Alternative Support Systems to Strengthen Irrigators' Associations in Bicol, the Philippines After Irrigation Management Turnover

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INTRODUCTION

Recognizing the importance of irrigation in attaining the country's desire for self-sufficiency in rice production, the National Irrigation Administration (NIA) was created in 1964 as a government agency tasked to rationalize irrigation efforts and spearhead irrigation development in the Philippines. The initial years following its birth were primarily directed towards technical operations, while institutional aspects such as organizing and tapping farmers for irrigation management were given less emphasis and were best relegated to other government agencies.

Despite the agency's aggressive stance in constructing new systems on a nationwide scale, myriad of problems began piling up which hampered its overall operations. Foremost of these were low irrigation service fee collections and rapid deterioration of systems which forced the agency to be dependent on government subsidy. Irrigation specialists soon realized that the inability of the agency to build a strong base of farmer participation in the process of planning and project implementation primarily explained the pervading attitude among farmers in treating irrigation systems constructed by the NIA as a public good, the provision and maintenance of which is perceived to be the sole responsibility of the government. As some non-paying farmers would reason out, why would they be required to pay irrigation service fees (ISF) when other government agencies provide them public infrastructure at no cost to them?

Faced with this challenge, the NIA has turned towards new management schemes that would improve performance and sustainability of irrigation systems. One such scheme is the formation of farmer irrigators' associations and the strengthening of existing ones to eventually prepare them for a more active role in irrigation management. Never has the urgency and importance of maximizing the participation of farmers from the grass roots level in the various aspects of irrigation development been as emphasized as when the nation experienced burgeoning budget deficit which consequently decreased fund appropriations for irrigated agricultural endeavors. With funding support from the government significantly slashed, NIA aimed for viability across all systems. This subsequently forced systems to operate within their income which in turn was largely dependent on ISF collections. But with the NIA having fared poorly in the aspect of collection, it was therefore not surprising why the agency's maintenance and physical rehabilitation activities left much to be desired. It was at this point that NIA began seriously considering the potential of organized farmers in undertaking some functions originally theirs. Certainly, this was a move addressed to improve the viability position of the systems, and in the process, to bestow among the farmer users authority in irrigation management which ultimately is hoped to stir up their feeling of ownership consistent with the participatory approach. From then on, the turnover of management responsibilities of irrigation systems to Irrigators' Associations (IAs) has become the primary policy thrust of the NIA.

Past studies on the impact of farmers' involvement in irrigation systems management provide evidence that turnover of management responsibilities to IAs has led to significant improvement in system performance. The Institute of Philippine Culture (IPC) study using four national systems under NIA's participatory program as samples showed that the systems improved in financial viability and gained in their areas and cropping intensities after farmers were engaged in system management (Jopillo and de los Reyes, 1988). In addition, Wijayaratna, in his paper assessing the Philippine experience in irrigation turnover and self management, reported that access to water, reliability, adequacy and equity in water distribution also improved, farmer satisfaction increased and conflicts over water distribution were reduced following full or partial turnover of system management to IAs (Wijayaratna, 1993). A Bicol University-IIMI research on the performance of IAs revealed that IA performance efficiency significantly contributes to system performance. The said research then concluded that system management can be enhanced by strengthening and maximizing farmers' involvement in system management and the planning process [(Lauraya and Sala, 1990)].

The participatory policy was initially applied to the communal irrigation systems. These are small irrigation systems covering less than 1,000 hectares of farmlands. In all, the communal system represents 47 percent of the total irrigated area in the country as of 1991. In this type of system, farmers were organized prior to actual construction of irrigation facilities, hence, participation of the IA was elicited in the pre-construction activities such as validation of system design,obtaining water rights and controlling construction costs. After construction, there was immediate turnover to the IAs of the system. The IAs amortize the cost of construction within a reasonable period, usually for 25 years.

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Inspired by the success of this new methodology, the NIA management adopted it widely to cover the national systems as well, where the bulk of the agency's maintenance costs were incurred. Since the irrigation facilities were previously in place, the formation of the IAs in the national systems was done when the systems were already operational.

In the national systems, the approach being employed is a gradual turnover of a part of or the whole system. Farmer organizations in these systems assume irrigation management roles through a contracting mechanism. In the Type I Contract, the IA simply undertakes the routine maintenance works of a certain length of the irrigation canal system. In return, the IAs will be paid ₱ 1,000.00 (US$37.02)[2] upon satisfactory maintenance weeding, trimming canal embankments, reshaping and removal of debris off 3.5 kilometers of unlined canal or 7 kilometers of lined canals (Wijayaratna, 1993). Under the Type II Contract, farmer organizations assume the system operations and irrigation service fee collection functions. Systems operations include: 1) planning the O&M activities and undertaking the O&M from the turnout to the main farm and supplementary farm ditches; 2) planning, implementation and monitoring of the cropping calendar; 3) water allocation and distribution; 4) conflict management; and 5) maintaining linkage between the farmer users and the NIA.

The collection functions involve: 1) planning effective collection strategies; 2) distribution of ISF bills; and 3) undertaking ISF collection.

Meanwhile, under the Type III Contract, there is full turnover of the whole or part of the irrigation system to the farmers. IAs under Type II are given incentives or IA share for their participation in the O&M and irrigation service fee collection. Under Type III Contract, the IA shall amortize the investment and rehabilitation costs of the whole or part of the system in not more than 50 years.

An International Irrigation Management Institute (IIMI) inventory of the status of turnover in the national systems showed that as of 1991, 59 percent of these systems are into Types I and II contracts while only 8.6 percent have been fully turned over to farmers (Table 1).[3] The growing recognition of farmer management capacities and the vision of the national leadership for privatization by the year 2000 as a strategy for economic recovery exerts pressure on the NIA to hasten the institutionalization of the participatory management process, with full turnover as the ultimate goal.

Concomitant with intensifying efforts for management transfers to farmer organizations, it is imperative that an assessment of the various impacts of policies affecting such a scheme be undertaken to improve implementation and reorient NIA's direction.

This paper therefore, attempts to present the status of operation of IAs in both communal and national systems which have been participants to the turnover process. The findings highlight the results of management transfer from the perspective of the farmers and an external agency, in this case, the Bicol University (BU). Most of the data were obtained from the BU-IIMI Action Research implemented in two relatively large IAs in a national system in Bicol Region from 1992 to 1994, and from a recent study of 31 IAs in communal systems in the same region. This paper concludes by forwarding recommendations on support systems deemed needed to strengthen IAs after management turnover.

Table 1. Total number of national systems in the Philippines by type of contract, 1991

Region	Type of contract				Total no. of systems
	None	I	II	III	
1 Ilocos Region	5	8	1	7	21
2 Cagayan Valley	8		7	1	16
3 Central Luzon	11		1		12
4. Southern Tagalog	10	9	3	1	23
5 Bicol Region	3		6	3	12
6 Western Visayas	4	3	2		9
7/8 Central/East Vis	2	9	5		16
9 Western Mindanao		3	1		4
10 Northern Mindanao	1	5	1		7
11 Southern Mindanao		10	2		12
12 Central Mindanao	1	3	3		7
TOTAL	45	50	32	12	139
Percent of total	32.4	36.0	23.0	8.6	100.0

[2]US$1.00 = 27.00.

[3] Prior to the implementation of the Types I, II and III Contracts, NIA classified IAs into three stages of development and correspondingly the contracts entered into were referred to as Stage I, II and III. There were slight differences in the NIA-IA obligations under these stage contracts but IAs stand to gain a higher share from ISF collection. Starting 1990, IAs undertaking O&M functions for the first time were contracted by NIA using the Type I, II and III Contracts, but the stage contracts continued to be enforced for those IAs who had such contracts with the NIA.

STATUS OF IRRIGATION DEVELOPMENT IN THE BICOL REGION

The Bicol Region or Region 5, situated in the southeastern tip of the Luzon Island, comprises the six provinces of Albay, Camarines Norte, Camarines Sur, Catanduanes, Masbate and Sorsogon. It has a lot area of 1.76 million hectares, roughly six percent of the country's area. As of December 1992, the developed area with irrigation structures and facilities was a little over one half (52%) of the potential irrigable area of 212,833 hectares, leaving the remaining area of 102,642 hectares open for full development (Table 2).

Table 2. Status of irrigation development in the Bicol Region, December 1992

Province	Total land area (ha)	Total arable area (ha)	Potential irrigable area (ha)	Developed Area					%Level of Irrigation Develop-ment	Remaining area for develop-ment
				NIA national	Assisted communal	Other Govt. Agency	Private	Total		
1. Albay	255,260	158,570	50,049	1,947	7,463	1,436	12,631	23,477	46.91	26,572
2. Camarines Norte	211,250	159,465	16,869	2,751	1,679	65	119	4,614	27.35	12,255
3. Camarines Sur	526,680	326,125	106,171	16,799	31,360	5,228	14,012	67,399	63.48	38,772
4. Catanduanes	151,150	36,745	4,189	0	1,327	328	0	1,655	39.51	2,534
5. Masbate	404,770	261,382	19,419	0	3,104	0	202	3,306	17.02	16,113
6. Sorsogon	214,140	160,356	16,136	1,200	4,517	775	3,248	9,740	60.36	6,396
Total for Region V	1,763,250	1,122,643	212,833	22,697	49,450	7,832	30,212	110,191	254.63	102,642

Source: NIA Region V. Naga City.

In the said developed area, there were 13 national gravity systems and one national pump system with a total firmed-up area of 22,697 hectares. These systems have been grouped into nine responsibility centers, namely: Daet-Talisay RIS and Matogdon RIS in Camarines Norte; Inarihan RIS, Cagaycay RIS, Barit RIDA RIS, Buhi-Lalo RIS and Libmanan/Cabusao RIS in Camarines Sur; MNOH RIS in Albay; and Bulan-San Francisco in Sorsogon. In addition to these, there were 218 communal irrigation systems (CIS) constructed by NIA for a spread of 26,603 hectares as of December 1992.

STATUS OF IRRIGATORS' ASSOCIATIONS IN COMMUNAL SYSTEMS IN THE BICOL REGION AFTER MANAGEMENT IRRIGATION TURNOVER

Communal systems are owned and managed by a single irrigation association (IA) organized by the water users and vested with legal powers by the government (Bagadion, 1991). Based on a Bicol University study conducted in 1994 covering 31 sample IAs out of 160 IAs in four of the six provinces in the region, average service area recorded is 722 hectares (ha) while average farm size is 1.81 ha. The associations follow 2 croppings per year, a dry season covering January to June, and a wet season from July to December (Table 3). The irrigated lands are solely devoted to rice crop. Farmer members are a mixture of owner operators and tenants. It should be mentioned that land ownership is not a criterion for membership in the IA, but is open to all actual tillers using the irrigation water. Irrigation service fee charged varies from IA to IA but on the average it amounts to 90 kilograms of *palay* per hectare or its cash equivalent using the government buying price of ₱ 6.00 per kilo (US$0.22).

As of December 1992, NIA records revealed that 23 percent of the 160 communal IAs spread in the 4 provinces under study in Bicol had expanded their concerns beyond irrigation water management (Table 3). The 37 IAs with multiple functions have assumed these added responsibilities out of their own initiatives because of the expressed needs of the farmer members. Data showed that the provision of production loans appeared to be the most common support service undertaken by the IAs. Availability of agricultural inputs and capital are crucial requirements to synchronize crop and water distribution schedules. In view of this, there is a growing demand for the IA to undertake expanded functions beyond water. In fact, the vision of farmer leaders covered by the study for a progressive IA pictures one that is able to provide assistance for obtaining capital for production. They said that the most needed assistance to strengthen their organization is on how to venture into non-water functions such as distribution of inputs and agricultural produce marketing and training on livelihood.

Table 3. Status of IAs in communal irrigation systems in Bicol, The Philippines as of December 1992

	Camarines Norte	Albay	Camarines Sur	Sorsogon	Region
Total no. of CIS Combined Service area (ha)	23	29	58	40	160
No. of CIS w/multiple functions	2,564	6,585	9,500	3,556	19,641
Type of non-water functions	6	6	11	14	37(23%)
a. Supply of agricultural inputs	2	1		5	8(22%)
b. Provision of production loans	2	1	3	5	11(30%)
c. Marketing of produce	1	1		4	6(16%)
d. Marketing of livestock products	0	1			1(3%)
e. Environmental mgt.	0	1	8		9 (24%)
f. Involvement in political affairs	1	1			2(5%)
Average cropping intensity					117.4%
Collection efficiency					54.0%
Average service area					722.0 ha
Average irrigated area					363.7 ha
Average area cropped					349.4 ha

It is interesting to note that there is also an increasing involvement in environmental management which may be due to the very real threat of dwindling water resources. It was observed that of the average service area of 722 ha, only 363.7 ha or 50 percent was supplied with irrigation water in 1992. And this was not an isolated case since it was the general observation of farmers in Bicol that indeed there has been a noticeable reduction in water supply in recent years. Further, IA leaders interviewed attributed the dwindling water supply to the denudation of forest areas. Most of these IAs are run-of-the-river systems that draw water from low diversion weirs. Compounding the increasing scarcity of irrigation water due to environmental causes, is the poor maintenance of irrigation structures by most of the IAs. In the IAs surveyed, seldom was the case where downstream and even midstream farmers were adequately provided with irrigation water especially during the dry season because of heavy siltation in main canals which, the leaders conceded, was an evidence of unsatisfactory performance in the IAs' maintenance task. But the IAs' deficiency in this aspect is attributed to two interrelated factors; the very low levels of collection efficiency from which funds for O&M expenditures are drawn, and the weakness of the IA leadership in effectively bolstering the various IA committees to action. The IAs in the communal system obtained an average collection efficiency of only 54 percent in 1992. This relatively low performance matches the extent to which the IAs were able to make use of the irrigated area which is represented by the cropping intensity indicator of only 117.4 percent. As a consequence, membership size declined as the IA could no longer service their water requirement. For instance, one farmer organization surveyed registered a fall in the number of members from 182 in 1982 to 82 in 1992. It was observed that most of the IAs whose membership has diminished are situated in the two provinces (Camarines Sur and Camarines Norte) where the forest denudation problem is most seriously felt relative to the other provinces in Bicol. Recognizing this situation, nine IAs have entered into a contracting scheme with the Department of Environment and Natural Resources for reforestation projects that intend to rehabilitate denuded forest areas that support nearby watersheds.

Relative to the ineffectual IA leadership, it was discerned from interviews that some IA officers do not have a firm grasp in managing the affairs of the association. Some are not even familiar with parliamentary procedures in the conduct of meetings and have not formulated any IA resolutions during their term precisely because they have not conducted any meeting at all and do not know how resolutions are developed. This handicap could be attributed to the fact that the present set of IA officers have not undergone leadership trainings which NIA had provided to the original batch of officers. Although NIA is still mandated to give technical assistance and supervision to the IAs, the agency, because of financial difficulty, could not really sustain such training activities. The IA leaders' immediate concern, however, is the considerable reduction in the collection of irrigation service fees which effectively reduced their IA's capacity to meet amortization obligations to the NIA as stipulated in the management turnover agreement. The amortization fee had been computed based on the construction cost of the irrigation system, payable at a fixed rate from 11 to 25 years. Meanwhile, the devolution of government function from national agencies to the local government units (LGUs) in 1991 encouraged the participation of non-government organizations in local governance. This opened opportunities for IAs to be involved in political affairs like representation in local government councils.

What effects did the IA's involvement in non-water functions have on the management turnover scheme of the NIA? The perspective of the Provincial Irrigation Engineers who head the NIA's local branch tasked to oversee the operation of the communal systems is that in general, the performance of the IAs in irrigation management and collection of irrigation fees improved. The provision of support services by the IAs served as a motivating condition for the members to exhibit favorable behavior that would place them in good standing with the IAs so as to be given priority in accessing the said services. However, even if collection of irrigation fees improved at the IA level, in some cases, amortization paid to the NIA declined because instead of paying the amortization due to the NIA, the IAs prioritized payment of loans from other institutions that lent out the capital used for the production loans and agricultural inputs, like the Land Bank of the Philippines.

STATUS OF IA IN THE NATIONAL SYSTEMS IN THE BICOL REGION

All except 1 of the 9 national irrigation systems mentioned earlier had been turned over to the IAs. Of these, the Mahaba-Nasisi-Ogsong-Hibiga River Irrigation System (MNOH RIS) is, to date, the only system which was fully transferred to the IAs since 1985. The rest are jointly managed by the IAs and the NIA under the Type I or Type II Contracting Agreement. In 1992, the IAs registered an average collection efficiency of 42.75 percent during the wet season and 45 percent during the dry season. They were able to irrigate 77 percent of the firmed-up service area out of which 94 percent and 98 percent were cropped during the wet and dry seasons respectively. Average farm size is 0.84 ha which is smaller than those in the communal system (Table 4).

Table 4. Status of operation of the National Irrigation System in the Bicol Region, as of December 1992

Sysem	Firmed-up service area	Irrigated Area (ha)		Benefitted Area (ha)		Crop intensity (%)	Collection Efficiency	
		Wet	Dry	Wet	Dry		Wet	Dry
Daet-Talisay RIS	2,603	2,345.83	2,079.37	2,328.87	2,031.16	170.00	49.8	50.7
Matogdon RIS	135	146.37	129.67	146.37	129.67	204.47	60.1	60.1
Tigman-Hinagyanan Inarihan RIS	3,542	2,102.00	2,278.00	1,711.00	1,932.00	123.66	42	50.3
Cagaycay RIS	1,745	1,705.92	1,330.38	1,560.79	1,330.34	174.00	36.4	37.9
Barit RIDA RIS	4,484	2,753.41	3,365.05	2,569.30	3,066.64	149.83	36.8	44.7
Buhi-Lalo RIS	2,724	2,330.31	2,318.49	2,311.29	2,301.16	170.66	23.7	23.7
Mahaba-Nasisi-Ogsong-Hibiga RIS	1,947	1,939.50	1,395.00	1,939.50	1,795.00	191.81	44.1	44.1
Bulan-San Francisco RIS	1,200	1,200.00	1,160.00	1,200.00	1,160.00	1,441.52	41.2	41.2
Libmanan/Cabusai RIS	2,195	1,456.39	1,962.23	1,379.52	1,809.67	151.19	50.6	52.7

Under the NIA Type II Contracting Arrangement, IAs are bound to get a share from collection of irrigation service fees if the IAs would attain more than 50 percent collection efficiency. Given the present IA's collection performance, one can deduce that only a few were able to go beyond this cut-off mark. This means that the majority of the IAs received nothing for their collection efforts. Even if an IA successfully meets the cut-off mark, it is perceived that the present sharing scheme under the Type II Contract is partial towards the NIA since the IA only stands to gain a minimal share based on a graduated scheme starting at 2 percent of the target current collection once it has attained 51 percent collection efficiency. To illustrate, the Barit River Irrigation System Division A, Farmer Irrigators' Association (BRISDAFIA), a relatively large IA within the Barit-RIDA Irrigation System (membership is 1,805), will get only a minimum amount of ₱ 3,765 (US$139) for a collection of ₱ 188,249 (US$6,972). However, to reach this level of collec-

tion, the IA employs 9 collectors who need to devote at least 30 days per cropping season. If all of the share is allocated to these collectors, each will receive only ₱ 418 (US$15.50) for a month's labor. This figure is very much lower than the minimum wage of ₱ 2,070/month (US$76.70). And to think that the transportation expenses required are shouldered by the IA collectors who are assigned to cover 80 hectares each on the average. The management cost for the IA is not even accounted for yet. BRISDAFIA has undertaken the collection function for the past 2 cropping seasons, and although their performance has increased, it was not enough to reach the point where they could avail of the sharing scheme. Hence, for these 2 cropping seasons, the collection cost had been underwritten by the IA. Even if one assumes a 75 percent collection efficiency for the target collection of ₱ 369,116 (US$13,671) for the wet season of 1992, and total IA share percentage increases to 10 percent of total current collection as prescribed in the Type II Contract, still the IA stands to gain a very minimal amount of only ₱ 27,684 (US$1,025). If the collection shall be paid at the rate of the minimum wage for 1 month work, the required amount for this represents 67 percent of the IA share and only ₱ 9,135 (US$338) shall be left to cover maintenance and management cost. This scenario, however, would require a magnanimous effort on the part of the IA. As a result, IAs have been clamoring for a more equitable sharing system.

Based on feedback from IA leaders, the Stage II contract provides a better incentive to the IAs. Shown below is the NIA-IA sharing system under the Stage II Contracting Scheme:

collection efficiency	IA share
53.14% and below.	20% of actual collections.
above 53.14%.	20% of actual collections for collection efficiency of 53.14%, and 40% of actual collection in excess of 53.14%.

Unfortunately, the Stage II Contracting Scheme had been replaced by the implementation of the Type II Contract. The NIA Central Office Institutional Development Division (IDD) Chief Avelino Mejia admits that formerly, the NIA was more liberal in the sharing arrangements, but now the ceiling on funds going to the farmer is much lower (IIMI Review, 1989).

If the rationale behind involving the IAs in systems management is to help the NIA recoup the development cost of irrigation, the present sharing system is quite restrictive rather than a boost to participation. Ultimately, it is anticipated that some IAs would rescind the Type II Contract and return back to NIA, the collection function which it may not be in a position to effectively carry-out given its present retrenchment policy.

The poor collection performance of IAs may be due to several factors. First, the IA leaders are not compensated monetarily for their efforts. A challenge that the IA should consider is how to provide real incentives to farmer leaders to turn in higher performance and act on the problems and issues resulting from the feedback mechanism instituted. As Goonesekera concludes (cited in [Merrey, Rao and Martin, 1988]), there is a need to provide irrigation managers with financial incentives to provide good management. This need is articulated in the vision of TSA leaders that the IA should have sufficient funds to pay their honorarium. The IA's potential source of fund is its share in the ISF collection. If the NIA agrees to increase the IA's percentage share the NIA stands to benefit as well since the IA would be able to provide better maintenance service to its members, which is expected to trigger in an increase in the ISF collection.

Secondly, the transaction instruments used by the IAs were handed down by the NIA and are not yet modified to suit the capability of the farmers who are now delegated with the collection function. An example of this is the bill reflecting the irrigation service fee (ISF) due from the water users and the acknowledgement receipt to be issued for ISF collected. The prevalent practice is to collect the peso equivalent of the amount due (ISF is 150 and 100 kilograms of palay per hectare during dry and wet seasons, respectively) because of the convenience on the part of both the collector and the payee. The farmer-collector is expected to compute the peso equivalent of the ISF and he does this manually in the absence of calculators which could not be afforded by either the farmer collector or the IA. The computational difficulty is further aggravated by the standing policy of deducting 10 percent of the amount collectible if paid on time and in cash which requires additional calculation on the part of the farmer collectors. An insignificant error at the collector's level could be magnified if taken collectively at the IA level. Moreover, the farmer collectors are required to write in words the amount of the irrigation service fee collected which, from observation, requires so much effort considering that most collectors who are at the same time turn-out service area leaders are already about 52 years old and have only attained an elementary education. As mentioned earlier, the IA collectors in BRISDAFIA practically work on a voluntary basis because the IA was not entitled to any share as collection efficiency had always been below the NIA's cut-off mark ever since they had entered into the turn-over scheme in 1991. However, even if an IA becomes eligible to receive the share from the fees collected, the farmer-collector is only compensated after 2 to 3 cropping seasons due to the delay in the NIA's processing of the IA share. The agency attributes most of the delay to the inability of the IA to submit collection reports on time and in the prescribed format. However, it seems that the

forms used for such reports are likewise not farmer friendly and not attuned to the skills of a farmer or IA treasurer. In this light, NIA should not only attempt to simplify the forms but also look into the possibility of automatically retaining the ISF share at the IA level to enable the association to provide timely remunerations to its collectors and to put up equity in maintenance and minor repair activities, when needed.

Thirdly, it was noted that some operation and maintenance personnel of the NIA viewed the progress of the IAs as a threat to their job security rather than a support to the overall performance efficiency of the system. When the MNOH RIS was fully turned over to the farmers, many NIA personnel were displaced and were retired from service. Having this experience in mind, systems personnel fear that strengthening the IAs would result in the turnover of the system and a similar fate as those in the MNOH-RIS awaits them. The NIA personnel were perceived by the IA officials then as wanting in sincerity in extending the necessary technical assistance. The incumbent Officer-In-Charge of the NIA Regional Office in Bicol, explained that such is a weakness attributed to the implementation of the turnover process itself. At the onset, NIA operation had been subsidized by the National Government, hence, even if collection efficiency was very poor, the agency's operation, including the salaries of personnel were secured with adequate funding. It is only now, about 25 years after the turnover policy implementation that the NIA's funding is tied to its ability to recoup its investment in capital outlay through collection efforts. In short, the NIA personnel were not able to appreciate the crucial role of the farmers who are delegated with the IA's collection function to the existence of the NIA as well as of their own.

Fourthly, NIA's inability to fulfill its obligations in the O&M contract entered with the IA is causing disenchantment among the farmers. For jointly-managed systems such as those with Type II contracts, it is inevitable that NIA should play a significant role in the management of the irrigation system. In particular, it is expected to act on O&M issues which are under its jurisdiction as stipulated in the contract. At present, however, it is faced with budgetary constraints limiting its ability to comply with its responsibilities, specifically maintenance of main canals and repairs of control structures. Indeed, the Financial Report of the NIA Barit River Irrigation System Office, covering the period of January to December 1992, showed that it did not spend any amount for O&M activities except for the payment of salaries of its O&M personnel. If this persists, the rate of deterioration of the structures and facilities is expected to accelerate. Since it is foreseen that scarcity of budget will prevail in the long run, the logical course of action is for NIA to assess the capability of the IA for full management turnover.

ALTERNATIVE SUPPORT SYSTEMS TO STRENGTHEN IN AFTER MANAGEMENT TURNOVER

Given the present policy direction of NIA to hasten the management turnover of irrigation systems to farmers as the backdrop and taking into account the enabling and constraining conditions for strengthening turnover process raised in the preceding sections, the following mechanisms are hereby proposed for consideration:

1) *Setting the Stage for IAs to Venture into Multiple Functions.* In order to expand the economic activity, the farmer organizations may have to engage in multiple functions. An infant organization may limit its group activity to a single "common goal" or a single function. For instance, as water is central to irrigated agricultural production and because the returns to group action is more significant, if it is centered on water management, the Irrigators' Associations (IAs) may first be established to deal with the water input. However, when the IA is matured or strengthened enough to handle multiple functions, and because there exist complementary relations between water and non-water inputs, it might be desirable to be engaged in other activities as well (Wijayaratna, 1993). Further, it was seen that the challenges to the IAs' existence extend beyond water issues, such as environmental management. Hence, the IAs should be able to make a choice as to what other functions it needs to undertake in order to enhance its operation. As observed in the past, IAs in the Philippines were hindered from undertaking non-water functions due to legal impediments such as the organizations' constitution and by-laws which confined the organization's activities exclusively to water. The NIA, recognizing this limitation, had instituted modifications such as issuance of authority for IAs to evolve into cooperatives. With the IAs' direction gearing towards multiple functions, particularly agribusiness, technical assistance provided by NIA should cover not only systems maintenance and institutional development but extend to capability building along new areas complementary to other functions being pursued by the IAs. It might be mentioned that the NIA is presently embarking on pilot projects that would incorporate management of support services to the original water service delivery function. Specifically, capability building should include developing IAs to access resources offered by agencies other than the NIA such as the Land Bank of the Philippines, National Food Authority, the Department of Agriculture, and the Department of Trade and Industry.

2) *Sustaining Institutional Development of IAs through Participation of Local Government Units.* This mechanism is deemed needed to provide continued institutional support to the IA as leadership changes periodically. It was

noted that the NIA trainings were only addressed to the set of leaders of the IA upon organization. After turnover, with the pull-out of the professional community organizers institutional support from NIA diminished if not completely stopped. Under the turnover scenario wherein the NIA is pressured to operate within the funds accruing from amortization remittances, much as the agency would want to, it could not afford to hire institutional workers needed to meet the institutional requirements of all IAs especially those in the communal systems. Hence, another agency has to fill the gap. With the advent of the devolution of functions from national agencies to the local government units (LGU) it is viewed that the LGU is in the best position to respond to the IAs' training needs. With the present set-up, the agricultural extension service delivery function of the Department of Agriculture, a national agency, which has a Human Resource Development Unit, has already been assumed by the LGU. Hence, taking on the institutional development function for IAs would not create any organizational restructuring but only an expansion of target clientele to include newly elected leaders of IAs as well as that of other rural-based organizations. A necessary condition that may be required by the local executives would be the devolution of the NIA's function on the supervision of at least the IAs under the communal system to the LGUs.

3) *Institutionalizing the Self-Assessment Mechanism.*. The self-assessment process is a mechanism whereby farmers are measuring and evaluating their own performance through the collection of farm-level data on a regular basis. The data gathered covered the areas of water management, organizational activities, maintenance, conflict management and farming activities. The process entailed the participatory selection of the most pertinent performance indicators which could be simply elicited and the design of methodology for data collection given the TSA leaders' low educational attainment. It also involved the training of the TSA leaders in data recording crucial in generating accurate information and, more importantly, data utilization for planning and decision making.

The self-assessment process proved to be an effective tool for strengthening the managerial capability of Irrigators' Associations. Recent experiments on the self-assessment showed that this mechanism works best in IAs that have undertaken partial or full management responsibility of the system.

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