Journal of Nature Studies 14 (2): 69-80
ISSN: 1655-3179

ACCOUNTABILITY AND TRANSPARENCY IN WATER GOVERNANCE OF IRRIGATOR'S ASSOCIATIONS IN THE STA. CRUZ RIVER WATERSHED, LAGUNA, PHILIPPINES

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ABSTRACT – Accountability is essential in water governance to ensure the sustainability of water to irrigate rice farms. Transparency, on the other hand, is vital in any association in obtaining trust and confidence among the members. This descriptive research on water governance in Sta. Cruz and Pila, Laguna focused on the accountability and transparency of the officers of the Irrigators' Association (IA). Methods used include household interview, key informant interview, review of documents, and observation. Stratified sampling was utilized wherein the respondents were randomly selected. Data were described using descriptive statistics such as frequency distribution and percentages. Majority of the respondents perceive the IA in-charge of the irrigation system in their area to be responsible. Although different problems arise, it is good to note that these problems are addressed immediately. Majority has trust and confidence on the IA in-charge of their irrigation system, have sense of ownership to the irrigation system, and are aware of the existing policies of the IA on water governance. It was also perceived that the policies were appropriately designed for the IA and that the policies are beneficial to the members. Furthermore, most of the members are updated with the current information concerning the irrigation system.

Keywords: Transparency, accountability, water governance

INTRODUCTION

Community development initiatives provide the community with opportunities for participation, to be involved in local decision-making, to capacitate collective action, to access information and knowledge, and for collaboration to achieve common goals. Hence, development of neighborhood capacities for problem solving can be attained (Shire, 2008). Participation cuts across the social, cultural, economic, political and most importantly the environmental aspects in watershed, river system, water and others. Historically, water as a natural resource is known to be an avenue for participation among members of the community in managing its supply (UNDP-WGF, 2007).

To cite this paper: Pintor, L. L., Dizon, J. T., Quimbo, M. A. T. and Quyen Dinh Ha. 2015. Accountability and Transparency in Water Governance of Irrigator's Associations in the Sta. Cruz River Watershed, Laguna, Philippines. *Journal of Nature Studies*. 14 (2): 69-80

Irrigation is considered as the biggest water user in the country. About 95% of irrigated areas are devoted to paddy with 70% of all paddy production coming from irrigated lands (Dayrit, 2001). Since the country's major water users are the agricultural sector (World Bank, 2004), the effective way to achieve agricultural development is through water governance. Water governance is defined by the Global Water Partnership as 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, 2003). In the Philippines, water governance is also perceived as the collection of social controls on human conduct relating to water (Malayang, 2003).

The complexity of water governance in the country particularly in agriculture calls for immediate attention in terms of research and development (Tortajada, 2010). This is true, particularly in terms of the accountability and transparency among Irrigator's Association since irrigation consumes huge volume of water.

Accountability is the process through which an organization's commitment respond to and balance the divergent needs of the organization and stakeholders Accountability is further manifested in the organization's decision-making processes and conduct of activities as it deals with the challenge of managing power imbalances between the organization and its stakeholders (Blagescu, de Las Casas and Lloyd, undated).

Transparency, on the other hand, refers to an organization's openness to inform its members about the planning, conduct, and assessment of its activities. First, transparency entails providing constant information on its activities where and how these will take place, and the like. Second, it requires educating stakeholders to help them make informed decisions that would help them during the conduct of its activities. This enables stakeholders to make sound decisions in performing their roles in the organization. Along with this is the need to respond to stakeholders' requests for information, to address their questions, and provide them with solutions as they engage in decision-making. In short, transparency allows for continuous dialogue between the organization and its stakeholders (Blagescu, de Las Casas and Lloyd, undated).

Several literatures showed that there is paucity of studies done on the political aspect of water governance. Hence, it is imperative to conduct studies along this line. Added to this is the alarming prediction of experts that the society would encounter water scarcity in 2025 due to the condition of several river basins (World Bank, 2004).

This study addressed the concerns raised by the water scholars and policy makers regarding the need for a new generation of research on water governance. Hence, this undertaking attempted to determine the accountability and transparency of IA officers on water governance based on the perception of the members of the IA.

METHODOLOGY

Study Area

The study was conducted in Sta. Cruz River Watershed particularly in the municipalities of Sta. Cruz and Pila, Laguna. Pila is politically subdivided into 17 barangays. Eleven of these barangays are the places of residence of the farmer-respondents in this study (Municipal Profile, undated). Sta. Cruz is a first class municipality and the provincial capital of Laguna. It is located on the banks of the Sta. Cruz River which flows into the eastern part of Laguna de Bay. Among the 26 barangays in Sta. Cruz,

the study covered 11 barangays where the respondents live (Municipal Profile, 2010).

Fig. 1 Map showing the study sites (encircled). Source: Municipal Profile, undated

Data Collection Methods

A combination of quantitative and qualitative methods were used such as household interview, key informant interview, review of documents, and observation to obtain the necessary information and for triangulation purposes.

Sampling Design

There are 26 Irrigators' Association in Sta. Cruz and Pila wherein 19 are from Sta. Cruz and seven are from Pila. Both sites have upstream, midstream, and downstream communities. There was a representative sample population from the IAs. After determining the sample size from each municipality, stratified sampling was done among the 26 IAs.

The respondents of the study were all irrigated rice farmers who were members of the different IAs in Sta. Cruz and Pila, Laguna. They were randomly selected to have representative from different IAs. For the key informants, this includes the President of the IA, the Water Master, and the engineer in-charge of the irrigation system.

Research Instrument

A semi-structured interview schedule was designed for the household interview. Two experts in preparing research instrument reviewed the interview schedule for the content validity. The instrument was likewise pre-tested with members of the IA in Bay, Laguna having similar conditions with those from the study sites.

Procedure

Coordination with the Barangay Captains and the President of the IAs was done to schedule the interview of the randomly selected respondents. Interviews were held either in the barangay hall or in the houses of the respondents. On the other hand, the key informants were interviewed at the NIA office.

Data Analysis

Accountability was analyzed based on the following parameters such as responsibility of the IA officers, trust and confidence in the IA officers, roles of the IA, and sense of ownership of the irrigation system. The parameters to analyze transparency include awareness on IA policies, policies designed for IA, and information on the irrigation system.

Descriptive statistics were used to describe the data obtained from the interview among farmer-members of the IA. This includes frequency distribution showing the frequency of occurrence of values of the variable and percentages were used to describe the data obtained from the interview among farmer-members of the IA. Further, content analysis was employed in analyzing the data from the key informants.

RESULTS AND DISCUSSION

Accountability of IA Officers

Responsibility of the IA Officers

Aside from the 79.55% who considered the IA officers responsible, another 10.8 % rated them as very responsible (Table 1). Although the IA officials were regarded as responsible, the ADB (2004) reported that the management of the irrigation is sometimes beset with the problem of officers' reluctance to assume responsibilities in the operation and maintenance of the irrigation system.

Table 1. Irrigators' association accountability performance.

PARTICULARS	STA. CRUZ (n=99)		PILA (n=77)		TOTAL (n=176)	
	F	%	F	%	F	%
Level of responsibilities						
Very responsible	14	14.14	5	6.49	19	10.80
Responsible	77	77.78	63	81.82	140	79.55
Not responsible	8	8.08	9	11.69	17	9.66
Total	99	100.00	77	100.00	176	100.00
Problems/issues addressed immediately						
Yes	90	90.91	65	84.42	155	88.07
No	9	9.09	11	14.29	20	11.36
No response	0	0.00	1	1.30	1	0.57
Total	99	100.00	77	100.00	176	100.00
Reasons why problems/issues are not addressed immediately						
	(n=9)		**(n=11)**		**(n=20)**	
Favoritism	1	11.11	0	0.00	1	5.00
Inactive officers	0	0.00	5	45.45	5	25.00
Slow in giving action	5	55.56	5	45.45	10	50.00
No response	3	33.33	1	9.09	4	20.00
Total	9	100.00	11	100.00	20	100.00

Table 1 cont'd..

Quality of IA service						
Very good	8	8.08	10	12.99	18	10.23
Good	60	60.61	51	66.23	111	63.07
Fair	21	21.21	8	10.39	29	16.48
Poor	7	7.07	7	9.09	14	7.95
Very poor	3	3.03	1	1.30	4	2.27
Total	99	100.00	77	100.00	176	100.00
Management of irrigation water						
Very good	6	6.06	7	9.09	13	7.39
Good	67	67.68	55	71.43	122	69.32
Fair	17	17.17	7	9.09	24	13.64
Poor	5	5.05	7	9.09	12	6.82
Very poor	3	3.03	1	1.30	4	2.27
No response	1	1.01	0	0.00	1	0.57
Total	99	100.00	77	100.00	176	100.00
Trust to the IA in charge						
Yes	91	91.92	67	87.01	159	90.34
No	8	8.08	9	11.69	17	9.66
Total	99	100.00	77	100.00	176	100.00

- multiple responses

Different problems arise in the irrigation system as well as within the IA. It is good to note that such problems are addressed immediately according to 88.64% of the respondents, compared to only 11.36% who answered otherwise.

In terms of the quality of services provided by the IA, majority (63.07%) of the respondents rated the IA *good* while 16.48% rated them *fair*. Many (69.32%) of the respondents rated their IA *good* and another 7.39% rated them *very good* for their management of irrigation water.

Irrigation system management is being led only by the IA officials. However, the IA members also form part of the management since they are being consulted in various phases of the irrigation system. They also participate in the cleaning of canals which is beneficial to them. Community development is evident under these situations. According to Ryan (1994) community development refers to the common good about being self-reliant and willing to work together. Community in reference to the common good both have a sense of shared identity and service to the community (Connell, 2003).

Trust and Confidence with the IA Officers

Table 1 shows that 90.34% of the respondents have trust and confidence on the officers of their IA. For Soussan and Arriens (2004), sharing knowledge is one of the bases of mutual trust. It serves as the basis of negotiations and conflict mitigation. Good governance depends on the stakeholders particularly the local communities. Having the knowledge and skills specifically in water management is necessary in performing the roles assigned to them. Full participation is evident among poor communities who are expressive in the planning and management process.

In a cross-disciplinary study conducted by Rousseau et al. (1998), they found out that risk must be present in order for trust to exist. For Lachapelle (2008), trust is also link to agreement on legitimate authority. In context, this implies that the trust and confidence of the member-respondents can be associated to the legitimate authority of the IA officials. Moreover, perception of legitimate authority can influence trust by having clear process rules, having neutral facilitators, and sharing data and information (Hudson, 1979). The members of the IA have trust and confidence to the officers since they voted for them. It is also good to note that the IA officers conduct regular meetings resulting to the awareness of the members on the recent information.

According to Perkins and Long (2002), one of the key social psychological dimensions of social capital is the sense of community. It pertains to an attitude of bonding referring to trust and belonging with other members of the group. Data obtained shows that there is a sense of community in the IA considering that majority of the respondents have trust and confidence with their IA leaders.

Furthermore, trust, in the context of community development, enhances individual or group learning, builds relationships among citizens, improves relations with government, influences creative solutions, teaches citizenship, inculcates civic virtue, allows dialogue to flourish, promotes fairness in procedural efforts, reduces conflict, validates multiple forms of knowledge, and facilitates effective responses to future crises (Rousseau et al., 1998). There is also an agreement on the importance of trust in terms of social, economic, political, and psychological factors that influence how humans act and interact (Wolff, 1950; Seligman, 1997; Newton, 2001). Trust is not a behavior or a choice but an underlying condition responsible for such actions (Lachapelle, 2008).

Water governance is evident in the study sites as the rights of expression were mentioned by the respondents regarding their concerns. Consequently, this can be associated to the United Nations Development Program's (UNDP, 2015) definition of water governance which consists of the mechanisms, processes, and institutions where interest groups articulate their priorities, exercise their legal rights, and meet their obligations. The obligations in governing irrigation water are in reference to the responsible and good management of the IA officials in the study sites. Specifically, the IA officials do their obligation in governing irrigation water while the members help in other activities in the irrigation system.

Roles of the IA

With regard to the role of the IA in the irrigation system, there was a slight difference in terms of the number of respondents who answered that the IA is responsible for the management of their irrigation system (23.30%) and their IA is the one who monitors their water supply (22.73%). Other IA roles mentioned by the respondents include coordinating with NIA on the needs of the farmer-members, overseeing the maintenance of irrigation canals, and taking charge for the equitable distribution of irrigation water (Table2).

Table 2. Roles of the irrigators' association.

PARTICULARS	STA. CRUZ (n=99)		PILA (n=77)		TOTAL (n=176)	
	F	%	F	%	F	%
IA Roles*						
Address problems of farmers/members	8	8.08	4	5.19	12	6.82
Allocate irrigation water equally to the members	5	5.05	2	2.60	7	3.98
Conduct farm visit	2	2.02	0	0.00	2	1.14
Construction of canal	0	0.00	1	1.30	1	0.57
Coordinate with NIA the needs of farmers/members	10	10.10	21	27.27	31	17.61
Provide schedule of water distribution/coordinate with members	15	15.15	3	3.90	18	10.23
Enforce rules and regulations of irrigation system	1	1.01	0	0.00	1	0.57
Monitor water supply	22	22.22	18	23.38	40	22.73
Equitable distribution of irrigation water	13	13.13	7	9.09	20	11.36
Equitable distribution of water	0	0.00	1	1.30	1	0.57
Maintain irrigation canal	8	8.08	17	22.08	25	14.20
Manage irrigation system	18	18.18	23	29.87	41	23.30
Disseminate current information	4	4.04	0	0.00	4	2.27
Report to NIA damage on irrigation canal	6	6.06	1	1.30	7	3.98
Collect fees	1	1.01	0	0.00	1	0.57
Sense of Ownership						
Yes	70	70.71	35	45.45	105	59.66
No	29	29.29	40	51.95	69	39.20
No response	0	0.00	2	2.60	2	1.14
Total	99	100.00	77	100.00	176	100.00
Reasons for Sense of Ownership*	**(n=70)**		**(n=35)**		**(n=105)**	
Access to use	17	24.29	9	25.71	26	24.76
Controlled by the IA	8	11.43	5	14.29	13	12.38
Maintain irrigation canal	16	22.86	7	20.00	23	21.90
Owned by NIA	6	8.57	3	8.57	9	8.57
Pay fees	25	35.71	13	37.14	38	36.19
No response	2	2.86	0	0.00	2	1.90
Reasons for not Having Sense of Ownership	**(n=29)**		**(n=40)**		**(n=69)**	
Access to use	1	3.45	11	27.50	12	17.39
Controlled by the IA	9	31.03	12	30.00	21	30.43
Maintain irrigation canal	0	0.00	1	2.50	1	1.45
Owned by NIA	10	34.48	8	20.00	18	26.09
Pay fees	3	10.34	2	5.00	5	7.25
Diversion of irrigation water to their farm	0	0.00	1	2.50	1	1.45
No response	6	20.69	5	12.50	11	15.94

- multiple responses

In a Memorandum of Agreement signed in October 1998, it has been agreed upon that the local government, the IA, and the NIA field office will undertake the operation and maintenance (O & M) of the irrigation system. The IA is expected to participate and comply in the agreed O & M plans and to pay irrigation service fees. On the other hand, NIA is responsible for the supervision and coordination of these plans, inspection of facilities and structures and in other technical aspects (ADB, 2004).

Sense of Ownership on the Irrigation System

The Participatory Irrigation Management and Transfer (PIMT) policy of NIA was developed as a participatory process to build ownership, increase capability, and involve the communities in the development of the irrigation system such as feasibility, design, construction, management and agricultural improvement (NIA, 2005). It leads to the transfer of ownership system to the Irrigators Association (Mohammed & Kelly, 2005). This implies full ownership of the irrigation system to the IA.

Many (59.66%) of the respondents expressed sense of ownership in the irrigation system. On the other hand, others (39.20%) answered that they do not have sense of ownership of the irrigation system which implies that they were not fully aware of the policy changes that transpired in NIA. Based from the result of the key informant interview, these farmer-respondents do not regularly attend the monthly meetings of the association.

In PIMT, the role of the government with regard to implementation of the irrigation system is to provide technical support. On the other hand, the IA is the one fully responsible for managing and sustaining its irrigation facilities. Moreover, PIMT promotes transfer of benefits and the authority of ownership (Mohammed & Kelly, 2005). This implies that the IA is has the full responsibility in managing the irrigation system. Due to this responsibility entrusted by the government to the IA hence, the farmers feel that they have the sense of ownership to the irrigation system.

The situation of the irrigation system in the Philippines is consistent with the trend in irrigation management across the globe. This is to devolve the responsibility in managing irrigation system and the associated costs to local institutions where farmers are more involved (Faures et al. 2007). The possible outcomes range from full ownership and operation, contract professional management, and joint management of government and farmers. As governments withdraw from direct managerial functions, developing compensating regulatory capacities to oversee service provision and to protect public interests is needed. The control of system infrastructure will likely be devolved, however, bulk water supply infrastructure, because of its multiple functions and strategic value, will remain the responsibility of the state.

Transparency of the IA Officers

Awareness on IA Policies

Findings revealed that though majority (57.95%) of the respondents are aware, a considerable number (42.05%) are unaware of the existing policies of the IA on water governance. This imply that the IA officers are knowledgeable on the advantages of collaborating with the members. For those who are not aware, an almost equal percentage of respondents (24.32%) cited that they do not attend the meetings and they are not informed (22.97%).

Among the respondents who are aware of the policies, half (50%) of them knew they have to pay fees to NIA, almost one-third (31.37%) were aware of the policy on the schedule of water distribution; and a few (5.88%) understood that there should be no over appropriation of water.

Policies Designed for IA

Majority (58.52%) of the respondents cited that the policies on water governance for irrigation were appropriately designed for the IA. Moreover, all of the respondents considered the policies beneficial to the members.

It is noteworthy that the IA was able to formulate good policies amenable and beneficial to the general membership. Key informants attributed this to the participatory approach employed by IA officers in developing policies during meetings.

Information on the Irrigation System

In terms of whether the members are updated or not with the current information concerning the irrigation system, it is significant to note that majority (85.80%) of the respondents are updated while only 14.20% are not updated with the prevailing information. Result of the key informant interview revealed that the inactive members were the ones unaware of such information and they are mostly the ones who usually complain. This, in essence, is simply due to their lack of awareness.

Table 3. Observance of transparency in the irrigators' association.

PARTICULARS	STA. CRUZ (n=99)		PILA (n=77)		TOTAL (n=176)	
	F	%	F	%	F	%
Whether Policies are Conveyed Openly						
Yes	60	60.61	42	54.55	102	57.95
No	39	39.39	35	45.45	74	42.05
Total	99	100.00	77	100.00	176	100.00
Reasons for Non-Awareness						
Busy with work	1	2.56	0	0.00	1	1.35
Inactive officers	0	0.00	2	5.71	2	2.70
No list provided	4	10.26	2	5.71	6	8.11
No regular meeting	0	0.00	2	5.71	2	2.70
Not attending meeting	11	28.20	7	20.00	18	24.32
Not informed	7	17.95	10	28.57	17	22.97
No response	16	41.03	13	37.14	29	39.19
Total	39	100	36	100	74	100
Known Policies*						
Attend meetings	3	5.00	2	4.76	5	4.90
Follow schedule on water Distribution	23	38.33	9	21.43	32	31.37
Maintain irrigation canal	7	11.67	6	14.29	13	12.75
No diverting of water to irrigate Farms	0	0.00	2	4.76	2	1.96
No illegal opening in canal	1	1.67	0	0.00	1	0.98
No littering in canal	1	1.67	0	0.00	1	0.98
No obstruction in canal	1	1.67	0	0.00	1	0.98
No water wastage, no over appropriation of water	2	3.33	4	9.52	6	5.88
Pay fees	26	43.33	25	59.52	51	50.00

Table 3 cont'd..

Policies Appropriately Designed for the IA						
Yes	56	56.57	43	55.84	103	58.52
No	6	6.06	1	1.30	3	1.70
Not sure	37	37.37	33	42.86	70	39.77
Total	99	100.00	77	100.00	176	100.00
Reasons for Inappropriate Design of Policies						
Poor management	1	16.67	0	0.00	1	14.29
Old policy not suited with the present time	2	33.34	0	0.00	2	28.58
No monitoring measures on the compliance	0	0.00	1	100.00	1	14.29
No response	3	50.00	0	0.00	3	42.86
Total	6	100.00	1	100.00	7	100.00
Policies Beneficial to Members						
Yes	99	100.00	77	100	176	100
Total	99	100.00	77	100.00	176	100.00
Members Kept Updated on Information						
Yes	88	88.89	63	81.82	151	85.80
No	11	11.11	14	18.18	25	14.20
Total	99	100.00	77	100.00	176	100.00

-multiple responses

CONCLUSIONS AND RECOMMENDATIONS

The results of the study showed that accountability is indispensable in the aspect of water governance. It is important in the management of irrigation water specifically in providing good quality services and immediate response to problems encountered. The results only showed that the IA officers have high sense of responsibility which implies that they are fully aware of the consequences of water mismanagement particularly in rice production.

Accountability is evident in the IA officers' good performance which could be attributed to the continuous guidance of the NIA. Further, good performance led them in gaining the trust and confidence of the IA members. The trust of the members towards the IA officers is concomitant with the authority the officers have. One tangible manifestation of the trust and confidence of the members towards their officers is the votes cast for the latter by the former.

Transparency was observed in all the IAs in terms of access to information and dissemination of decisions made among the members. Consequently, the members have high awareness on current information concerning the irrigation system. It also show that the IA officers possess good communication skills hence, was able to convey clearly the information understandable to its members.

Transparency is vital in associations like the IA, particularly in formulating policies eliciting the participation of the members. In this way, the members are aware that the policies are not only beneficial to the officers, but to the general membership as well.

The IA officers should continuously perform their responsibilities in managing irrigation water to ensure water availability at all times. This will guarantee high productivity thereby attaining rice sufficiency both in the household and community level.

It is recommended that NIA provide trainings to the IA officers in-charge of the irrigation system in order to capacitate the officers' leadership and communication skills beneficial to the IA.

STATEMENT OF AUTHORSHIP

The first author was responsible in conceptualizing the study, data gathering, and analysis. Most importantly, she prepared the draft and finalized the writing of this article for publication. The other authors provided valuable suggestions to further improve the paper.

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JOURNAL OF NATURE STUDIES
(formerly Nature's Bulletin)
ISSN: 1655-3179