

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

EIGHTEENTH CONGRESS
Second Regular Session

House Bill No. 7850



Introduced by Representative PABLO JOHN F. GARCIA

EXPLANATORY NOTE

As one of the largest archipelagic nations in the world, the Philippines is surrounded by waters, rivers and lakes throughout thousands of islands.

Ironically, however, we are running out of water. Studies such as those made by the De La Salle University School of Economics (2015) and the National Water Resources Board (undertaken by the University of the Philippines-Los Baños in 2017) have determined that several areas in the Philippines are projected to experience water shortages by 2025.¹ The World Resources Institute likewise reported in 2015 that the Philippines will likely experience great water scarcity in 2040 due to climate change and increased demand due to overpopulation.²

Water.org, a global non-profit organization, reports that "[o]ut 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,"³ They also report that the country is rapidly urbanizing, and its growing cities struggle to provide new residents with adequate water and sanitation services.⁴

And while it had been reported in the past that "the Philippines has total annual renewable water resources of 479 billion cubic meters (m³) from its surface water and groundwater sources, [translating] into an annual per capita availability of about 6,100 m³,

¹ GMA News Online, *More cities, regions seen to suffer water shortage by 2025*, available at <https://www.gmanetwork.com/news/news/nation/688389/more-cities-regions-seen-to-suffer-water-shortage-by-2025/story/> (18 March 2019). The cities that will experience shortages are Metro Cebu, Zamboanga City, Davao City, Bacolod City, Cagayan De Oro City, and Baguio City. The later study projects extreme water shortages in four regions including Central Luzon, Southern Luzon, Cagayan Valley, and Bicol, based on the study.

² Maddocks et al., *Ranking the World's Most Water-Stressed Countries in 2040*, available at <https://www.wri.org/blog/2015/08/ranking-world-s-most-water-stressed-countries-2040> (26 August 2015).

³ Water.org, *Philippines*, available at <https://water.org/our-impact/where-we-work/philippines/>.

⁴ *Id.*

which is twice that of the rest of Asia, and 6 times the global scarcity threshold of 1,000 m³⁵, 12.32% of the country's 22.7 million families still have no access to a safe water supply, and 2.04% and 4.23% of the country's population still have cases of unimproved sanitation and have occurrences of open defecation, respectively.⁶

In order to fully secure our water resources for decades to come, everyone must come together: government, private sector, and consumers. While other initiatives focus on government- and supply-side endeavors, this bill focuses on demand-side management⁷. But whatever other solutions we may come up with to ensure and manage supply may be for nothing if national usage rates ultimately prove to be too demanding.

This bill aims to achieve water demand management through economic, social, and technical approaches guided by the principles of equity, sustainability, and efficiency. It incentivizes the use of water-saving products, methods, and technologies, whether for domestic, industrial, or agricultural use, and prioritizes research that advances the same. The bill also pushes for increased education to inculcate water conservation in citizens. Market incentives are also explored to encourage behavior conducive to conservation.

This overall approach calls for the development of a water demand management strategy that aims to reduce losses in the system, improving operational efficiencies, promoting rational use of water resources, ensuring equitable distribution of resources, and exploring alternative sources such as recycling of wastewater for non-potable uses,⁸ which are all geared to fully realize the fundamental human right to water and sanitation.⁹

"We never know the worth of water till the well is dry," historian Thomas Fuller once said. May our children be spared a lesson learned the hard way.

The urgent passage of this bill is earnestly sought.



Rep. PABLO JOHN F. GARCIA
3rd District, Province of Cebu

⁵ Asian Development Bank, Philippines: *Water Supply and Sanitation Sector*, available at <https://www.adb.org/sites/default/files/institutional-document/33810/files/philippines-water-supply-sector-assessment.pdf> (January 2013) citing the Government of the Philippines, *Philippine Water Supply Sector Roadmap* (2007).

⁶ See the event PowerPoint presentation of the *Philippine Water and Sanitation Forum 2018* by Water.org available at <https://water.org/PWSF/>.

⁷ See Abansi et al., *Water Demand Management and Improving Access to Water*, Water Policy in the Philippines (Rola et al.), 8 Global Issues in Water Policy 233-259 (2018).

⁸ *Id.* at 234.

⁹ United Nations, *Resolution 64/292, The human right to water and sanitation*, available at <http://undocs.org/A/RES/64/292> (adopted by the General Assembly on 28 July 2010).

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AN ACT
INSTITUTIONALIZING WATER DEMAND MANAGEMENT FOR NATIONAL
CONSERVATION, APPROPRIATING FUNDS THEREFOR, AND FOR OTHER
PURPOSES

Section 1. Short Title. - This Act shall be known as the "Water Conservation Act of 2020".

Section 2. Declaration of Policy. - It is hereby declared the policy of the State to recognize water as a cherished resource—a fundamental right crucial to the health and well-being of all Filipinos. It is likewise the policy of the State to adopt demand-side management measures to complement supply-side interventions to foster water conservation, guided by the principles of economic efficiency, social equity, and environmental sustainability. Furthermore, it is the policy of the State to develop water demand management strategies that aim to reduce losses in water supply systems, improving operational efficiencies, promoting rational use of water resources, ensuring equitable distribution of resources, and exploring alternative sources such as recycling of wastewater for non-potable uses. Lastly, it is the policy of the State to adopt scientific and data-driven technologies and financial mechanisms that are conducive to water conservation efforts by encouraging and inculcating responsive social behavior, the utilization of effective product designs, and the implementation of efficient water utilization and distribution systems for domestic, commercial, agricultural, industrial, and other uses.

Section 3. Definition of Terms. - For purposes of this Act, the following terms shall be defined as follows:

(a) **Aerobic Rice Culture** - in rice production, refers to aerobic rice varieties to be grown in well-drained, non-saturated, and non-puddled soils.

(b) **Alternate Wetting and Drying** - a method developed by the International Rice Research Institute that helps farmers reduce the amount of water

use by eliminating the traditional method of keeping their rice fields continuously flooded, and any such similar methods and technology.

(c) Block Tariffs - a scheme where users pay different amounts for different consumption levels through a stepwise structure. The water charge is set per unit (e.g. cubic meters) of water consumed and remains constant for a certain quantity of consumption. As the water use increases, the tariff shifts to the next block of consumption and so on for each block of consumption until the highest one. This ensures that less fortunate water consumers are able to satisfy their basic needs while more luxurious consumption is discouraged.

(d) DA - Department of Agriculture

(e) DENR - Department of Environment and Natural Resources

(f) DepEd - Department of Education

(g) DILG - Department of the Interior and Local Government

(h) DOF - Department of Finance

(i) DOH - Department of Health

(j) DOST - Department of Science and Technology

(k) DSWD - Department of Social Welfare and Development

(l) DTI - Department of Trade and Industry

(m) Grey Water - wastewater from baths, sinks, washing machines, and other domestic or household sources.

(n) LWUA - Local Water Utilities Administration

(o) Marginal-cost Pricing - the practice of setting the price of a product to equal the extra cost of producing an extra unit of output. It is the practice of setting the price of a product at or slightly above the variable cost to produce it.

(p) MWSS - Metropolitan Waterworks and Sewerage System

(q) NEDA - National Economic Development Authority

(r) NIA - National Irrigation Administration

(s) Non-government individuals and entities - Members of the academe, concerned entities from the private sector, non-government organizations, people's organizations, and civic service groups, determined by the DENR in the Implementing Rules and Regulations (IRR) through a manner consistent with the policies and aims of this Act, which shall aid in the formulation and execution of the national WDM framework and related water conservation strategies.

(t) Non-revenue Water - is a supply-side water demand management policy. Non-revenue water is the difference between system input volume and billed authorized consumption.

(u) NWRB - National Water Resources Board

(v) WDM - Water Demand Management; defined as the management of the total quantity of water abstracted from sources of supply using measures to control waste and undue consumption. It requires the implementation of policies and/or measures, which serve to control or influence the amount of water used and thereby lead to improved efficiency in production, transmission, distribution, and use of water. It is the adaptation and implementation of a strategy by water institutions and/or consumers to influence the water demand and usage of water in order to meet any, a combination, or all of the following objectives:

- (i) economic efficiency;
- (ii) social development;
- (iii) social equity;
- (iv) environmental protection;
- (v) reducing water abstraction from natural water sources and aquifers;
- (vi) sustainability of water supply and services;
- (vii) political acceptability;
- (viii) reducing the quantity or quality of water required to accomplish a specific task;
- (ix) adjusting the nature of the task so it can be accomplished with less water or lower quality water;
- (x) reducing losses in movement from source through use to disposal;
- (xi) shifting time of use to off-peak periods; and
- (xii) increasing the ability of the system to operate during droughts.

Section 4. National Water Demand Management Framework. - The DENR shall, through the NWRB, and with the participation of DA, DepEd, DILG, DTI, DOH, DOST, DSWD, LWUA, MWSS, NEDA, and NIA along with non-government organizations and individuals, establish, formulate and implement the National Water Demand Management Framework ("Framework") for a comprehensive WDM program within three (3) months from the effectivity of this Act. The framework shall, among

other goals determined in the IRR as consistent with the policies and provisions of this Act, prescribe national WDM conservation goals, conservation strategies and measures to be undertaken within specified time periods, including the cost-effective use of economic incentives, smart product and technology utilization, efficient water supply systems, collective action, targeted research endeavors, and environmental education and information campaigns.

This Framework's prescribed short-, medium-, and long-term goals shall be contained in an Action Plan which shall be published or released within six (6) months after the first meeting and shall reflect the mandates found in the provisions of this Act. The Action Plan shall be revised from time to time to reflect refinements, changes, and improvements in any part of the WDM Framework.

Section 5. Lead Agency. - The DENR shall be the primary government agency responsible for the implementation and enforcement of this Act, the advancement of the declared policies in Section 2, and the WDM Framework. It shall ensure that the mandates provided in this Act are fulfilled and that interagency cooperation and the proper public and private linkages are observed in the accomplishment of the roles prescribed herein.

Section 6. Role of the DA and the NIA. - The DA and the NIA shall prescribe and enforce novel and scientific techniques, strategies, systems, and methods such as "aerobic rice culture", "alternate wetting and drying", water-saving equipment, and other approaches to ensure efficient water utilization as long as such prove to be of overall benefit to farmers.

Section 7. Role of the DILG, MWSS, and LWUA. - The DILG, MWSS, and LWUA shall ensure that local government units, community-based organizations, water utility providers, and all other public and private suppliers of water for domestic, commercial, and industrial uses, under their supervision, adopt pricing methods and other market incentives such as block tariffs and marginal-cost pricing to spur conscientious and conservative water utilization among consumers while ensuring social equity. They shall likewise ensure that non-revenue water is minimized as much as possible and system losses and inefficiencies are adequately addressed. Lastly, they shall assist in the adoption and institutionalization of methods such as grey water recycling throughout the country.

Section 8. Role of the DTI, DOF, and NEDA. - The DTI, in coordination with the DOF and NEDA and other concerned agencies shall develop guidelines on reasonable tax incentives, such as but not limited to tax credits and/or accelerated depreciation deductions, for commercial entities and industries that install devices or retrofit existing facilities with mechanisms, or adopt strategies and technologies described in this Act that promote water conservation such as, but not limited to, counter-flow washing and rinse systems, the reuse of processed water, recirculation

of cooling water, ozone treatment for cooling towers, treatment and reuse of blow-down, water recycling.

The DTI, in cooperation with the said institutions, shall likewise develop and enforce a system of reasonable incentives that promote the creation, marketing, production, distribution, and sale of state-of-the-art water-conserving installations, devices, products, and the like such as but not limited to low-flow shower heads, shower flow restrictors, toilet-tank inserts, faucet aerators, low-flush toilets, dual-flush toilets, insulation of hot-water pipes, horizontal axis washing machines, low-pressure supply connections, pressure-reducing valves, water-efficient landscape designs, and efficient home garden watering implements.

The Bureau of Products and Standards shall prescribe and regularly publish designs, installations, devices, products, and the like which meet WDM goals.

Section 9. Role of the DepEd, DOH, and DSWD. - A continuing information and education campaign, through all schools and mass media such as the internet, newsprint, radio, television, and the like, concerning water conservation practices, methods, strategies, and attitudes shall be promoted by DepEd, the DOH, and the DSWD in cooperation with agencies such as the Philippine Information Agency and the Philippine News Agency. Such a campaign shall encourage the multi-sectoral participation of non-government individuals and entities as defined by this Act.

Section 10. Role of the DOST. - The DOST, in cooperation with public and private research institutions, shall continuously apprise the various government departments, agencies, and instrumentalities mentioned in this Act of novel water conservation inventions, processes, technologies, and methods which advance WDM policies.

Section 11. Appropriations. - The amount needed for the initial implementation of this Act shall be taken from the current fiscal year's appropriation of the DENR and the other government agencies and institutions mentioned in Section 4 of this Act. Thereafter, the amounts needed for the proper fulfilment of this Act shall be included in the annual General Appropriations Act.

Section 12. Special National Water Conservation Fund. - In order to support the efforts initiated under this Act, One Billion Philippine Pesos (Php 1,000,000,000.00) shall be set aside and placed in a special fund that shall be known as the Special National Water Conservation Fund (SNWCF), which shall be under the control and management of the DENR.

Any additional sources of funds shall include the following:

- a. Collection of five (5) centavos for every cubic meter of water based on the actual billing and collection from local waterwork utilities;
- b. Collection of five (5) centavos for every kilowatt hour produced by local hydroelectric cooperatives; and
- c. Any donations, grants, endowments, and forms of contributions.

Section 13. Tax Exemptions. Any general or special law to the contrary notwithstanding, gifts and donations of real and personal properties of all kinds to the DENR in relation to the SNWCF shall be exempt from the donor's tax and the same shall be considered as allowable deductions from the gross income of the donor, in accordance with the provisions of the National Internal Revenue Code of 1997, as amended: Provided, that the allowable deductions shall be equivalent to 150 percent of the value of such gifts and donations.

Section 14. Implementing Rules and Regulations. – The DENR and the other government agencies and institutions mentioned in Section 4 of this Act shall issue within sixty (60) days from the effectivity of this Act the necessary rules and regulations for the effective implementation of this Act.

Section 15. Report to Congress. - The DENR shall report to Congress, not later than March 30 of every year following the approval of this Act, the progress of the national water conservation efforts and make the necessary recommendations in areas where there is need for legislative action.

Section 16. Joint Congressional Oversight Committee. - There is hereby created a joint congressional oversight committee to monitor the implementation of this Act. The committee shall be composed of five (5) senators and five (5) representatives to be appointed by the Senate President and the Speaker of the House of Representatives, respectively. The oversight committee shall be co-chaired by a senator and a representative designated by the Senate President and the Speaker of the House of Representatives, respectively. The mandate given to the joint congressional oversight committee under this Act shall be without prejudice to the performance of the duties and functions by the respective existing oversight committees of the Senate and the House of Representatives.

Section 17. Separability Clause. - If any provision of this Act shall be declared unconstitutional or invalid, the other provisions not otherwise affected shall remain in full force and effect.

Section 18. Repealing Clause. - All laws, decrees, executive orders, rules and regulations and other issuances or parts thereof which are inconsistent with this Act are hereby repealed, amended, or modified accordingly.

Section 19. Effectivity. - This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved,