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DEVELOPMENT ROUNDTABLE SERIES

TOWARDS SHARED UNDERSTANDING and COMMON ACTION

Treading Troubled Waters

Dr. Buenaventura B. Dargantes
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About the Development Roundtable Series (DRTS) Integrative Papers
The DRTS Integrative Papers contain the results of the consultations, roundtables, field experiences and research of the six thematic working groups. The papers' highlights are the recommendations that can now be used by advocates, policy makers, NGOs and peoples' organizations in their campaigns and initiatives for policy reforms.

The country is rich in fresh and groundwater resources, with 421 principal river basins, 128 proclaimed watersheds, 59 natural lakes and more than 1000 sq. kms. of freshwater swamps. The country's rivers carry an average annual run-off of 444 cu. kms. Internal water resources are mainly stored in the Cagayan, Central Luzon, Agusan and Cotabato reservoirs. When combined with other smaller reservoirs, water storage could reach 50,000 sq. kms.

However, the country's water resources are no longer in an ideal condition. There are only five freshwater bodies classified as class AA or "waters intended as public water supply requiring only approved disinfection to meet the Philippine National Standard for Drinking Water;" only one-third of the river systems are classified as reliable sources of drinking water supply and up to 58 percent of groundwater is contaminated with coliform. Further, while water storage can reach 50,000 sq. kms, the poor implementation of the Clean Water Act and the formation of Water Quality Management Area Governing Boards have particularly led to the non-optimal utilization of Philippine freshwater resources.

Over the past decades, the Philippine government has underinvested in water supply and distribution systems, thereby failing to fully provide safe, adequate and affordable potable water to its citizenry. In 1990, about 87 percent of the population had basic albeit unreliable access to safe potable water. By 2008, this level of access further declined to 84.1 percent, threatening the achievement of Philippine commitments stipulated in the 2004-2010 Medium Term Philippine Development Plan to attain 92 percent coverage by 2010, to the ASEAN to attain 87 percent coverage by 2010 and to the United Nations Millennium Development Goal to attain 87 percent coverage by 2015. According to the National Anti-Poverty Commission's (NAPC) Water and Sanitation Coordinating Office (WASCO), there are 212 "waterless areas" in Metro Manila. Outside the region, almost 50 percent of households in 432 municipalities do not have access to improved water supply source[i].

Most of these are considered financially non-viable by big commercial utilities, and estimates show that around P2.87 billion and P4 billion are needed for these waterless areas and municipalities, respectively.

In 2008, the Committee on Infrastructure (InfraCom) of the National Economic Development Authority (NEDA) Board passed Resolution Number 2 creating the Subcommittee on Water Resources (SCWR), which was given the mandate to "ensure the implementation of the Philippine Water Supply Sector Roadmap." Initially, the major function of the SCWR was to advise the NEDA Board and the InfraCom on policies and issues related to the water sector. Composed of representatives from national government agencies, leagues of cities and municipalities, academic institutions and civil society organizations, the SCWR was later on assigned to become a policy coordination body for the water sector. Despite such policy and operational interventions, the water sector has remained weak, especially in terms of regulation and resource management.

The growing recognition that water has not been adequately made available to the population, especially to low-income households, and that there have been recurrent shortages and deteriorating water quality has led to a re-examination of the delivery of water services as well as management of the resource. This integrative paper forms part of an ongoing effort to search for options, solutions, strategies, practices, mechanisms and/or policies to enhance water security at the local level, efficiently manage watersheds as sources of water supply and integrate resources management.

This paper is an attempt to collate and integrate field experiences, on-the-ground consultations and published materials from official and alternative sources that delved into: 1) the possibility of having "water for all" (for human use)—from source to tap, and; 2) the initiatives and activities that have been undertaken to achieve this. It offers recommendations and options for policy reforms and developmental initiatives in the management of water service delivery. The data were generated through roundtable discussions, field research, interviews and in the course of implementing the project Capability-Building Program on Performance Benchmarking of Water Districts in the Philippines. (See Annex 2)

More specifically, this report intends to:

1. Determine the status of water service delivery and coverage in the Philippines;

2. Analyze select critical issues pertaining to rural water systems, failing water systems, and conflicts over access and utilization, and;
3. Examine the policy framework of the Philippine water sector especially in relation to the targets stipulated in the 2004-2010 MTPDP, the PDP 2011-2016, Philippine commitments for the attainment of the MDGs and to ASEAN.

The State of the Philippine Water Sector

Water Service Delivery and Coverage

According to the National Statistics and Coordination Board, 84.1 percent of Philippine households had access to safe water in 2008. The Joint Monitoring Programme of WHO and UNICEF reported higher figures for 2008— 93 percent for urban areas, 60 percent with piped connections, 87percent for rural areas, 25 percent with piped connections and an average of 91 percent of the population have access to improved water sources, 48 percent of whom have piped connections. This means that 29.7 million people have gained access to improved sources of drinking water from 1990-2008. (UNICEF and WHO, 2010)

Access to sanitary toilets, on the other hand, declined from 74.9 percent in 1999 to 74.2 percent in 2000; with only four percent of the households connected to sewer systems. (WB, 2005) It further decreased to 70 percent in 2008. Septic tanks are the common method of sewerage treatment; with sanitation services expected to be a private responsibility (for e.g. 75 companies provide tank de-sludging services in Metro Manila.). The low level of sanitation has created a lot of domestic untreated wastewater or raw sewage, contributing to 1.1. million metric tons of biochemical oxygen demand (BOD) in 2000 and 10,000 million tons of annual solid waste generation, while adding pressures to the country's water supply.

Data from the Department of Interior and Local Government (DILG) indicated that as of 2007, various water supply providers in the Philippines were able to serve an estimated 9 million people. (Philippine Water Supply Sector Roadmap, 2008) Of the persons with access to Level II (communal faucets) and Level III (piped connections) water supply systems, 76 percent were served by water

districts, 17 percent by LGU-operated waterworks and four percent by RWSAs, BWSAs and cooperatives. An earlier report by Social Watch Philippines had revealed that in 2002, access to safe water ranged from 55 percent of households in Autonomous Region of Muslim Mindanao (ARMM) to 95 percent in Western Visayas. (Please see Table 1.)

Table 1. Proportion of Households with Access to Safe Water and Sanitary Toilet Facility by Region, 2002

Administrative Region	Percent of Households with Access to Safe Water
Region I (Ilocos Region)	91.3
Cordillera Autonomous Region (CAR)	92.1
Region II (Cagayan Valley)	84.3
Region III (Central Luzon)	72.8
Region IV-A (National Capital Region)	no data
Region IV (Southern Tagalog)	83.0
Region V (Bicol Region)	82.6
Region VI (Western Visayas)	95.3
Region VII (Central Visayas)	87.4
Region VIII (Eastern Visayas)	81.2
Region IX (Western Mindanao)	80.0
Region X (Northern Mindanao)	91.3
Region XI (Southern Mindanao)	91.6
Region XII (Central Mindanao)	84.4
Region XIII (Caraga Region)	85.6
Autonomous Region of Muslim Mindanao (ARMM)	55.3

Source: Missing Targets: An Alternative MDG Midterm Report-Social Watch Philippines, 2002

One major limitation to an accurate determination of access to water services and coverage is the absence of consolidated and harmonized data from government, especially on water systems managed by user groups and associations. For example in 2005, the Philippine Small Towns Water Utilities Data Book recorded a total of 1,639 water utilities, while data from the World Bank (as cited in the

Philippine Water Supply Roadmap) reported a total of 6280 water utilities. In the Data Book, too, more waterworks were being operated by LGUS, which contradicted WB data that a large number of water service providers were users and communities; there were other disparities in figures that can be seen in Table 2.

Percent of Households with Sanitary Toilet
93.8
77.2
86.0
71.1
no data
75.9
64.3
88.2
75.2
72.0
77.0
74.5
76.6
72.4
81.2
34.4

Table 2. Philippine Water Utilities by Type of Management Model from Different Sources, 2005

Type of Management Model	Description of Model	Number*
Water District (WDs)	Public corporations/ Government-owned and controlled corporations formed pursuant to the Philippine Provincial Water Utilities Act to operate and maintain water supply and distribution systems	430
Local Government-Operated Waterworks	Water supply systems owned and operated by provincial, city & municipal governments	700
Privately-Operated Water Service Providers	Water supply systems owned and operated by private persons (individual and corporate)	9
Water Systems Managed by Users and/or Communities[ii]	Water supply systems owned, operated and/or maintained by communities and/or community-based users groups or organizations	500
Total		1639

*Source of Data: Philippines Small Towns Water Utilities Data Book, 2005.
**Source of Data: World Bank, 2005 as cited in the Philippine Water Supply Roadmap, 2008.
***Data as of 2003-2004

Even members of the Philippine Association of Water Districts (PAWD), which represents the most organized utilities in the Philippines, have difficulty monitoring their own ranks. By 2010, the total number of WDs increased to more than 800, with about 60 percent categorized as operational. The Chairman of the Editorial Board of Aquarius, the official quarterly publication of PAWD, however, admitted that, "It is not so easy to keep track of the number of operational water districts…The safest figure is probably 500 give or take a few. These water districts are in various stages of

development. Some are in their early start up operation. Some have even achieved 100 percent coverage of their areas of responsibility." (Villasan, 2010)

Percent	Number**	Percent
26.24	***580	9.24
42.71	1000	15.92
0.55	900	14.33
30.51	3800	60.51
100.00	6280	100.00

Even when data were available, ample care was necessary in assessing the datasets. For example, the 2005 benchmarking database of PAWD reported that member WDs served an average of 52 percent of the population. A re-computation using the same dataset revealed that the WDs could have covered an average of 83 percent of the population in their respective service areas, but only 49 percent of the population in their area of jurisdiction. (See Table 3)

Table 3. Selected indicators of water service coverage among participating water districts in the PAWD Benchmarking Database, 2005

Indicators	2005
Reported % of Population Served	52
Re-computed % of Population Served	59
Calculated % of Service Area Population Served	83
Calculated % of Population Served within Area of Jurisdiction	49

Source of data: PAWD. (2005). Benchmarking Database.

Demand versus Water Resources

Water is fast becoming a critical resource.

The Japan International Cooperation Agency (JICA) estimates that with "business-as-usual scenarios" and at current population and development growth rates, water demand in the country will increase from 30 BCM in 1996 to 86.5 BCM in 2025, broken down as follows (1998):

- Domestic demand: from 1.95 BCM/year in 1995 to 7.43 BCM/year by 2025 (or 3.8 times the 1995 level);
- Agricultural demand: from 25.53 BCM/year in 1995 to 72.97 BCM/year by 2025 (or 2.8 times the 1995 level);
- Industrial demand: from 2.23 BCM/year in 1995 to 4.99 BCM/year by 2025 (or 4.48 times the 1995 level under a high growth scenario of 8.7 percent) or 3.31 BCM/year (or 2.4 times the 1995 level under a low growth scenario of 5.9 percent).

Key Cities
Metro Manila
Metro Cebu
Davao
Baguio
Bacolod
Cagayan de Oro
Zamboanga

The projected national water balance (the total water potential minus projected water demand) by 2025 is overall positive, but Regions 2 (Cagayan Valley), 3 (Central Luzon), 4 (Southern Tagalog including NCR), and 7 (Western Visayas) are projected to have potential water shortages in a high growth scenario. Industrial water consumption in cities alone is expected to rise seven times, and nine major cities (Metro Manila, Metro Cebu, Davao, Baguio, Bacolod, Iloilo, Cagayan de Oro and Zamboanga) are projected to outrun their existing water sources beginning 2010. (See table 4)

The country enjoys an annual groundwater potential of 20,200 million cubic meters (MCM), an annual surface runoff of 125,790 MCM, and an annual average rainfall of 2,400 millimeters. This means that the country has an annual dependable freshwater supply of 146 billion cubic meters (BCM) and can provide 1,900 cubic meters per person (JICA, 1998) far below the world average of 7,000

cubic meters per person and just half the Asian average of 3,700 cubic meters per person.

Table 4. Water Demand of Major Cities in the Philippines (in MCM/year)

Groundwater Availability	Year		Surplus / (Deficit)	
	1995	2025	1995	2025
191	1,068	2,883	(82%)	(93%)
60	59	342	2%	(82%)
84	50	153	69%	(45%)
15	12	87	21%	(83%)
103	37	111	179%	(7%)
34	29	98	18%	(65%)
54	28	203	92%	(73%)

Source: JICA Master Plan on Water Resources Management in the Philippines, 1998 as cited in Penaranda, Isidra D. OIC Policy and Program Division, National Water Resources Board Water Resources Management in the Philippines, 2009 [Powerpoint presentation].

Population growth, increased economic activity and improved standards of living are placing tremendous pressures both on water resource supply and service delivery systems. The country's groundwater resources are contaminated through leaching of industrial, agrochemicals and animal wastes in agro-industrial areas, sub-surface discharges from latrines and septic systems, and infiltration of polluted urban run-off. Preliminary data show that 58 percent of the country's groundwater for drinking water is contaminated with coliform. Fifty rivers (12 percent of the 421 rivers) in the country are considered biologically dead; only one third (36 percent) of the country's river systems/ surface water areas are potential sources for drinking water; and blocked of waterways have reduced the rivers' carrying capacity. These are due to direct dumping of domestic solid waste in rivers and lakes which create adverse impact on water quality and availability, as well as wastewater discharges from households and industries to bodies of water. (Penaranda, 2006)

Watershed degradation is another culprit behind the non-ideal condition of the country's freshwater resources. Deforestation has caused soil erosion and siltation or sedimentation of rivers and lakes including reservoirs which obstruct waterways, affect the water quality and limit the flow capacity of these water bodies. Only 5.4 million hectares out of 15.88 million hectares of the country's original forestland areas have remained, and fewer than a million hectares of these have been left with old growth forests. The denudation of forests and watersheds has increased run-off causing flash floods in mountain areas. This also poses threat to has threatened the watersheds and river basins that support national irrigation systems covering 43,014.12 sq. kms. of drainage areas. (Baladad, undated)

Finally, climate change has also started to affect the variation of stream flow and groundwater recharge, and consequently, water quality and seasonal water availability. It has increased the intensity and frequency of storms during the monsoon season and drought during the summer. Sea level rise has resulted in salt water intrusion into surface and ground water, affecting the amount and quality of water supplies.

Policy, Institutional and Legal Framework

To date, some 30 national agencies are involved in the planning, regulation, resource management, source development, and delivery of water and sanitation services. (See Figure 1) The institutional set-up is complex and fragmented and mandates overlap, due to the archipelagic nature of the country, the decentralization of the water sector, and partly, due to the multidimensional use and character of the water itself.

Annex 1 shows the laws that give these institutions their mandates. The main water law that guides the ownership, appropriation, allocation/utilization, protection and development of water resources in the country is the Philippine Water Code or Presidential Decree 1067. Often quoted as a "model law," the Water Code was enacted in 1976 by former President Ferdinand Marcos to identify the prioritization of water use, the rights and entitlements for the extraction of the resource, and the institutional set up and arrangements necessary for the management and regulation of the resource.[iii]

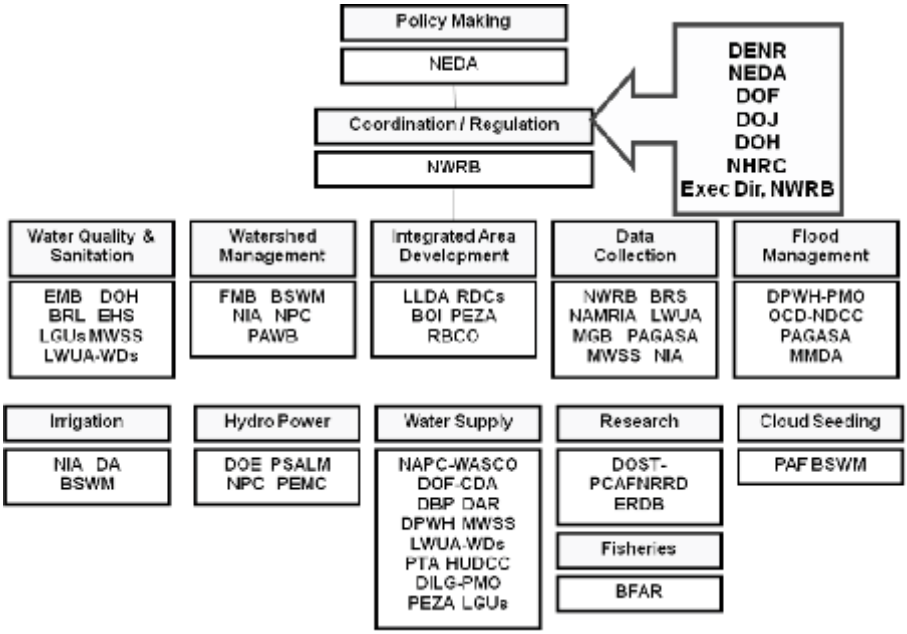
Under the law, individuals, corporations and government entities have to secure a water right through a water permit application process in order to appropriate water. The National Water Resources Board (NWRB) is the main economic and resource regulator/allocator which issues water permits and certificates of public convenience.[iv]

Unfortunately, despite decades of existence, the Code with its Implementing Rules and Regulations has yet to be popularized on the ground. Not many people know that water rights through water permits or certificates of public convenience have to be secured, creating unnecessary conflicts and confusion among different water user groups and even in downstream and upstream communities. Further, the NWRB has been plagued by problems of resources—both in personnel and budget. Its principle and practice of 'first come, first served' in the water permit application process is problematic, especially in light of competing water uses, e.g. mining vs. domestic use, and competing water service providers.

More recent legislations, such as the Solid Waste Management Act and the Clean Water Act, have low level of compliance, mainly due to inadequate funding support.

There are specific policies and programs the main mandate of which is to provide water to the "waterless communities." The 2004-2010 Medium Term Philippine Development Plan of former President Gloria Macapagal-Arroyo and the President's Priority Program on Water (P3W), which is a continuing program in the Aquino administration, highlight the need to improve access in 432 municipalities outside Metro Manila, 210 communities within Metro Manila and 201 municipalities in conflict zones. A German Technical Cooperation (GTZ) study (2009) revealed mixed results of the program, mainly due to the manner of implementation on the ground, the ability of the National Anti-Poverty Commission as the main implementer to shield itself from political influences and corruption, and the acceptability of the program to the communities and beneficiaries.

Figure 1. Functional Chart of Water-Related Agencies in the Philippines



Source: Penaranda, I. D. (2009). OIC Policy and Program Division, National Water Resources Board Water Resources Management in the Philippines [Powerpoint presentation]

Local governments have specific roles and functions in water and sanitation management. Under the Local Government Code of 1991, there are three main tiers or levels of functions. First, the barangays are tasked to ensure the general sanitation and maintenance of water supply systems. The barangay captain, council, and zone chair are deputized as peace officers to arrest violators and to enforce pollution control laws. Second, municipalities and cities take care of infrastructure facilities funded by municipal funds including water supply systems, drainage and sewerage, research services and facilities related to agriculture and fisheries including water utilization on conservation projects, and services or facilities related to general hygiene and sanitation. Third, the provinces are mandated to enforce the pollution control and laws that protect the environment subject to Department of Environment and Natural Resource (DENR) supervision, control and

review, and infrastructure development funded by provincial funds for inter-municipal waterworks, drainage and sewerage facilities.

The complexity and fragmentation in the institutional setup in the water sector cause conflicts, confusion, and policy gridlocks. To address this problem, the government supported by its development partners undertook the Philippine Water Supply Sector Roadmap (PWSSR). The roadmap was a three-year (2007-2009) process which aimed to come up with a coherent and integrated plan for the water supply sector. The reforms focused on institutional strengthening, capacity building, service delivery and strategic alliance building. The roadmap became a multi-sectoral platform with the active participation of civil society and the academe. The results of the roadmap process, including the creation of the Subcommittee on Water Resources (SCWR) through Board Resolution Number 2, were the bases of the Philippine Development Plan 2010-2016 of President Noynoy Aquino. Still, much is needed to be done to achieve competent and functioning water management institutions.

Financing and Investment

National Economic Development Authority estimates that the water sector will represent 15 percent of the P 1.7 trillion total investment requirement for 2006-2010. National Anti-Poverty Commission projects for the urban poor in Manila and for the 400 most waterless towns in the country will require P 2 billion and P 3.6 billion, respectively. The World Bank estimates that the country will need P 25 billion and P 211 billion for full water and full sanitation coverage, respectively. The projected requirements are huge, but actual government allocations are low. Expenditures for the water sector in 2004 were only P 6.3 billion. In sanitation, the figure is an even more dismal P 500 million. (Gendrano, undated)

EO 279 signed in 2004 instituted financing reforms in the water supply and sewerage sector by tasking relevant government agencies to pursue the following objectives, among others:

- rationalize allocation of scarce financial resources in the sector;
- exercise freedom of choice to water service providers in sourcing financing;

- increase the participation of local government units, Government Financial Institutions and Private Financial Institutions in the financing of the sector;
- grant incentives for the graduation of water service providers into creditworthy status, and;
- establish an independent economic regulator for the sector.

EO 279 has called for the rationalization of Local Water Utilities Administration's (LWUA) organizational structure. The Department of Finance (DOF), through the Corporate Affairs Group, exercises oversight functions over the LWUA. The DOF also chairs the inter-agency EO 279 Oversight Committee, which coordinates and oversees the implementation of financing reforms in the water supply and sewerage sector.

The Department of Finance also makes sure that the water sector programs being funded by donor agencies are aligned with the government's reform agenda and policy direction. At present, the department is collaborating with Development Bank of the Philippines (DBP), United States Agency for International Development (USAID) and Japan Bank for International Cooperation (JBIC) for the implementation of the Philippine Water Revolving Fund (PWRF), a long-term financing facility designed for creditworthy water service providers. It is working with the World Bank in implementing the Small Water Utilities Improvement and Financing (SWIF) Project, which is designed to improve the performance and financial viability of small water service providers to enable them to access market-based financing. The DOF is also supporting the ongoing multi-donor funded stakeholder consultations on water sector economic regulation.

The number of projects for water supply implemented by LGUs and water districts increased during the mid-2000s, many of which are associated with collaborative initiatives and mechanisms with official development assistance, internal funds of financing institutions and private commercial banks. Still, financing and investment in the sector, especially in water supply, have been characterized as (a) significantly low compared to the overall public infrastructure spending and (b) biased in favor of Metro Manila and other urban areas. The Philippine Water Supply Sector Roadmap

report attributes this to the "orientation of the public infrastructure priorities of the national government and the absence of a coherent financing framework for the water supply sector". From 2001-2007, water supply projects only accounted for 0.84 percent to 1.84 percent (P 3.7 billion to P 15.9 billion) of total public infrastructure spending by the national government and government owned and controlled corporations (GOCCs); 77 percent of which are borne by LWUA and Metropolitan Waterworks and Sewerage System (MWSS). The infusion of another P 1.5 billion for the implementation of the President's Priority Program for Water (P3W) in 2007 contributed to the increase in government spending for water supply projects. (NEDA and NWRB, 2008)

Critical Water Situations Pose Challenges

Consultations, roundtable discussions and case studies in Luzon, Visayas and Mindanao have identified the following as the main challenges creating critical water situations in the country.

Mining threatens Watershed Communities

As a result of incoherent rational policies, mining activities now pose risky on watersheds. Current water policies do not include mining as priority for water resource appropriation, but the Mining Act of 1995 has undermined this entitlement of local communities. The result of this has been the loss of access to traditional water sources. A case in point, which came out during a roundtable discussion, was the situation of the Bugkalots, Ifugaos, Kalanguyas and Ibalois, all indigenous peoples who have settled in Barangay Didipio, Kasibu, Nueva Vizcaya in northern Philippines. Barangay Didipio had been host to the country's first Financial and Technical Assistance Agreement (FTAA) granted in 1994 to Australian company Climax Arimco Mining Corporation for its copper-gold project. This FTAA was later transferred to Australasian Philippines Mining Inc. and then to Oceana Gold Philippines, Inc. In 2007, OGPI-affiliate North Luzon Sustainable Development Corporation (NLSDC) filed four water permit applications with the National Water Resources Board to divert 3.8 million cubic meters of freshwater annually from the Tubo Creek and Dinauyan River. If approved, the

water abstraction will affect local agriculture (this volume of water for irrigation can be used to produce some 1,538 metric tons of rice), and exacerbate the droughts brought about by the El Niño Southern Oscillation. (LRC, undated)

Moreover, OGPI operations will generate waste, which will be dumped into tailings ponds in upstream areas of the Addalam River watershed. Leachates and other discharges will pollute the Addalam River and render the Addalam River Irrigation Project inoperable. Discharges from the mine processing plants and tailings ponds can seep into the aquifer and render the water unfit for human consumption and environmental maintenance, thereby altering the day-to-day domestic use of water among the indigenous peoples. Didipio residents have opposed the WPAs but the continuing absence of an NWRB decision is being seen by the IPs as a denial of their traditional right to use of water.

DRTS members from the Visayas and Mindanao have also shared similar experiences vis-à-vis mining operations and companies encroaching on their watershed areas and affecting not only water supply or access to these, but also quality. For instance, loss of access to water supply could also be exemplified by the damage to the intake structure of the Alang-alang Water System in Leyte, central Philippines. Under the general terms and conditions of Industrial Sand and Gravel permits, no extraction, removal and/or deposition of materials shall be allowed within one kilometer from reservoirs established for public water supply. The LGU, however, issued an area clearance to support the application for renewal of the ISAG permit purportedly because the proponent had filed an application.

Meanwhile, the lack of knowledge about water rights and unevenness in the application process have led to water use conflicts between different user groups and water service providers. In Barangay Patag, also in Leyte, which hosts the springs from which the Baybay Water District (BWD) obtains its water supply, the barangay officials reportedly did not have information regarding water rights held by the BWD for sources within its jurisdiction. Neither were they aware of national government policies with direct implication for their access to safe, potable water. Although the BWD has allowed Barangay Patag to use a spring box to supply the

domestic water needs of the community, the barangay council is concerned that a change in the BWD management may result in the revocation of the usufruct due to the absence of a document formalizing the arrangement.

Moreover, the barangay councils of Patag, Gabas, and Guadalupe have opposed the project of the BWD to develop surface water filtration facilities that obtain water from the river used by farmers as their traditional source of irrigation. The inability of farmers to adapt to reduced water budgets can now make previously irrigated paddies unproductive. The protest has not been acted upon by the NWRB and negotiations with the BWD have not been re-opened.

Uneven access

Many advocates of improved access to and equitable allocation of water openly wonder why financially-affluent communities can have enough good quality water to flush their toilets, while economically-depressed areas usually do not have enough for basic consumption. The usual contention is that the rich can afford it and the poor can have it if they can pay for it.

Data show that if a piped system exists, residents get their water from this source—even if they have to stand in line at communal faucets. They wash their clothes and dishes, and take their shower there. They even use the water from piped systems to flush their toilets, water their plants, or clean the pigpens and poultry houses. In the absence of a piped system, people get their water for drinking and cooking from safe sources like springs and shallow tube well pumps. For other purposes, water from streams, rivers and open dug wells are good enough. Table 5 gives an example through the consumption ways in Eastern Samar.[v]

Table 5. Highest Percentage of Households in Selected Barangays of Salcedo, Eastern Samar Getting Water for Various Uses from Different Sources as of 2002

Uses of Water	Identified Sources of Water		
	Open Dug Well	Stream/ River	Spring
Drinking	9.73	7.69	41.60
Washing Clothes	26.55	47.06	17.31
Washing Dishes	27.43	32.35	17.31
Showering/Bathing	24.78	32.77	17.31
Flushing Toilets	27.43	27.73	10.50
Watering Plants	30.09	28.99	11.76
Cleaning Pigpens & Poultry Houses	9.73	32.69	17.31
Washing Cars & other Vehicles	0.42	2.10	2.10

Source: Authors' survey; also see Dargantes, Buenaventura and Dargantes, Marx Anthony, Philippine Experiences in Alternatives to Privatization of Water Services, in Water Democracy: Reclaiming Public Water in Asia, November 2007, published by Transnational Institute and Focus on the Global South.

Data from the National Statistics Office show that except for ARMM where data could not be obtained, 28 percent of Filipino households get water from Level III systems (piped connections), 20 percent from Level II systems (communal faucets), 16 percent from deep-well pumps with shared usage, and nine percent from deep-well pumps for own use, both of which are Level I systems or from point sources. Some eight percent of the households obtain their water from springs, rivers or lakes. (Please see Table 6)

Shallow Tube Well Pump	Deep Well Pump	Piped Water System
40.76	7.98	100.00
24.79	7.98	95.56
29.83	8.40	95.56
24.37	7.98	95.56
24.79	7.98	86.67
21.01	7.56	91.11
11.34	2.10	50.00
2.10	2.52	5.00

Table 6. Percentage Distribution of Households by Main Source of Water Supply for Drinking and/or Cooking by Region, 2002

Region	Total Number of House-holds	Main source of water supply for drinking				
		Comm-unity water system for own use	Comm -unity water system with shared faucet	Tube/ piped deep well for own use	Shared tube/ piped deep well	Piped shallow well
Region I	831,549	16.84	8.89	23.28	25.62	14.92
CAR	263,851	34.31	26.82	4.95	9.83	3.99
Region II	554,491	11.96	6.77	17.15	26.20	18.09
Region III	1,632,047	30.75	12.63	19.98	20.16	11.36
Region IV - A	2,132,989	50.78	24.29	3.97	9.69	0.61
Region IV - B	2,413,043	34.43	17.69	10.08	14.79	5.60
Region V	893,833	20.15	21.77	7.48	14.00	8.28
Region VI	1,211,804	14.13	13.81	8.66	22.22	8.68
Region VII	1,133,767	21.59	24.67	3.43	15.65	11.71
Region VIII	715,070	17.63	33.49	4.38	14.59	5.78
Region IX	595,831	19.19	24.68	2.92	9.27	5.09
Region X	542,071	29.60	28.94	2.47	8.84	2.96
Region XI	1,066,199	24.20	19.38	6.73	16.85	7.04
Region XII	501,870	18.05	15.33	10.54	15.94	9.61
Region XIII	393,362	20.11	29.38	4.59	15.45	5.68
ARMM	no data	no data	no data	no data	no data	no data
Philippines	14,881,777	27.80	19.60	9.21	15.97	7.17

Source: 2003 Press Releases: 2000 Census of Population and Housing, NSO.

These observations and official statistics indicate that water use is constrained by availability and access. Water quality is critical for drinking, cooking and personal hygiene, but for other uses, only a

certain level of quality is required. Although multiple systems of water supply have existed in many societies, the notion that economic efficiency should be the overarching concern to improve the delivery of high quality water has led to an insistence on a single system of water delivery. This has, unfortunately, diverted attention away from the optimization of access to various sources.

and/or cooking		
Dug well	Spring, lake, river	Others
6.92	2.26	1.27
4.02	12.28	3.80
14.15	4.57	1.12
1.45	1.39	2.28
0.61	0.17	9.87
5.60	5.21	4.99
13.92	10.19	4.21
17.30	9.81	5.38
11.71	13.71	5.04
11.61	9.08	3.52
15.76	19.66	3.43
5.10	19.98	2.10
4.26	18.51	3.03
10.80	16.62	3.11
6.64	16.15	2.01
no data	no data	no data
7.50	8.26	4.49

Multiple supply systems that accommodate water's conjunctive uses, meaning using the same water for washing, cleaning toilets and gardening, etc. in an effort to conserve the resource in urban poor settlements necessitate a rethinking of water quality standards, distribution infrastructure (including house construction standards), water abstraction regimes and price determination methodologies. Although communities and local governments have been doing multiple sourcing and conjunctive utilization of water for some time, scaling-up this system will require a corresponding capacity building of different actors to undertake the reforms. Eventually, the adoption of multiply supply systems would require a reformulation of the rules in the granting of franchises, and in the determination of franchise areas.

Waterless Areas[vi]

The National Anti-Poverty Commission has reported that there are 212 "waterless areas" in Metro Manila; and less than 50 percent of households in 432 municipalities do not have access to improved water supply sources. The country's standard for access to potable water is a "clean supply of at least 50 liters per capita daily available from water points of not more than 250 meters from the user's residence." Others include affordability, say for example, not more than two to five percent of the household income

should go to water, and reliability standards, i.e. a 90-95 percent annual rate of compliance.

These "waterless" communities are characterized in different ways. First, they are areas supplied by unprotected or poor quality sources. Many water sources in the country are contaminated by bacteria due to inadequate sanitation facilities. According to the World Bank (2005), it was estimated that access to sanitary toilets had declined from 74.9 percent in 1999 to 74.2 percent in 2000, and that only four percent of households had been connected to sewer systems. In addition, 12-25 percent of wells had yielded iron-laden water. The second type is waterless communities which have outrun local water sources. In a few rural villages for example, heavy groundwater use for irrigation has dried shallower hand-pump wells during the summer. Densely-populated islets such as Boracay are an example. Third, waterless areas also include communities and households which are unable to access sufficient potable water due to governance issues. These include the following:

- communities in conflict areas in ARMM and places where abundant water resources are available but have remained undeveloped;
- communities with contested land and rights-of-way issues: peri-urban communities which are low-priority for water supply development because of lack of tenure on their home lots[vii] and communities which cannot avail of piped water because the adjacent one will not permit the laying of supply pipes through their areas;
- poverty-stricken places, such as urban (and sometimes rural) poor families that do not have the capacity to pay for a household connection and;
- areas with supply distribution and equity issues, such as households within a system's service area, but which still have insufficient water due to illegal connections by other households, leakages and water pilferage.

Fourth, the "waterless" includes households that are too scattered or remote from each other for communal water systems, and are presently using unimproved household systems. Finally, waterless areas include communities which already have basic

point-source systems or Level I systems but aspire for household connections and therefore declare themselves as waterless.

The waterless, on the other hand, cope in various ways. The most obvious is by consuming less. Since vended water costs from 20 to 60 times the piped water system per liter, in urban poor communities supplied by vendors, the daily per capita consumption can be as little as 12 liters. Another way that waterless communities cope is by getting water from more than one source. A water-poor household may reserve the highest quality water (such as vended supplies) available to it for drinking, lesser-quality supplies such as well and surface water for other purposes, and store roof water in household receptacles whenever possible. Finally, by maintaining household scale water treatment, i.e. settling, filtering or disinfecting their water.

Poorly-resourced Small Water Systems

Overpricing and Corruption

Corruption, especially in the pricing of potable water and sanitation systems, in the water sector is one of the reasons why 100 percent water supply coverage for the country may not be attained. An analysis of the provincial water supply and sanitation master plans of the government indicates that per capita, they price such systems at an average of three times the most expensive technology (year-round rainwater harvesting) as obtained in NGO projects. In some provinces such as Tawi-tawi, the ratio is 23 times.

This overpricing scares away investment in the sector. Implementing these master plans also means applying technologies with a view towards maximum profit to contractors rather than appropriateness to the situation. In Tawi-tawi, the national government's water projects are mostly tubewells, most of which are now unserviceable due to the thin water tables in the islands. Rainwater cisterns would have been a lower-cost and sustainable investment.

Source: Gendrano, J. C. (Philippine Center for Water and Sanitation). Undated. The Philippine Water Situation.

The deterioration of small water systems over the years has been due to forced expansion without additional investments, programmed rehabilitation or maintenance, adversely affecting local water providers. In many areas covered by WDs, for example, communities adjacent to service coverage endpoints have often demanded the extension of services to them. Based on computations made by Dr. Buenaventura Dargantes, such a demand-driven expansion, when adequate resources are made available can increase the asset base of WDs by more than P800,000 for every one percent increase in coverage within the area of jurisdiction. But when the expansion is not adequately capitalized, it leads to a reduction in service performance. Negative feedback, manifested by customers' refusal to pay, can accelerate the deterioration of the service. In 2005, for instance, a one-day delay in the payment of the water bills among WDs meant foregone revenues of around P2.8 million.

Based on the same computation, many water districts that have become bankrupt or categorized as non-operational and/or non-functional have an average of P 63 million of lost assets in the water utility with service provision suspended. Non-performance of these assets, in the form of non-operational WDs, translates to un-served population. Unfortunately, to make matter worse, these WDs have more difficulty accessing financing to rehabilitate and/or improve their operational capability.

Vulnerability to Privatization

As of the latest estimate, there are nine large private water operators in the country. These include the two concessionaires in Metro Manila—Maynilad Water Services Inc., a joint venture of the Metro Pacific Group of DMCI Consunji servicing the west zone, and the Ayala-owned Maynilad Water Company Inc. servicing the east zone, the Subic Water and Sewerage Company[viii], Clark Water Corporation and Bonifacio Water Corporation[ix]. With the current thrust of the Aquino administration towards public-private partnerships (PPPs), the number of private water operators in the country will likely increase.

While majority of the utilities in the country is still public, some WDs and LGU-operated waterworks are vulnerable to privatization. NEDA Board Resolution 4 (s.1994) Paragraph (g) has ruled that local government units (LGUs) should be allowed to implement all levels of water supply projects consistent with the decentralization and devolution process and to mandate LWUA to implement only financially viable projects. LWUA is a specialized lending institution created to promote, develop and finance local water utilities. It has powers to prescribe standards and regulations, provide technical assistance and personnel training, monitor and evaluate water standards, and effect system integration, annexation and de-annexation to implement only financially viable projects. Such official mandate has created the impression that: 1) commercially-viable service areas should be turned over by government-owned and -controlled corporations (namely WDs) to private corporations; 2) LWUA should keep its hands off projects that are not financially viable; and 3) all other projects are the responsibility of the LGUs. Such a policy has provided an interesting framework for the reduction of subsidies to the poor while increasing subsidies to the private sector through concessional loans and sovereign guarantees to water financing. (AGWWAS, 2005.)

Moreover, this policy inevitably has affected the delivery of water supply services in the country. According to a creditworthiness rating undertaken by the LWUA, 14 of the 430 water districts were identified as creditworthy, 26 as semi-creditworthy and one as pre-creditworthy based on a set of financial and operational parameters. Creditworthy water districts were described as potential commercial investment opportunities (in other words, targets of privatization). Based on this rating system, LWUA has confined its concession funds to the development of semi-creditworthy and pre-creditworthy water districts so that these could graduate to become creditworthy or ready for private takeover. The other 390 or so water districts (categorized as "non-creditworthy") will have to seek "non-traditional financing" mechanisms that can "further enhance the flow of funds into the water sector". Depriving the "non-creditworthy" WDs of concessional financing have pushed many of them into availing more expensive loans, or even into bankruptcy and cessation of

operations. Financing the larger WDs that can readily avail of loans from banks and government financing institutions have effectively reduced the amount of low-cost credit available to smaller, struggling WDs.

The bias for the development of water districts for privatization has highlighted the urgency to strengthen water supply systems operated by local governments, users groups and community-based organizations. Usually, the area of coverage of local government-operated systems would correspond to the political-administrative boundaries of an LGU. Community-managed systems, on the other hand, would operate in areas not covered by water service providers; they are established based on agreements reached by the affected households. Organizationally, these systems could take the form of cooperatives registered under the Cooperative Development Authority (CDA), as BWSAs registered under the Department of Interior and Local Government (DILG), or as RWSAs registered with LWUA. Although these types of water supply systems now comprise more than 70 percent of providers in the Philippines, and have been in operation longer than all privately-operated systems, their financial resilience and capacity to take on social and environmental costs as integral components of water supply service delivery need to be publicized to provide a counterpoint to privatization. Beyond publicity, these community-managed systems also require technical assistance, institutional, policy and funding support for them to be able to contribute to the attainment of PDP 2011-2016 targets and the MDGs.

Fragmented and Weak Regulation

The fragmented institutional set-up in the water system has led to weak regulation and poor coordination. (See Box 1)

Philippine Water Regulatory Bodies

NWRB: economic regulator and resource allocator of all water service providers, except in Metro Manila; mandate covers tariff regulation, coverage and service regulation and management of water supply sector sector database including WSP performance data

LGUs: water resource regulation in their territories and economic regulation of LGU-managed utilities

LWUA: economic regulation of water districts

MWSS-RO: economic regulation of Manila Water and Maynilad in Metro Manila through water concession contracts

DENR: overall resource regulation and specific regulation on water quality and safety

Subic Bay Water Regulatory Board: economic regulation for the Subic Bay Freeport Area.

The existing structure has been characterized by a variety of regulatory practices, processes, fees, and overlapping functions and jurisdiction (PWSSR, 2008). Problems of transparency and accountability, especially on service improvement and tariff setting, have remained.

In the case of contract-based regulation, regulatory capture has been an issue. After awarding the private concessions, the MWSS has placed its Regulatory Office under the control and jurisdiction of presidential appointees who comprise the MWSS Board. Its tasks have been confined to monitoring the implementation of the contract between MWSS and the two private concessionaires, Manila Water and Maynilad, and to drafting proposals on water tariff

setting. (Roa, undated) Only the MWSS Board can approve recommended tariffs, and the RO's budget, which is actually sourced from the concessionaires' fees. There have been many instances when the MWSS RO has prioritized the interests of the private companies over that of the consumers, including the allowance of private concessionaires to pass on their corporate income taxes to consumers, despite a 2004 Supreme Court decision banning such practices in the operations of public utilities. Yielding to pressures from Manila Water and Maynilad, the MWSS Board has issued a resolution declaring the two concessionaires as not "public utilities" but mere "contractors," undermining the decision of the highest court. The resolution has also allowed concessionaires to exceed the 12 percent ceiling imposed on the return on rate base, i.e. revenues, of public utilities. (Roa, undated) This has been contested by civil society advocates, to no avail.

The need for independent economic regulation of a decentralized water system has been discussed in the sector since the 1990s, but there has been no concerted effort to achieve this. (NEDA and NWRB, 2008) Recently, using EO 279 as a policy basis, NEDA has been leading the efforts in the 15th Congress to push for the establishment of an independent economic regulator for water supply and sanitation. Bills have been filed in both the Senate and the House of Representatives to create a National Water Regulatory Commission (NWRC). The NWRC will centralize economic regulation functions currently held by LWUA, NWRB, MWSS-RO and other specialized bodies. Resource regulation is being treated as a separate issue, and the current proposal is to keep this mandate in the hands of the NWRB.

Recognition of Small Water Services Providers

Small systems comprise the bulk of water infrastructure in the country. Ninety percent of identified 1,600 urban piped water systems have less than 5,000 connections. (Esguerra, et al., undated) In sum, these small-scale providers are servicing a total of 11 million of 34 million Filipinos with house connections.

Small-scale water service providers (SSWPs) have yet to be fully legally recognized as players and contributors in the water

service sector. Thus, they have often found themselves in conflict with "formal" water providers and centralized utilities. The case of the Binangonan[x] water cooperatives is instructive. Their right to operate has been put at risk when franchise-holder Manila Water started to expand services in Rizal province. While efforts have been made to come up with a light-handed regulation[xi] for them, the current regulatory and financing mechanisms for water utilities have not been in their favor.

Small-scale water service providers have demonstrated the capability to bridge the gap in water service provision. Some unplanned/informal settlements have problems regarding access to water because WDs or LGU-operated waterworks sometimes require proof of ownership of the land and/or of the dwelling unit prior to providing a service connection. Also, to discourage residents from going to identified geo-hazard zones, water services in these areas have been rendered unreliable.[xii]

Community self-provision has been demonstrated by three water service cooperatives in Caloocan City, a service area of Maynilad Water Services, Inc. which has failed to provide direct connections to poor communities within and along the peripheries of their concession areas. Through the support of a national NGO[xiii], the cooperatives have taken on the cost of reticulating the service area, of connecting with the water source, and of initial operations, incorporating these as the minimum capital contributions of the original members or cooperators. The paid-up capital had been used as initial payment for the bulk water connection. Once operational, other residents have come to apply for connections, and the collections have been used to purchase and install new pipes. Soft loans have allowed the cooperatives to adopt a strategy of incremental reticulation by purchasing pipes in bulk and laying the pipes faster.

Despite such successes, the claim of water utilities of exclusivity over their respective service areas can dampen initiatives to organize associative/cooperative water systems, which are good alternatives when central utilities fail to extend service.

Unregistered Users of Traditional Sources: The Case of Calapan City, Mindoro

In Calapan City, Mindoro, residents of Barangays Sta. Isabel, Bayanan I, Bayanan II, Puting Tubig, Malad and Sapul have opposed the proposal of the Calapan Water System and Development Corporation to construct pumping stations. These barangays have several free-flowing wells as traditional sources of water for domestic use as well as for irrigation. Over several generations, the people have devised a mechanism for distributing water to every resident that is "perfectly potable" free of charge.

In 1952, the CWSDC was established to extract water from wells, and then fed the water into a piped system for distribution to consumers. With increasing demand, the company has extracted water in quantities greater than the recharge rate of the aquifer. Over time, salt water has intruded into the company's wells and in the privately-owned wells of residents. CWSDC continues to supply water to 30 percent of Calapan's households, who reportedly get foul smelling and dirty tap water.

Faced with this situation, the residents now fear that the CWSDC's proposed pumping stations will dry up the existing wells and that several households and farms will lose water; and that groundwater will also be endangered by saltwater intrusion. For them, surface water is a better alternative to meet increasing demand. The CWSDC, however, has responded with a strategic lawsuit against public participation against the six barangay chairpersons. After the NWRB had approved the water permit application without public hearing, the CWSDC drilled in an area that was 2.5 kilometers south of the location stipulated in the water permit.

Alternative Models for Provision and Resource Management

Alternatives and on-the-ground solutions to water problems abound but have been getting little policy and institutional support from the national government. Using the political criteria of the Municipal Services Project[xiv], a global initiative that systematically explores alternatives to the privatization and commercialization of service provision in the health, water, sanitation and electricity sectors, their alternatives warrant government's attention:

Innovative models. There innovative models of water service delivery are neither private nor old-style public. When mining companies applied to mine inside the Sibalom watershed located in Central Philippines, community-based water users, village and municipal governments, WSPs and NGOs banded together to oppose the approval of the applications. They also invited researchers to conduct studies to estimate the benefits of watershed protection as means of opposing mining applications within the watershed area. In doing so, the major beneficiaries of the Sibalom watershed were able to gain deeper insights into the non-use and bequeath values of the ecosystem and effectively opposed the mining application.

Defending the public sector against commercialization. The public water sector union, Alliance of Government Workers in the Water Sector, a PSI-affiliate, and the Philippine Association of Water Districts (PAWD) have separately firmed up their positions opposing the official policy to privatize financially viable water districts (Chiong 2007, 58). Both organizations believe that water districts, as public entities, are still the best option in the delivery of water services. Moreover, through a series of trainings to enhance the capabilities of labor and management, participating water districts have started to evolve a set of performance benchmarks for their own use. The information derived from the initial benchmarking exercises have provided both labor and management with insights into their respective financial and operational status, which further strengthen their resolve to retain water districts in the public domain.

Reinvigorating public water services. When water utilities are not directly threatened by privatization or commercialization they normally are pressed to meet their performance targets and improve services or else they come under fire. Under such circumstances, some WSPs embark on alternatives to reinvigorate service delivery of their public water systems. This can be exemplified by the joint efforts of the village and municipal councils, NGOs and academic

institutions of Salcedo, Eastern Samar in Central Philippines to delineate the boundary of their watersheds. Through their joint efforts, the village and municipal councils passed appropriate legislation proclaiming the watershed as a protected area. The local legislation equipped the village and the municipal governments with the legal mandate to formulate and implement programs to ensure sustainable water supply and defend their sources against resource degradation.

Reclaiming public services. While there have been no cases where privatized water services either re-nationalized or re-municipalized, as has been occurring in other parts of the world (see www.remunicipalisation.org), there was an opportunity to re-nationalize the Maynilad Water Services, Inc. (MWSI) in the Philippines in 2006 when it declared bankruptcy, and its former owners, the Lopez family, signaled their intention to return the private concession back to the state. Despite this intent, and campaigns by civil society and public interest groups for renationalization, the Philippine government maintained its position to have the utility operated by a private corporation.

Some communities, although not directly engaged in legally reclaiming public services, establish mechanisms to ensure that water services remain in the public domain or under community control. This type of alternative was implemented by the Residents Association of Tinagong Paraiso, in cooperation with a local NGO, and the Bacolod City Water District (BACIWA) in Central Philippines. By establishing community tap stands, and by having these managed and maintained by the Association, access to safe drinking water reverted to community control instead of being operated by private concessionaries of the water district, who charged high prices for retailing the water to slum residents (ADB 2003). Similarly, the Bagong Silang Community Water Service Cooperative of Caloocan City, located in Metro Manila, an urban-based utility owned by water users, managed to secure dependable water supply

from MWSI, a private, third party bulk water supplier. Through the cooperative, democratic control and peer-level monitoring and enforcement of rules in the establishment of improved water supply and distribution systems was ensured. (Villanueva and Local Governance Team, 2009)

Future alternatives. Some models are still being discussed for implementation. At the community-level, the village government/councils of Patag and Gabas of Baybay, Leyte in Central Philippines have initiated negotiations with the Baybay Water District to allow both communities to source water from a spring, to which the water district holds a water right. Moreover, the village councils have requested to turn over the management of the reservoir, pipelines and other facilities within the village to them. In return, the village will undertake watershed conservation in the catchment that will serve as a source of water supply and protect the facilities installed by the water district for the production, treatment and distribution of water to the municipality of Baybay, Leyte. If implemented, such arrangements can address a major paradox— because communities inside watersheds usually will not be served by the water utility. Moreover, the arrangement can strengthen partnerships between village governments and water utilities in the aspect of watershed management by host communities.

Ways Forward for the Water Sector

In response to the above critical issues and challenges, participants of the roundtable discussions and sub-national consultations have articulated possible responses.

Ratify the UN Resolution on the Right to Water

Resolution 64/292 of the UN General Assembly enshrining the right to water upholds the resource primarily as a social and cultural good, and only to a lesser extent as an economic good, which present and future generations should be able to enjoy. It calls on states and international organizations to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all.

If the Philippine government ratifies UN Resolution 64/292, and declares the right to water as a state policy, the state will have a legal obligation to ensure that everyone has sufficient, acceptable and affordable water for personal and domestic uses.

Ratification of the right to water will further enhance other water-related guaranteed rights, such as water for food, to ensure domestic food security and food supplies for food-deficit regions; water for the environment for the maintenance of natural ecosystems, environmental hygiene and healthful ecology; water for securing livelihoods, for food production, commerce and industry or power generation; water for cultural practices including access to traditional water sources and protection against unlawful encroachment and pollution, and; water to render all dwelling units and houses livable and with minimum sanitation facilities. As a basic right, the Philippine government will then be duty-bound to ensure its realization in terms of respecting the people's enjoyment of the right of protecting or preventing third parties such as corporations from interfering in any way with the enjoyment of the right, and fulfilling or adopting necessary measures to achieve the full realization of the right to water.

To realize and make functional the right to water necessitates a review of the Philippine Water Code, the Clean Water Act, the Philippine Mining Act, the Provincial Water Utilities Act and a myriad of other laws, executive orders, administrative orders and even local legislations, which may be in conflict with government's responsibility in the implementation of the right to water. A shift to a rights-based perspective in the reformulation of the various water-related laws can facilitate the resolution of issues that have been critically affecting the delivery of water services.

Specifically, every Filipino should have the right to water to live a dignified life, i.e. a lifeline rate. Based on the UN parameters, this is at least 20 liters of potable water per day.[xv] The state also has the obligation to provide services to communities which are waterless, extremely poor, indigenous communities and refugees. In the enjoyment of this right, each Filipino has the allied obligation of practicing sanitation, hygiene and proper wastewater disposal for the promotion of the rights of the environment against degradation

and that of everyone against diseases and poor health. Likewise, the state shall be responsible for enabling a citizen to exercise this right.

In sum, a policy environment responsive to people's fundamental right to water is needed.

Popularize the Rules, Policies and Roles of Agencies

Rules, policies and roles of institutions, governing the water sector have not been disseminated, much less understood, by LGUs and communities. The information differential has significantly contributed to the disenfranchisement of communities and LGUs to benefit from using locally-available water resources. The Philippine Development Plan 2011-2016's strategic focus on developing a lead agency for the water sector "to assume the functions of policy making, coordination and resource regulation…" can be helpful in addressing these deficiencies, and in tackling the coordination problems of more than 30 water agencies. But there is no mention of how the critical water situations at the local level will be handled, which endangers a lead agency into becoming just another layer of bureaucracy.

The Philippine Water Code should be popularized and a systematic information drive on water rights and the application process should be launched. The NWRB can deputize the LGUs to do this, and enlist the expertise of civil society and academic institutions in disseminating the information on water rights.

The following are also recommended:

(1) Institute and uphold indigenous peoples' and communitarian rights over resources, through their inclusion in the Water Code or the IPRA[xvi];

(2) Review the Mining Act, with the goal of banned mining in critical watersheds that are sources of water supply for domestic use and irrigation, and;

(3) Pass legislation to protect, conserve and rehabilitate watersheds supporting the National Irrigation Systems. Protecting the 143 watersheds supporting 165 National Irrigation Systems, which provides irrigation services to a total area of 4.32 million hectares of land, is urgent. Most of these watersheds presently have no legal protection and have been subjected to degradation and mining operations.

Ensure Sustained Financing and Investment Support

The PDP 2011-2016 fails to address the low level of investment and lack of financing in waterless areas. Even the Financing Program for Small Town (ST) and Rural Water Service Providers (RWSPs) proposed in the Philippine Water Supply Sector Roadmap only seeks "to provide information and establish a database of possible financing, investment opportunities and technical strategies . . . with the end in view of improving the financing environment, financial support capacity of NGAs and establishing financial support mechanisms for LGUs and WSPs."

A major concrete step should be to completely reverse the mandate of NEDA Board Resolution 4 (s. 1994), specifically, paragraph (g) which provides the details of the delineation of tasks of water-related agencies. Instead, LWUA should be tasked to exercise its specialized lending operations to provide financing to struggling WDs and RWSAs rather than just focus on Level III service providers or viable WDs. In the course of implementing such a re-oriented mandate, LWUA may need to strengthen its own capabilities to provide technical assistance and personnel training to WDs and RWSAs. Nevertheless, re-tooling LWUA for this new task can be subsumed under the proposed Capability Building Program for LWUA contained in the Policy Directions and Priority Programs of the Philippine Water Supply Sector Roadmap.

Interviews with water district officials have revealed that financially better-off WDs have been approached by representatives of government financial institutions (GFIs) to inquire about their financing requirements and/or to offer them financing services. These utilities through their national association, the Philippine Association of Water Districts, and the regional associations have been helping each other in a big brother-small brother relationship or otherwise known as Public-Public Partnerships (PuPs). These WDs have demonstrated their willingness to provide technical assistance and personnel training to struggling WDs. The re-orientation of LWUA's lending operation will not only support such PuPs but also favor smaller WDs and, ultimately, ensure the sustained operations of provincial water utilities.

For associative water systems or cooperatives and consumer/user-owned associations, especially in informal settlements, sustained financing can be developed more quickly through a convergence of the mechanisms for performance-based grants with government's current alternative financial services (in conjunction with the micro housing program).

Strengthen the NWRB's Role as Main Regulator[xvii]

While a single economic regulator in the water sector aims to address the messy and fragmented regulatory environment, economic and resource regulation should not be separated for two reasons. One, there is no need to create another layer of bureaucracy and, second, economic regulation must take into consideration resource sustainability, use and conservation of water, i.e. environmental costs/right of the environment. Regulation must also address the decentralized and devolved set up of the water supply system in the country. Further, economic regulation should be viewed not only from a rights-based approach but also consider sustainability and the right of the environment.

NWRB's mandate should be strengthened by providing it with adequate budget and deputizing it in the regions. It should be recognized that NWRB is the ultimate regulator that should protect the consumers, particularly the poor and those in the unserved areas.

For small water service providers (SWSPs), the NWRB and CDA should create the implementing rules and regulations on the light-handed regulation for cooperatives and water service associations. Light-handed regulation[xviii] is a set of specified rules that allows smaller water systems, in this case, consumer and user-owned water systems, leeway and discretion to meet its regulatory targets. Specifically, it was designed to reduce information requirements and high compliance costs, while introducing clear incentives for good performance. Further, it was formulated to secure the legitimacy of water service cooperatives and associations, protect their economic interests, encourage their operational viability, allow them to hold their bulk water suppliers accountable, and promote trust and support for them.

Improve the Management and Utilization of Databases and Information Systems

Government should aim for harmonized data in the water sector to aid proper planning and identification of appropriate policy solutions and interventions. Harmonization requires multi-agency and multidisciplinary collaborative work, and possibly, the creation of a core group of researchers and practitioners. The ensuing research can generate detailed options for managing water resources and services.

There is no need to wait for a lead agency before attending to the task of improving the availability, management and utilization of existing databases and information systems. The Sub-Committee on Water Supply and Sanitation of NEDA's InfraCom can spearhead the harmonization and management of data, conduct periodic reviews, evaluation and assessment of the sector, and set the agenda for research and policy analysis. Strengthening the information systems in the water sector requires the inclusion of representatives from the Department of Science and Technology (DOST) and zonal universities involved in research on water resources and services.

Information for dissemination should include operational experiences that can be scaled-up or applied under specific socio-economic conditions. Improved databases and information systems should incorporate Integrated Water Resources Management (IWRM) approaches into the local and regional development planning processes.

Research should be in the agenda of government, especially on organizational typologies for managing water resources and (e.g. multiple supply systems and conjunctive utilization) to help develop standards for measuring success/failure in the management of water services. Such studies can help produce operational definitions, organizational typologies, political criteria and determinants of success/failure of alternatives and a results-based monitoring and evaluation system keen on environmental and social-economic contexts.

Promote and Support Progressive Models

The needs of the water sector go beyond huge investments, financing and technology, and addressing them will require

governance and management models that respond to changing physical conditions as well as socio-economic realities and policy environments. One key proposal is to support and create an enabling environment for strengthening public-public partnerships (PuPs), for example on Integrated Water Resources Management among LGU-operated and community based water systems. Examples discussed in the Section on Critical Water Issues Pose Challenges (the alternatives part) should be studied.

Government should also fully recognize and provide ample support to small water service providers to enable the latter to bridge the gap in water service provision. These alternative water systems should need protection from incursions by central water utilities and support through: a) long-term financing for capital expenditures especially for poor areas and b) matching of community contributions with local government allocations for non-poor areas, but which are commercially unviable for water utilities. Associative water systems can be provided performance-based grants that will allow them to source funds for water projects.

The performance criteria can include commitments to:
(a) provide water to all households, especially the poor, within a service area with specified number of hours of service per day at an agreed-upon water pressure during regular service hours;
(b) comply with the National Drinking Water Standards;
(c) limit tariffs to five percent or less of the income of poor households and;
(d) generate revenues to cover operations and maintenance expenses, while providing for depreciation, interest on loans and financing charges.

At the same time, institute policies that can strengthen water supply systems operated by LGUs, user groups and community-based organizations. These water supply systems comprise between 30 to 60 percent of providers in the Philippines, and have been in operation longer than many of the other systems, yet their financial resilience and capacity to take on the task of water service delivery has not been adequately publicized nor supported.

The application of technology and management systems appropriate to the need of each waterless community is warranted.

Some low-cost appropriate technologies have already been proven in the field, while others are under development. Studies by the Philippine Center for Water and Sanitation show that together with community participation and conscientious and transparent procurement, these appropriate technologies can be cheap: financial costs only from one-sixth to one-fourth of World Bank estimates for rural water supply and sanitation and economic costs are only from one-third to one-half. (Gendrano, undated) Examples of low-cost appropriate technologies are practiced by a few NGOs, LGUs and the water and sanitation volunteers of agencies like Plan International, Catholic Relief Services, US Peace Corps, VSO and GIZ. These should be documented and studied and information about them disseminated widely.

Finally, the governance of trans-boundary water, river basins and/or water quality management areas also needs sorting out. As water flows across physical boundaries, water divides might not conform to politico-administrative delineations, requiring different set of policies and management arrangements. The DENR should implement the formation of river basin bodies and water quality management boards as mandated in the Clean Water Act. This includes instituting mechanisms for conflict resolution on trans-boundary waters. The non-implementation of these measures over the years has negatively affected the whole resource sector. This issue should be given ample attention in the formulation of a water sector research agenda in search for options that can "encourage sustainable use of resources to benefit the present and future generations." (Benigno S. Aquino III, Social Contract with the Filipino People)

The water sector, especially communities, has remained resilient despite the absence of adequate helpful governance mechanisms and necessary reforms in policies by government. The stories from the ground reflect a collective desire to change the flow of the sector. Their visions show and reflect how water should be valued and managed their resolve to create competent and functioning institutions, and carve out spaces for ordinary people and politicized citizenry to democratize decision making and protect this precious resource. President Noynoy Aquino's government has this wealth of inputs and wisdom from below to rely

on, and all it needs to do now is harness them before it's too late to abate an impending crisis.

Acronyms

AGWWS	Alliance of Government Workers in the Water Sector
AWAS	Alang-alang Water System
APMI	Australasian Philippines Mining Inc.
ARMM	Autonomous Region of Muslim Mindanao
BCM	Billion Cubic Meters
BWD	Baybay Water District
BWSA	Barangay Water and Sanitation Associations
DBP	Development Bank of the Philippines
DOF	Department of Finance
CWSDC	Calapan Water System and Development Corporation
ELSO	El Niño Southern Oscillation
GOCC	Government Owned and Controlled Corporations
GTZ	German Technical Cooperation
ISG	Industrial Sand and Gravel
IRR	Implementing Rules and Regulations
IWRM	Integrated Water Resources Management
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
LGU	Local Government Units
LWUA	Local Water Utilities Administration
MCM	Million Cubic Meters
MWSS	Metropolitan Waterworks and Sewerage System
MTPDP	Medium Term Philippine Development Plan
NEDA	National Economic Development Authority
NLSDC	North Luzon Sustainable Development Corporation
NWRB	National Water Resources Board
OGPI	Oceana Gold Philippines, Inc.
PAWD	Philippine Association of Water Districts
PDP	Philippine Development Plan
PPPs	Public-Private Partnerships
PuPs	Public-Public Partnerships
PWRF	Philippine Water Revolving Fund
P3W	President's Priority Program on Water
RWSA	Rural Water and Sanitation Associations
SCWR	Subcommittee on Water Resources
SLAPP	Strategic Lawsuit Against Public Participation
SWIF	Small Water Utilities Improvement and Financing
USAID	United States Agency for International Development
WDs	Water Districts

Endnotes

[*] The paper is a collective work of the DRTS Water Thematic Working Group and a result of the Development Roundtable Series Integrative Process. Other contributors include Agnes Balota of Water Commons Institute, Dianne Roa of Freedom from Debt Coalition (former staff), Elvira Balalad of Pambansang Koalisyon ng mga Kababaihan sa Kanayunan (PKKK), Jose Carmelo Gendrano of the Philippine Center for Water and Sanitation (PCWS), Kristine Mae Quiray, Jude Esguerra, and Erik Villanueva of the Institute of Popular Democracy Mae Buenaventura of Women's Legal Bureau, Maria Aurora Teresita W. Tabada and Lilibeth G. Miralles of ISRDS, VSU, Ronald Gregorio and DS of Legal Rights and Natural Resources Center, and Victor Chiong of the Alliance of Government Workers in the Water Sector.

[i] According to the World Health Organization and UNICEF's Joint Monitoring Programme (JMP) (http://www.wssinfo.org), "access to an improved water source refers to the percentage of the population with reasonable access to an adequate amout of water from an improved source such as household connections, public standpipe, borehole, protected well or spring, and rainwater collection. Unimproved water resources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling".

[ii] These include cooperatives which are organizations formed pursuant to the Cooperative Code of the Philippines to operate and maintain a water supply system; Barangay Waterworks and Sanitation Associations or BWASAs are non-stock, non-profit organizations composed mainly of residents of a village envisioned to operate and manage Level I water supply facilities; and Rural Waterworks and Sanitation Associations or RWASAs are non-stock, non-profit organizations composed of residents of a village or of adjoining villages envisioned to operate and manage Level II water supply facilities.

[iii] The prioritization of appropriation and allocation of water rights is in the following order:

- Domestic, which refers to the "utilization of water directly drawn by a household for drinking, washing, bathing, cooking or other household needs, and watering of home gardens, lawns or domestic animals";
- Municipal, the "utilization of water for supplying the water requirements of a community, whether by piped or bulk distribution for domestic and other uses, direct consumption, the drawer or abstractor of which being the national government, its subsidiary agencies, local government units, private persons, cooperatives or corporations";
- Irrigation, which refers to "the utilization of water for producing agricultural crops; except when justified by the type of irrigation system, soil conditions, kind of crop, topography and other factors, water permits for agricultural use shall be granted on the basis of one liter per second per hectare of land to be irrigated.";
- Power generation or the utilization of water for producing electrical or mechanical power;
- Fisheries or the "utilization of water for the propagation and culture of fish as a commercial enterprise";
- Livestock-raising, which refers to the "utilization of water for large herds or flocks of animals raised as a commercial enterprise";
- Industrial or the "utilization of water in factories, industrial plants and mines, including the use of water as an ingredient of a finished product"; and
- Recreational, which refers to the "utilization of water for swimming pools, bath houses, boating, water skiing, golf courses and other similar facilities in resorts and other places of recreation". (PD 1097, 1976)

[iv] The Code also identified the instances when water permits should be secured. These include a) appropriation of water for any purpose except for family domestic purpose; b)

change in purpose of the appropriation; c) amendment of an existing permit/authority (such as change in point or nature of diversion, amount of appropriation, and period of use); d) transfer or lease of water right; e) temporary appropriation and use of water; f) developing a stream, lake, or spring for recreational purposes; g) lowering or raising the level of the water, or draining a lake, river or marsh; h) transbasin diversion; and i) dumping of mine tailings or wastes into a river or a waterway. The only situations when a water permit is not warranted are for "purely domestic purpose" or water use of not more than 250 liters per capita per day by a single household' appropriation of water by means of hand-carried receptacles; bathing, washing, watering or dipping of domestic or farm animals; and navigation of watercrafts or transportation of logs and other objects by floatation

[v] Eastern Samar is a good example of how people in rural communities source and use their water.

[vi] This section is lifted from the contribution of Engr. Jose Carmelo Gendrano of the Philippine Center for Water and Sanitation, Philippine Water Situation, undated, unpublished report. See the contribution part at the end/references.

[vii] Related to this, some 'water-less' urban households are renters who do not see the expense of a household connection as justifiable because they consider themselves transients in their community. They are content with purchasing water from their landlords or vendors

[viii] A joint venture between Filipino construction firm, D.M.C.I. or DM Consunji, Inc., the British water utility specialist Biwater, the Subic Bay Metropolitan Authority which previously operated the water supply and sewerage system in the Subic Bay Freeport, and the Olongapo City Water District, the former operator of the water system in Olongapo City

[ix] Both are subsidiary of Veolia.

[x] Water service provision in Binangonan, Rizal used to be run by the barangay or village councils or by the homeowners' association until the Municipal Council passed it to the cooperatives in the late 1980s until 2002.

[xi] This has been the result of years of advocacy by water rights groups including the DRTS.

[xii] In response, homeowners have formed associations and negotiated bulk water supply agreements with utilities, or developed their own sources of water supply and established their own distribution systems.

[xiii] The Institute of Popular Democracy provided technical assistance and capacity building to the water service cooperatives in Bagong Silang.

[xiv] The Municipal Services Project Phase III is a five year inter-sectoral and interregional study that systematically explores "non-commercialized alternatives" to service provision, with a focus on three systems: health, water/sanitation and electricity. It also focuses on historical, contemporary and proposed alternatives to service commercialization in these sectors, with research in Sub-Saharan Africa, Latin America and Asia.The project is anchored by Dr Greg Ruiters (Rhodes University, South Africa) and Dr David McDonald (Queen's University, Canada). The steering committee is composed of Equinet (Regional Network on Equity in Health in Southern Africa), Africa Water Network (Ghana), Red Vida Network (Vigilancia Interamericana para la Defensa y el Derecho al Agua), University Mayor San Simón (Bolivia), Focus on the Global South (Bangkok, Manila, Mumbai), Transnational Institute (Amsterdam), PSIRU (Public Services International Research Unit) (UK), and School of Oriental and African Studies (UK). This section is extracted from the research of Dargantes, B.B., Manahan M. and Batistel, C. 2011 (forthcoming) "Springs of Hope: Alternatives to Commercialization of Water Resources and Services in Asia", in Alternatives to Privatization Public Options for Essential Services in the Global South, David A. McDonald and Greg Ruiters (eds.). Routledge.

[xv] Potable being defined as free of coliform conforming to national standards of clarity, colorlessness, odor, taste, skin-feel and allowable objectionable chemical content; from a water-point no more than 250 meters from his domicile.

[xvi] The consultations, especially the Northern Luzon sub-national consultation, highlighted that indigenous peoples' water rights were clearly not addressed in the Philippine Water Code and not elaborated in the Indigenous Peoples' Rights Act. This has created problem for the indigenous peoples, especially, in light of the Mining Act of 1995.

[xvii] This was the result of a roundtable discussion among the members of the DRTS TWG on October 30 and November 13, 2008.

[xviii] The light-handed regulation is a direct result of the advocacy of civil society, including DRTS-Water, to recognize the significant role of SWSPs and to address their particular needs.

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ANNEX 1
Key Water-Related Agencies, Mandates and Enabling Laws

Institution	Enabling Law	Mandate/Function
DENR:	E.O. 192 of 1987	Lead agency in, among others, promulgating the (1) rules and regulations for the control of water, air and land pollution and (2) ambient and effluent standards for water and air quality.
Environmental Management Bureau (EMB)		Primarily responsible for the management, conservation, and development of forest lands and watersheds, and maintaining water quality, air, land, noise and radiation; approves environmental impact statements and issues Environmental Compliance Certificates
Forest Management Bureau		Formulates and recommends policies and programs for the effective protection, development, management and conservation of forest lands and watersheds
Protected Areas and Wildlife Bureau		Undertakes the protection and conservation of natural wetlands such as lakes, marshes, swamps, etc.

National Mapping and Resources Inventory Authority (NAMRIA)		Responsible for integrated surveys, mapping, charting, oceanography, land classification, aerial photography, remote sensing, etc.
Laguna Lake Development Authority (LLDA)		Responsible for regional water resources development and management in the Laguna Lake catchment area
DOE:	R.A. 7638 (DOE Act of 1992)	Allocate reforestation, watershed, management, health, and/or environment enhancement fund
National Power Corporation	R.A. 6395 (NPC Chapter); EO 224 of 1987	Authority to take water from any public stream, river, creek, lake or waterfall for power generation; complete jurisdiction and control over watersheds and surrounding the reservoirs of plants and/or projects
Philippine National Oil Company	EO 223 of 1997	Jurisdiction, control, management and protection, development and rehabilitation of watershed reserves
National Electrification Administration		Promotes, encourages and assists public service entities to achieve service objectives, implements mini-hydro projects

Office of Energy Affairs		Promotes development of indigenous energy resources such as mini-hydro projects
NEDA:	EO 230 of 1992, Proclamation no. 3, 1986	Policymaking and infrastructure, coordination of activities of various sectors Coordinates the preparation of national development plan and investment programs: formulation of sector policies and strategies, and monitoring implementation of policies, programs and projects
Infrastructure Staff		Formulates and approves policies on water resources
Regional Development Councils (RDCs)		Sets direction of economic and social development in the region through which regional development efforts are coordinated
Investment Coordination Committee/NEDA Board		Evaluates/appraises/approves major development Projects
SubCommittee on Water Resources	Board Resolution number 2, 2009	Ensure the implementation of the Philippine Water Supply Sector Roadmap. Advise the NEDA Board and the InfraCom on policies and issues related to the water sector.

DA: National Irrigation Administration	E.O 223 of 1997	Improve, construct, and administer all national irrigation systems of the country as well as concomitant activities such as flood control, drainage, land reclamation, hydropower development, watershed management, etc.
Bureau of Soils and Water Management		Undertakes assessment, development and conservation of existing and potential soil and water sources for agriculture; undertakes cloud seeding activities
Bureau of Fisheries and Aquatic Resources		Formulates plans for the proper management, accelerated development and proper utilization of the country's fisheries and aquatic resources
Office of the President: National Water Resources Board	P.D. 1067-Water Code of 1976	Coordinate and regulate water resources management and development, and water users; supervises and regulates operations of water utilities outside jurisdiction of LWUA and MWSS,

		including some (consenting) LGU-managed water utilities; formulates and recommends policies on water resources
National Anti-Poverty Commission-WASCO		Coordinates the P3W water supply projects for 432 municipalities outside of Metro where people's access to water supply is below 50 percent, 210 communities within Metro Manila and 201 municipalities in conflict zones covered by peace agreements with the RPMP/RPA/ABB (in 2000), CPLA (in 1986) and MNLF (in 1996).
DPWH:	IRR of NEDA Board Resolution no. 4 of 1994	Set technical standards for engineering surveys, design and construction of Level 1 water systems Provision of technical support to LGUs upon request including implementation of Level I and Level II projects
Metropolitan Waterworks and Sewerage System (MWSS)	R.A. 6234	Constructs, maintains and operates domestic/municipal water supply and sewerage projects in Metro Manila through private water utilities; Serves as the

		economic regulatory agency in the national capital region.
Bureau of Research and Standards		Undertakes hydrological surveys and data collection
PMO-Major Flood Control Projects		Manages the planning, design, construction, organization and maintenance of major flood control projects
PMO-Rural Water Supply		Manages the planning, design, construction, organization and maintenance of foreign-assisted rural water supply projects
PMO-Small Water Impounding Projects		Manages the planning, design, construction, organization and maintenance of locally-funded and foreign assisted SWIM projects
DOH:	IRR NEDA Board Resolution 4 of 1994	Set quality standards for water testing, treatment and surveillance and sanitary practices
Environmental Health Services		Responsible for water supply and sanitation programs and strategies to forestall environment-related diseases

Bureau of Research Laboratories		Monitors quality of drinking water
Local Water Utilities Administration	P.D. 198 of 1973 (Provincial Water Utilities Act)	Specialized lending institution for promoting, developing, regulating and financing water utilities, excluding Metro Manila; Mandate includes capacity building support to WSPs through provision of technical advisory services and financial assistance to water districts; provision of technical and institutional support to LGUs and WSPs and setting design standards for water supplies operated by water districts and other WSPs
DILG:	RA 7160 of 1991 Local Government Code	Capacity building support to LGUs: provision of capacity building training to LGUs; coordination of LGU master plan preparation; provision of information to LGUs on available sector programs and financing
Local Government Units		Implement community-based forestry projects and manage communal forest with an area not exceeding 50 sq.km. and enforce forestry law; Planning and implementation of water

		supply and sanitation programs including • preparation of water and sanitation master plans • monitoring of local water and sanitation coverage and update of sector profile • provision of support to water supply providers (WSPs) such as the RWSAs, BWSAs and cooperatives including funding from IRA
DOF/GFIs		Financing support for the water supply sector

Annex 2
Methodology

In the conduct of this research, the following data collection, processing and analysis procedures were undertaken:

Desktop Research and Literature Review: an internet search of data, reports and relevant secondary literature, including an archival review of records from the NEDA, the DILG, the House of Representatives and the Senate, the National Water Resources Board (NWRB), and the Databank of the ISRDS.

The Development Round-Table Series (DRTS)

Roundtable discussions were conducted with various interest actors to: a) generate information regarding critical issues on the management of water resources, and the delivery of water services; b) identify developmental initiatives that had already been undertaken or can be taken to address these issues; and, c) identify information gaps.

The following DRTS activities provided data for this paper: a) Documentation of the roundtable discussions and fora from 2007-2009 (see process documentation for complete list); b) Orientation Seminar on the Role of Watershed Management in Local Development held on 20 October 2010 in Bacolod City; c) Forum on the Human Rights to Water and Sanitation and Strengthening Water Resources Management and Water Service Delivery held on 10 December 2010 in Iligan City; d) Seminar and Planning Workshop on Integrated Water Resources Management for Local Development held on 22 March 2011 at the ISRDS; and, e) Integrated Water Resource Management (IWRM) for Local Economic Development held on 27 April 2011 in Surigao City.

Spearheaded by Focus of the Global South, with technical support from the ISRDS, members of the DRTS-Water TWG also contributed articles and data based on the work they were doing. The TWG is composed by the Alliance of Water Workers in the Government Sector, Bantay Tubig, Focus on the Global South-Philippies, Freedom from Debt Coalition, Institute for Popular

Democracy, Water Commons Institute, Legal Rights and Natural Resources Center-Kasama sa Kalikasan, Pambansang Koalisyon ng Kababaihan sa Kanayunan, Philippine Center for Water and Sanitation, and Water Commons Institute. Other contributing organizations include: the Environmental Legal Assistance Center, PROCESS Foundation-Panay, Philippine Association of Water Districts, and Public Services International Research Unit.

In instances where certain critical issues still needed information to help resolve conflicts and/or clarify options, field level activities for the collection of data were undertaken. Rapid field assessments undertaken within the socio-ecological framework were conducted together with the affected actors. The results of the field assessments were then presented during sub-national consultations and validation workshops to the affected actors and other groups that are experiencing similar critical situations. The following sub national consultation/validation workshops were conducted: a) Sub-National Validation Forum on the Results of the DRTS-Visayas Integrative Research held on 21 October 2010 in Bacolod City; b) Northern Luzon Sub-National Consultation and Training held on 16-17 November 2010 at the Bureau of Soils and Water Management (BSWM) in Quezon City; and, c) Sub-National Validation Forum of the DRTS-Water Integrative Research held on 25 November 2010 at the UP Mindanao School of Management in Davao City.

Public-Public Partnerships (PUPs) in Research and Capability Building

Access to some of the data used in this research was granted by partners during the implementation of the Capability-Building Program on Performance Benchmarking of Water Districts in the Philippines. The implementing partners were the Metro Cebu Water District (MCWD), the Alliance of Government Workers in the Water Sector (AGWWAS), the Visayas State University (VSU), and the Public Services International Research Unit in Asia and the Pacific (PSIRU-AsPac). The participating water districts (WDs) included the Bacolod City WD, Baguio City WD, Baybay WD, Dapitan City WD, Dipolog City WD, Maasin City WD, Metro Cebu WD, Metro Kalibo WD, Metro

Kidapawan WD and Puerto Princesa City WD. Moreover, the Philippine Association of Water Districts (PAWD) through its Benchmarking Committee allowed access to its 2005 dataset.

Face-to-face Interviews with Various Actors

Face-to-face interviews were conducted with management and labor representatives of water utilities, civil society representatives and community leaders working on water issues. Through these interviews, more in-depth information regarding critical issues, operational details in the implementation of developmental initiatives, and policy deficits were obtained.

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About the DRTS

Why we are here

Inspired by the successes of the World Social Forum in 2001, where civil society organizations, academics and activists with varying political advocacies gathered, and of the Stop the New Round! Coalition's campaign against the Doha Round of the World Trade Organization in 2003, Focus on the Global South-Philippines initiated a process where stakeholders can consult and dialogue on issues, and work towards achieving unities. Thus was born the Development Roundtable Series or DRTS in 2004.

From 2004 hence, the DRTS experience has shown this: Where there is a way to come together and discuss social-political and development issues, there is will to resolve differing views and find common ground in platforms for policy changes.

What we aim for

The DRTS identifies issues and determines courses of action, recognizes competing interests and addresses pitfalls, but eventually works out policy alternatives. The process uses research, roundtable discussions, forums, campaigns as means to achieve the following objectives:

- That the public's interest is always reflected in government policies as well as in policy-making;
- That the policy agenda adheres to universally recognized rights;
- That interested sectors are able to dialogue and address common questions, and work towards creating shared agenda;
- That this common agenda is promoted and popularized.

How we do things

DRTS processes begin with inception roundtables, where interested organizations discuss and debate issues, and become birthing ground for thematic working groups (TWGs). Originally, there were five (5) thematic working groups and one (1) regional process that were formed: the Food and Agriculture, Trade and Industrial Policy, Agrarian Reform and Rural Development, Water Resources and Services, and Foreign Policy TWGs, plus a regional process called the Mindanao TWG. The Mindanao TWG recognizes the specific context of advocacies in Mindanao and urgent issues they confront.

Each TWG has an anchor organization/s responsible for keeping the process going. The anchor organizations are then convened in a group called Convenors core group, which steers the DRTS processes. Focus is the over-all coordinator of all the TWGs and oversees the implementation of the consolidated plans of the DRTS Convenors core group.

At present, there are four (4) thematic working groups and two (2) regional processes that tackle broad issues related to the following themes:

- Trade, Industrial Policy and Privatization
- Agrarian Reform and Rural Development
- Water Resources and Services
- Peace, Security and Foreign Policy
- Development issues in Visayas
- Development issues in Mindanao

TWGs are the core groups in the process but other organizations and individuals have also been active, such as in the yearly SONA activity.

Who can participate and how to get involved

Everyone--individuals and organizations--is encouraged and welcome to participate in the DRTS. There are several ways to get involved:

- Basic participation
  Attend public education activities
  Attend consultations
  Join special and mass activities
- High-level participation
  Join a thematic working group
  Join a lead group for on-the- ground activities

DRTS THEMATIC WORKING GROUPS

TWG on Trade, Industrial Policy and Privatization

- Action for Economic Reforms (AER)
- Alliance of Progressive Labor (APL)
- Center for Labor Justice (CLJ)
- Centro Saka Inc. (CSI)
- Fair Trade Alliance (FTA)
- Focus on the Global South (Focus)
- Freedom from Debt Coalition (FDC)
- National Economic Protectionist Association (NEPA)
- Partido Manggawa (PM)
- Philippine Rural Reconstruction Movement (PRRM)
- Tambuyog Development Center (Tambuyog)

TWG on Agrarian Reform and Rural Development

- Philippine Network of Rural Development Institutes (Philnet-RDI)
- Katipunan ng Bagong Pilipina (KABAPA)
- Makabayang Alyansa ng mga Magsasaka sa Pilipinas (MAKABAYAN-Pilipinas)
- Pambansang Kilusan ng mga Samahang Magsasaka (PAKISAMA)
- Pagkakaisa para sa Tunay na Repormang Agraryo (PARAGOS-Pilipinas)
- Pambansang Katipunan ng mga Samahan sa Kanayunan (PKSK)
- Samahang Magsasaka ng Macabud
- Center for Agrarian Reform Empowerment and Transformation (CARET)
- Center for Agrarian Reform and Rural Development (CARRD)
- Centro Saka Incorporated (CSI)
- Focus on the Global South (Focus)
- Kaisahan Tungo sa Kaunlaran ng Kanayunan at Repormang Pansakahan (KAISAHAN)
- Management and Organizational Development for Empowerment (MODE)
- Project Development Institute (PDI)
- Philippine Ecumenical Action for Community Empowerment (PEACE Foundation)
- Philippine Legislators' Committee on Population and Development (PLCPD)
- Sentro ng Alternatibong Lingap Panligal (SALIGAN)
- Peoples' Campaign for Agrarian Reform Network (AR Now!)
- Partnership for Agrarian Reform and Rural Development Services (PARRDS)
- Pambansang Koalisyon ng Kababaihan sa Kanayunan (PKKK)
- John Carroll Institute for Church and Social Issues (JJICSI)

TWG on Water Resources and Services

- Bantay Tubig
- Freedom from Debt Coalition (FDC)
- Focus on the Global South
- Institute for Popular Democracy (IPD)
- Pambansang Koalisyon ng Kababaihan sa Kanayunan (PKKK)
- Women's Legal Bureau (WLB)
- Philippine Center for Water and Sanitation (PCWS)
- Alliance of Government Workers in the Water Sector (AGWWAS)
- Visayas State University-Institute for Strategic Research and Developmental Studies (VSU-ISRDS)

TWG on Visayas

- Alliance of Government Workers in the Water Sector (AGWWAS)
- Alter Trade Foundation
- Eastern Visayas Sustainable Agriculture Network (EVSOANET)
- Environmental Legal Assistance Center (ELAC)
- Kabuhayan Micro Credit
- Negros Organic Agriculture Movement (NOAM)
- PROCESS Foundation-Antique
- Pagtinabangay Foundation
- Philnet-RDI- Leyte
- KAISAMPALAD
- Visayas Association of Water Districts (VAWAD)
- Visayas State University-Institute for Strategic Research and Developmental Studies (VSU-ISRDS)

TWG on Mindanao

- Alternative Forum for Research in Mindanao (AFRIM)
- Philippine Network of Rural Development Institutes (Philnet-RDI)-Mindanao
- Task Force on Food Sovereignty (TFFS)-Mindanao
- Kinaiyahan Foundation Inc.
- Freedom from Debt Coalition (FDC)-Mindanao
- Philippine Rural Reconstruction Movement (PRRM)-Mindanao
- Rural Development Institute for Sultan Kudarat (RDISK)
- Tri-People Concern for Peace, Progress and Development (TRICOM)
- Katipunan ng Samahan ng Maralita sa Kanayunan (KASAMA KA)
- Davao Provinces Rural Development Institutes (DPRDI)

TWG on Peace and Foreign Policy

- Alliance of Progressive Labor
- Focus on the Global South (Focus)
- Partido Manggawa (PM)
- Kilusan tungo sa Pambansang Demokrasya (KPD)
- Center for Migrant Advocacy(CMA)
- Institute for Popular Democracy
- JPICC-AMRSP
- Initiatives for International Dialogue (IID)
- Akbayan
- Stop the War Coalition (STWC)-Philippines
- UP Alyansa
- Resource Center for People's Development
- Sanlakas
- Kanlungan

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