

Integrated Water Resources Management

Preventing the Wells from Running Dry

The Philippines is truly rich in natural resources, water resources in particular considering its geographical make-up. Add to this the average annual rainfall of about 2,500 millimeters and the dependable water supply estimated at 126,000 million cubic meters per year as recent assessment showed. Water has traditionally been considered a "free resource" vital for survival and economic development.

Ironically, water is becoming one of the critical resources in the country. Issues and concerns on water resources and its management were raised during the recently held Central Luzon Integrated Water Resource Management Summit in Pampanga. To resolve water resources issues, the Summit came up with strategies that are consistent with the thrust of the Medium-Term Philippine Development Plan (MTPDP) 2004-2010 for the environment and natural resources.

The Integrated Water Resources Management (IWRM) Plan

One strategy outlined in the MTPDP is the IWRM principle. The IWRM approach takes into account social, economic, environmental and technical scope in the management and development of water resources. It involves a coordinated development and management of water, land and related resources in the hydrological cycle.

The IWRM Plan is a blueprint that will provide direction to the fragmented way of managing the country's water resources. With the current approach, sustainability problems occur as there are overlapping tasks handed over among more than 30 government agencies independently in charge of water supply, irrigation, hydropower, flood control, pollution and watershed management, among others.

Among the strategies pushed under the IWRM include the creation and strengthening of regional-level water management agencies, raw water pricing, and water resources research and assessment.

Water Resources Regional Councils (WRRCs)/River Basin Organizations (RBOs). The WRRCs and RBOs are key institutions that support the adoption and implementation of integrated water resources management. Institutions were earlier created for regional and basin planning but eventually stopped operations due to insufficient funds, lack of human resource training and insufficient authority to exercise the general mandate of basin authority.

As industrialization increases, creating such organizations and strengthening the existing ones at the regional level is deemed a significant strategy for a more focused handling of water resources. Decentralization of water governance to local governments and community-based organizations are being done.

Currently, there is one existing RBO in the country - the Laguna Lake Development Authority (LLDA).

Raw Water Pricing. Raw water pricing is considered a groundbreaking move and a controversial reform by the



government. The adoption of this scheme is expected to generate revenues that could be used to improve the water sector. Aside from this, the government projects water pricing as a mean to an efficient allocation and conservation of water.

In an interview of the Asian Development Bank, National Water Resources Board (NWRB) Executive Director Ramon B. Alikpala said there are various factors that raw water pricing should take into consideration – the needs of the poor, issues in the agricultural sector particularly the small farmers, concerns of areas where water is critical, intensive public consultations, information and education campaigns and a transparent process.

He said the NWRB is looking to primarily implement the scheme in areas with water problems such as Metro Manila and other nearby cities. The Board also wants to determine its impact to agriculture despite the lack of infrastructure to measure the water being used for farming.

Water Resources Research, Database and Assessment.

Data and databases on water resources help water authorities in quality monitoring as well as in allocation decisions. Hence, the government sees the need to maintain and continuously update the water information system of the country.

Having a dependable database and accessible water data also serve as an instrument to attract private sector investments in the water sector.

Another strategy is to regularly monitor water availability and demand for prioritized constraint areas as identified in the 1998 Master Plan Study on Water Resources Management in the Philippines.

The RDC III Strategy

Meanwhile, the Regional Development Council (RDC) III (Central Luzon) agreed and committed to operationalize the following specific strategies:

- integrated water resources management plan
- subsidies to regional users
- advocacy and information dissemination among water users on the economic value of water
- review of the regulatory framework over water resource use, allocation, distribution, development with the end of establishing a regulatory framework for inter-regional trading of water
- economic valuation of water
- institutionalization of multisector representation in water resource use decision-making and strengthen representation of host LGU in the concerned institution, i.e. NWRB
- localization of water use decision-making through regional water resources councils being proposed by NWRB
- revisit the current strategy in flood control

(hastening the release of water into the seas) to include alternative approaches (encouraging infiltration & gradual release of surface water)

- ensure unprecedented level of sustained inter-agency, intergovernmental, and intersectoral cooperation and coordination through the river basin management approach
- massive rehabilitation of watersheds involving the LGUs and local communities (e.g., CBFM)
- promotion of agri-forestry in upland areas in order to generate alternative sources of income
- move for the inclusion of watershed rehabilitation and management in the list of national investment/funding priorities
- promotion of rainwater harvesting structures (i.e., SWIP)
- promotion of soil and water (land treatment) conservation measures (i.e., vegetative strips)
- demand and supply management (development of new sources and curbing demand)
- promotion of water-sensitive urban development schemes
- promotion of more compact urban settlements to increase open space (unpaved surfaces/areas)
- recovery of river easements and their restoration to original condition
- serious implementation of solid waste management initiatives streamlining institutional responsibilities re: water resource management/regulation/development
- integration of available baseline data
- strict implementation of easement and servitudes of waterways
- creation of an inter-agency coordinating organization
- study rainwater harvesting and reuse
- centralize ground water use at municipal level, and charge for domestic water use to encourage conservation at the individual and family level
- harness excess water during rainy season through construction of retention of reservoirs
- education on the proper utilization and conservation of water
- formulation of river basin/watershed management plan
- identify/terminate useless flood control projects

References:

1. [The Challenges in Water Resources Management in the Philippines](#) by Pacita F. Barba, National Water Resources Board
2. [Summit Resolution](#), a presentation during the Central Luzon Integrated Water Resource Management Summit in Pampanga, July 29-30, 2005
3. www.adb.org
4. [Striving for a Stronger and More Cohesive Water Sector: an Interview with Ramon B. Alikpala, Executive Director of the NWRB, June 2005](#), www.adb.org
5. [Medium-Term Philippine Development Plan, 2004-2010](#)