

**REPUBLIC OF THE PHILIPPINES
CONGRESS OF THE PHILIPPINES**

Metro Manila

**TWENTIETH CONGRESS
First Regular Session**

HOUSE OF REPRESENTATIVES

H.B. No. 4953



Introduced by Rep. Dante S. Garcia and Rep. Kenneth Paolo Tereng

EXPLANATORY NOTE

The problem on climate change has become more apparent through the years. As the seasons pass by, super typhoons and the *El Niño* have grown more intense causing severe weather aberrations that bring untold sufferings to our people. These opposite natural phenomena have already strained the country's fragile ecological balance requiring urgent measures to mitigate or preempt the damage they can cause.

The Philippines receives one of the highest rainfall in the world in the form of tropical storms and super typhoons the rainwater from which end up only as run-offs inundating canals, rivers and waterways that cause downstream flooding where countless of lives, properties and crops are destroyed. Climate change has also aggravated global warming by more pronounced long periods of dry spell where the lack of rainfall result in competition for the country's limited fresh water supply between agriculture and households.

There is no working solution in place so far to curb the ill effects of storm water. During a heavy downpour, urban residents wade through flood waters just to reach their destinations. If lucky, their only worry are wet feet and common colds but in worst cases, contacts with rat urine can lead to death by leptospirosis. On the flood plains in the rural areas, more and more residents are displaced and on the mountain sides, their homes are swallowed whole by landslides. There is no escaping the wrath of a storm.

Inversely during drought, water scarcity causes just as much suffering to all and to the ordinary citizen, his personal reasons are easy to comprehend. The likeliest solution when the rains do not arrive, subsurface water is resorted to. But this resource, too, is endangered as the water table goes deeper due to over-extraction. Since the introduction of

the mechanical pump, water extracted from underground was never replenished purposely. The exacerbated extraction of subsurface water by large owners and operators of deep wells are drying up the aquifers in many areas forcing them to dig deeper to mine for fresh water causing in the process land subsidence, salt water intrusion and chemical leaching in ecologically fragile areas.

Because of problems on sustainability of supply, there exists a high number of applicants wanting to extract more subsurface water through the construction of more deep wells. The calculated slow approval by the National Water Resources Board (NWRB) of water extraction permits has triggered the illegal construction of deep wells depleting further the aquifers of stored fresh water without provisions for their immediate replenishment. Not even the high fees for water extraction permits have deterred the construction of illegal deep wells thus promoting corruption in the permit issuing agencies.

Since the introduction of the mechanical pump more than a century ago, there has never been a conscious effort yet to replenish the water extracted from underground. The large-scale extraction of sub-surface water was more intense in areas where the rapid development of settlements was not complemented by a water utility company to serve the residents. The eastern part of Metro Manila is such a place where the discovery of the West Valley Fault could have been precipitated by the over extraction of underground water.

Mercury leaching into the underground water has been observed in Angeles City where the US military base was and in Las Pinas City where a company manufacturing mercury lamps also was. Saltwater intrusion has rendered the subsurface water along the coastal towns in Cavite unfit for human and animal consumption, a fact similarly occurring in many places because saltwater volume entering the aquifers is now higher than the volume of liquid fresh water coming from elevated areas. Because of their peculiar geology, settlements sitting on limestone structures are more prone to *E. Coli* contamination in their drinking water extracted below because leachates from leaking septic tanks find their way into the aquifers.

Since there is nothing that can be done to prevent the entry of typhoons and occurrence of storms, there is a need therefore to institute urgent mitigating measures to manage storm water to soften the impact of climate change, the *El Niño*, tropical storms and super typhoons, natural phenomena and problems caused by excessive subsurface water extraction. Rainwater is one water resource that has been least considered as major solution to our problems on potable water. It was ignored in the past largely due to the lack of information and absence in the list of priorities of past administrations. However, with billions of pesos in damages caused by torrential rains and flash-floods, it is important that a new strategy be installed and the agencies tasked to implement it could correspondingly respond with equipped efficiency.

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


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AN ACT
INSTITUTING STRATEGIES TO ADDRESS AND MITIGATE THE DAMAGE CAUSED BY
WEATHER UNCERTAINTIES AND NATURAL DISASTERS WHERE EXCESSIVE RAINWATER
CAUSE MASSIVE FLOODING THAT DESTROY PROPERTY, LIVES AND INFRASTRUCTURE BUT
UTILIZING THE SAME TO REMEDY PROBLEMS DUE TO LACK OF IT TO LESSEN THE IMPACT
OF DROUGHTS, TYPHOONS AND EARTHQUAKES, STRENGTHENING THE ABILITY OF
GOVERNMENT TO REDUCE AND CONTROL DISASTER ATTRIBUTABLE TO RAINWATER 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 "Rainwater Management Act of 2025".

SECTION 2. Declaration of Policy – It shall be the duty of the State to serve and protect the
interest of its people by ensuring their safety and well-being always, more so during the
times of climate change where over abundance and extreme scarcity of fresh water are the
cause of devastation to property, lives and infrastructure thus ruining the economy and
bringing in untold suffering and misery.

The State shall promote and encourage the development and dissemination of sustainable
technologies that shall minimize the destructive effects of typhoons and storms and
maximize the exploitation of the rainwater they bring as a supplementary source of fresh
water that can be utilized for agriculture, domestic, commercial and industrial purposes.

Thus, it is hereby declared that it shall be the policy of the State to identify potential critical
areas to climate change and natural disasters to instituting strategies to preempt and abate
their damage and provide relief therefor.

SECTION 3. Definition of Terms – As used in this Act or in its Implementing Rules and Regulations, the following shall be understood as:

- a. *“Aquifer”* refers to a body of saturated, permeable and porous materials located from under the earth’s surface, including caverns, caves, sandstone, conglomerate, fractured limestone and unconsolidated sand and gravel through which liquid water can easily move and be stored.
- b. *“Artificial aquifer recharging”* refers to the process of increasing the amount of water that enters an aquifer through planned human intervention with the use of machinery and materials that hasten the downwards travel of surface water.
- c. *“Artificial recharge systems”* refers to the artificial method of assisting natural percolation through mechanical means to hasten the conveyance of surplus surface water to the aquifers and other subsurface water containment for the purpose of mitigating downstream flooding due to run-offs, saltwater intrusion and for the recovery of water for future use.
- d. *“Chemical leaching”* refers to the contamination of the soil and groundwater of chemicals and other pollutants coming from surface sources usually from industrial plants, garbage dumps, households and from the application of agricultural inputs.
- e. *“Climate change”* refers to the change in the mean temperature of the earth brought about by natural phenomena made worse by human-induced activity.
- f. *“Downstream flooding”* refers to the collection of unusually large volume of rainwater that falls on the earth surface elsewhere and flows to inundate low lying areas.
- g. *“El Niño phenomenon”* refers the abnormal weather pattern caused by the warming of the Pacific Ocean near the equator off the coast of South America bringing heavy rains La Niña to the western hemisphere and long dry spell to the eastern hemisphere.
- h. *“Evapotranspiration”* refers to the combined net effect of evaporation, which is the return of moisture to the atmosphere from the earth’s surface, and transpiration, which is the process by which plants return moisture to the air.
- i. *“Groundwater”* refers to all forms of water that occurs naturally from sources below the soil surface including wells, springs, aquifers and subterranean vaults.
- j. *“Hydrogeological profile”* refers to the description of the distribution and movement of groundwater in the soil and rocks of the Earth's crust, commonly as aquifers.
- k. *“Land subsidence”* refers to the loss of substantial regional surface elevation due to human activities or natural processes that result to removal of subsurface support.
- l. *“Natural disasters”* refers to natural events such as a flood, earthquake, typhoon, storm or hurricane that causes great damage to resources or loss of life:
- m. *“Natural recharge”* refers to that part of the water cycle that occurs after rain or snow infiltrate the soil and percolates downwards through aerated soil due to gravity without purposed human intervention.
- n. *“Rainwater harvesting”* refers to the process of collection of rainwater from surfaces on which rain falls, filtering it and storing it for multiple uses.
- o. *“Salt water intrusion”* refers to the movement of saline water in coastal areas into freshwater aquifers rendering underground fresh water resources brackish or salty.
- p. *“Subsurface water”* refers to all solid, liquid or gaseous forms of water that occurs beneath the earth’s surface.

- q. *"Surface water"* refers to all naturally occurring water found in estuaries, lakes, rivers, pond, reservoirs, ponds, seas, etc.
- r. *"Weather aberration"* refers to a departure from what is normal, usual, or expected, in the weather system typically one that is unwelcome.

SECTION 4. *General Provisions* – The National Water Resources Board (NWRB) shall be the lead agency, in coordination with the National Disaster Risk Reduction Management Council (NDRRMC) and the Department of Public Works and Highways (DPWH) and other agencies, in the formulation and implementation of plans and strategies to address and mitigate the damage caused by weather aberrations and natural disasters where excessive rainwater cause massive flooding that destroy property, lives and infrastructure by utilizing the same to remedy problems due to lack of it to lessen the impact of droughts, typhoons and earthquakes, and strengthening the ability of government to reduce and control disaster attributable to rainwater.

SECTION 5. *Specific Provisions* - The NWRB, pursuant to its mandate already conferred by law, is hereby directed undertake activities similar but not limited to the following:

- a. Inspect, compile and report data of inland waterbodies and waterways on potential disaster areas and reporting the same to the NDRRMC;
- b. Conduct a national hydro-geological profile;
- c. Provide technical assistance in the design, construction and implementation of rainwater harvesting and artificial recharge systems; and
- d. Enforce all laws and ordinances pertaining to the preservation of the well-being of aquifers as sustainable source of potable fresh water.

The NDRRMC, pursuant to its mandate already conferred by law, is hereby directed to provide a listing to the NWRB and the DPWH disaster prone and environmentally fragile areas that are likely the site of an occurring disaster due to downstream flooding.

The DPWH, pursuant to its mandate already conferred by law, is hereby directed to design and construct infrastructure that would minimize disaster due to rainwater and to harvest and store the rainwater for beneficial use.

SECTION 6. *National Hydro-geological Profiling* – The NWRB, with the help of the Bureau of Soils and Water Management (BSWM) of the Department of Agriculture, shall conduct within six (6) months from the enactment of this Act to conduct hydro-geological profiling for the entire country.

SECTION 7. *Rainwater Harvesting for Storage and for Artificial Aquifer Recharging for Groundwater Replenishment, Flood Control and for Rainwater* – All construction, henceforth, of new infrastructure, buildings, homes, factories and commercial establishments shall incorporate in their design provisions for storage and for artificial recharging of the aquifers. Existing infrastructure, buildings, homes, factories and commercial establishments shall be given two (2) years from the effectivity of this Act to retrofit and install rainwater storage and artificial recharge systems.

SECTION 8. *Rainwater Harvesting on Elevated Areas for Flood control* – With the use of the national hydro-geological profile data generated by the NWRB, the DENR and the DPWH shall study the contour of elevated areas, hills and mountains for the construction of rainwater storage systems and artificial aquifer recharging units to limit the volume of runoff that cascade into low lying areas thereby causing downstream flooding.

SECTION 9. *Rainwater Harvesting for Homes and Group Settlements* – All residential units shall be required to install their individual rainwater storage systems that shall form part of the rainwater harvesting and recharging system of the group settlement collectively developed. The rainwater harvesting storage system may be integrated in the settlement's wastewater treatment facility. Treated waste water, however, shall not be allowed to be injected into the aquifer.

SECTION 10. *Rainwater Harvesting for Commercial Establishments and Industries* – All commercial buildings and establishments shall be required to install their rainwater storage systems that shall form part of their rainwater harvesting and recharging system. The rainwater harvesting storage system may be integrated in their wastewater treatment facility. Treated waste water, however, shall not be allowed to be injected into the aquifer.

SECTION 11. *Rainwater Harvesting for Schools* – All schools, public and private, shall be required to install their rainwater storage systems that shall form part of their rainwater harvesting and recharging system. The rainwater harvesting storage system may be integrated in the schools' wastewater treatment facility. Treated waste water, however, shall not be allowed to be injected into the aquifer.

SECTION 12. *Rainwater Harvesting for Agriculture* – All individuals and companies engaged in agriculture are hereby encouraged to practice natural farming to prevent the leaching of harmful chemicals into the aquifers. The LGUs shall within their jurisdiction construct and install rainwater storage and artificial aquifer recharging systems.

The LGUs shall also make a requirement for registration to companies within their jurisdiction engaged in agriculture to construct and install rainwater storage and artificial aquifer recharging systems which may be integrated in their wastewater treatment facility. Treated waste water, however, shall not be allowed to be injected into the aquifer.

SECTION 13. *Penalties* – Any person or entity, natural or juridical, found violating or cause the obstruction or hamper the implementation of this Act including its Implementing rules and Regulations shall be meted any or all of the following:

- a. Pay fine of Five Million Pesos (P5,000,000.00) or imprisonment from six months to six years, or both;
- b. If the offense is committed by a juridical entity, the penalty shall be imposed against the officers, employees and members who participated in the commission of the offense, without prejudice to the filing of civil and administrative charges against the juridical entity;
- c. Any person or entity who shall cause to obstruct, prevent or refuse the inspection pursuant to the visitorial powers of implementing agencies of properties, private or public domain, shall be held criminally and shall be liable to pay fine of not exceeding

One Hundred Thousand Pesos (P100,000.00) or imprisonment of not exceeding one (1) year, or both.

SECTION 14. *Fees, Administrative Fines and Sanctions* – The NWRB shall be empowered to undertake the any of the following or other mode of action in conformity to the intent of this Act:

- a. Suspend, revoke or cancel outstanding water extraction permit found in violation of this Act or its Implementing rules and Regulations;
- b. Issue cease and desist order against any person or entity found in violation of the provisions of this Act or its Implementing Rules and Regulations;
- c. Declare any person or entity in contempt for the violation this Act and its implementing Rules and Regulation and shall be punished similarly as in any indirect contempt of the Courts;
- d. Promulgate rules and regulations, orders and decisions for compliance and set fines and sanctions for failure; and
- e. Retain collected fees, revenues, fines and other impositions with the agency which shall be used as trust fund for the furtherance of the implementation of this Act.

SECTION 15. *Appropriations* – The initial funding necessary for the implementation of this Act shall be sourced from the current fiscal year appropriation of the NWRB and such amounts as maybe identified by the President of the Republic of the Philippines, thereafter, the amount needed for the operation the agency for the implementation of this Act shall be included in the annual General Appropriations Act.

SECTION 16. *Implementing Rules and Regulations* - The NWRB in coordination with the DA, DENR, DOST and the DPWH, with the participation of concerned committees from the House of Representatives and the Senate, shall promulgate the Implementing Rules and Regulations within ninety (90) days from its enactment for the proper implementation of this Act.

SECTION 17. *Repealing Clause* - All laws, decrees, executive orders, memorandum orders, memorandum circulars, administrative orders, ordinances or any part thereof, inconsistent of this Act are hereby deemed repealed or modified accordingly.

SECTION 18. *Separability Clause*. - In the event that any provision of this Act is declared unconstitutional, the validity of the remainder shall not be affected thereby.

SECTION 19. *Effectivity Clause*. - 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.

Approved,