



MEMORANDUM CIRCULAR

No. **01**, s. 2021

FEB 19 2021

TO: All NDRRMC-Member Agencies; Concerned Offices, Bureaus and GOCCs; and Regional and Local DRRM Councils

SUBJECT: Creation of the National and Regional Committees on Dam Safety

I. Background

Dams are structural barriers built to obstruct or control the flow of water in rivers and streams. Dams can serve one or more purposes, such as hydropower generation, irrigation, industrial and household water supply, and flood control. In addition, dams can also be operated in a manner that it simultaneously augments downstream water quality, enhances wildlife habitat, and provides for a variety of recreational activities, such as fishing, boating, and swimming.

However, while dams provide great benefits to the society, these also pose various threats to public safety. Hence, dam safety, in terms of dam integrity and its operation is gravely important to ensure the protection of people and properties against dam failures through the employment of proactive measures that will prevent such incidents or mitigate their effects.

Moreover, climate change has caused various changes in our environment, from sea level rise to change in the weather pattern, frequency and strength of typhoons, flood course, and high precipitation- thus requiring the constant updating of protocols relative to dam water release.

Furthermore, dam rupture which commonly results from overtopping, poor design, structural failure, ageing, seepage, among others, including the result of a terrorist attack, can cause tremendous catastrophe due to the large volume of impounded water that could result in rapid and massive flooding downstream.

However, while different national government agencies regulate the different kinds of dams, there is no agency or organization that oversees the same and connects various aspects that deals with the consequences or factors that affect dams.

Further, there is a need to secure dams as the same are critical infrastructures that can be targeted by terrorists, insurgents and the like which have national security implications.

II. Legal Bases

- a. Sec. 7 and 8, Republic Act No. 10121, otherwise known as the Philippine Disaster Risk Reduction and Management Act of 2010
- b. NDRRMC Full Council Resolution dated 16 November 2020 as embodied in the Summary of Discussions

III. Objective

This Memorandum Circular aims to provide for the creation of the National Disaster Risk Reduction and Management Council's (NDRRMC) National and Regional Committees on Dam Safety that would ensure the safety and safe operations of dams as well as the preparedness of communities downstream from the potential consequences thereof.

IV. Scope and Application

This Memorandum Circular establishes a committee / governance structure to institute, implement, and develop policies and guidelines that cover both existing and the construction of new dams to ensure the safety of all dams and its operation under normal and extreme events.

This memorandum shall apply to all national government agencies, stakeholders and instrumentalities involved herein, particularly those agencies dealing with the management of all kinds of dams, early warning system, and emergency management relative to the operation of dams regardless of size and purpose.

V. The National Committee on Dam Safety

A. National Committee Composition

The National Committee on Dam Safety (NCODS) which shall also be known in this Memorandum Circular as the National Committee shall be composed of the following:

- a. Office of Civil Defense (OCD) as the Committee Chair
- b. Department of the Interior and Local Government (DILG) as the Committee Vice-Chair
- c. Department of Science and Technology (DOST)
- d. Department of Public Works and Highways (DPWH)
- e. Department of Environment and Natural Resources (DENR)
- f. Department of Energy (DOE)
- g. Department of Agriculture (DA)
- h. Department of Human Settlements and Urban Development (DHSUD)
- i. Department of Budget and Management (DBM)
- j. National Irrigation Administration (NIA)

- k. Philippine Information Agency (PIA)
- l. National Commission on Indigenous Peoples (NCIP)
- m. National Anti-Poverty Commission (NAPC)
- n. Armed Forces of the Philippines (AFP)
- o. Philippine National Police (PNP)
- p. National Security Council (NSC)
- q. Anti-Terrorism Council (ATC)
- r. Union of Local Authorities of the Philippines (ULAP)

B. Powers and Functions

The National Committee shall:

- a. Develop policies and general guidelines that will be implemented by government agencies and instrumentalities for the safety and safe operation of dams under normal and extreme event conditions, subject for the approval of the NDRRMC;
- b. Ensure that relevant agencies and instrumentalities develop programs, activities, and projects (PAPs) and appropriate funding is allocated to support the execution of policies and guidelines approved by the NDRRMC;
- c. Oversee the implementation of the guidelines, protocols and procedures by the relevant agencies and instrumentalities;
- d. Convene regularly on a quarterly basis or as may be deemed necessary to discuss and provide updates and guidance on any matters relative to dam safety and operations of dam;
- e. Organize the Committee accordingly and include/identify other organizations and instrumentalities in its membership as may be deemed necessary;
- f. Engage experts in the field of Dam Safety and other related fields to develop and validate policies and guidelines;
- g. Review and provide recommendations on the reports submitted by the Regional Committee and the Technical Working Group;
- h. Propose legislative measure(s) that will establish the regulatory framework and create an appropriate agency that will strengthen and harmonize the various dam safety strategies and programs in the Philippines;
- i. Maintain a database of all dams in the Philippines;
- j. Ensure the formulation of a Strategic Plan and its implementation;
- k. Report to the NDRRMC annually; *and*

- I. Perform other functions as deemed necessary.

C. Technical Working Group

The National Committee may assign members of the Technical Working Group (TWG) composed of representatives from the members of the said Committee specified herein. Upon the guidance of the National Committee or other competent authorities, all policies shall emanate from the TWG to conduct initial study and drafting. Concurrently, the TWG shall act as the operational and working arm of the National Committee to ensure the implementation of the policies.

Specifically, the TWG shall develop the short- and long-term strategies that would meet the following:

- a. Engage in the review of guidelines and policies of various agencies related to the management of safety of dams and its operations and provide findings and recommendations to the National Committee on the result of the review;
- b. Ensure appropriate measures toward the establishment of an effective management of safety and operations of dams are developed and implemented by dam owners and operators;
- c. Review emergency management programs of each major dams and ensure that emergency action plans (EAP) are written to ensure the identification of incidents that can lead to potential emergency conditions at a dam, identifies the areas that can be affected by the emergency conditions and specifies pre-planned actions to be followed to minimize property damage, potential loss of infrastructure and water resource, and potential loss of life because of failure or mis-operation of a dam;
- d. Ensure effectiveness of dam EAP and provide recommendations for effective coordination, communication, and execution of plans;
- e. Evaluate dam surveillance, inspection and security programs of dam owners/regulators/operators and provide findings and recommendations to ensure that appropriate monitoring and evaluations are conducted to understand deficiencies that could affect the stability, security and continuous safe operation of dams;
- f. Develop measures towards effective flood monitoring and warning system through the effective management of dams as well as to oversee the development, testing and regularly updating of flood forecasting, monitoring and early warning systems in conformity with the dam water management;
- g. Ensure that any program initiatives by each respective agency that could affect the management of safety, security and operations of dams are coordinated and evaluate existing dam safety programs of each dam owners/regulators/operators and its effectiveness and provide a report to the National Committee;

- h. Conduct periodic inventory and structural integrity assessment of existing dams and ensure that safety measures are strictly followed;
- i. Develop strategic communication plan relative to Dam Safety;
- j. Formulate, monitor and evaluate the Strategic Plan;
- k. With the approval of the National Committee, engage experts in the field of Dam Safety and other related fields to assist in the execution of above listed activities and act as independent body to ensure that policies created are properly validated to meet the purpose of this Memorandum Circular; and
- l. Perform other functions as may be deemed necessary.

The TWG may recommend to the National Committee to create a sub TWGs, if necessary.

The TWG shall be composed of the following agencies and instrumentalities:

- a. Office of Civil Defense (OCD) as the TWG Chair
- b. Department of Interior and Local Government (DILG) as the TWG Vice-Chair
- c. Department of Public Works and Highways - Bureau of Design (DPWH-BD)
- d. Department of Public Works and Highways – Unified Project Management Offices – Flood Control Management Cluster (DPWH-UPMO-FCMC)
- e. Department of Energy – Renewable Energy Management Bureau (DOE-REMB)
- f. Department of Environment and Natural Resources – Mines and Geosciences Bureau (DENR-MGB)
- g. Department of Environment and Natural Resources – Environmental Management Bureau (DENR-EMB)
- h. Department of Agriculture – Bureau of Soils and Water Management (DA-BSWM)
- i. Department of Human Settlements and Urban Development (DHSUD)
- j. Department of Budget and Management (DBM)
- k. National Water Resources Board (NWRB)
- l. Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
- m. Philippine Institute of Volcanology and Seismology (PHIVOLCS)
- n. National Power Corporation (NAPOCOR)
- o. National Irrigation Administration (NIA)
- p. Philippine Information Agency (PIA)
- q. Metropolitan Waterworks and Sewerage System (MWSS)
- r. Local Water Utilities Administration (LWUA)
- s. National Electrification Administration (NEA)
- t. National Commission on Indigenous Peoples (NCIP)
- u. National Security Council (NSC)
- v. Armed Forces of the Philippines (AFP)

- w. Philippine National Police (PNP)
- x. Anti-Terrorism Council (ATC)
- y. Bureau of Fire Protection (BFP)
- z. Philippine Coast Guard (PCG)
- aa. Union of Local Authorities of the Philippines (ULAP)

VI. Regional Committee on Dam Safety

A. Regional Committee Composition

The Regional Committee on Dam Safety (RCODS) which shall also be known as the Regional Committee shall be composed of the following:

- a. OCD as the Committee Chair
- b. DILG as the Committee Vice-Chair
- c. DPWH
- d. DENR
- e. DOST
- f. DHSUD
- g. DENR-MGB
- h. DENR-EMB
- i. DA
- j. DOE Field Office concerned
- k. NAPOCOR
- l. NIA
- m. Dam Operating Agencies
- n. NWRB Extension Office concerned
- o. PIA
- p. AFP
- q. PNP
- r. BFP
- s. PCG
- t. LGUs/ Local DRRM Councils concerned
- u. Local Water Districts concerned
- v. NCIP
- w. NAPC
- x. BARMM for Bangsamoro Region and MMDA for NCR

B. Roles and Responsibilities:

- a. Implement the guidelines, protocols and procedures set by the National Committee and other relevant authorities;
- b. Review the guidelines, protocols and procedures in connection with dam water releases in the region, in consideration of the relevant tributaries of the downstream river / catch basin of the dam and ensure its effective implementation;

- c. Ensure the formulation and implementation of protocols and procedures at the regional level in collaboration with concerned adjacent regions and its localities and enter into agreements with other concerned regional government offices for the effective implementation of the objectives of the national and regional committees;
- d. Ensure the formulation and regular updating of regional and local flood inundation and risk maps in relation to typhoon, prolonged rain, earthquake and dam break;
- e. Formulate and periodically update effective, end to end, people-centered Early Warning System for flooding related to various causes, in close collaboration with the concerned Local DRRM Councils;
- f. Ensure that monitoring and warning instruments and systems are regularly inspected and are operational;
- g. Ensure the conduct of regular simulation exercises / flood drills with the concerned Regional and Local DRRM Councils;
- h. Recommend necessary water related studies associated to dam safety and operations;
- i. Submit reports on its activities to the NCODS and recommend measures for the improvement of its operations;
- j. Convene regularly or as may be deemed necessary;
- k. Engage such other agencies or organizations or persons that the Committee may deem necessary; *and*
- l. Perform such other related functions as they may deem necessary.

C. Inter-Regional Committee Arrangements:

Regional Committees wherein dams and/or its upstream and downstream rivers transcending beyond their respective jurisdictions shall coordinate and converge their activities, plans, and initiatives mentioned under item no. VI(B) hereof.

The Regional Committees concerned shall submit a joint report to the National Committee, pursuant to item no. VI(B) par. (i) of this Memorandum Circular.

VII. Funding

Member-agencies shall allot funds in their respective appropriations to cover operational expenses for the implementation of the objectives and activities of the Committee.

The NDRRMC shall allot funds from the National DRRM Fund to support the implementation of this Memorandum Circular.

VIII. Separability Clause

If any provision of this Memorandum Circular is declared invalid, unenforceable, or unconstitutional, the validity or enforceability of the remaining provisions shall not be affected.

IX. Repealing Clause

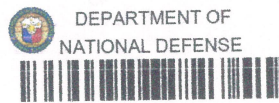
This Memorandum Circular hereby rescinds previous Memorandum of Agreements and other issuances relevant to the creation, composition of members and functions of the National and Regional Committees.

X. Effectivity

This Memorandum Circular shall take effect immediately.



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and Chairperson, NDRRMC



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