SECTION 12. Effectivity Clause. – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Approved,

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

NINETEENTH CONGRESS First Regular Session

HOUSE RESOLUTION No. 906



INTRODUCED BY REPRESENTATIVE LUIS N. CAMPOS JR.

RESOLUTION URGING THE COMMITTEE ON PUBLIC WORKS AND HIGHWAYS AND THE COMMITTEE ON ECOLOGY TO JOINTLY INQUIRE, IN AID OF LEGISLATION, INTO THE INADEQUATE IMPLEMENTATION OF THE 1989 LAW THAT MANDATES THE CONSTRUCTION OF RAINWATER COLLECTORS IN ALL BARANGAYS

WHEREAS, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) has warned of a looming El Niño event that will likely develop in the July-August-September 2023 season and may persist until 2024;

WHEREAS, when the Philippines endured a full-blown El Niño event in 2019, up to 61 percent of the country reeled from a harsh drought, which caused extensive farm damage and severe water shortages in Metro Manila and surrounding provinces, after dams and lakes that supply drinking as well as irrigation water experienced a massive decline in rainfall;

WHEREAS, Congress passed Republic Act No. 6716, or The Rainwater Collector and Springs Development Law of 1989, to give substance to the mandate of the 1987 Constitution for 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;

WHEREAS, Section 2 of the 1989 law stipulates that: "The Department of Public Works and Highways shall, within 30 days after the approval of this Act, undertake the construction of water wells, rainwater collectors, development of springs and rehabilitation of existing water wells in all barangays in the Philippines in such number as may be needed and feasible, taking into consideration the population, hydrologic conditions, costs of project development and operations, financial and economic factors and institutional arrangements.";

WHEREAS, environmental advocacy groups have questioned the poor implementation of the 34-year-old law, particularly the lack of publicly constructed rainwater collectors;

WHEREAS, rainwater harvesting offers a practical way for communities to stockpile rainwater for use during dry spells, while potentially alleviating flooding during the wet season;

NOW, THEREFORE, BE IT RESOLVED, as it is hereby resolved, that the Committee on Public Works and Highways and the Committee on Ecology jointly conduct an inquiry, in aid of legislation, into the inadequate execution of the law that requires the construction of rainwater collectors, with a view to recommending remedial measures.

Adopted.

LUIS N. CAMPOS JR.

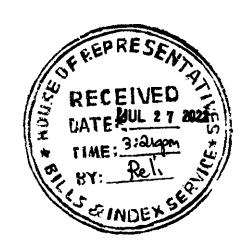
Republic of the Philippines HOUSE OF REPRESENTATIVES

Quezon City

NINETEENTH CONGRESS

First Regular Session

HOUSE BILL NO. 2553



Introduced by Rep. Romeo S. Momo, Sr.

EXPLANATORY NOTE

The serious impact of Climate Change is imminent and dangerous, including, but not limited to super-typhoons and severe flooding together with other rain-related disasters. This is further aggravated by the country's natural vulnerability to disasters.

It is a State policy to provide protection for the safety of life and limb of the Filipino people against natural and man-made calamities.

Thus, it is the intent of this measure to require all new subdivisions, condominium communities, malls, government institutions, central business districts, information technology parks, and other vital public establishments to construct rain harvesting facility to pre-empt floods caused by incessant and continuous heavy rains and storms on one hand, and to provide adequate source of household water on the other. With similar intent, spirit and purpose to the existing proposed measures, albeit limited to some areas only, this proposed measure intends to cover the entire Philippines so as to achieve maximum nationwide awareness and benefit.

The immediate passage of this bill is therefore most earnestly sought.

ROMEOS MOMO, SR.

Republic of the Philippines HOUSE OF REPRESENTATIVES

Quezon City

NINETEENTH CONGRESS

First Regular Session

HOUSE BILL NO. 2553

Introduced by Rep. Romeo S. Momo, Sr.

AN ACT

REQUIRING ALL NEW SUBDIVISIONS, CONDOMINIUM COMMUNITIES, MALLS, GOVERNMENT INSTITUTIONS, CENTRAL BUSINESS DISTRICTS AND INFORMATION TECHNOLOGY PARKS IN THE PHILIPPINES TO CONSTRUCT RAIN HARVESTING FACILITY AND FOR OTHER PURPOSES

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

SECTION 1. Title. This Act shall be known as the 'Rain Water Harvesting Facility Act.'

SEC. 2. Declaration of Policy. It is the policy of the State to protect lives and property in the event of floods. Pursuant thereto the State shall take necessary measures to capture rain-water to control flooding and provide safe and adequate supply of clean and unpolluted water for domestic purposes and for sanitation.

SEC. 3. Definition of Terms.

As used in this Act:

- a. Rainwater harvesting facility refers to a flood control structure such as a vertical detention tank, horizontal water tank, open retarding basin, and multi-use water catchment area, or an on-site regulation pond used to prevent or delay the release of rainwater in to the public system; and
- b. Return period refers to the average length of the time in years for a rainrelated natural disaster of given magnitude to be equaled or exceeded by the length of time a rainwater-related disaster may probably recur.
- SEC. 4. Rain-water Harvesting Facility Requirement. It is hereby prescribed that all new Subdivisions, Condominium Communities, Malls, Government Institutions, Central Business Districts and Information Technology Parks in the Philippines shall

incorporate in their design rain-water harvesting facility and facility for storage for flood mitigation and supply of clean water.

- **SEC. 5. Design Requirements.** The rainwater harvesting facility must be designed to cope with a pre-determined flood and rain return period and must have a storage capacity prescribed by the Department of Public Works and Highways (DPWH). The design of the rainwater harvesting facility shall include the following:
 - a. Size, shape, and physical characteristic of available space;
- b. Construction plans with specified material type including lining and coating requirements; and
- c. Detailed drawing on how the installation will drain into an outfall structure such as drywell or percolation chamber, storm drain system, drainage channel, or natural wash.
- **SEC. 6. Issuance of Building Permits.** Local Government Units shall not issue building permits pursuant to PD 1096 or the National Building Code of the Philippines of the Philippines to construction projects that do not incorporate rain-water harvesting and storage facilities in accordance with this Act.
- **SEC. 7. Penalties.** Approval of designs without incorporating the rain-water harvesting and storage facilities shall incur penalty of a fine of Five Hundred Thousand Pesos (P500,000.00) or imprisonment of 6 months or both depending upon the discretion of the court. Likewise the non-construction of rain-harvesting and storage facilities that are actually incorporated in the design of the building shall incur the same penalty as the above.

The issuance of a building permit and/or occupancy permit for the construction without the incorporation of rain-harvesting and storage facilities shall incur the penalty, to the signatory of the permit, of Five Hundred Thousand Pesos (P500,000) or imprisonment of 6 months depending upon the discretion of the Court.

- **SEC. 8. Implementing Rules and Regulations.** The Department of Public Works and Highways, the Housing Land Use Regulatory Board and the Department of Environment and Natural Resources in consultation with Local Government Units shall issue within 90 days from the date of approval of this Act, the implementing rules and regulations for this Act.
- **SEC. 9. Separability Clause.** Any portion or provision of this Act which may be declared unconstitutional or invalid shall not have the effect of nullifying other portions or provisions hereof.

SEC. 10. Repealing Clause. All other laws, ordinances, rules, regulations, and other issuances or parts thereof, which are inconsistent with this Act, are hereby repealed or modified accordingly.

SEC. 11. Effectivity. This Act shall take effect 15 days after its publication in two (2) Newspapers of general circulation.

Approved.

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS Second Regular Session

HOUSE RESOLUTION NO. 1151



Introduced by: REP. SALVADOR A. PLEYTO, SR.

A RESOLUTION DIRECTING THE COMMITTEE ON PUBLIC WORKS AND HIGHWAYS TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, INTO THE STATUS OF THE IMPLEMENTATION OF REPUBLIC ACT 6716 WHICH PROVIDES FOR THE CONSTRUCTION OF WATER WELLS AND RAINWATER COLLECTORS IN ALL BARANGAYS IN THE PHILIPPINES

WHEREAS, Republic Act 6716, otherwise known as the Rainwater Collector and Springs Development Act was enacted in March 17, 1989 to provide for the construction of water wells and rainwater collectors in all barangays in the Philippines:

WHEREAS, RA 6716 further aims to prevent flooding and ensure the continuous provision of clean water during dry seasons;

WHEREAS, Section 2 of the law states that: "The Department of Public Works and Highways (DPWH) shall, within thirty (30) days after the approval of this Act, undertake the construction of water wells, rainwater collectors, development of springs and rehabilitation of existing water wells in all barangays in the Philippines in such number as may be needed and feasible, taking into consideration the population, hydrologic conditions, costs of project development and operations, financial and economic factors and institutional arrangements."

WHEREAS, with the looming water crisis in Metro Manila and the threat of the El Niño phenomenon which is likely to develop in the last quarter of this year, the need of additional water resource is highly indispensable;

WHEREAS, rainwater harvesting offers a practical and immediate solution to the need for water resource, help alleviate water shortage and drought down to the barangay level;

NOW, THEREFORE, BE IT RESOLVED, AS IT IS HEREBY RESOLVED, that the Committee on Public Works and Highways be directed to conduct an inquiry, in aid of legislation, into the status of the implementation of Republic Act 6716.

Adopted,

SALVADORA PLEYTO, SR.



Republic of the Philippines
House of Representatives
Quezon City, Metro Manila



NINETEENTH CONGRESS Second Regular Session

House Bill No. 8833

Introduced by Representative TEODORICO "NONONG" T. HARESCO, JR.

AN ACT

PROVIDING FOR THE CONSTRUCTION OF WATER IMPOUNDING FACILITIES, FOR PURPOSES OF FLOOD CONTROL, POTABLE WATER SOURCES, AND IRRIGATION, IN EVERY CITY AND MUNICIPALITY IN THE COUNTRY

EXPLANATORY NOTE

The Philippines is an agricultural nation heavily reliant on its natural resources for economic growth. Agriculture not only contributes significantly to the nation's GDP but also provides employment and livelihood opportunities for a substantial portion of the population. However, the sector faces challenges, such as irregular rainfall patterns, recurring droughts, and unreliable water supply, hindering its full potential.

Water security is acknowledged to have fundamental importance especially in the Marcos administration. In June 2023, President Ferdinand "Bongbong" Marcos, Jr. unveiled his administration's plan to build water impounding facilities for flood mitigation and irrigation for agricultural purposes. In his State of the Nation Address (SONA), President Marcos reiterated his commitment to ensuring water security through implementing infrastructure projects concerning this most precious resource.

Establishing water impounding facilities is an essential step towards ensuring sustainable agricultural development, mitigating the impacts of climate change, and promoting rural and urban development throughout the country. Thus, this bill seeks to address these challenges by mandating the construction of water impounding facilities, for purposes of flood control, potable water sources, and irrigation, in every city and municipality across the country.

The establishment of such facilities will lead to a myriad of benefits: supporting the agricultural sector by improving food security and agricultural productivity; promoting climate resilience, flood control, and disaster mitigation; and ensuring sufficient and potable water supply for urban and rural communities.

This proposed legislation is aligned with President Marcos' vision for a resilient, food-secure, and prosperous Philippines. By investing in water infrastructure and harnessing the potential of sustainable water management, the nation will be better equipped to face the challenges of the future and secure a brighter tomorrow for all Filipinos.

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

TEODORICO T. HARESCO, JR

NINETEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES

Second Regular Session

House Bill No. 8833

Introduced by Representative TEODORICO "NONONG" T. HARESCO, JR.

AN ACT

PROVIDING FOR THE CONSTRUCTION OF WATER IMPOUNDING FACILITIES, FOR PURPOSES OF FLOOD CONTROL, POTABLE WATER SOURCES, AND IRRIGATION, IN EVERY CITY AND MUNICIPALITY IN THE COUNTRY

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 "Water Impounding Facilities Act"

SECTION 2. Declaration of Policy. – It is hereby declared the policy of the State to promote the quality of life of every Filipino through the provision of adequate water impounding, potable water, and irrigation facilities made available to every city and municipality in the country, aimed at promoting agricultural productivity, water conservation, flood control, climate resilience, and inclusive economic development.

SECTION 3. Water Impounding Facilities. – There shall be established at least one (1) water impounding facility for purposes of flood control, potable water sources, and irrigation, in such available and suitable public space in every city and municipality.

The Department of Public Works and Highways (DPWH) shall, within ninety (90) days after the approval of this Act, undertake construction and development of water impounding, potable water sources and irrigation facilities, and rehabilitation of existing water facilities, in all cities and municipalities in the Philippines in such number as may be needed and feasible, taking into consideration the population, hydrologic conditions, costs of project development and operations, financial and economic factors and institutional arrangements suitable for different areas in the country.

SECTION 4. Operation and Maintenance. — In order to ensure the proper use of the water facilities herein provided, the local government units concerned shall be primarily responsible for the operation, supervision, and management of water facilities established under this Act. They are also hereby authorized to issue rules and regulations on their proper use and maintenance, in consultation with the DPWH and other concerned government agencies.

 The local sanggunian shall promulgate guidelines and procedures for the use and operation of the water facilities under its jurisdiction. The guidelines shall prescribe rules on the utilization of the water facilities as needed for local efforts on flood control, water resource development, potable water sources, and irrigation.

SECTION 5. Submission of Report. – The DPWH shall, within one hundred eighty (180) days after the approval of this Act and every one hundred eighty (180) days thereafter, submit periodic reports to the respective Committees on Public Works and Highways of both Houses of the Congress of the Philippines for evaluation and consideration.

SECTION 6. Funding. – The amount necessary for the initial implementation to fund the construction, rehabilitation, and repair of water impounding facilities for flood control, potable water source, and irrigation shall be charged under the DPWH. Thereafter, funds for this purpose shall be included in the annual General Appropriations Act. The LGU concerned shall provide for the continued maintenance, operation and management of the facility.

- Additional funding for the construction of such facilities shall come from bilateral and multilateral official development assistance, grants, donations, collections and other forms of assistance from public or private entities, whether domestic or foreign: *Provided*, That the payback period matches public infrastructure investment returns.
- SECTION 7. Implementing Rules and Regulations. Within sixty (60) days from the effectivity of this Act, the Secretary of the DPWH shall, in coordination with the Department of Environment and Natural Resources, the National Irrigation Authority, and other concerned agencies, with the participation of local government units, promulgate the rules and regulations
- 51 necessary to carry out the provisions of this Act.
- **SECTION 8.** Non-Impairment Clause. Nothing in this Act shall be construed as to diminish, impair, or repeal rights recognized, granted, or made available to disadvantaged, marginalized, or specific sectors under existing laws.

SECTION 9. Separability Clause. – If any provision is held invalid or unconstitutional, the remainder of the law or provision not otherwise affected shall remain valid and subsisting.

SECTION 10. Repealing Clause. – Any law, presidential decree or issuance, executive order, letter of instruction, administrative order, rule, or regulation contrary to or inconsistent with the provisions of this Act is hereby repealed, modified, or amended accordingly.

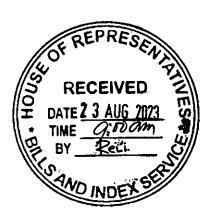
SECTION 11. Effectivity. – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

66 Approved,

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS
Second Regular Session

HOUSE BILL NO. 8957



Introduced by HON. AUGUSTINA DOMINIQUE "Ditse Tina" C. PANCHO

EXPLANATORY NOTE

Due to the harsh climate and topography of the Philippines, the country suffers frequent natural calamities, including droughts and floods, which cause enormous losses for our society.

This Bill directly supports the declared policy of the State to protect and advance the right of the people to a balanced and healthful ecology; and recognizes the role of the business sector as a partner for national development.

It seeks to make mandatory for establishments with a land area of five (5) hectares or more, to have water impounding systems and facilities and help solve the problem of flooding during the rainy season, and the need for stable and steady water supply requirements during annual droughts caused by the El Niño.

Currently, despite a considerable dedicated budget for flood control and other similar water management programs, government has not been able to optimize its gains in addressing both these threats to our people's security and well-being. Making water impounding facilities mandatory structures for establishments occupying such a large area, can significantly help resolve this problem by reducing flood damage, and providing irrigation for the agriculture sector during the dry season. This not only ensures the increase in agricultural productivity, but in the same light, also facilitates the imperative of business establishments to both focus toward sustainable viability alongside organizational return on investment (ROI).

Water impounding facilities have proven to be effective in terms of the reduction of flood damage and the efficient direction of water resources to applications such as irrigation in our rural farm communities where it is most needed. In turn this can considerably help relieve rural poverty, establish food security, and reconcile economic and social disparities between urban and rural areas.

Given this, water impounding systems and facilities as presented in this Bill, serve as doable mechanisms to resolve the escalating public and governmental concern about climate change, food safety, and natural/resource depletion, along with other concomitant development issues.

With this in mind, the approval/of this Bill is earnestly sought.

REA AUGUSTINA DOMINIQUE "Ditse Tina" C. PANCHO

Representative

2nd District, Province of Bulacan

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS

Second Regular Session

HOUSE BILL NO. 8957

Introduced by HON. AUGUSTINA DOMINIQUE "Ditse Tina" C. PANCHO

"AN ACT MANDATING THE ESTABLISHMENT OF WATER IMPOUNDING SYSTEMS FACILITIES FOR ESTABLISHMENTS WITH AN AREA OF FIVE (5) HECTARES OR MORE"

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

- **SECTION.** 1. Declaration of Policy. It is the declared policy of the State to afford full protection and the advancement of the right of the people to a healthful ecology in accord with the rhythm and harmony of nature. Further, the State has adopted the principle to strengthen, integrate, consolidate and institutionalize government initiatives with the private sector to achieve coordination in the implementation of plans and programs to address climate change in the context of sustainable development.
- **SEC. 2**. **Scope**. This Act shall apply to all owners of commercial and industrial establishments, subdivisions, and private developers governed under Philippine Laws. with an area of five (5) or more hectares.
- **SEC. 3.** *Definition of Terms*. For purposes of this Act, the following shall have the corresponding meanings:
 - (a) Commercial Establishment refers to an establishment used for commercial purposes, such as a bar, restaurant, private office, fitness club, retail store, bank or other financial institution, supermarket, automobile or boat dealership, or any other establishment with a common business area;
 - (b) Developer refers to the person or entity who develops or improves the subdivision project or condominium project for and in behalf of the owner thereof.
 - (c) Green Architecture refers to the sustainable method of design and construction drawn from the key concepts of creating an energy efficient, environmentally friendly houses and buildings.
 - (d) Industrial Establishment refers to an establishment which is either

- engaged in the manufacture, sale and distribution of goods or processing of raw materials into end products:
- (e) Subdivision Project refers to a tract or a parcel of land registered under Act No. 496 which is partitioned primarily for residential purposes into individual lots with or without improvements thereon, and offered to the public for sale, in cash or in installment terms. It shall include all residential, commercial, industrial and recreational areas, as well as open spaces and other community and public areas in the project.
- **SEC. 4.** *Implementation.* The Department of Environment and Natural Resources (DENR) and the Local Government Units (LGUs) shall have the primary responsibility in the implementation of the provisions of this Act and its Implementing Rules and Regulations (IRR).
- SEC. 5. Implementing Rules and Regulations. Within sixty (60) days from the effectivity of this Act, the DENR, together with the Department of Interior and Local Government (DILG), the Department of Public Works and Highways (DPWH), and the Joint Building and Environmental Planning Research and Standards Commission, shall promulgate the necessary rules and regulations for the effective implementation of this Act.

The implementing rules and regulations shall include accepted standards and guidelines for the design, construction, installation, materials, site selection and planning, along with health, safety, and site-specific considerations of water impounding systems and facilities.

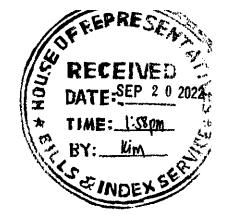
- **SEC. 6.** Separability Clause. If any portion or provision of this Act is declared unconstitutional, the remainder of this Act or any provision not affected thereby shall remain in force and effect.
- **SEC.** 7. Repealing Clause. All other laws, acts, presidential decrees, executive orders, issuances, presidential proclamations, rules and regulations, or parts thereof, which are contrary to and inconsistent with any provision of this Act are hereby repealed, amended or modified accordingly.
- **SEC. 8**. *Effectivity Clause.* —This Act shall take effect fifteen (15) days after its publication in the *Official Gazette* or in a newspaper of general circulation.

Approved.

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS First Regular Session

HOUSE BILL NO. 5027



Introduced by REP. AUGUSTINA DOMINIQUE "Ditse Tina" C. PANCHO

EXPLANATORY NOTE

Rainwater Harvesting (RWH) technology presents a significant solution to water shortages and ground water depletion during the dry season, as well as in mitigating the effects of excessive rains during the wet season.

RWH refers to methods employed to collect rainwater through catchment systems, and then divert them through gutters to a storage tank to provide water for specific applications. At present, harvested rainwater is used mainly to supply the demand for non-potable water but through adequate research on existing treatment techniques, it is possible for rainwater harvesting technology to supplement public need for potable applications. Potable applications include drinking, cooking, bathing, and dishwashing. Non-potable applications include toilet flushing, fire suppression, household cleaning, gardening, laundry washing, pool/pond filling, and vehicle washing.

In comparison with the current public water system, RWH allows water to be supplied at the point of consumption thus, owners are in full control of the technology. Moreover, of all the sources of water, rainwater is among the cleanest. Its quality only diminishes depending on the quality of the atmosphere, the catchment and conveyance systems, and storage tank. RWH technology therefore breaks the consumer's reliance on a water supplier, and additionally, can also significantly reduce storm drainage load and excessive flooding.

In terms of environmental impacts, as compared to other sources, rainwater harvesting technology pose lesser or no damage at all for the environment since existing structures such as domestic houses will only be retrofitted. Its only disadvantage relies mainly on the randomness of the rainfall pattern thus the demand of the user will not always be met.

However, RWH technology is not that popular in Philippine context. To be able to promote the technology, we need to identify and supply the users with the advantages of the system over the current "lined system" of water distribution like the ease in terms of installation, operation, and maintenance with readily available construction materials.

Moreover, since commercial and industrial establishments pose as the primary consumers of water derived from our natural water systems, they need to be encouraged to install rainwater catchment facilities to reduce water extraction and save the remaining ground water for the next generation.

In this direction, this Bill seeks to provide an incentive scheme to encourage building owners and developers to embrace RWH technology in their businesses.

Primary to this incentive scheme will be the provision of tax incentives in the form of appropriate tax deductions, tax credits and tax reductions.

With urgency to encourage a collective action to preserve our natural environment and support sustainable development in our cities and municipalities, the immediate

approval of this bill is strongly requested.

AUGUSTINA DOMINIQUE "Ditse Tina" C. PANCHO

Representative, 2nd District of Bulacan

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS

First Regular Session

HOUSE BILL NO. 5027

Introduced by REP. AUGUSTINA DOMINIQUE "Ditse Tina" C. PANCHO

AN ACT GRANTING INCENTIVES FOR COMMERCIAL AND INDUSTRIAL ESTABLISHMENTS, AND DEVELOPERS WHO WILL INCORPORATE RAINWATER HARVESTING TECHNOLOGY IN THEIR BUSINESSES, AND FOR OTHER PURPOSES THEREOF

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

SECTION 1. Short Title. — This Act shall be known as "Rainwater Harvesting Incentive Act of 2022".

SECTION 2. Declaration of Policy.

- (a) It is hereby declared the policy of the State to protect and promote the rights of the people to health, a balanced and healthful ecology and instill health consciousness among them.
- (b) The State shall pursue a policy of sustainable development, balancing progress, the protection of the environment, and the health and welfare of its people.
- (c) The State shall promote a comprehensive system of environmental planning which seeks to conserve, rehabilitative and develop the physical environment and natural resources of the nation that translates into physical and spatial considerations policies on land capability, urbanization, agricultural development and natural resources development.
- (d) Further it is hereby declared to be the policy of the State to safeguard life, health, property, and public welfare, consistent with the principles of environmental management and control.
- (d) Towards this end, the State shall approve the granting of tax and other appropriate incentives to commercial and industrial establishments, and developers who will incorporate Rainwater harvesting Technologies in their respective businesses.
- **SECTION 3. Scope**. This Act shall apply to commercial and industrial establishments, and private developers governed under Philippine laws.

- SECTION 4. Incentive Mechanisms. Incentives present a creative tool local governments can use to encourage the use of RWH technology and practices among commercial and industrial establishments within their purview. These incentives can be applied to both new developments and existing developments. For new development projects, incentives can be incorporated into the development processes, such as building and other related permits and other development codes and requirements, to creatively encourage the use of RWH technology and concepts. In already developed areas, incentives can be designed to encourage private property owners to retrofit their properties to include RWH infrastructure designs and practices.
- (a) Development Incentives: Offered to developers during the process of applying for development permits. Development incentives apply to private developers that take initiative by using more sustainable site design and green building practices. These incentives are typically provided within the framework of existing land use or development regulations and often remove or decrease fees, requirements, or steps in the permit process.
- (b) Tax incentives. Offered to the commercial and industrial sector in exchange for specific actions or investments supporting RWH technology and practices. Tax incentives which can be granted include Tax Deductions, Tax Credits, and Tax Reductions as may be provided by the Implementing Rules and Regulations of this Act.
- SECTION 5. Implementation. the Bureau of Internal Revenue and Local Government Units (LGUs) shall have the primary responsibility in the effort of implementing the provisions of this Act and its IRR. Respective LGUs shall also develop a strategic communications plan to duly advocate the use of RWH and communicate the incentive scheme under this Act to their respective constituencies.
- **SECTION 6.** Appropriations. The amount necessary to carry out the provisions of this Act shall be charged against the current year's appropriation of the concerned government agencies. Thereafter, such sums as may be necessary for the operation and maintenance of this Act shall be included in the General Appropriations Act.
- SECTION 7. Implementing Rules and Regulations. Within ninety (90) days after the effectivity of this Act, the Department of Interior and Local Government (DILG), together with the Department of Environment and Natural Resources (DENR), the Bureau of Internal Revenue (BIR), in consultation with the Department of Public Works and Highways and the Joint Building and Environmental Planning Research and Standards Commission, shall promulgate the implementing rules and regulations governing this Act.
- **SECTION 8. Separability Clause.** If for any reason, any provision of part hereof is declared invalid, the other provisions not affected thereby shall remain in full force and effect.
- **SECTION 9.** Repealing Clause. Any provision of the law, presidential decree, executive orders, rules and regulations contrary to the provision of this Act is hereby repealed, amended or modified accordingly.
- SECTION 10. Effectivity. This Act shall take effect fifteen (15) days after its complete publication in the Official Gazette or in at least two (2) newspapers of general circulation, whichever comes earlier.

Republic of the Philippines HOUSE OF REPRESENTATIVES Quezon City

NINETEENTH CONGRESS First Regular Session

House Bill No. 2412



Introduced by **Rep. ANGELO MARCOS BARBA**2nd District, Ilocos Norte

EXPLANATORY NOTE

This bill seeks to mandate the establishment and maintenance of a rainwater harvesting facility in all new institutional, commercial, and residential development projects nationwide to reduce flooding, urge the conservation of potable water, and encourage active participation of the public and private sector in the flood mitigating efforts and initiatives of government.

Rainwater harvesting has many benefits. It is considered an important element to augment water supply in both urban and rural areas, prevent flooding and alleviate the impact of climate change.¹

Rainwater can be used for non-drinking purposes, such as washing clothes, dishes, and vehicles, flushing toilets, and gardening². In addition, rainwater harvesting reduces the demand on ground water, which may cause the collapse of the soil where water used to be³, thereby helping to curb escalating flooding problems, especially in low-lying and flood-prone areas in the country.

Finally, rainwater harvesting proves to be important in addressing climate change. It can reduce demands on public water network and subsidize irrigation at critical stages when deficit between water requirement for agriculture and rainfall occurs.⁴

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

ANGELO MARCOS BARBA

¹ Al-Batsh, N., Al-Khatib, I.A., et. Al. (March 21, 2019). Assessment of Rainwater Harvesting Systems in Poor Rural Communities, A Case Study from Yatta Area, Palestine. Retrieved on May 20, 2020 from https://www.mdpi.com/2073-4441/11/3/585/pdf

² 5 Advantages of Rainwater Harvesting. Retrieved on May 20,2020 from

https://www.accurateleak.com/rainwater-harvesting/5-advantages-of-rainwater-harvesting/

³ 5 Advantages of Rainwater Harvesting. Retrieved on May 20,2020 from https://www.accurateleak.com/rainwater-harvesting/5-advantages-of-rainwater-harvesting/

⁴ Al-Batsh, N., Al-Khatib, I.A., et. Al. (March 21, 2019). Assessment of Rainwater Harvesting Systems in Poor Rural Communities, A Case Study from Yatta Area, Palestine. Retrieved on May 20, 2020 from https://www.mdpi.com/2073-4441/11/3/585/pdf

Republic of the Philippines HOUSE OF REPRESENTATIVES Ouezon City

NINETEENTH CONGRESS First Regular Session

House Bill No. 2412

Introduced by **Rep. ANGELO MARCOS BARBA**2nd District, Ilocos Norte

AN ACT MANDATING THE ESTABLISHMENT AND MAINTENANCE OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS NATIONWIDE

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 "Rainwater Harvesting Facility Act".

SECTION 2. Declaration of Policy. – It is a declared policy of the State to protect and advance the rights of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature. Pursuant thereto, the State shall mandate the establishment of rainwater harvesting facilities to reduce flooding and devastating effects of typhoons and other weather disturbances. It shall urge the conservation of potable water and shall encourage active participation of the public and private sector in the flood mitigating efforts and initiatives of government.

To this end, the State shall mandate the construction of rainwater harvesting facilities in all new public and private institutional, commercial, and residential development projects nationwide. Owners and developers of these development projects requiring the issuance of building permits are likewise mandated to design and construct a rainwater harvesting facility to prevent or delay the release of rainwater and runoff water into the drainage systems, creeks, and natural waterways.

SECTION 3. Definition of terms. – As used in this Act:

- a. Rainwater harvesting facility refers to a flood control structure such as vertical detention tank, horizontal water tank, open retarding basin, and multi-use water catchment area, or an on-site regulation pond used to prevent or delay the release of rainwater into the public drainage system; and
- b. Return period refers to the average length of time in years for a rain-related natural disaster of given magnitude to be equaled or

exceeded by the length of time that a rainwater-related disaster may probably recur.

SECTION 4. Rainwater Harvesting Facility Requirement. — An owner or developer of a new commercial, institutional, and residential development project, with an area of at least one thousand five hundred (1,500) square meters and requiring the issuance of building permit, shall reserve, develop, and maintain at least three percent (3%) of the total area, exclusive of roads, services, streets and alleys, as rainwater harvesting facility.

The owner or developer of an ongoing commercial, institutional, and residential development project that has no existing provision for rainwater harvesting facility shall build the facility within a period of three (3) years from the effectivity of this Act or suffer the penalty imposed on Section 8 hereof.

To conserve potable water, rainwater collected by a harvesting facility may be used for non-potable and suitable purposes, such as gardening, irrigation, and air-cooling processes.

SECTION 5. Design Approval. – The provision for a rainwater harvesting facility shall be required by the Housing and Land Use Regulatory Board (HLURB) and local government units (LGUs) to be incorporated in the design of all new commercial, institutional, and residential development projects nationwide and no project design shall be approved for construction unless it includes such facility. The HLURB and the LGUs shall ensure that these facilities are built during the construction phase of the projects.

SECTION 6. Design Requirements. – The rainwater harvesting facility must be designed to cope with a pre-determined flood and rain return period and must have a storage capacity prescribed by the Department of Public Works and Highways (DPWH). The design of the rainwater facility shall include the following:

- a. Size, shape, and physical characteristics of available space;
- b. Construction plans with specified material type including lining and coating requirements; and
- c. Detailed drawing on how the installation will drain into an outfall structure such as drywell or percolation chamber, storm drain system, drainage, channel, or natural wash.

SECTION 7. Building Permits. — If the design of a new commercial, institutional, and residential project with an area of at least one thousand five hundred (1,500) square meters does not provide for a rainwater harvesting facility, the LGU concerned shall deny the request for issuance of a building permit for such project.

SECTION 8. Penalties. - The owner or developer of all new commercial, institutional, and residential development projects who fails to construct a

rainwater harvesting facility in violation of Section 4 of this Act shall suffer the penalty of a fine of not less than Five hundred thousand pesos (PhP500,000.00), but not more than Two million pesos (PhP2,000,000.00) for every year of non-compliance.

In the case of a partnership, association, corporation, or any juridical person, the fine shall be imposed upon the President, Treasurer, or any other officer or person responsible for the violation.

If the offender is a foreigner, the foreigner shall be deported immediately without further proceedings after payment of fine.

The head of the government institution who violates Section 4 of this Act, or government officials, employees, and agents who issue licenses or permits in violation of this Act shall suffer the penalty of suspension of not less than ten (10) days, but not more than one hundred eighty (180) days after due notice and hearing in an appropriate administrative proceeding.

SECTION 9. Implementing Rules and Regulations. — Within sixty (60) days from the effectivity of this Act, the Secretary of Public Works and Highways shall, in coordination with the Secretary of Interior and Local Government, the Chief Executive Officer of the Housing and Land Use Regulatory Board, and the Administrator of the Philippine Atmospheric, Geophysical and Astronomical Services Administration, promulgate the rules and regulations for the effective implementation of this Act. The implementing rules and regulations shall include the standards and guidelines for the design, construction, installation, materials, site selection and planning, site-specific considerations, and maintenance of the rainwater harvesting facility,

SECTION 10. – Separability Clause. – If any provision or part of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected shall remain in force and effect.

SECTION 11. – Repealing Clause. – All other laws, rules and regulations, orders, circulars, and other issuances or parts thereof, which are inconsistent with the provisions of this Act are hereby repealed or amended accordingly.

SECTION 12. – Effectivity. – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or a newspaper of general circulation.

Approved,