



Water Governance in the Philippines

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Why the need for good water governance?

As economies develop and population increases, demand for water by industry, commercial, agriculture, and domestic sectors necessarily expand. Globally, the supply of water may not be limited. Global projection states that for 2025, only 10% of total renewable water shall have been withdrawn. Yet, there are spatial variations in water supply conditions. In the Asia-Pacific region, only a small portion of the renewable water sources can be tapped, even if, statistically, the per capita annual use of 400 cubic meters (m^3) is only 12% of the 3,360 m^3 per capita renewable water resources in the area (Webster and Le-Huu, 2003). This pattern was also noted in the Philippines, where the annual water use accounts for only 12% of available supply (FAO, 2002). Viewed in isolation, this figure tends to suggest that the need to manage water use and conserve water resources in the region and in the Philippines, in particular, is not a pressing concern. Several facts, however, quickly dispel this notion (Rola et al. 2004).

First, the per capita water availability has been declining over the years (Webster and Le-Huu, 2003). This situation is brought about, on one hand, by increased water demand arising from economic growth and population increases, and, on the other, by decreased water supply associated with degradation of forest watersheds in the country. Second, the data on aggregate availability are illusory in that they indicate the *average* supply per capita per year, without regard to the distribution of available supply. True availability is contingent on time, place, quality, and cost. The Philippines, like all other Asian developing countries, has regions and times of year in which water for specific uses is scarce (Figure 1).

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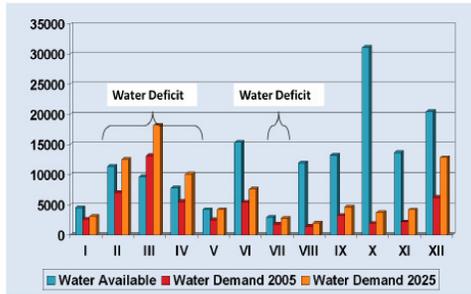
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PROJECTED REGIONAL SUPPLY/DEMAND SITUATION: 2005 - 2025 (in 1000 cubic meters)



Source: NWRB 1980 data, 1998 JICA WR Assessment

The above graph shows the wide spatial variability of water supply and demand across the country thus the need for region-specific water management policies and strategies typical of a humid tropic, archipelagic country.



Figure1. Water Demand and Supply Projections and Water Resources Regions, Philippines (Source: Tabios, 2012)

Finally, the Philippine freshwater ecosystem faces severe problems of pollution and rising costs of potable water supply. Surface water accounts for about three quarters of freshwater supply, but many of the major rivers and lakes, particularly those passing through or close to urban centers, are heavily polluted.

The adoption of good water governance will contribute to the sustainable water supply and the related MDGs of water and sanitation by the poor, and most especially, attainment of food security.

Major challenges in water governance in the Philippines

1. Complex and fragmented institutional set-up in state rules of water governance

The multiplicity of water institutions (Figure 2) was a result of the creation of offices corresponding to the new laws without abolishing the old systems. The National Water Resources Board(NWRB) is the central agency for water regulations. It has 120 people with PhP50 M budget with limited capacities for water resources management (Paragas, 2012). The Philippine Water Code of 1973 already embodied integrated water resources management (IWRM) even before the 1992 Rio Earth Summit.

However, the implementing rules and regulation of the Philippine Water Code adopted in June 1979 still recognized the legislated roles of so many players in the water sector resulting in coordination problems and overlap of water management functions. For instance, the mandate of watershed conservation is with the Department of Environment and Natural Resources (DENR), domestic water supply is with the LWUA, irrigation water supply is with the NIA and flood control management is with the Department of Public Works and Highways (DPWH). This is in contrast to water district organizations in the United States where watershed conservation, utilization of water for domestic or irrigation water supply, and flood control is the responsibility of one major water agency or district (Tabios 2012).

2. Pricing and water allocation

Despite the relative abundance of water supply in the Philippines, 16 million Filipinos in 432 municipalities do not have access to safe drinking water (UNDP 2010 Millennium Development Report). Aside from the lack in physical access, the price of water in urban areas seems prohibitively high in the Philippines. Available information shows slum dwellers in Metro Manila pay a higher amount for the water than people living in London.

Water Agencies \ Functions	NWRB	LWUA	DENR	LGUS	DPWH	DOH	NIA	NAPCOR	PAGASA	DOF	MWSS	DILG	DOE	MMDA	DOT	LLDA
Policy Planning	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●
Data Monitoring	●	●	●	●	●	●	●	●	●		●	●	●	●		●
Scientific modeling									●							●
Infrastructure and program dev't	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●
Operations of water facilities				●	●		●	●			●			●		
Regulatory functions	●	●	●	●		●					●		●	●		●
Financing		●	●	●						●						
Public relations, Capdevt and IEC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Local RBO dev't			●													

Fig. 2. Current roles and functions of major water-related agencies in the Philippines (Source: Tabios, 2012).

This could be because slum dwellers tap their water supply from neighbors who are officially connected to the water district source. Their payment could thus include not only the water delivery price but the transactions cost paid to that household.

In the rural areas, water is almost free. This leads to water use inefficiency. For instance, farmers are not charged full cost of public investment in national irrigation systems. David (2012) has pointed out that benefits from irrigation may be shared with consumers when lower price of output results from productivity growth. Increase in price of irrigation water may induce farmers to demand less water and leave the land fallow.

3. Weak water rights and lack of access to water

Barangays and towns local government units are the usual delivery mechanisms of water for the households. However, the more important issue is the clarification of water rights shared by the local communities. One town's water decisions are influenced by decisions to protect the forest, manage the watershed where this belongs and manage the watershed cluster where it further belongs. This reveals a maze of people and institutions, sometimes with competing concerns to agree on water governance in the local area. In the urban centers, the challenge is how the poor can access water. Illegal connections and people lining up for water are a common sight.

On the other hand, there is a large proportion of water rights freely held by public institutions such as the National Irrigation Authority (NIA), Local Water Utilities Administration (LWUA), Metro Manila Waterworks and Sewerage System (MWSS) (David, 2012).

Towards Good Water Governance: Some Ways to Move Forward

1. Supporting the proposal for an Integrated Water Resources Management (IWRM)

Water institution, including the laws, policies and organizations defining this should have one vision and one goal. The country should be ready with a proposal for an Integrated Water Resources Management(IWRM) approach to water governance. This approach should be participatory, and equitable. The central organization's proposed mission is to manage and protect the country's water resources for domestic water supply, sanitation, irrigation, hydropower, fisheries, aquaculture, flood control, navigation, and recreation including the enhancement and maintenance of water quality, conservation of watersheds, control of water pollution and environmental restoration without compromising the natural ecosystem functions and services (Tabios 2012).

2. Water pricing for efficient water allocation

In general, water supply costs of both urban consumers and agricultural users only include production and distribution costs. They do not include scarcity cost and cost of the environmental externalities. This is because the current national policies, institutions and laws have not provided for incentives for efficient use of water across uses, and especially in agriculture, more particularly the small scale irrigation systems. There is a need for a realistic water pricing scheme that reflects the scarcity of water as well its marginal benefits. However, social policies on water also need to be put in place so that the marginalized sector will still be able to access this basic item. Water, more than rice is a basic necessity and cannot be completely commoditized.

3. Private-Community Partnership:Tubig Para Sa Barangay

We also illustrate a good practice of cooperation and coordination among the different stakeholders in the water delivery in poor urban communities, as illustrated by a program of the Manila Waters. The biggest lesson is that with stakeholder participation, both the consumers and the suppliers benefit (Gazmen, 2012). This example shows that the water governance can indeed be improved if community members work together and private sector programs are inclusive.

Conclusion

Water is a basic human right. Yet many, especially the poor, have limited access to it, even if annual available resources far exceed total withdrawals. Inappropriate water governance at various levels contributes to “artificial scarcity” and other related problems. Instituting good water governance including responsive policy and institutional arrangements, appropriate planning and effective implementation is the key in addressing water crisis in the Philippines.

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References:

- David CC. 2012. Issues on Water Pricing. Paper presented during the Roundtable Discussion on Water Rights and Water Wrongs: toward good water governance for development, Social Sciences Division- NAST PHL, January 26, 2012, Hyatt Hotel and Casino Manila, Manila, Philippines.
- Food and Agriculture Organization of the United Nations (FAO). 2002. AQUASTAT database. Available from the World Wide Web: (<http://www.fao.org/ag/agl/aglw/aquastat>).
- Gazmen PG. 2012. TUBIG PARA SA BARANGAY:Providing clean and affordable water to poor communities using a sustainable model and community participatory approach. Paper presented during the Roundtable Discussion on Water Rights and Water Wrongs: toward good water governance for development, Social Sciences Division- NAST PHL, January 26, 2012, Hyatt Hotel and Casino Manila, Manila, Philippines.
- Paragas VS. 2012. Water Regulatory Policies. Paper presented during the Roundtable Discussion on Water Rights and Water Wrongs: toward good water governance for development, Social Sciences Division- NAST PHL, January 26, 2012, Hyatt Hotel and Casino Manila, Manila, Philippines.
- Rola AC, Francisco HA and LigutonJ. (eds.). 2004. Winning the Water War: Watersheds, Water Policies and Water Institutions. Philippine Institute for Development Studies, Makati City, Philippines/PCARRD, Los Banos, Laguna. 278 pp.
- Tabios GQ III. 2012. A Proposed Water Resources Management Framework. Paper presented during the Roundtable Discussion on Water Rights and Water Wrongs: toward good water governance for development, Social Sciences Division- NAST PHL, January 26, 2012, Hyatt Hotel and Casino Manila, Manila, Philippines.
- UNDP 2010. Millenium Development Report Philippines. UNDP Manila.
- Webster D and Le-Huu T. 2003.Guidelines on strategic planning and management of water resources [online].United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP): New York. Available from the World Wide Web: http://www.unescap.org/esd/water/spm/2003/water_percentSPM-rev7-30-6-03-rev2.pdf 2003.

Acknowledgments:

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<http://ebonph.wordpress.com/2011/11/30/angat-dam-club-trip/>; 2 & 3, Laguna de Bay and Lake Lanao, respectively, NASA <https://zulu.ssc.nasa.gov/mrsid/>; 4, Magat Dam, www.flickr.com; http://farm8.staticflickr.com/7164/6712486459_ba72291289_z.jpg