



Republic of the Philippines
Department of Environment and Natural Resources
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20 November 2020

MEMORANDUM

TO : The Directors
Biodiversity Management Bureau
Ecosystems Research and Development Bureau
Environmental Management Bureau
Forest Management Bureau
Land Management Bureau
Mines and Geosciences Bureau
Legal Affairs Service
Policy and Planning Services

The Executive Director
National Water Resources Board

FROM : The Assistant Secretary
Field Operations-Mindanao and Legislative Affairs

SUBJECT : **INVITATION FROM THE COMMITTEE ON PUBLIC WORKS**

This pertains to the letter dated 19 November 2020 from Senator Emmanuel D. Pacquiao, Chairperson, Committee on Public Works joint with the Committees on Agriculture, Food and Agrarian Reform, Environment, Natural Resources and Climate Change, National Defense and Security, Peace and Unification and Finance inviting DENR to a **Hybrid public hearing on Wednesday, 25 November 2020 at 9:00 a.m. via Cisco WebEx (Video /Teleconference)** or you should opt to physically attend the hearing, you or your representative is required to have at least a medical certificate indicating you are COVID 19 RT-PCR test negative dated 24 hours prior to the scheduled hearing at the Sen. Padilla Room 2nd floor Senate of the Philippines, to discuss the following Senate Bills:

Flood Control

Senate Resolution No. 69- Resolution urging the Senate Committees on Public Services and Finance to conduct and inquiry, in Aid of Legislation, on the Reported Underutilization of the Budget for Flood Control Projects by the Metropolitan Manila Development Authority (MMDA), with the end view of efficient Utilization of Government's Resources for urgent and Important Projects (Sen. Revilla)

Senate Resolution No. 80- Resolution Directing the Senate Committee on Public Works to conduct an inquiry, in aid of legislation, on the status and viability of the approved Flood Management Master Plan for Metro Manila and Surrounding Areas, with the end view of ensuring a comprehensive and cost-efficient solution to the flooding problem that would immediately bring relief to the public (Sen. Recto)

Senate Resolution No. 570- Resolution urging the appropriate Senate Committee to conduct an inquiry, in aid of legislation, into the massive flooding caused by water releases from dams triggered by the successive typhoons and continuous rains in the Luzon Island with the end view of Identifying needed government interventions, environment rehabilitation, and possible infrastructure works to prevent similar disasters in the future (Sen. Revilla)

Senate Bill No. 1345- An Act establishing the Office of Flood Research and Policy to plan, coordinate, conduct, and share research on flooding, flood prevention, and other flood related issues (Sen. Binay)

Harvesting of Rainwater Runoff

Senate Bill No. 36 –An act Providing for the Management, Control, Regulation, and Utilization of Rainwater Runoff, and the improvement of Ecological Characteristics of catchments to address flooding and water supply needs in urban and rural center and creating the necessary institutional mechanisms therefor. (Sen. Pangilinan)

Senate Bill No. 336- An Act Requiring New Commercial, Institutional, and Residential infrastructure projects in Metro Manila and Major Cities in the Philippines to install Rainwater Harvesting or retention facilities, providing penalties for violations, and for their purposes. (Sen. Villar)

Senate Bill No. 579-An Act for the Management, Control, Regulation, and Utilization of Rainwater Runoff, and Improvement, of Ecological characteristics of catchments to address flooding and water supply needs in urban and rural centers, creating the necessary mechanisms therefor)Sen. Poe)

Senate Bill No. 1309- An Act Mandating the Establishment, Maintenance and Management of Rainwater Harvesting Systems in the Country (Sen. Pacquiao)

Senate Bill No. 1351-An Act Institutionalizing Rainwater Harvesting System in Metro Manila and major cities in the Philippines and for other purposes (Sen. Binay)

Kindly inform this office of your attendance before the scheduled date of the meeting and submit presentation, comments and/or position papers or proposed provision with respect to the bill and your recommendation in hard and soft copy at the Legislative Liaison Office at telephone number 8920-1761 and email denrlegislative@yahoo.com for consolidation. Also, you can confirm your participation to the Committee Secretariat through their email committeeonpublicworks.senate@gmail.com or contact them at mobile number 0906 573 3047. The meeting link and access code will be sent out at least an hour before the hearing to the designated email address you will provide. The link is confidential and may not be shared.


JOAN A. LAGUNDA, D.M., D.P.A



Republic of the Philippines

Senate

PASAY CITY

COMMITTEE ON PUBLIC WORKS

**joint with the Committees on Agriculture, Food and Agrarian Reform, Environment,
Natural Resources and Climate Change, National Defense and Security, Peace and
Unification and Finance**

19 November 2020

SEC. ROY A. CIMATU

Secretary

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (DENR)

osec@denr.gov.ph

denlegislative@yahoo.com

Dear Secretary Cimatú,

The Senate Committee on Public Works joint with the Committees on Agriculture, Food and Agrarian Reform, Environment, Natural Resources and Climate Change, National Defense and Security, Peace and Unification and Finance will hold a **Hybrid Public Hearing on November 25, 2020, Wednesday, at 9:00 A.M.**, at the **Sen. Padilla Room, 2nd Floor, Senate of the Philippines, via Cisco Webex online/teleconferencing** to continue to deliberate on the following measures:

Flood Control

Senate Resolution No. 69 – RESOLUTION URGING THE SENATE COMMITTEES ON PUBLIC SERVICES AND FINANCE TO CONDUCT AND INQUIRY, IN AID OF LEGISLATION, ON THE REPORTED UNDERUTILIZATION OF THE BUDGET FOR FLOOD CONTROL PROJECTS BY THE METROPOLITAN MANILA DEVELOPMENT AUTHORITY (MMDA), WITH THE END VIEW OF EFFICIENT ULITIZATION OF GOVERNMENT'S RESOURCES FOR URGENT AND IMPORTANT PORJECTS (Sen. Revilla)

Senate Resolution No. 80 – RESOLUTION DIRECTING THE SENATE COMMITTEE ON PUBLIC WORKS TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, ON THE STATUS AND VIABILITY OF THE APPROVED FLOOD MANAGEMENT MASTER PLAN FOR METRO MANILA AND SURROUNDING AREAS, WITH THE END VIEW OF ENSURING A COMPREHENSIVE AND COST-EFFICIENT SOLUTION TO THE FLOODING PROBLEM THAT WOULD IMMEDIATELY BRING RELIEF TO THE PUBLIC (Sen. Recto)

Senate Resolution No. 570 – RESOLUTION URGING THE APPROPRIATE SENATE COMMITTEE TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, INTO THE MASSIVE FLOODING CAUSED BY WATER RELEASES FROM DAMS TRIGGERED BY THE SUCCESSIVE TYPHOONS AND CONTINOUS RAINS IN THE LUZON ISLAND WITH THE END VIEW OF IDENTIFYING NEEDED GOVERNMENT INTERVENTIONS, ENVIRONMENT REHABILITATION, AND POSSIBLE INFRASTRUCTURE WORKS TO PREVENT SIMILAR DISASTERS IN THE FUTURE (Sen. Revilla)

Senate Bill No. 1345 – AN ACT ESTABLISHING THE OFFICE OF FLOOD RESEARCH AND POLICY TO PLAN, COORDINATE, CONDUCT, AND SHARE RESEARCH ON FLOODING, FLOOD PREVENTION, AND OTHER FLOOD RELATED ISSUES (Sen. Binay)

Harvesting of Rainwater Runoff

Senate Bill No. 36 – AN ACT PROVIDING FOR THE MANAGEMENT, CONTROL, REGULATION, AND UTILIZATION OF RAINWATER RUNOFF, AND THE IMPROVEMENT OF ECOLOGICAL CHARACTERISTICS OF CATCHMENTS TO ADDRESS FLOODING AND WATER SUPPLY NEEDS IN URBAN AND RURAL CENTER AND CREATING THE NECESSARY INSTITUTIONAL MECHANISMS THEREFOR. (Sen. Pangilinan)

Senate Bill No. 336 – AN ACT REQUIRING NEW COMMERCIAL, INSTITUTIONAL, AND RESIDENTIAL INFRASTRUCTURE PROJECTS IN METRO MANILA AND MAJOR CITIES IN THE PHILIPPINES TO INSTALL RAINWATER HARVESTING OR RETENTION FACILITIES, PROVIDING PENALTIES FOR VIOLATIONS, AND FOR OTHER PURPOSES. (Sen. Villar)

Senate Bill No. 579 – AN ACT PROVIDING FOR THE MANAGEMENT, CONTROL, REGULATION, AND UTILIZATION OF RAINWATER RUNOFF, AND IMPROVEMENT OF ECOLOGICAL CHARACTERISTICS OF CATCHMENTS TO ADDRESS FLOODING AND WATER SUPPLY NEEDS IN URBAN AND RURAL CENTERS, CREATING THE NECESSARY MECHANISMS THEREFOR (Sen. Poe)

Senate Bill No. 1309 – AN ACT MANDATING THE ESTABLISHMENT, MAINTENANCE AND MANAGEMENT OF RAIN WATER HARVESTING SYSTEMS IN THE COUNTRY (Sen. Pacquiao)

Senate Bill No. 1351 – AN ACT INSTITUTIONALIZING RAINWATER HARVESTING SYSTEM IN METRO MANILA AND MAJOR CITIES IN THE PHILIPPINES AND FOR OTHER PURPOSES (Sen. Binay)

Kindly confirm your attendance to the secretariat.

If physically attending, please send to us the name of the confirmed attendee/s via email at committeeonpublicworks.senate@gmail.com or text at **0906-573-3043**.

Please be informed and guided that, as per Senate rules and advisory, all resource persons, guests and visitors who are invited to attend committee hearings and meetings shall be STRICTLY required to submit the following:

1. **Valid Medical certificate/clearance from their attending Physicians or Barangay Health Officer indicating that the attendee is free from COVID-19 symptoms; AND**
2. **Negative COVID-19 RT-PCR test result (swab test).**

The medical certificate is only valid for seven (7) days from date of issuance. The negative COVID-19 RT-PCR test result will only be valid for seven (7) days from the date of release of the result.

If attending via online/teleconferencing, please send us the official e-mail address that you will be using during the public hearing at committeeonpublicworks.senate@gmail.com or in this number, **0906-573-3047**. The meeting link and access code will be sent out at least an hour before the hearing to the designated e-mail address you will provide. The link is confidential and may not be shared.

Thank you very much.

FOR THE CHAIRPERSON:
SEN. EMMANUEL D. PACQUIAO



EIGHTEENTH CONGRESS OF THE)
SENATE OF THE PHILIPPINES)
First Regular Session)

Office of the Secretary

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SENATE

S. No. 336

RECEIVED BY: 

Introduced by **SENATOR CYNTHIA A. VILLAR**

AN ACT
REQUIRING NEW COMMERCIAL, INSTITUTIONAL, AND RESIDENTIAL
INFRASTRUCTURE PROJECTS IN METRO MANILA AND MAJOR CITIES IN
THE PHILIPPINES TO INSTALL RAINWATER HARVESTING OR RETENTION
FACILITIES, PROVIDING PENALTIES FOR VIOLATIONS, AND FOR OTHER
PURPOSES

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

1 Section 1. *Short Title.* – This Act shall be known as the “Rainwater Harvesting
2 Facility Act”.

3 Sec. 2. *Declaration of Policy.* – It is the declared policy of the State to
4 promote the health and welfare of its citizens, and exercise sufficient powers to
5 preserve the natural ecology within its territory. Further, it is the policy of the State to
6 provide adequate supply of clean and unpolluted water for domestic and for other useful
7 purposes. Thus, the State shall adopt practical measures that will efficiently conserve
8 water and help in addressing the deficient water supply in Metro Manila and other
9 major cities in the country.

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

- 3 a) ***Department*** refers to the Department of Public Works and Highways
4 (DPWH);
- 5 b) ***Green infrastructure*** means any storm water management technique or
6 practice employed with the primary goal of preserving, restoring, or
7 mimicking natural hydrology;
- 8 c) ***Rainwater*** means precipitation on any public or private parcel that has
9 not entered an offsite storm drain system or channel, a flood control
10 channel, or any other stream channel, and has not previously been put
11 to beneficial use;
- 12 d) ***Rainwater harvesting facility*** refers to a flood control structure such as
13 a vertical detention tank, horizontal water tank, open retarding basin,
14 and multi-use water catchment area, or an on-site regulation pond
15 used to capture, retain, and store rainwater flowing off a building,
16 parking lot, or any other manmade, impervious surface consequently
17 preventing or delaying the release of rainwater into the public drainage
18 system; and
- 19 e) ***Return period*** refers to the average length of time in years for a rain-
20 related natural disaster of given magnitude be equaled or exceeded by
21 the length of time that a rainwater-related disaster may probably recur.

22 **Sec. 4. *Rainwater Harvesting Facility Requirement.*** – An owner or developer
23 of a new commercial, institutional and residential development project in Metro
24 Manila and other major cities, with an area of at least one thousand five hundred
25 (1,500) square meters and requiring the issuance of building permit shall reserve,
26 develop, and maintain at least three (3%) of the total area, exclusive roads, service
27 streets and alleys, as a rainwater harvesting facility.

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

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

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

12 **Sec. 5. *Design Approval.*** – The provision for a rainwater harvesting facility
13 shall be required by the Department of Human Settlements and Urban Development
14 (DHSUD) and local government units (LGUs) to be incorporated in the design of all
15 new commercial, institutional, and residential development projects in Metro Manila
16 and other major cities, and project design shall be approved for construction unless
17 it includes such facility. The DHSUD and the LGUs shall ensure that these facilities
18 are built during the construction phase of the projects.

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

- 23 a) Size, shape and physical characteristics of available space;
- 24 b) Construction plans with specified material type including lining and
25 coating requirements;

- 1 c) Detailed drawing on how the installation will drain into an outfall
2 structure as a drywell or a percolation chamber, storm drain system,
3 drainage channel, or natural wash; and
- 4 d) Mechanism to exclude mosquitoes and not permit mosquito production.

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

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

14 The DPWH shall henceforth require the building owners to submit an annual
15 report of the performance of such rainwater retention facility which may include, but
16 is not limited to information on the total volume of retained rainwater and its
17 utilization.

18 **Sec. 9. Penalties.** – The owner or developer of all new commercial,
19 institutional, and residential development projects in Metro Manila and other major
20 cities who fails to construct a rainwater harvesting facility in violation of Section 4 of
21 this Act shall suffer the penalty of a fine of not less than Five hundred thousand
22 pesos (Php500,000.00), but not more than Two million pesos (Php2,000,000.00) for
23 every year of non-compliance.

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

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

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

8 **Sec. 10. *Implementing Rules and Regulations (IRR)*.** – Within sixty (60) days
9 from the effectivity of this Act, the Department shall, in coordination with relevant
10 government agencies and other stakeholders, promulgate the rules and regulations
11 for the effective implementation of this Act. The implementing rules and regulations
12 shall include the standards and guidelines for the design, construction, installation,
13 materials, site selection and planning, site-specific considerations, and maintenance
14 of the rainwater harvesting facility.

15 **Sec. 11. *Separability Clause*.** – If any portion or provision of this Act is
16 declared unconstitutional or invalid, the remainder of this Act or any provisions
17 hereof not affected thereby shall continue to be in force and effect.

18 **Sec. 12. *Repealing Clause*.** – Any law, presidential decree or issuance,
19 executive order, letter of instruction, rule or regulation inconsistent or contrary to
20 the provisions of this Act is hereby repealed or modified accordingly.

21 **Sec. 13. *Effectivity Clause*.** – This Act shall take effect after fifteen (15) days
22 following its complete publication in the Official Gazette or a newspaper of general
23 circulation.

24 Approved,

EIGHTEENTH CONGRESS OF THE)
SENATE OF THE PHILIPPINES)
First Regular Session)

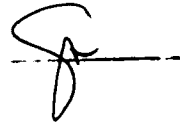
Office of the Secretary

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SENATE

S. No. 336

RECEIVED BY



Introduced by **SENATOR CYNTHIA A. VILLAR**

AN ACT
REQUIRING NEW COMMERCIAL, INSTITUTIONAL, AND RESIDENTIAL
INFRASTRUCTURE PROJECTS IN METRO MANILA AND MAJOR CITIES IN
THE PHILIPPINES TO INSTALL RAINWATER HARVESTING OR RETENTION
FACILITIES, PROVIDING PENALTIES FOR VIOLATIONS, AND FOR OTHER
PURPOSES

EXPLANATORY NOTE

Being an archipelago, the Philippines is abundant in water resources. And while the country, on account of its geographical location at the Pacific typhoon belt, is frequented by numerous typhoons that oftentimes wreak havoc to its residents, the same phenomena all together bring in torrential rainfall that continuously replenish our water resources.

And so, the dwindling water supply we experience nowadays, particularly in Metro Manila and neighboring areas, is an ironic predicament given that heaps of rainwater are poured into the Philippine territory year in and year out, even commonly resulting to flooding. While a lot have surmised that the blame belongs to the government regulators and the concessionaires for the apparent lack of

planning, foresight and infrastructures, resulting to the current deficient water supply; to my mind, I'd rather see the wisdom of considering the current predicament as an opportunity for us to rethink our current water conservation practices and to start with resourceful ways of conserving water, such as rainwater harvesting.

Rainwater harvesting as a way of conserving water is not a new concept or technology. Researches show that it was practiced during the ancient times as evidenced by the discovery of waterproof receptacles or cisterns to collect rain, which is traced back to the period of Neolithic Age (or around 10,000 BC to 4500 BC)¹. In India, a technique that has been used for hundreds of years is the building of water harvesting systems on top of the roofs of houses; it is a simple technology that has been replicated in countries, such as Brazil and China.² In the Philippines, early use of rainwater harvesting is indicated by the presence of the Banaue rice terraces, believed to be built some two thousand (2,000) years ago by the Ifugao people.³ Thus, rainwater harvesting may be considered an ancient practice but it still finds relevance and practicality even in the present times, particularly given the increased extreme weather events (i.e. extreme heat, long periods of drought) brought by climate change.

There is so much potential to be gained in mainstreaming anew rainwater harvesting in the country. According to Dr. William Dar (a former agriculture secretary), the Philippines receives around 2,400 mm of rainwater annually, which is considered one of the highest level of rainfall; and yet, despite the abundant rainfall, the country's rainwater harvest is only about four percent (4%).⁴ This is measly compared to India's sixty percent (60%) rainwater harvest rate. The

¹ <https://rotoplasusa.com/old-rainwater-harvesting-history-human-innovation/>

² <https://www.renewableenergyhub.co.uk/main/rainwater-harvesting-information/history-of-rainwater-harvesting/>

³ <http://wgbis.ces.iisc.ernet.in/energy/water/paper/drinkingwater/rainwater/introduction.html>

⁴ <https://www.pna.gov.ph/articles/1065432>

1 Whereas, the NDRRMC report also showed that of the 262 incidents that were
2 monitored, 173 were flooding incidents;

3 Whereas, out of these 173 flood incidents, 62 happened in Region II. One city
4 and 21 municipalities in Cagayan were submerged in floodwaters, three cities and 22
5 municipalities in Isabela were flooded, 57 barangays in Nueva Vizcaya and 25
6 barangays in Quirino were also inundated;

7 Whereas, Flood Forecasting and Warning Section of the Philippine Atmospheric,
8 Geophysical, and Astronomical Services Administration (PAGASA) advised that spillway
9 gates of four dams, namely Ipo, Ambuklao, Binga, and Magat, were opened to
10 discharge water after breaching spilling levels, and warned the residents of the low-
11 lying areas near these dams on possible flooding¹;

12 Whereas, flood alerts were also issued by PAGASA to warn residents of low-
13 lying areas of possible flooding as La Mesa Dam in Quezon City reached its capacity
14 of 80.15 meters, and as Angat Dam in Bulacan breached its of 210-meter capacity²;

15 Whereas, the discharge of water from these dams exacerbated the heavy and
16 continuous rainfall brought by successive typhoons and caused tremendous suffering
17 to the public and extensive damage to both public and private properties;

18 Whereas, Cagayan Governor Manuel Mamba said that the recent flooding in
19 their province was "unprecedented." In a *Laging Handa* public briefing, Gov. Mamba
20 said, "*Nakapaghandanda kami, no question about that, we anticipated ito dahil nasanay*
21 *na kami sa ganito, nagkaroon kami ng preemptive evacuation, nagkaroon kami ng*
22 *forced evacuation. We anticipated this but we did not anticipate how enormous yung*
23 *tubig na dadating...* But this is worse than what we prepared, the last time that we
24 had this was 1975, *dati hanggang 11 meters lang umaabot, pero* this time it went as
25 high as 13.1 meters. This is unprecedented *dito sa Cagayan. First time na nangyari*
26 *ulit itong ganito kaya na surprise yung iba.*³;

¹ "Residents near Ipo, Ambuklao, Binga, and Magat dams warned of flooding as reservoirs continue to release water. November 13, 2020. <https://mb.com.ph/2020/11/13/residents-near-ipo-ambuklao-binga-and-magat-dams-warned-of-flooding-as-reservoirs-continue-to-release-water/>

² "Flood alerts as major Luzon dams spill over due to Ulysses." November 12, 2020. <https://news.abs-cbn.com/news/11/12/20/pagasa-warns-of-flooding-as-ulysses-rains-cause-water-level-rise-in-luzon-dams>

³ "Cagayan prepared but surprised by 'unprecedented' floods." November 15, 2020. <https://www.pna.gov.ph/articles/1121833>

1 Whereas, pleas for help and dreadful photos and stories of families, children
2 and elderly being trapped on their rooftops for hours, even days, without food supply
3 or clean water, hoping to be rescued and in dire need of immediate assistance also
4 flooded the social media platforms;

5 Whereas, Gov. Mamba also attributed the province's "worst flooding in 40
6 years" to denuded forests and watersheds in the area, the abuse of forests in the
7 Cordillera and Sierra Madre mountain ranges, and the heavy siltation of the riverbeds⁴;

8 Whereas, Marikina City was placed under a State of Calamity after parts of the
9 city were submerged in floodwaters after the Marikina River swelled because of heavy
10 rains brought by typhoon "Ulysses" and the release of water from Angat Dam;

11 Whereas, Marikina City Mayor Marcy Teodoro and the local disaster
12 management officials said that large part of the city experienced floods due to the
13 release of water from Angat Dam which caused the Marikina River to swell from an
14 initial forecast of only 18 meters to 22 meters, which is higher than the 21.5 meters
15 recorded during the typhoon Ondoy in 2009⁵;

16 Whereas, Mayor Teodoro said that the management of Angat Dam should have
17 notified them that of the water discharge, since the Marikina River is connected to the
18 Angat Dam;

19 Whereas, some parts of Montalban, Rizal also experienced three- to six-foot
20 deep floodwaters due to over-spilling of Wawa Dam, as some parts of the municipality
21 were submerged in 15-foot deep flood;

22 Whereas, there is an immediate need to identify the root causes of this massive
23 flooding in order to start the necessary and comprehensive government interventions
24 at the soonest possible time and to prevent similar disasters from happening in the
25 future;

26 Whereas, it is the policy of the State to uphold the people's constitutional right
27 to life and property by addressing the vulnerabilities to disasters, strengthening the
28 institutional capacities for disaster risk reduction and management, and building the
29 resilience of communities to disasters;

⁴ Ibid.

⁵ "Marikina to sue Angat Dam for floods higher than what Ondoy caused." November 13, 2020.
<https://www.gmanetwork.com/news/news/metro/764033/marikina-to-sue-angat-dam-for-floods-higher-than-what-ondoy-caused/story/>

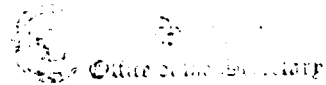
1 NOW, THEREFORE BE IT RESOLVED, as it is hereby resolved by the Senate, to
2 urge the appropriate Senate committee to conduct an inquiry, in aid of legislation, into
3 the massive flooding caused by water releases from dams triggered by the successive
4 typhoons and continuous rains over the Luzon island with the end view of identifying
5 needed government interventions, environment rehabilitation, and possible
6 infrastructure works to prevent similar disasters in the future.

Adopted,


RAMON BONG REVILLA, JR.

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

SENATE



P. S. Res. No. 80

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Introduced by Senator Ralph G. Recto

RECEIVED

RESOLUTION

DIRECTING THE SENATE COMMITTEE ON PUBLIC WORKS TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, ON THE STATUS AND VIABILITY OF THE APPROVED FLOOD MANAGEMENT MASTER PLAN FOR METRO MANILA AND SURROUNDING AREAS, WITH THE END IN VIEW OF ENSURING A COMPREHENSIVE AND COST-EFFICIENT SOLUTION TO THE FLOODING PROBLEM THAT WOULD IMMEDIATELY BRING RELIEF TO THE PUBLIC

1 WHEREAS, the Constitution provides that the State shall promote a just and
2 dynamic social order that will ensure the prosperity and independence of the nation
3 and free the people from poverty through policies that provide adequate social
4 services, promote full employment, a rising standard of living, and an improved
5 quality of life for all;

6 WHEREAS, Executive Order No. 292 or the Administrative Code of 1987
7 provides that the planning, design, construction and maintenance of infrastructure
8 facilities, especially national highways, flood control and water resources
9 development systems, and other public works in accordance with national
10 development objectives, shall be the responsibility of such an engineering and
11 construction arm, which would be the Department of Public Works and Highways
12 (DPWH);

13 WHEREAS, *Habagat* affects the Philippines from July to September and
14 frequently submerges Metropolitan Manila under water as massive flooding from
15 heavy downpour inundate major roadways, clog waterways, render intersections
16 impassable and virtually paralyze public transport with thousands of commuters
17 stranded from floodwaters;

18 WHEREAS, the Philippines is one of the most disaster-hit countries in the

1 world with an average of twenty typhoons per year;

2 WHEREAS, the DPWH identified the three major causes of flooding in Metro
3 Manila: the huge volume of water coming from the Sierra Madre mountains, blocked
4 drainages in core areas, and the presence of low-lying communities around Manila
5 Bay and Laguna Lake;

6 WHEREAS, the government plans to relocate almost 232,000 informal settler
7 families (ISFs) residing along the waterways of the Manila Bay area, of which priority
8 shall be given to around 37,000 ISFs living along danger areas such as esteros and
9 waterways in Metro Manila;

10 WHEREAS, the eight priority waterways in Metro Manila identified by the
11 DPWH are: San Juan River, Pasig River, Tullahan River, Maricaban Creek,
12 Manggahan Floodway, Estero Tripa de Gallina, Estero de Maypajo, and Estero de
13 Sunog Apog;

14 WHEREAS, a PhP351.78 Billion flood management master plan for Metro
15 Manila and surrounding areas, an offshoot of a World Bank-funded study to prepare
16 a comprehensive flood-risk management plan, shall serve as the roadmap of the
17 Government programmed from 2012 to 2035;

18 WHEREAS, the flood management master plan encompasses the Pasig-
19 Marikina River Basin, Malabon-Tullahan, Meycauyan, South Parañaque-Las Piñas
20 and Laguna Lake Basins, including drainage basins;

21 WHEREAS, the anti-flood master plan spearheaded by the DPWH would cover
22 the infrastructure needs of 11 flood-prone areas in Metro Manila and nearby
23 provinces, envisioned to be completed by 2035;

24 WHEREAS, of the P549.39 Billion DPWH Appropriations for 2019, only P31.44
25 Billion (or 5.7%) was allocated for the Flood Management Program in Metro Manila;

26 WHEREAS, an article written by University of the Philippines professor Carlo
27 Arcilla published in the Philippine Daily Inquirer in November 2015 claimed that the
28 P350-billion Metro Manila Flood Control Plan used a substandard flood simulation
29 model as basis for its proposed solutions to flooding in Metro Manila;

30 WHEREAS, Professor Arcilla suggested that the government should consider
31 the flood projections made by Project NOAH (Nationwide Operational Assessment of
32 Hazards), a responsive program launched by the Department of Science and

1 Technology for disaster prevention and mitigation;

2 WHEREAS, an inquiry is being sought to look into the status and viability of
3 the overall anti-flood master plan for Metro Manila and surrounding areas with the
4 DPWH and Metro Manila Development Authority at the forefront and ensure the
5 cost-effective spending of the resources allocated for such ambitious endeavor:
6 Now, therefore, be it

7 RESOLVED BY THE SENATE, as it is hereby resolved, To direct the Senate
8 Committee on Public Works to conduct an inquiry, in aid of legislation, on the status
9 and viability of the approved Flood Management Master Plan for Metro Manila and
10 Surrounding Areas, with the end in view of ensuring a comprehensive and cost-
11 efficient solution to the flooding problem that would immediately bring relief to the
12 public.

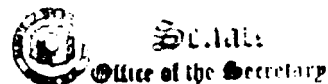
Adopted,

mjma



RALPH G. RECTO

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



SENATE

P.S. Res. No. 69

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RECEIVED

Introduced by SENATOR RAMON BONG REVILLA, JR.

RESOLUTION

URGING THE SENATE COMMITTEES ON PUBLIC SERVICES AND FINANCE TO CONDUCT AND INQUIRY, IN AID OF LEGISLATION, ON THE REPORTED UNDERUTILIZATION OF THE BUDGET FOR FLOOD CONTROL PROJECTS BY THE METROPOLITAN MANILA DEVELOPMENT AUTHORITY (MMDA), WITH THE END IN VIEW OF EFFICIENT UTILIZATION OF GOVERNMENT'S RESOURCES FOR URGENT AND IMPORTANT PROJECTS

1 WHEREAS, Republic Act No. 7924 entitled, "An Act Creating the Metropolitan
2 Manila Development Authority, Defining its Powers and Function, Providing Funds
3 Therefor and Other Purposes" was signed into law on March 1, 1995;

4 WHEREAS, R.A. 7924 mandates the Metropolitan Manila Development
5 Authority (MMDA) to "perform planning, monitoring and coordinative functions, and
6 in the process exercise regulatory and supervisory authority over the delivery of
7 metro-wide services within Metro Manila without diminution of the autonomy of the
8 local government units concerning purely local matters";

9 WHEREAS, Section 3 (d) of R.A. 7924 provides that among the services that
10 shall be provided by the MMDA is "flood control and sewerage management which
11 include the formulation and implementation of policies, standard programs and
12 projects for an integrated flood control, drainage and sewerage system";

13 WHEREAS, the Flood Control and Sewerage Management Office (FCSMO)
14 is an office within MMDA that is mandated with the formulation and
15 implementation of policies, standards, rules and regulations, programs, and

1 projects for integrated flood control, drainage, and sewerage system in Metro
2 Manila;

3 WHEREAS, one of the Performance Indicators for the Major Final Output of
4 the FCSMO for 2018 is "100% of projects completed prior to the on-set of rainy
5 season";

6 WHEREAS, in the 2018 Annual Audit Report of the Commission on Audit
7 (COA), it stated that the MMDA through the FCSMO, programmed 170 flood control
8 projects (FCPs) for 2018 with a total cost of P878,570,322.86;

9 WHEREAS, of the 170 FCPs, only 53 projects or 31.18% worth
10 P273,541,057.44 were completed, another 53 projects or 31.18% worth
11 P392,077,450.86 were still ongoing, and the remaining 64 projects or 37.64% worth
12 P486,492,872.00 were not started at all;

13 WHEREAS, because of such delays, MMDA was only able to disburse
14 P4,257,138,089.70 or 59.12% out of its total authorized budget of
15 P7,201,019,579.00 budget for 2018;

16 WHEREAS, aggravating the low performance of MMDA is the fact that the 53
17 completed projects were accomplished in the 3rd and 4th quarter of the year, long
18 after the rainy season when the projects were urgently needed to mitigate and
19 prevent the occurrence of flood;

20 WHEREAS, according to COA, the main reasons for MMDA's failure to
21 complete the projects are lapses in the observance of provisions of the Government
22 Procurement Law and ineffective planning;

23 WHEREAS, due to the failure of the MMDA to implement such projects, the
24 people were deprived of the socio-economic benefits which could have been
25 provided by the said projects;

26 WHEREAS, the issue of underutilization of funds for FCPs by the MMDA has
27 been observed by the COA in the past, and the latter has, in fact, made the same
28 recommendations over the years;

29 WHEREAS, there is a need to review the budgetary needs and priorities of
30 MMDA and its capacity to fully utilize them for their intended use for a given year;

31 WHEREAS, it is incumbent upon the government to put its meager resources
32 into efficient and optimal use given the multitude needs of its citizens;

1 NOW, THEREFORE, BE IT RESOLVED, as it is hereby resolved, to urge the
2 Senate Committees on Public Services and Finance to conduct an inquiry, in aid of
3 legislation, on the reported underutilization of the budget for flood control projects
4 by the Metropolitan Manila Development Authority (MMDA), with the end in view of
5 efficient utilization of government's resources for urgent and important projects.

6

7 *Adopted,*


RAMON BONG REVILLA, JR.

water that will be collected via rainwater harvesting is a welcome addition to our scarce water supply and could be very well used for household and other practical purposes.

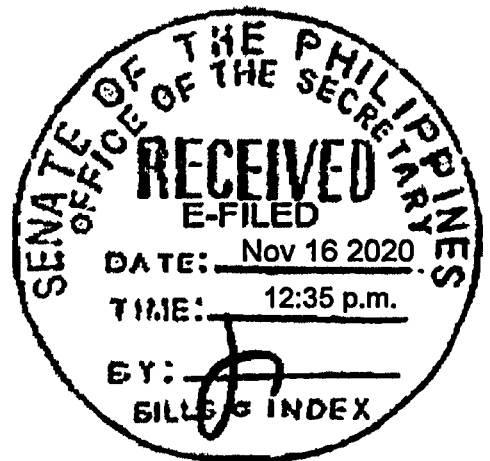
The attached bill requires new commercial, institutional, and residential infrastructure projects, with an area of at least 1,500 square meters, in Metro Manila and major cities in the Philippines to install rainwater harvesting or retention facilities that will bring about an efficient conservation of water, which may be used for household, or other practical purposes and thereby help in addressing the shortage of water supply as well as in mitigating the flooding problem in affected areas in Metro Manila and major cities in the Philippines. It is a bill originally filed by Representative Luis Raymund "LRay" F. Villafuerte Jr. of the Second District of Camarines Sur during the 17th Congress, and I am pleased to file its counterpart bill in the Senate this 18th Congress.

In view of the foregoing, I recommend the immediate approval of this bill.


CYNTHIA A. VILLAR

**EIGHTEENTH CONGRESS OF THE
REPUBLIC OF THE PHILIPPINES**
Second Regular Session

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)
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SENATE

P.S. Res. No. 570

Introduced by SENATOR RAMON BONG REVILLA, JR.

RESOLUTION

URGING THE APPROPRIATE SENATE COMMITTEE TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, INTO THE MASSIVE FLOODING CAUSED BY WATER RELEASES FROM DAMS TRIGGERED BY THE SUCCESSIVE TYPHOONS AND CONTINUOUS RAINS IN THE LUZON ISLAND WITH THE END VIEW OF IDENTIFYING NEEDED GOVERNMENT INTERVENTIONS, ENVIRONMENT REHABILITATION, AND POSSIBLE INFRASTRUCTURE WORKS TO PREVENT SIMILAR DISASTERS IN THE FUTURE

1 Whereas, typhoon "Ulysses" (international name Vamco) entered the Philippine
2 area of responsibility on November 8, 2020, made its first landfall in Patnanungan,
3 Quezon Province on November 11, and traversed the Luzon Island until it exited the
4 PAR on November 13;

5 Whereas, in a span of three weeks, five severe weather disturbances entered
6 the Philippine area of responsibility namely typhoon "Quinta" (I.N. Molave), super
7 typhoon "Rolly" (I.N. Goni), tropical storm "Siony" (I.N. Atsani), tropical storm "Tonyo"
8 (I.N. Etau), and typhoon "Ulysses" which affected various parts of the country,
9 particularly the eastern section of the Philippines;

10 Whereas, according to Sitrep No. 5 regarding Preparedness and Effects for
11 Typhoon "Ulysses" dated November 15, 2020 issued by the National Disaster Risk
12 Reduction and Management Council (NDRRMC), a total of 428,657 families or
13 1,755,224 persons in 4,543 barangays in Regions I, II, III, CALABARZON, MIMAROPA,
14 V, NCR and CAR were affected;

15 Whereas, in the same report, NDRRMC reported a total of 67 dead, 21 injured,
16 and 13 missing persons in Regions II, CALABARZON, V and CAR;



Office of the Secretary <osec@denr.gov.ph>

INVITATION FOR A SENATE HEARING

1 message

COMMITTEEONPUBLICWORKS SENATE
<committeeonpublicworks.senate@gmail.com>
To: osec@denr.gov.ph, denlegislative@yahoo.com

Thu, Nov 19, 2020 at 9:01 PM

Invitation DENR Sec. Cimatuu.pdf
181K



Republic of the Philippines

Senate

PASAY CITY

COMMITTEE ON PUBLIC WORKS

**joint with the Committees on Agriculture, Food and Agrarian Reform, Environment,
Natural Resources and Climate Change, National Defense and Security, Peace and
Unification and Finance**

19 November 2020

SEC. ROY A. CIMATU

Secretary

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (DENR)

osec@denr.gov.ph

denlegislative@yahoo.com

Dear Secretary Cimatú,

The Senate Committee on Public Works joint with the Committees on Agriculture, Food and Agrarian Reform, Environment, Natural Resources and Climate Change, National Defense and Security, Peace and Unification and Finance will hold a **Hybrid Public Hearing** on **November 25, 2020, Wednesday, at 9:00 A.M.**, at the **Sen. Padilla Room, 2nd Floor, Senate of the Philippines, via Cisco Webex online/teleconferencing** to continue to deliberate on the following measures:

Flood Control

Senate Resolution No. 69 – RESOLUTION URGING THE SENATE COMMITTEES ON PUBLIC SERVICES AND FINANCE TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, ON THE REPORTED UNDERUTILIZATION OF THE BUDGET FOR FLOOD CONTROL PROJECTS BY THE METROPOLITAN MANILA DEVELOPMENT AUTHORITY (MMDA), WITH THE END VIEW OF EFFICIENT UTILIZATION OF GOVERNMENT'S RESOURCES FOR URGENT AND IMPORTANT PROJECTS (Sen. Revilla)

Senate Resolution No. 80 – RESOLUTION DIRECTING THE SENATE COMMITTEE ON PUBLIC WORKS TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, ON THE STATUS AND VIABILITY OF THE APPROVED FLOOD MANAGEMENT MASTER PLAN FOR METRO MANILA AND SURROUNDING AREAS, WITH THE END VIEW OF ENSURING A COMPREHENSIVE AND COST-EFFICIENT SOLUTION TO THE FLOODING PROBLEM THAT WOULD IMMEDIATELY BRING RELIEF TO THE PUBLIC (Sen. Recto)

Senate Resolution No. 570 – RESOLUTION URGING THE APPROPRIATE SENATE COMMITTEE TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, INTO THE MASSIVE FLOODING CAUSED BY WATER RELEASES FROM DAMS TRIGGERED BY THE SUCCESSIVE TYPHOONS AND CONTINUOUS RAINS IN THE LUZON ISLAND WITH THE END VIEW OF IDENTIFYING NEEDED GOVERNMENT INTERVENTIONS, ENVIRONMENT REHABILITATION, AND POSSIBLE INFRASTRUCTURE WORKS TO PREVENT SIMILAR DISASTERS IN THE FUTURE (Sen. Revilla)

Senate Bill No. 1345 – AN ACT ESTABLISHING THE OFFICE OF FLOOD RESEARCH AND POLICY TO PLAN, COORDINATE, CONDUCT, AND SHARE RESEARCH ON FLOODING, FLOOD PREVENTION, AND OTHER FLOOD RELATED ISSUES (Sen. Binay)

Harvesting of Rainwater Runoff

Senate Bill No. 36 – AN ACT PROVIDING FOR THE MANAGEMENT, CONTROL, REGULATION, AND UTILIZATION OF RAINWATER RUNOFF, AND THE IMPROVEMENT OF ECOLOGICAL CHARACTERISTICS OF CATCHMENTS TO ADDRESS FLOODING AND WATER SUPPLY NEEDS IN URBAN AND RURAL CENTER AND CREATING THE NECESSARY INSTITUTIONAL MECHANISMS THEREFOR. (Sen. Pangilinan)

Senate Bill No. 336 – AN ACT REQUIRING NEW COMMERCIAL, INSTITUTIONAL, AND RESIDENTIAL INFRASTRUCTURE PROJECTS IN METRO MANILA AND MAJOR CITIES IN THE PHILIPPINES TO INSTALL RAINWATER HARVESTING OR RETENTION FACILITIES, PROVIDING PENALTIES FOR VIOLATIONS, AND FOR OTHER PURPOSES. (Sen. Villar)

Senate Bill No. 579 – AN ACT PROVIDING FOR THE MANAGEMENT, CONTROL, REGULATION, AND UTILIZATION OF RAINWATER RUNOFF, AND IMPROVEMENT OF ECOLOGICAL CHARACTERISTICS OF CATCHMENTS TO ADDRESS FLOODING AND WATER SUPPLY NEEDS IN URBAN AND RURAL CENTERS, CREATING THE NECESSARY MECHANISMS THEREFOR (Sen. Poe)

Senate Bill No. 1309 – AN ACT MANDATING THE ESTABLISHMENT, MAINTENANCE AND MANAGEMENT OF RAIN WATER HARVESTING SYSTEMS IN THE COUNTRY (Sen. Pacquiao)

Senate Bill No. 1351 – AN ACT INSTITUTIONALIZING RAINWATER HARVESTING SYSTEM IN METRO MANILA AND MAJOR CITIES IN THE PHILIPPINES AND FOR OTHER PURPOSES (Sen. Binay)

Kindly confirm your attendance to the secretariat.

If physically attending, please send to us the name of the confirmed attendee/s via email at committeeonpublicworks.senate@gmail.com or text at **0906-573-3043**.

Please be informed and guided that, as per Senate rules and advisory, all resource persons, guests and visitors who are invited to attend committee hearings and meetings shall be STRICTLY required to submit the following:

1. **Valid Medical certificate/clearance from their attending Physicians or Barangay Health Officer indicating that the attendee is free from COVID-19 symptoms; AND**
2. **Negative COVID-19 RT-PCR test result (swab test).**

The medical certificate is only valid for seven (7) days from date of issuance. The negative COVID-19 RT-PCR test result will only be valid for seven (7) days from the date of release of the result.

If attending via online/teleconferencing, please send us the official e-mail address that you will be using during the public hearing at committeeonpublicworks.senate@gmail.com or in this number, **0906-573-3047**. The meeting link and access code will be sent out at least an hour before the hearing to the designated e-mail address you will provide. The link is confidential and may not be shared.

Thank you very much.

FOR THE CHAIRPERSON:
SEN. EMMANUEL D. PACQUIAO



By: **ETHEL HOPE L. DIGNADICE-VILLAFIOR**
Legislative Committee Secretary