

**Country/Organizational Report**  
**Integrated Water Resources Management (IWM) Training Course**  
**Bangkok, Thailand**  
**July 26-August 6, 2004**

## **WATER RESOURCES MANAGEMENT IN THE PHILIPPINES**

### **1. THE NATIONAL WATER RESOURCES BOARD**

#### **a. The Creation of NWRB**

The National Water Resources Council (NWRC) was created on March 28, 1974 by virtue of Presidential Decree No. 424 and was later reorganized on July 22, 1987 to become the National Water Resources Board (NWRB) under Executive Order No. 124-A.

The issuance of Executive Order No. 123 in September 2002 made the NWRB be transferred from Department of Public Works and Highways (DPWH) to Department of Environment and Natural Resources (DENR) for purposes of administrative control and supervision.

#### **b. Mandate**

The National Water Resources Board is the body responsible for coordinating and integrating all activities related to water resources development and management in the Philippines.

#### **c. Objective**

Its principal objective is to achieve a scientific and orderly development and management of the water resources of the country consistent with the principles of optimum utilization, conservation and protection to meet present and future needs.

#### **d. Jurisdictional Powers, Functions and Duties**

1. Formulate and adopt policies and guidelines on water resources development and management consistent with the national development plans;
2. Effect inter-sectoral/inter-departmental coordination of water resources plans and programs within the context of national plans and policies for social and economic development;

3. Regulate and control the utilization, exploitation, development, conservation and protection of the country's water resources;
4. Adjudicate and grant water permits and Certificate of Public Convenience/Certificate of Public Convenience and Necessity for the operation and maintenance of water utilities and services, impose penalties for administrative violations thereof and make all decisions and determinations provided thereof;
5. Supervise and control all water utilities and their franchises, equipment and other properties and regulate and fix water rates to be charged by waterworks operators except those falling under the jurisdiction of the Metropolitan Waterworks and Sewerage System, and the Local Water Utilities Administration;
6. Exercise original jurisdiction over all disputes relating to water appropriation and utilization and water rates of above mentioned water utilities;
7. Review and approve rules and regulations prescribed by any government agency that pertain to the utilization, exploitation, development, control, conservation or protection of the country's water resources;
8. Impose and collect reasonable fees or charges from water appropriators and public utility operators which shall be used for the purposes deemed by the Board to be necessary for achieving the purposes and objectives;

The NWRB is tasked with the formulation and development of policies on water utilization and appropriation, the control and supervision of water utilities and franchises and the regulation and rationalization of water rates.

#### **e. Organizational Structure of NWRB (Annex 1)**

#### **f. Services/Programs**

1. Policy Formulation, Evaluation and Coordination of Water Resources Programs
2. Water Use Regulation
3. Regulation of Water Utilities Operation
4. Monitoring of Water Appropriation and Utilization

#### **g. Board Composition**

The Board membership as reconstituted per E.O. 123 is composed of heads of the departments and agencies with no direct claims to water resources. NWRB acts as the head of Secretariat.

Chair : Secretary of Department of Environment and Natural Resources

Vice Chair : Secretary of Socio-Economic Planning  
 Members : Secretary of Justice  
 Secretary of Finance  
 Secretary of Department of Health  
 Director of National Hydraulics Research Center-University of the  
 Philippines  
 Exec. Director of NWRB

The Board meets once a month to define policies and resolve all issues and conflicts in water resources development and management.

#### **h. The Role of NWRB Towards IWRM**

In order to have a manageable unit for comprehensive planning of water resources development, the NWRB has divided the country into 12 Water Resources Regions (WRR's). Major consideration taken into account in this regionalization are hydrological boundaries defined by physiographic features and homogeneity of climate of the different parts of the country. The water resources regional maps show the principal river basins and their respective basin boundaries. Below is the delineation of water resources regions.

WRR I	-	Ilocos Region
WRR II	-	Cagayan Valley
WRR III	-	Central Luzon
WRR IV	-	Southern Tagalog
WRR V	-	Bicol
WRR VI	-	Western Visayas
WRR VII	-	Central Visayas
WRR VIII	-	Eastern Visayas
WRR IX	-	Southwestern Mindanao
WRR X	-	Northern Mindanao
WRR XI	-	Southeastern Mindanao
WRR XII	-	Southern Mindanao

To have an overall picture of water resources situation, assessment of available water supplies in relation to the current and projected water demands were undertaken. These studies are done at the national, regional and sub-regional levels. Sub-regional studies may be for a river basin, a province or a particular area. These are generally done for comprehensive planning or when there is potential competition in the use of water resources. (See Annex 2 for Regional Assessment of Water Resources Potentials)

## 2. INSTITUTIONAL ASPECTS

The water resources management in the Philippines is anchored on the mandates of several agencies of the government. There are about thirty (30) agencies dealing one way or the other in the development and management of the country's water and related resources. These agencies have been established to undertake programs and projects within their respective sector. The National Water Resources Board acts as the primary agent of the State in matters pertaining to control, supervision and regulation of the use, exploitation, development as well as protection of the water resources. The Philippine Water Code empowers the NWRB to administer and enforce suitable policies and directives in appropriate water resource management scenarios. (See Annex 3 for Chart of Water Related Agencies)

The different agencies of the State involved in water resources activities are the following:

- Water resources planning- NEDA, NWRB Inter-agency Committees at the National Level, LLDA and ARBC at provincial and regional levels and MWSS, LWUA, DPWH, NIA, DILG and DA.
- Water resources assessment – NWRB, MWSS, BRS, PAGASA, LWUA and NPC
- Water supply – MWSS, DILG-LGU's, LWUA-WD's, DPWH
- Water quality and sanitation – DOH, EMB, BRS, MWSS and LWUA
- Watershed management – DENR, NIA, BSWM, NPC and Water Districts
- Flood control – DPWH
- Irrigation – DA and NIA
- Hydropower – NPC, NEA and DOE
- Ports and navigation – DOTC, PPA
- Fisheries and recreation – BFAR, DOT and PTA
- Data collection – NWRB, MWSS, PAGASA, NSCB, BRS, NAMRIA, LWUA, DTI and NIA
- Cloudseeding – PAGASA, BSWM, OCD, PAF

### **3. CHALLENGES AND PROPOSED MEASURES ON IWRM**

#### **a. Challenges:**

1. The social and economic progress of the country is dependent on the proper development, control, and utilization of its total water resources.
2. As the country progresses and the population increases there will develop, as has been experienced, keener competition and conflict of interest among water users. What was once considered an unlimited natural resources is now becoming a scarce commodity in some areas.
3. The increasing demand for water brought about by rapid population growth, agricultural needs, industrialization and other water users demand has created the need to manage water more efficiently. Water resources must be protected for the present and future generation to make it sustainable.
4. The NWRB has a key role in water regulation which includes resources and economic which are basic component of IWRM.

#### **b. Proposed Measures:**

1. Sustainable development and management of water resources through appropriate policy and legal reforms, particularly in resource exploitation, allocation, prioritization, optimization, protection and conservation shall be pursued. This is the major task of NWRB in coordination with different water agencies.
2. Strengthening the National Water Resources Board (NWRB), improvement in terms of its power, structure, status and capability that will provide an interim step towards the rationalization of the water resources sector.
3. Regionalization of NWRB through institutionalization of Water Resources Regional Offices (WRRO's) or at least desk offices for each of the twelve water resources regions. Decentralization of regulation function of the agency is necessary in the pursuant of IWRM.
4. Implementation of capacity building programs. It is necessary to have a continuing program for capacity building to nurture, enhance and utilize the skills and capabilities of people at all levels so that they are better equipped to deal with the development and management of water resources in a holistic manner and founded on sound IWRM principles and practices.

**c. Structural and Non-structural Counter Measures:**

1. Formulation of strategic plans to enable NWRB to enhance its capability to contribute to the development of policies and implementation of integrated water resources management in the country to support socio-economic development and sustainable utilization of the country's water and related resources.
2. NWRB should be strengthened in terms of effective raw water pricing and the development of effective procedures for the transfer of water rights.
3. The implementation of the World Bank's assisted Water Resources Development Project which started in 1997, paved the way for the opportunity to carry out action plan needed in attaining an integrated and sustainable development of water resources:

Under the Water Resources Sub-Component:

- Updating of Master Plan Study on Water Resources Management (1998) which deals with the formulation of a nation-wide master plan for water resources development and management towards the year 2025, which includes the water resources development plans for the major river basin and water supply to the major cities. One of the objectives of the Study is to formulate a master plan on water resources development and management in the twelve water resources regions in the Philippines.
  - Study on Water Resources Development for Metro Manila which aim to identify alternative source of water supply for Metro Manila was completed last 2002. Implementation of the project will be conducted by Metropolitan Waterworks and Sewerage Systems (MWSS).
  - Improvement of the National Water Data Collection is an on going activity which aim to improve the three national primary monitoring networks for streamflow, groundwater and water quality Combined network design for streamflow, groundwater and water quality monitoring for each of the 12 water resources regions will be developed.
  - National Water Information Network which is a design of a personal computer-based system that would electronically link the databases of the collecting agencies as well as providing easy access to user agencies. A website is updated which contains the said data that should be readily accessible to NWRB and other end-users.
4. NWRB is a member of the Steering Committee (SC) on the preparation of River Basin and Watershed Management Project (RBWMP), a 6-year development

initiative that will pilot a comprehensive program on natural resources management within the context of a river basin planning and management. To be piloted strategically at all levels of governance are the Bicol Region and the “water deficit areas” of Cebu and Metro Manila.

5. Proposed Master Plan Study on Comprehensive Agusan River Basin Development is the preparation of the comprehensive river basin development plan that would assess development potentials in the Agusan River Basin and formulate environment friendly agricultural and flood control development plans for improvement of the living standards of the residents in the basin.
6. Water Resources Assessment for Prioritized Critical Areas in the country is being conducted in Metro Manila and Metro Cebu which are initial area for assessment.

#### **4. ISSUES AND CONCERNS**

- Increasing demands for water
- Increasing pollution of water resources
- Inadequate institutional capacity building and financial support
- Fragmentation among water-related agencies
- Absence of coordinated and systematic basic water data collection system
- Absence of an independent regulatory body

#### **5. FUTURE VISIONS AND GOALS**

- Effective regulatory framework for water resources management (water resource regulation)
- Effective framework for sustainable water utilization (economic regulation and cost recovery)
- Mechanism and policy for coordination and integration of water resources development and management.

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## NATIONAL WATER RESOURCES BOARD (NWRB)

### ORGANIZATIONAL CHART

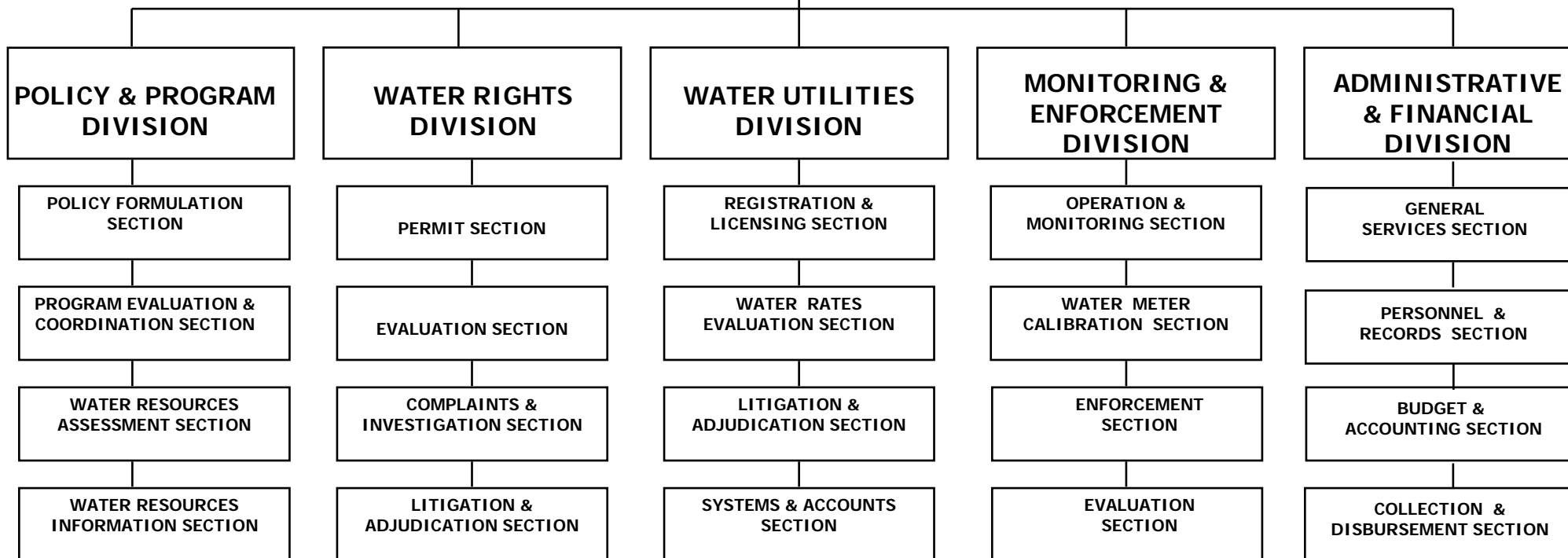
Chairman – Secretary, Department of Environment & Natural Resources  
 Vice Chairman – Director-General, National Economic Development Authority  
 Members : Secretary, Department of Finance  
 Secretary, Department of Health  
 Secretary, Department of Justice  
 Director, National Hydraulics Research Center  
 Executive Director, National Water Resources Board

**BOARD**

EXECUTIVE DIRECTOR

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DEPUTY EXECUTIVE DIRECTOR





## AGENCIES WITH WATER RELATED ACTIVITIES

