

Characterizing Water Governance in the Philippines: Survey of Water Managers



Research Question

How do we shape water governance in the Philippines for a sustainable water future?

What is governance?

- the exercise of economic, political, and administrative authority to manage a country's affairs at all levels
- It comprises the mechanisms, processes and institution through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.

(UNDP, 2001)

What is water governance?

“the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society”

Rogers and Hall (2002)

Outline of Presentation

- Objectives
- Framework and Methods
- Findings of the Survey of Water Managers
 - ✓ Water Rights and Conflict Management
 - ✓ Water Pricing Mechanisms
 - ✓ Effectiveness of Water Administration
- Tentative Conclusions
- Moving Forward

Objective of the study:

- Characterize water governance in the Philippines across formal and informal institutions

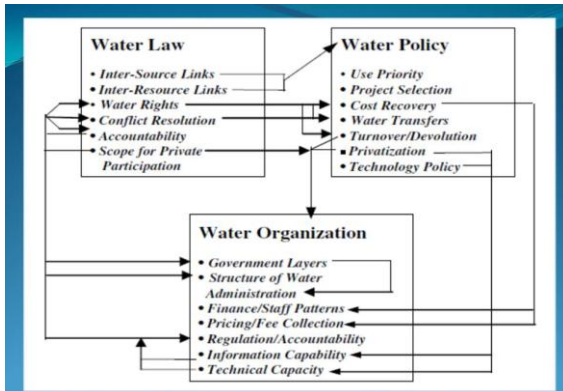


Figure 1 A simplified water institutional structure (Saleth and Dinar 2004)

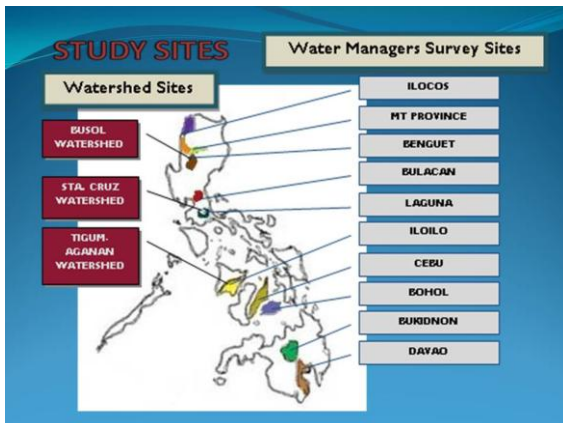


Table 1. Population and sample respondents, 2013 water managers' survey

Type of water organization	Population	Sample
Water Districts	879	45
Irrigators' Association	2377	130
LGU-based water system	500 (out of 1634 cities and municipalities)	23
Community-based water system	3,100 (out of 42,026 barangays)	101

Table 2 Summary of variables included in the water governance study based on Saleh and Dinar (2005)

Water Law	Water Policy	Water Administration	
Perceptions on local rules and ordinances	Institutional Process for Determining Water Price	Basis of Water Organization	
Basis for water rights for surface water	Range and average water charges	Functional Capacity of Water Organization On Various Spheres	
Basis for water use prioritization	Frequency of Water Price Revision	Functional Specialization within Water Organization	
Water conflicts and their resolutions	Mechanisms for Water Fee Collection	Gaps in Existing Organizational Set-up	
	Privatization and Decentralization Tendencies	Financing and Staffing Patterns	
	Policies towards water technologies/extension/recycling		Privatization vs Community Participation
			Regulation and Accountability
			Technical Capacity
			Strength of Information Flow Between Institutions
	Extent of the Science and Technology Components Used Within the Water Organization		
		Adequacy of the Administrative Set-up to Operationalize Water Policy and Water Law	

Findings

Water Rights and Conflict Management

Water Rights

Table 3. What is the basis for general rights in surface water?

	Frequency	Percent
state property allocated by the local govt	66	22%
common property collectively administered by community	69	23%
shared equally by community members	45	15%
shared equally with non-community members	61	20%
riparian system or proximity to surface water source	11	4%
by permit, license or legal arrangement between govt	44	15%
No response	3	1%
Total	299	100%

Water use prioritization

- Basis for prioritization
 - Domestic Use
 - Irrigation
 - Industrial use
- Reason for Prioritization
 - Equity – 61%
 - Economic – 21%

Types of conflicts

- Violation of organizational rules by members and penalties
- Pilferage by non-members
- Conflict between water organizations and private enterprises/households
- Conflict between water organization management and members

Types of conflict resolution mechanisms

- Legal Mechanisms
 - LGU agreements
 - Irrigation/Agriculture laws
- Customary
- Dialogues between elders and LGUs
- Negotiations
- Meetings within Group of Barangays - for transboundary irrigation issues

Findings

Water Pricing Mechanisms

Table 4. Frequency count and percentage of whether there is an institutional process for determining water price, by water organization (N=299)

Is there an institutional process for determining water price?	Water Organization								Total	
	Water District		Irrigators' Association		LGU-based Water System		Community-based water System			
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	41	91	74	57	11	48	47	47	173	58
No	3	7	53	41	12	52	53	52	121	40
Others	1	2	3	2	0	0	1	1	5	2
Total	45	100	130	100	23	100	101	100	299	100

Table 5. Various institutional processes for water price determination (n=yes responses above)

Price Determination	Water District		IA		LGU-based		Community-based		Total	
	No	%	No	%	No	%	No	%	Total	%
Local Water District (LWD)/ National Water Resources Board (NWRB)/ Local Water Utilities Authority (LWUA)	19	45%					4	9	19	14%
Based on National Irrigation Administration (NIA) guidelines			46	62%					46	27%
Considers overall revenue less overall cost/ O&M Cost	4	10%	4	5%	3	27%	26	55%	37	21%
Economic status of concessionaires	2	5%	2	3%					4	2%
Depends on the production area			6	8%					6	3%
Based on the prices of diesel and palay			2	3%					2	1%

Table 5. Various institutional processes for water price determination (n= yes responses above) (continued)

Price Determination	Water District		IA		LGU-based		Community-based		Total	
	No	%	No	%	No	%	No	%	Total	%
National Food Authority (NFA) buying price of palay			4	5%					4	2%
Existing price in the community	1	1%			1	100%			1	1%
Water Brigade Council					1	9%			1	1%
Based on Sangguniang Bayan (SB) Resolution					1	9%			1	1%
Water Bill			3	4%	3	27%	3	6%	9	5%
Computed by the manager/computed by engineer in the province							2	4%	2	1%
Others (collectors are paid on commission basis)							3	6%	3	2%
Don't Know	5	12%	1	1%	3	27%			9	5%
Total	41	100%	74	%	11	%	47	100%	173	%

Mean water price (PhP/10m³/month)

Water Organization		Average
Water District	Residential	185.55
	Commercial	293.43
Irrigators Association	Wet (Php/ha)	944.09
	Dry (Php/ha)	1183.64
Local Government	Residential	51.51
	Commercial	117.50
Community-based	Residential	62.14
	Commercial	320.00
Total		359.76 (Ave.)



Table 6. Basis of water organization, by type (N=299)

Basis of Water Organization	Water Organization								Total	
	Water District		Irrigators' Association		LGU-based Water System		Community-based water System			
	f	%	f	%	f	%	f	%	f	%
On political boundary	38	84%	91	70%	21	91%	86	85%	236	79%
River basins	0	0%	19	15%	1	4%	2	2%	22	7%
Mixture	4	9%	12	9%	1	4%	1	1%	18	6%
Others	3	7%	8	6%	0	0%	12	12%	23	8%
Total	45	100%	130	100%	23	100%	101	100%	299	100%

Table 7. Strength of the functional capacity of water organizations on various spheres (N=299)

	# (%)	# (%)
Planning and design	112 (37)	11 (4)
Implementation	112 (37)	11 (4)
Financial management	92 (31)	30 (10)
Operation and maintenance	123 (41)	12 (4)
Community rehabilitation and resettlement programs	48 (16)	35 (12)
Environmental monitoring	81 (27)	27 (9)
Research, training, and extension	41 (14)	56 (19)
Interagency or departmental relationships	78 (26)	29 (10)
Public relations accountability	103 (34)	28 (9)

Gaps in Existing Organizational Set-up

- Water Districts
 - Personnel Issues
 - Operations and Maintenance
 - Organizational Structure
- Irrigation Association
 - Training and Education
 - Lack of funds
- LGU and community based water organizations
 - Financial Issues

Table 8. Advantages and disadvantages of privatization in administration of water (N=299)

Advantages	Privatization		Disadvantages	Privatization	
	F	%		F	%
More efficient water distribution	59	29%	No more free water/no more right over water	19	10%
Better facilities, modernization of the system	36	18%	No community participation, issues (i.e. water pricing) controlled by a group, big profit goes to private	36	19%
Better implementation, better services, better maintenance (Cooperation, monitored)	55	27%	Higher water prices, water tariffs, increase irrigation fees, difficulty in paying	94	51%
Financial stability (increase in income, enough funds, profit generation)	34	17%	Others	73	39%
Others	31	15%			
Subtotal	215			222	
None	24	12%	None	7	4%
Total	239		Total	229	

NOTE: Multiple Responses

Table 9. Advantages and disadvantages of community participation in administration of water (N=299)

Advantages	Community Participation in administration of water		Disadvantages	Community Participation in administration of water	
	F	%		F	%
Community aware of people's wants	43	18%	Policies cannot be implemented (i.e. water charges and penalties)	11	10%
Close monitoring of facilities (i.e. reporting leakages, quick reporting of problems)	16	7%	Mismanagement	14	13%
Promotes unity, cooperation	79	33%	Time consuming (to listen to everybody)/Slow decision making	28	26%
Problems solved easily, fast decision-making	62	26%	Conflict of interest/complicated/chaotic/many arguments	45	41%
Transparency in decisions	18	8%	Lack of an identified leader	4	4%
less water wastage	16	7%	Political involvement	31	28%
Others (income benefits the community, maintains cleanliness, water to all, environment will be protected)	28	12%	Others (no accountability, do not collect payments strictly, no cooperation, no compensation)	25	23%
Sub Total	262			158	
None	7	3%	None	32	29%
Total	269	100%	Total	190	100%

NOTE: Multiple Responses

Table 10. Frequency count of the adequacy and reliability of water data for planning purposes (N=299)

Provisions	Rating (5 most adequate/reliable)						Total
	1	2	3	4	5	Others	
Adequacy							
No.	19	9	47	56	80	88	299
%	6%	3%	16%	19%	27%	29%	100%
Reliability							
No.	19	10	43	49	90	88	299
%	6%	3%	14%	16%	30%	29%	100%

Other: No answer and Don't Know

Science and technology components used in organization

	Yes (%)	No (%)
Computers	44	54
remote sensing satellite	5	91
research and experimental information	17	80
Modern accounting and auditing techniques	29	68
Management information system	27	69
Geographic information system	22	74
Wireless communication	57	41
Water measuring device	28	70
Computerized dynamic regulation of canal and water delivery networks	7	90

Table 11. Frequency count of the adequacy of the administrative set-up to operationalize water policy and water law (N=299)

Rating	Number	%
1-2	41	14
3-4	158	53
5	90	30
No rating	7	2
Don't know	3	1
	299	100

Rating: 1-5, 5-highest

Conclusions

- Water managers are aware of normative terms by which general water rights are claimed, but not the requirements for legal instruments (i.e. permits, licenses).
- Water rights conflict mechanisms are largely informal
- There are institutional processes in water pricing but also largely informal; those without say that water is free.

Conclusions

- Various water organizations have a wide spectrum of practices for water governance
- Transboundary issues are not recognized in the water administration
- Gaps in water administration imply a relatively low attention to the sector in terms of: funding, professionalizing the water organization personnel, inadequate data for water planning and weak research, training and extension, among others.
- Water managers are ambivalent to either privatization or community participation as a way to improve water administration.

Moving Forward - - -

- Wider dissemination of the water laws is needed especially for informal water organizations
- There must be an economic (in terms of value adding contribution) and social (in the sense that water access is a basic human right) basis for water pricing
- Capacity building is also needed in various spheres of water administration
- Structural reforms are needed, in terms of improving water administration, for example a shift to integrated water resource management .

Thank You

Characterizing Water Governance in the Philippines

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