

WOMEN'S PARTICIPATION IN TWO PHILIPPINE IRRIGATION PROJECTS

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The author assesses two irrigation project situations to examine the roles that women play in different stages of project implementation and in various activities of the irrigators' associations. She finds that beyond what formal records reveal, women show interest in programs affecting the household's economy. When allowed or encouraged to participate, women had considerable impact on the success of development projects.

Approaches to integrating women in the development process have basically taken two forms. One takes women as a special category and "custom fits" projects and/or organizations to women's concerns. In rural areas of the Philippines, these projects are exemplified by the initiation of mother's classes and nutrition projects (The NFE/WID Exchange-Asia 1984). This approach has also been used in forming livelihood groups along the lines of existing occupations (such as the production of subsistence crops) or traditionally female domestic activities (like sewing).

The other approach neither addresses women as a special group nor concerns itself with women's issues. But it is also characteristic of most development programs which address problems besetting the rural populace. Rural credit program is one example; production training programs, another. Women's access to these efforts is anchored not on their membership in an exclusive women's organization but on their ownership or access to key resources like land. Although these rural development programs are intended for men and women who meet program selection criteria, the operationalization of the plans inevitably focus on men who are generally assumed to own the land (jointly with the wife in most cases) or possess the right to cultivate a farm. Organizations formed in support of these programs (e.g. the *Samahang Nayon* or Barrio Association) then tend to be

tailored for male adults, and membership is almost limited to men.¹

In the same vein, the Philippine irrigation development program and the irrigators' associations created by the program involve primarily male cultivators. The implementation of a new approach to irrigation development, known as the participatory approach (Bagadion and Korten 1980, and Korten 1982), in the latter half of the 1970s presents an interesting case insofar as women's participation in the program is concerned. Before the initiation of the participatory approach in 1976, the field staff of the National Irrigation Administration (NIA) consisted of engineers and technicians, the great majority of whom were male. Beginning in 1981, NIA started to develop a new staff charged with preparing farmers for participation of physical irrigation facilities and with organizing the water users into irrigators' associations which will operate and maintain the completed irrigation systems. This institutional staff, called community organizers, was composed of college graduates, about two-thirds of whom were women.² The fielding of community organizers dramatically changed the sex ratio of the NIA field teams.

This paper discusses how female farmers have been involved in two irrigation projects in the Philippines: the Aslong project and a component (the Lower Lalo section) of the Buhi-Lalo project. The general issues sur-

rounding women's participation in irrigation are further illustrated in the case of two women — Tiang Yayang and Tiang Loring — who were named to leadership positions in their respective irrigators' associations. The analysis draws heavily on data collected from 1979 through May 1982 during which the implementation of the two projects was intensively documented.³ The studies focused on general farmers' participation and highlighted the processes, and policy and procedural issues associated with involving farmers in the development of their irrigation systems. In 1983, additional information was gathered on women's involvement in the two projects.

The present analysis uses the two irrigation project situations to examine the roles that women play in various stages of project implementation and in different organizational activities of the irrigators' associations. Based on the experiences of women in the Aslong and Lower Lalo projects, issues are explored affecting the integration of women in development efforts which are neither female-specific nor female-oriented. Moreover, lessons are culled concerning the likely effects of women's participation in general rural organizations.

The Women in the Aslong Project

The Aslong irrigation project involved the improvement of an existing communal system (which is collectively owned by its water users) located in Southern Luzon. The irrigation development scheme included the construction of a concrete dam (to replace the temporary brush dams built by the farmers) and several canal structures, and the rehabilitation of irrigation canals. The improved system was expected to irrigate about 325 hectares of riceland throughout the year, or a doubling of the dry season irrigated area. Along with the development of the physical system, NIA intended to create a viable irrigators' association which would be responsible for the operation and maintenance of the completed system as well as the repayment

of part of the government's investment in the Aslong project. To accomplish NIA's institutional building objective, the agency hired and fielded community organizers. The Aslong project officially began in March 1979 with the arrival of a female community organizer in the area. Two months later, she was joined by another female organizer. By the end of 1983, because of transfers, a total of five organizers had worked in the project; three of these were women.⁴

Part of the community organizers' assignment was to develop the irrigators' association and to build among the farmers a commitment to the organization. While an irrigators' association had been organized in the area in January 1979 (or three months before the entry of the community organizers), the association had but 45 farmers listed as members by March 1979. The community organizers then encouraged the association officials to identify and recruit farmers who were qualified to join the association. The organizers also mobilized the leaders to comply with legal requirements set by the Philippine government for the diversion of water from a river for irrigation purposes and those for acquiring a legal personality for the association. The organizers further engaged the farmers in various project activities which called for planning their participation and harnessing resources to get the tasks done. When the system became operational in late 1980 (see Figure 1 for a sketch of the completed system), the irrigators' association began discharging its system operation and maintenance responsibilities. The association started repaying its construction loan from NIA in December 1983. These activities theoretically concerned all association members, be they men or women. Participation, however, tended to differ between as well as among male and female farmers — as did their access to association membership.

Entry into the association

When the association was formed in January 1979, 45 farmers and three nonfarmers

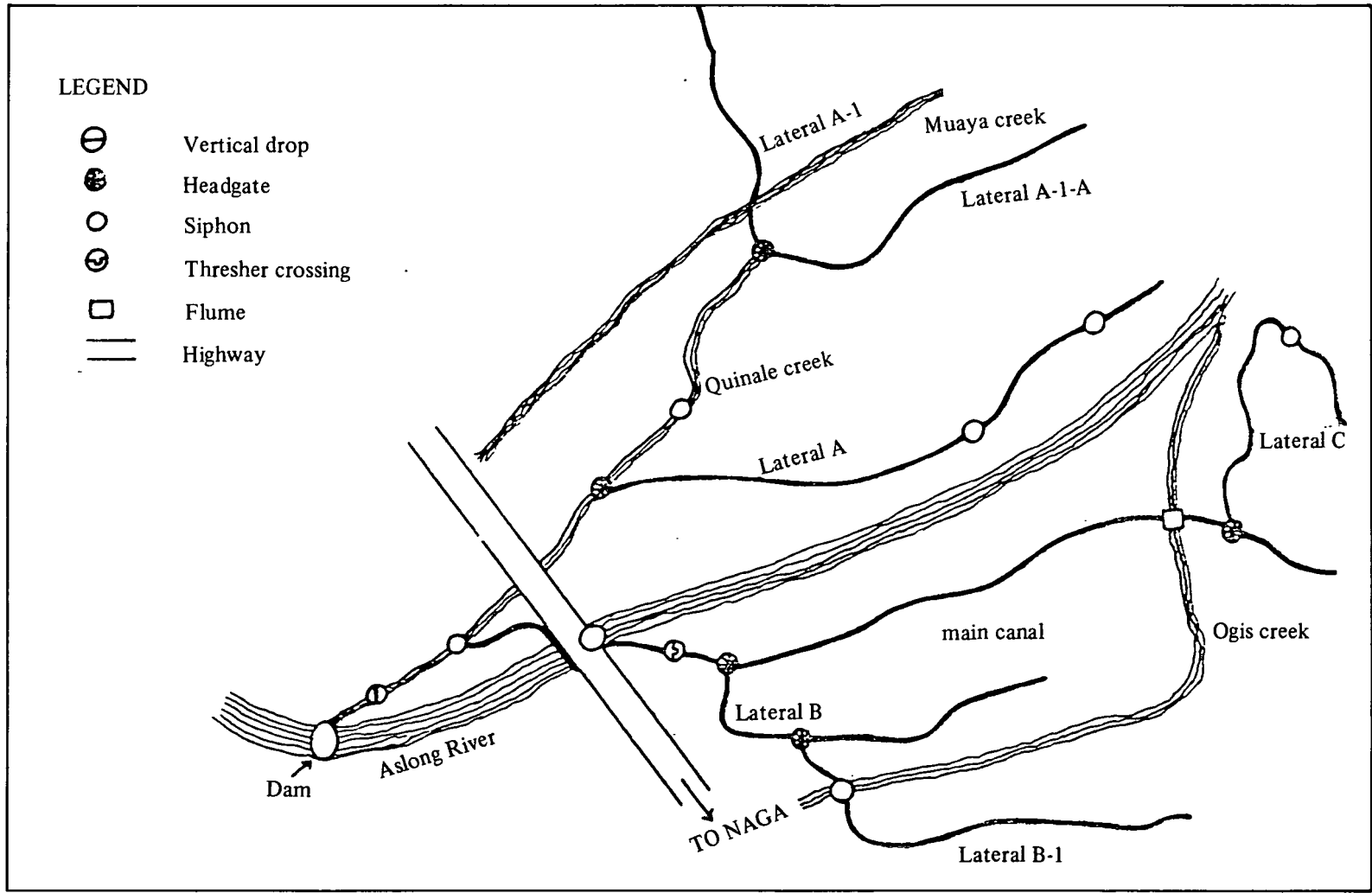


Figure 1. Irrigation facilities constructed in the Aslong system (September 1980).

attended the meeting and were automatically considered as the initial members of the newly-organized group. Within six months or so after the association's organization, the association decided to limit membership to actual cultivators of farms which drew water from the Aslong system.⁵ Consequently, the three nonfarmers (all males) were dropped from the membership roster, and the leaders actively campaigned among the qualified farmers to join the association. Generally, the all-male leadership focused their recruitment efforts on heads of households whose farms were irrigated by the original Aslong system. By the end of 1979, the association had about 140 registered members, 126 of whom were males. In the remaining 14 cases, the women were identified by the leaders (and, in a few cases, by the husbands) as *the* farmer. After four years, the registered members of the association numbered 165. Of these, 16 were women, 11 of whom were farming in the two upstream sections of the Aslong system (see Table 1).

Between 1979 and 1983, two of the original female members died while one was dropped from the membership list when she stopped farming. Moreover, five were added as these women's farms were finally irrigated by the Aslong system.

Among the 16 women listed as members, two were currently married who joined the association because their husbands were employed outside the community and visited their families on rare intervals between jobs. In contrast, four other married women qualified for membership either because they owned the land or they were generally known as the tenant of the farms served by the system. In 1983, these four women were not actually cultivating their land: in three instances, the husbands were reportedly farming the land, while in the fourth case the women had sublet the farm to another (male) farmer. Although farming arrangements had changed in these four cases, the four female members retained their place in the membership roster because

Table 1. Registered membership of the Aslong irrigators' association, by sector and sex of members (March 1983)

Location and sector ^a	Coverage ^b (in ha.)	Membership					
		Male		Female		Total	
		No.	%	No.	%	No.	%
Upstream							
San Isidro Sagop 1	68	33	85	6	15	39	100.0
San Isidro Sagop 2	87	23	82	5	18	28	100.0
Downstream							
Bahay	22	16	84	3	16	19	100.0
Aslong	27	21	95	1	5	22	100.0
Palangon ^c	120	56	98	1	2	57	100.0
Total	324	149	90	16	10	165	100.0

^aA sector is a division of the irrigation system's area coverage which has been delineated based on a combination of community boundaries and the irrigation canal(s) which serves the area.

^bThis pertains to the irrigable area within the sector or system.

^cPalangon was divided into two sectors in December 1981; the figures, however, refer to the combined Palangon sectors.

they allegedly continued to exercise a modicum of management control over the farm.

Of the remaining 10 female members, one was separated from her spouse for several years while the nine others were widows. In case a widowed member remarried, she continued to be regarded as the member of the association.

Apart from the 16 listed female members, two women had been attending meetings after their husbands, who were association members, died. After a year of widowhood, however, the association had yet to enter them in the membership roster in lieu of their deceased spouse.

Participation in project activities

As association members, the female farmers attended meetings, joined field inspec-

tions, and contributed equity to the project.⁶ While women generally attended meetings and on-site investigations of facilities, they tended to send their spouse or adult sons to report to the project's construction sites so that their labor could be credited as the female members' counterpart contribution in the project. In contrast, male members raised equity in the project by contributing part or all of their labor during the construction phase of the Aslong project while some of the male members sent their wives to represent them during general assemblies and other association meetings (see Table 2). The use of proxies during meetings was raised as an issue by community organizers in mid-1979 because this indicated the members' lack of commitment to the participatory goals of the project. The all-male board, however, generally considered this practice as

Table 2. Attendance in selected general assemblies convened by the Aslong irrigators' association between 1980 and 1981^a

<i>Date of the assembly</i>	<i>Attendance</i>			<i>Total</i>	<i>Percent of females to total attendees</i>
	<i>Male members</i>	<i>Female Members</i>	<i>Female proxies</i>		
1980					
29 March	38	2	1	41	7
22 June	74	4	—	78	5
24 July	60	7	4	71	15
17 August	28	3	2	33	15
1 October	42	8	4	54	22
26 October	58	7	6	71	18
10 November	27	2	3	32	16
30 November	51	4	4	59	14
1981					
18 January	69	6	4	79	13
26 April	62	7	3	72	14
23 May	54	5	1	60	10
28 June	30	6	1	37	19

^aThese general assemblies pertain to those for which the association had kept attendance records when visited in mid-1983. During the 1980 to 1981 period, the association had about 140 members.

^bThe percentage of female to total association members was about 10 percent.

"natural," particularly in the case of men sending their wives to meetings. The board members explained to the organizers that women were as concerned about farming matters as their spouses. Moreover, women's presence in meetings could allay their fears over the financial commitments their spouses might make to the association. But while female proxies were tolerated during meetings, they were not allowed to participate in voting on issues.

Among the ways by which members contributed equity to the Aslong project was by donating rights of way for irrigation canals which were located on their lands. A difficult right-of-way situation, however, arose where the needed land belonged to someone who was not a member of the association. One such case involved the dam site. In negotiating for this land, the leaders discovered that they had to contend not only with the man, who was initially assumed to decide the matter by himself, but also with the wife (Ilo, de los Reyes, and Felix 1984:40-44). It was not until after the woman herself was convinced that their property would not be flooded by the construction of the dam and that the association's offer price for the land was "fair" did right-of-way negotiations over the dam site proceed more smoothly.

Right-of-way negotiations and other pre-construction-phase activities basically involved only male leaders. However, activities which engaged association members (such as formulating the association by-laws) also involved women. Female farmers and farmers' wives attended sectoral meetings convened to discuss amendments to the by-laws; they were also present in conferences with NIA engineers during which system design was negotiated and the terms of construction set. But during the construction phase when members were more active participants than the association officials, these active members were generally male. As men and women in Aslong explained, women were not expected to do heavy construction work (like excavation and hauling of materials). And in several cases, women

said that sending adult males to construction sites and women to meetings distributed the time-consuming demands of the project among the men and women of member farming households.

Selection of leaders

When the association was organized in 1979, the leadership rested on a board of directors and several association officers, all of whom were male. This male-dominated central leadership persisted until the end of 1980, there being no general elections until January 1981. During this period, however, the association opened up several informal leadership positions through the formation of ad hoc construction committees. (Pre-construction committees were composed of association officials except for the by-laws committee which was comprised of a male representative from each of the five sectors of the system). Additional leadership positions were created beginning in December 1980 when each sector's members elected their sectoral officers (see Figure 2 for the association's organizational setup). The women shared in these leadership posts as follows.

Membership in construction committees: In November 1979, the general assembly created four construction committees, each composed of five members who represented the five sectors of the Aslong system. In all, 20 informal leadership positions were opened. These were filled by 19 association members, one of whom was a woman — Tiang Yayang. She was selected to head the quantity and quality control committee with four male farmers as members. The other three committees had an all-male membership.

Tiang Yayang was one of the 14 initial female members of the association. She managed a two-hectare rice farm while her husband worked in construction sites in Manila. Like most of the committee members, she had completed the six-year elementary course.

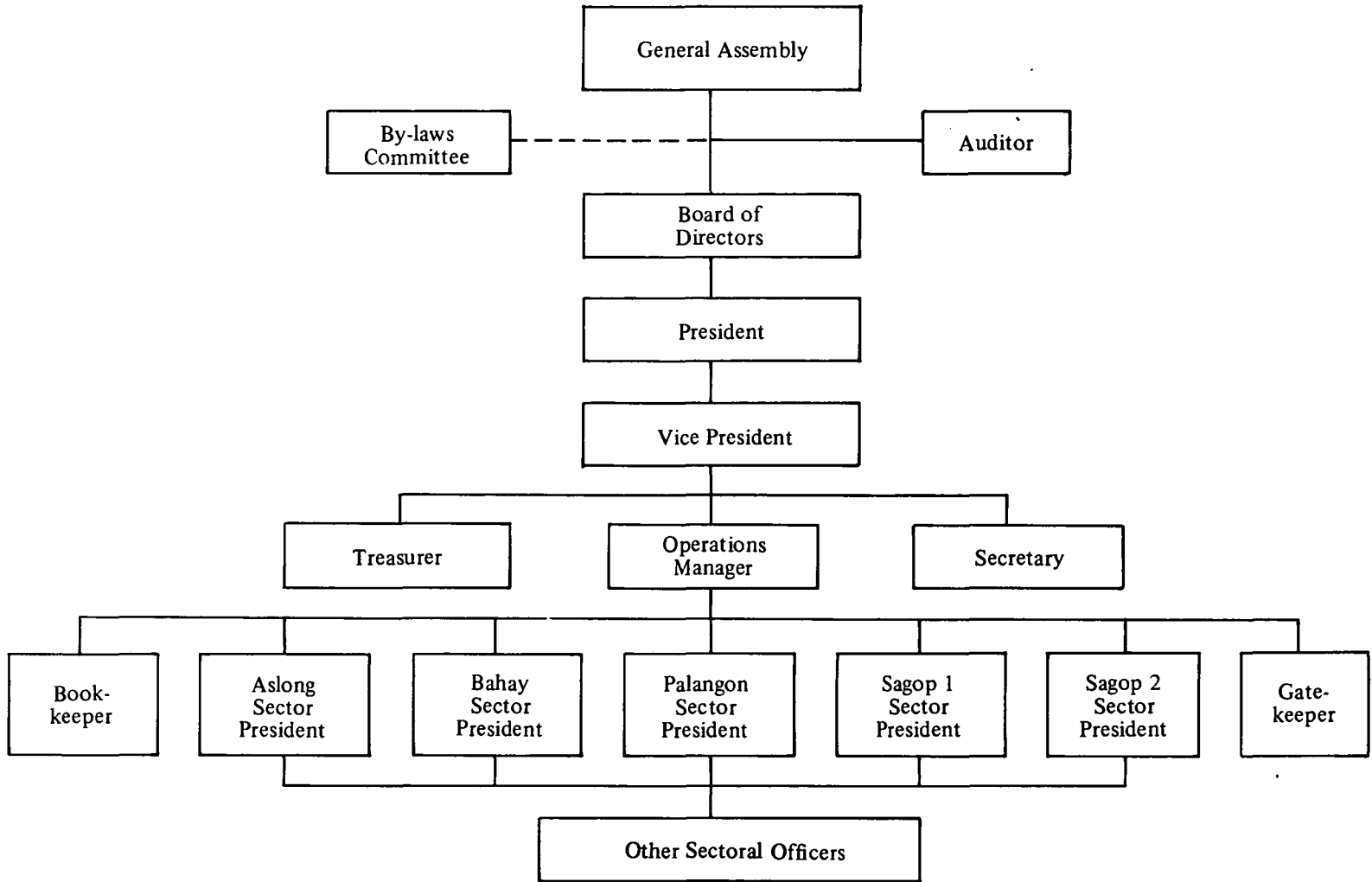


Figure 2. Organizational set-up of the Aslong irrigators' association (January 1981)

Several factors led to Tiang Yayang's election as a committee chairperson. Her house was located along the national highway, about 100 meters away from the association's warehouse (*bodega*) where construction materials would be delivered by NIA-contracted suppliers. Because her committee was charged with checking the quality and amount of material delivered, the discharge of this duty was facilitated by her living close to the delivery point. Moreover, the association members articulated their confidence in her alertness to identify inferior to defective construction materials. She was also widely known for her astuteness (*dunong*) and her ability to work with both men and women. A third factor, hinted at during the deliberations, pertained to the belief that a woman who was experienced in managing both a household and the family farm would tend to pay closer attention to details of material deliveries.

While association members were able to rationalize their selection of Tiang Yayang to head a committee, they were less articulate in explaining why women were not named to the other committees. In fact, the few men and women interviewed showed initial bewilderment when asked the question, but later explained that the other committees (such as canvass and bidding) might take the members away from home, something which the female members might not be keen on doing.

Sectoral leadership. To secure broad participation in association affairs and the representation of upstream and downstream interests in the management of the association and the system, the association used two mechanisms: one, sectoral representation in the board of directors which ensured that leaders at the central level would be drawn from different geographical areas of the system; and two, election of a set of officers in each sector. The sectoral officers constituted the group which was entrusted with the implementation of association policies and the operation

and maintenance of irrigation facilities found within the sector.

The first sets of sectoral officers were elected for 1981. A total of 34 sectoral positions were created throughout the system (see Table 3). Three of these were occupied by women, two in San Isidro Sagop 1 and one in Aslong.

In San Isidro Sagop 1, the 32 members elected Tiang Yayang as president and a member's wife as secretary and collector. A month after Tiang Yayang's election, however, she was prevailed upon to give up the sectoral presidency in favor of the treasurership in the association. Nonetheless, the sector members persuaded her to serve also as auditor of their group.

When some of the sector members were asked why they chose a non-member as secretary/collector, they explained that said person had served as secretary in other organizations and had proven to be very efficient and trustworthy. Moreover, they did not find anything amiss with their decision because they felt they had named the best person to the position. Being a member or a member's wife was of secondary importance.

In the Aslong sector of the system, the 21 male members chose as their secretary the lone female member, a married woman whose husband was tilling the land she inherited from her parents. As in the case of the San Isidro Sagop 1 female leaders, the Aslong secretary-elect had served in various organizations in the Aslong village as secretary or treasurer.

In the other three areas of the Aslong system, all 19 sectoral leaders were men. Farmers from these sectors who were asked why no female member was named to a leadership post said that nobody suggested any of the women-members during their sectoral elections. Moreover, the women were allegedly indifferent to joining the "power struggle" in their area.

Central leadership. In Aslong, the board of directors (the policy-making body) and

Table 3. *Female participation in sectoral leadership (1981)*

Sector	Membership		Leadership ^a		Positions occupied by	
	Male	Female	Male	Female	Male members	Female members
San Isidro Sagop 1	27	6	5	2	President Vice-president Public Relations Officer Watertenders	Auditor Secretary/ Collector
San Isidro Sagop 2	21	5	8	—	President Vice-president Treasurer/ Collector Secretary Auditor Watertenders	None
Bahay	16	3	6	—	President Vice president Auditor Collector Watertenders	None
Aslong	21	1	7	1	President Vice-President Auditor Collector Public Relations Officer Watertenders	Secretary
Palangon	41	1	5	—	President Vice-president Collector Watertenders	None
Total	126	16	31	3		

^aThe leadership posts include those occupied by watertenders which in 1981 numbered two per sector. In 1982, the sector president concurrently served as the area's collector and watertender.

the executive officers (headed by the president, and in charge of policy implementation) constituted the central association leaders. These people were charged with formulating and implementing policies and procedures for the whole association; particularly those in connection with the operation and maintenance of the system.

In 1979-80, the 11 central leadership posts were filled up by more educated male farmers, a number having completed at least 10 years of formal school attendance. Departing from this all-male leadership structure, the association members encouraged Tiang Yayang to vie for the association treasurership during the January 1981 elections.

Tiang Yayang served as treasurer of the association for two consecutive years. In these two years, she was the only female official out of a total of five to six executive officers; the board of directors continued to consist of all male farmers. When Tiang Yayang, an elementary school graduate, decided not to run for a third term in 1983, she was replaced by a male member who had received about two years of college education. In 1983, as in 1979-80, all the association officials were men.

Tiang Yayang's election as treasurer proved to be an extension of her involvement in community organizations. At various times, she served as treasurer of the local Parents-Teachers' Association and the Rural Improvement Club; an all-women association which she headed after leaving her post as treasurer of the irrigators' association in 1983. Several members of the irrigators' association pointed to her ability to mobilize and manage resources as the crucial factor leading to her two-year term as treasurer of the predominantly male water users' group.

Performance of leaders

Beginning in late 1979, women-leaders in the Aslong association headed one committee, served in two sectoral posts, and acted as treasurer of the association. These leaders

discharged their duties alongside their male colleagues. As head of the committee on quality and quantity control, Tiang Yayang checked the materials delivered to the association warehouse, and sought the assistance of other (male) leaders to monitor the construction materials which were transferred from the warehouse to the bunkhouse and the different work sites. Particularly during the height of material deliveries and transfers, Tiang Yayang carefully balanced the demands of home and farm with those of her committee. When she felt that she could not spend sufficient time to monitor materials transferred to the bunkhouse and elsewhere, she immediately informed the board of directors. One (male) official remarked that she should probably be replaced since the job seemed to require a male committee head. The other board members, however, reiterated their support and confidence in Tiang Yayang, and promised to mobilize the project warehouseman to help her. While her committee members intermittently helped carry the materials while she checked them, and stacked these inside the warehouse or somewhere in the warehouse compound, Tiang Yayang almost singlehandedly performed the committee tasks.

In the different sectors, male and female leaders saw to the accomplishment of concrete tasks assigned to them. Sector presidents, who were male, mobilized the farmers for clearing the irrigation canals of weeds and debris and for undertaking repairs of canals and structures. Fee collectors, including the secretary/collector of San Isidro Sagop 1, began their collection tasks. Meanwhile, the secretary-elect of Aslong and her male counterparts checked the attendance during sector meetings, noted down key points of sectoral meeting's proceedings, and kept the records (generally, in an unsystematic way) for the group.

Tiang Yayang's performance as association treasurer in 1981 and 1982 underscores the contributions which female leaders could make to an irrigators' association. During her

two-year term, Tiang Yayang was charged with the collection of irrigation fees, fines, and membership dues. She was responsible for issuing official receipts for payments remitted to her, recording all collections in her cash journal, and banking the collections with a local savings bank in the town center (or *poblacion*).

As treasurer, she controlled cash disbursements out of association funds. These took the form of commissions for the collectors, honoraria for officials and system management personnel, and other operational expenses. Her term was beset with problems associated with frequent request for cash loans (against expected honoraria) from association officials. At a time when she saw the association just building its financial base, she felt that payments to officers and board members should be minimized and cash loans curbed. Because the male association president and auditor indiscriminately authorized the preparation of cash vouchers covering the cash loan requests, she confessed to a sense of powerlessness in containing the cash expenses of the association. She would have liked to have been consulted before any cash voucher was finalized in order that she could advise the leaders concerned about the association's cash status. Unable to do this, she dealt with the situation by keeping her petty cash to a minimum and banking the collections immediately so that she could turn down loan requests on the grounds that she had no cash with her. Because of her obvious reluctance to honor the officials' demand for cash loans, she had become the object of criticism. This, in turn, led to her desire to quit her post in mid-1982. She was, however, prevailed upon by the association to stay until the end of her second term.

Armed with her experience in household and farm management, Tiang Yayang appreciated the usefulness of recordkeeping, particularly in financial matters. However, she was slow to agree with the community organizers on the value of keeping additional records (other than her cash journal). She felt that the association bookkeeper (a male)

was maintaining all the other records which the association had to keep.

While she religiously recorded cash transactions in her cash journal and immediately issued official receipts for irrigation fee remittances, she seemed less consistent in the treatment of cash disbursements. However, this "aberration" was in fact correlated with her perception of the legitimacy of the expense item and with cash availability. Thus she would pay collectors their commission and reimburse officials who had purchased office supplies even without the required cash voucher (prepared by the bookkeeper). In the case of cash loan requests, the required cash voucher might be served to her, but she would sometimes plead nonavailability of funds to turn down these requests.

Tiang Yayang defended her deviation from the prescribed procedure for cash disbursements by claiming that the bookkeeper could prepare the vouchers only when he reported to the association office on Fridays. Meanwhile, the association sometimes had to pay collectors early during the week. Instead of waiting for the bookkeeper to furnish her with the official vouchers, she made the cash recipient sign a temporary cash voucher. She accumulated the temporary vouchers for the week, and turned these over to the bookkeeper at the end of the same week so that he could prepare the official vouchers and thus "set their records straight."

In connection with her election as association treasurer, Tiang Yayang became automatically the chairperson of the financial management committee, which in 1982 had male fee collectors as members. Her committee, which was the only operational committee two years after the partial turnover of the irrigation system to the association in 1981, drafted the financial policies of the association. Upon the general assembly's approval of these policies, the treasurer became responsible for their implementation.

Performance in system maintenance

Beginning in October 1980, the NIA-improved irrigation system started operations.

Subsequently, the irrigators' association engaged in various irrigators' functions like water distribution, conflict management, system maintenance, and collection of irrigation fees (and management of its financial resources). Of these, system maintenance required the greatest labor input with the members involved in construction of farm ditches or foot bridges, clearing of canals, and repairs of embankments and canal structures. Because of the nature of these tasks, system maintenance was a function generally regarded as "masculine."

For about 14 months ending in May 1982, a total of 43 sector-level maintenance workdays were convened in the Aslong irrigation system. Participation in the sectoral maintenance activities ranged, on the average, from 9 to 13 association members or their proxies (Ilo and Volante 1984). These activities were primarily convened by male leaders, except in one instance in San Isidro Sagop 1 which Tiang Yayang organized. Regardless of who initiated the activity, the maintenance work teams were mainly composed of men. Only in San Isidro Sagop 1 did women personally report to the work site. In the other sectors of the Aslong system, female members (like the secretary of the Aslong sector) sent their spouse or, in the case of widows, an adult son or male relative to serve as their proxy.

The nature of women's involvement in maintenance activities in San Isidro Sagop 1 is varied as illustrated by the following cases. Tiang Yayang personally attended four (one which she initiated) of the nine maintenance activities held in the area. In two of these instances, she was involved in the clearing of the lateral canal which led to her farm, while in the other two, she supervised the male members to construct a farm ditch or to clear the main canal which traversed the sector. At one time, she was joined by the secretary/collector. The two female leaders took charge of collecting fines from the nonparticipants, providing the maintenance

workers with refreshments, and supervising the canal-clearing work. Other female members usually sent proxies, although some visited the work site for a few minutes to chat with the maintenance workers.

To the women, members or proxies, the association's acceptance that its members would sometimes send representatives enabled their respective families to spread the responsibilities of association membership among their adult members. Consequently, the pressures to participate in project and system management activities tended to be diffused at the household level, with household members possibly taking turns attending to association demands. In the case of the two female sectoral secretaries, sending their husbands to help maintain the irrigation facilities in their area minimized the potential work load of their leadership positions.

The Women in Zona Cuatro of Lower Lalo

Zona Cuatro occupied a total area of 300 hectares in the head-end section of a new irrigation system which NIA was developing under its Buhi-Lalo project about 75 kilometers south of the Aslong system in Southern Luzon. The new system would irrigate about 2,300 hectares of previously unirrigated rice-land. Its area coverage was divided into sections called rotational areas, each corresponding to an area (from 9 to 48 hectares) which would draw water from a common turnout on a main or a lateral irrigation canal. Of the 84 rotational areas constituting the new system, 11 composed Zona Cuatro. These 11 rotational areas included 9 which had turnouts located along a canal labeled as Lateral L and 2 with turnouts on the section of the main canal close to the areas covered by Lateral L (see Figure 3).

The NIA project in Zona Cuatro involved building a network of irrigation canals, structures, and farm-level facilities (such as turn-

LEGEND:

- Main Canal
- Lateral L
- Culvert
- Turnout
- Rotational-area boundary
- || National highway

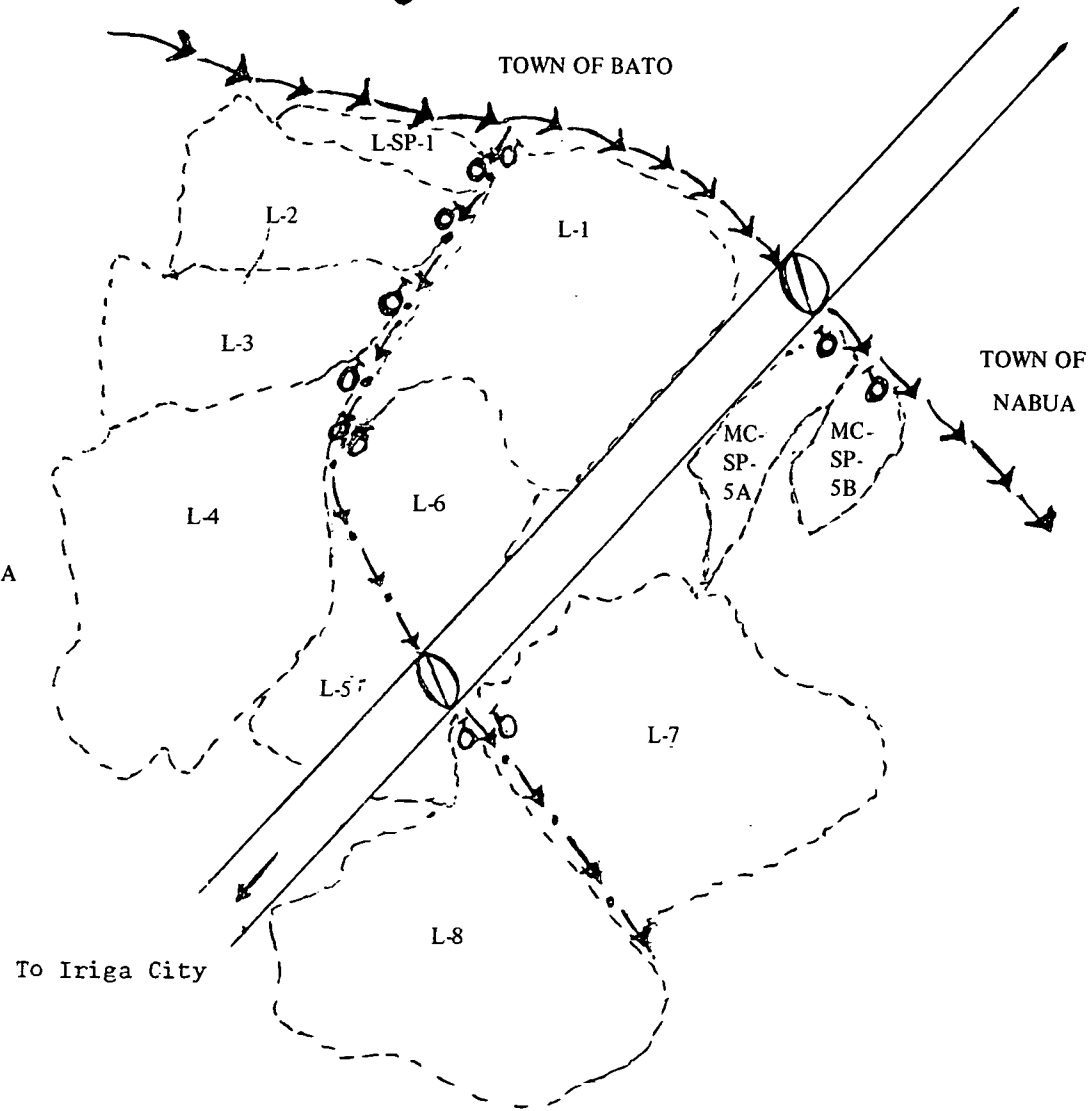


Figure 3. Layout of the rotational areas constituting Zona Cuatro (March 1982)

outs, farm ditches, and ditch structures). The canal network would connect Zona Cuatro with the other seven zones of the Lower Lalo system. The 2,300-hectare system would be irrigated by impounding water from Lake Buhi and bringing the water to the area through a connector canal. The development of the physical facilities was accomplished using the same approach tried out in the Aslong project; thus, NIA fielded community organizers to Lower Lalo, including Zona Cuatro, to organize farmers into irrigators' associations and to prepare them for involvement in project activities. The government stimulated this participation for two reasons: to develop the skills and organizational structure of the irrigators' associations; and to improve the design of the system by combining farmers' knowledge of their area with the technical expertise of NIA engineers. Once the irrigation system was operational, NIA expected that associations developed through the participatory approach could assume greater responsibility and authority for system operation and maintenance than had been possible in other national systems developed without applying the participatory mode.

As in the Aslong project, women participated either as development agents (as community organizers) or as members of the organizations which were formed throughout Lower Lalo. The first batch of community organizers fielded in Lower Lalo included five females and four males. Of these community organizers, two were fielded in Zona Cuatro, both of whom were females. They worked on forming rotational-area groups. In mid-November 1981, one of the female organizers was replaced by a newly-trained male organizer. He handled the organization of the remaining rotational-area groups and the formation of the zone-level irrigators' association in the area. In mid-1982, the other female community organizer resigned from NIA, leaving the male organizer as the only one handling the area.

Women from the villages covered by Zona Cuatro got involved in project activities in

various ways. These are described below along with the roles organizers played in stimulating the village women's participation in the project.

Qualifying for association membership

Zona Cuatro straddled six villages in three towns and covered about 200 farming households. Each household tended to cultivate several small-sized rice parcels scattered throughout the zone; some even farmed in other towns in addition to their farm lots in the zone. The average size of their combined rice parcels was roughly 1.5 hectares. About 29 percent of the farming households in the zone owned the land they cultivated, while 42 percent were governed by either share tenancy (36 percent) or leasehold contracts (6 percent). The remaining 29 percent operated their various farm lots under separate and different tenurial agreements.

Organizing work proceeded gradually within the zone. Except for the two main-canal rotational areas which are reclassified as part of Zona Cuatro in early 1982, the other eight areas were organized by December 1981. This meant that after a year's stay in the field, working committees had been formed and the rotational-area groups had undertaken, or had begun to accomplish, the following activities: preparation of lists of farmers for their rotational area, drafting their proposed location of terminal facilities, finalization of the system design with NIA engineers through walk-throughs and surveys, and negotiation for rights of way for land which would be affected by the canals and ditches.

The rotational area was considered as the basic unit of the prospective irrigators' association in Zona Cuatro. The lists of farmers belonging to the rotational-area groups then constituted the initial membership lists of the association. To prepare the lists of individuals who farmed in the rotational area, the leaders and organizers included whomever was the reported cultivator of the farming households. As the community organizers

covered all the areas of the zone, two things became apparent. First, because households often had rice parcels located in different rotational areas in the zone, they ended up qualifying for membership in more than one rotational-area group. On the average, households could be members of two rotational-area groups. The household's multiple membership took the following forms: (1) the adult male (usually the husband) of the household was listed in as many rotational areas as the household was farming; (2) the husband was listed in one rotational area while the wife was listed for the other area; and (3) both the woman and the man were considered as members of the same rotational-area group, which occurred when the group prevailed on the couple to assume leadership roles and to individually enlist as members of the group.

A second point which emerged during the organizing process pertained to the significant number of women who were directly responsible for managing a rice farm. Of these, about 3 out of 5 were widows, often in their late forties or older. The other female farmers were married to men who were working in nonfarming occupations outside the zone. In a few cases, a widow's son might be the actual cultivator of a rice parcel; but referred the organizers and leaders to his mother who either owned the land or who held the right to cultivate it.

In Zona Cuatro, therefore, women gained access to the irrigators' association because they were directly involved in farm management, because the couple decided to have both husband and wife enlist in the rotational areas where they farmed (particularly when the woman, like Tiang Loring, had earlier been elected to a leadership post in a rotational-area group), or because the woman held the title to the land *and* the husband (who might be involved in cultivating it) acknowledged her to be the appropriate person to be listed as member of the association. In the normal course of list preparation, however, generally it was the senior male mem-

bers of households with rice farms in the rotational area who were included in the membership list. By June 1983, women comprised 20 percent of Zona Cuatro membership (see Table 4).

Selection of women-leaders

Organizing work in Zona Cuatro involved the selection of farmer-leaders at different levels. First, the community organizers chose individuals to serve as "contact leaders" with each rotational-area group. These initial leaders became the links between the organizers and the farmers belonging to a group (Ilo and Chiong-Javier, 1983). In Zona Cuatro, the organizers had at least three female contact leaders: two were members of the barangay or village council, while the third was a leader of the village nutrition program. The other 37 contact leaders were male, a number of whom were either incumbent or former barangay council officials. Not all these leaders, however, stayed on. Among the "drop-outs" was a female contact leader who resisted her selection from the outset because of differences with the organizers.

As a second step to the identification of leaders, the community organizers and their contact leaders convened organizational meetings in the different rotational areas. Farmers belonging to a rotational-area group selected their overall chairperson, secretary, and members to the different committees. In RA-LAT-L-8, Tiang Loring was unanimously elected as the secretary although she was not a formal member of the group. She was one of four women selected to serve as secretaries, and one of two non-members who were chosen. In contrast, none of the overall chairpersons was a woman although the leaders in one rotational area tried to persuade a female member to assume the post. The woman declined because she felt she was too old (she was over 60 years old) to function effectively as the group's leader. Among the 100 committee members chosen in the 11 rotational areas of Zona Cuatro as of 31 March 1982, women consti-

Table 4. Selected information on the rotational areas comprising Zona Cuatro (June 1983)

Rotational area ^a	Cover- age (in ha.)	Date organized as a rotational-area group	Membership		
			Male No. %	Female No. %	Total No. %
RALAT-L-1	37	August 1981	31 97	1 3	32 100.0
RALAT-L-SP-1	9	October 1981	14 82	3 18	17 100.0
RALAT-L-2	24	June 1981	43 70	18 30	61 100.0
RALAT-L-3	27	April 1982	50 88	7 12	57 100.0
RALAT-L-4	48	March 1982	59 84	11 16	70 100.0
RALAT-L-5	27	September 1981	49 88	7 12	56 100.0
RALAT-L-6	22	February 1982	37 82	8 18	45 100.0
RALAT-L-7	46	February 1982	45 78	13 22	58 100.0
RALAT-L-8	39	August 1981	45 83	9 17	54 100.0
RAMC-SP-5-A	15	April 1982	38 86	6 14	44 100.0
RAMC-SP-5-B	8	May 1982	6 100	— —	6 100.0
Total	302		417 80	83 20	500 100.0

^aThe acronyms used for the rotational areas are as follows: RALAT refers to a rotational area which would draw water from a turnout located on a lateral canal; RAMC, to an area which would be served by a turnout on the main canal; and RAMC-SP, to an area covering not more than 20 hectares which would draw water from a turnout on the main canal.

tuted about 20 percent. In one area which was originally slated to draw water from Lateral L, women exclusively comprised the right-of-way committee. In this rotational area, the farmers articulated that women might be more effective right-of-way negotiators because male landowners would be less aggressive or offensive with them.

When the rotational-area groups first chose their informal (that is, pre-association) leaders, secretaries were not supposed to be leaders. Only those selected as overall chairpersons or named to committees composed the cadre of leaders. This probably accounted for the selection of nonmembers, like Tiang Loring, to the secretarial position. Over the course of the project, however, the community organizers increasingly engaged the secretaries-elect in leadership tasks. Tiang Loring, for instance, became involved in right-of-way negotiations in addition to her original assignment of keeping records (like membership lists, and minutes and attendance in meetings)

for the rotational-area group. Because Tiang Loring and other rotational-area secretaries demonstrated both interest and skills in discharging leadership tasks, they were eventually considered as leaders by the farmers and the community organizers.

The third level of farmer-leaders were named when the irrigators' association for Zona Cuatro was formed in mid-1983. The farmers from its 11 rotational areas elected two female members to the association's board of directors. One of these was Tiang Loring who was subsequently asked by the board to concurrently serve as the board secretary. (The other female board member was a leader from an upstream section of the zone.)

Tiang Loring's selection as secretary, first, to her rotational-area group and subsequently, to the association's board of directors stemmed from her extensive involvement in various community organizations either as secretary or treasurer. For example, she had served as secretary and as treasurer of the Rural Im-

provement Club in previous years. Moreover, she was elected secretary of the Parents-Teachers' Association and the Farmers' Class, both of which had predominantly male membership. She also sat in the barangay council for at least one term. Compared with the majority of the leaders of Zona Cuatro, Tiang Loring was better educated. She left school after one year of college training, while most male leaders (including those who served as secretaries in 7 of the 11 rotational areas) were elementary school graduates or high school dropouts. As farmers in Zona Cuatro articulated the issue, Tiang Loring was a "natural choice" because of her educational background and impressive organizational participation record.

Echoing the attitude of other female leaders, Tiang Loring was neither surprised nor threatened by her leadership status in a male-oriented association. She explained that leadership positions in organizations in her village and in adjoining areas had generally been accessible to both men and women. While most of the positions tended to be occupied by men, at least one or two women would be elected officers in either the barangay council or the Farmers' Class. Because leadership functions were rarely time-consuming tasks, both men and women could take time off from their usual preoccupations (including management of the household) to discharge their obligations in community organizations. Thus, being a leader in the irrigators' association was not viewed by Tiang Loring and the other female leaders as out of the ordinary.

Participation in project activities

During the preconstruction period in Zona Cuatro, farmers were engaged in various organizational and technical activities. To prepare for the formation of their irrigators' association, the farmers listed the owners and cultivators of riceland within every rotational area, planned and convened meetings to organize committees and to decide on strategies of mobilizing farmers for project activities. Farmers in each rotational area

also cultivated their sense as a group by accomplishing specific technical tasks geared towards locating the terminal facilities (such as turnouts, division boxes, and farm ditches) to be constructed in their area. Thus, they prepared a rough sketch of the farm lots and landmarks in their rotational area and overlaid on this map their preferred layout of terminal facilities. Moreover, they finalized the ditch routes with NIA engineers during conferences and field investigations (called "walk-throughs") and surveys. And before construction commenced in their area, the farmers negotiated for rights of way with owners of lands which would be affected by the planned ditch routes. In these activities, Tiang Loring and the other women in Zona Cuatro participated in various ways.

Attendance in farmers' meetings. Leaders and community organizers employed two means of disseminating project information and discussing project matters with farmers who belonged to the rotational area group. One involved home or farm visits which leaders and organizers undertook in connection with their groundwork activities. Another way was by convening farmers' meetings, or bringing together the members of a group to discuss issues and strategies as well as to organize committees to perform specific tasks.

In Zona Cuatro, women figured in both home visits and farmers' meetings. The community organizers discovered that they were more likely to meet with the women than their husbands during their (organizers') home visits. Initially, the organizers considered the situation problematic. They commented that because the "household heads" were unavailable, they had to rely on the wives for information about the farm (such as tenure status of the husband, area of the farm, and location of the land.) Although initially the organizers were concerned about the accuracy of the wives' reports, they subsequently found that these gibe with the information which the men later supplied them. The organizers' other worry was that the women might not be able to commit their spouses' time for meetings and other activities. The commu-

nity organizers later realized that there were as many farmers among those present during meetings whom they had personally seen as those whom they reached through their wives. Furthermore, the organizers observed that in a number of cases the women themselves were the heads of their households and the acknowledged decision-makers in both home and farm matters. Included among these female household heads were married women whose husbands were away for long periods in connection with their work.

Between January 1981 and March 1982, a total of 32 farmers' meetings were convened in Zona Cuatro. Attendance in these

meetings ranged from 13 to 58 percent of the rotational-area membership. Of the attendees, roughly 24 percent were women (see Table 5). The female attendees included female members, farmers' wives and mothers who were substituting for male members, and wives who went to the meeting with their spouses.

The participation of women during the deliberations depended largely on their status in the rotational-area group. Female leaders were more articulate than either female members or women who were substituting for their husbands. This phenomenon was derived from two forces. One, the female leaders

Table 5. Selected information on farmers' meetings convened in Zona Cuatro (January-August 1981)

Date of meeting	Attendance						Remarks
	Male		Female		Total		
	No.	%	No.	%	No.	%	
10 January	3	33	6	67	9	100.0	Included female contact leader and her husband
15 January	8	57	6	43	14	100.0	The women were proxies of their spouses
15 February	13	72	5	18	18	100.0	Included the female contact leader and her husband
22 February	18	75	6	25	24	100.0	The women were considered as observers
1 March	18	95	1	5	19	100.0	
13 March	9	90	1	10	10	100.0	
15 March	10	71	4	29	14	100.0	Included two husband-wife teams
3 June	4	67	2	33	6	100.0	The women were in the meeting with their husbands
7 June	9	90	1	10	10		
9 August	8	100	—	—	8		
30 August	24	86	6	14	30		
31 August	26	74	9	26	35		Seven of the women were substituting for their husbands
<i>Average for all meetings</i>	13	76	4	24	17		

identified by the community organizers and the farmers were generally established community leaders; hence, they were used to being more vocal than other women in public meetings. Two, the community organizers actively encouraged the leaders to develop the agenda for the meetings and to take turns in discussing the different items in the agenda.

Women's interest in meetings also depended on the matter being discussed. When location of farm ditches were discussed, both female and male members whose properties would likely be affected by the proposed ditch network were quick to suggest rerouting of ditches to minimize the loss of land which any individual farmer would have to shoulder. In one meeting, an elderly female member asked the group to spare her 0.10-hectare rice farm, which was planned to be crossed by a farm ditch. She said that having the ditch in any part of her land would remove her only source of income. The other farmers agreed to consider alternative routes. A week later, the farmers and NIA engineers located a new ditch line which bypassed the old woman's farm and for which rights of way had been successfully negotiated.

Involvement in the location of terminal facilities. The determination of ditch routes and location of turnouts in Zona Cuatro involved farmers in various concrete tasks like preparation of a rough sketch of the rotational area and the farmers' proposed location of terminal facilities, field investigations including walk-throughs and surveys with NIA engineers, and final confirmation of the ditch routes and turnout locations. To accomplish these tasks, the rotational-area groups formed committees to prepare the area's rough map of rice parcels and the group's suggested paper location of terminal facilities, to organize a walk-through of the area to verify the acceptability of the proposed routes as well as to confirm the list of farmers of the area, and to join the NIA engineers when the latter conducted surveys to assess the technical feasibility of the farmers' proposed ditch lines and to mark the ditch routes. Mem-

berships in these committees ranged from three to six. Of the 53 farmers named to the committees by the end of March 1982, about 10 percent were women. In five rotational areas, a woman sat in the committee charged with the preparation of the paper location of terminal facilities (or the spot-map committee) in contrast to the all-male survey committee formed in all five areas. When asked why women were named to one but not the other committee, the farmers were hard put to explain. Persistent questioning, however, produced the following answers. The farmers claimed that in a group with male and female members, committees should also have male and female members to allow for good working relationships between the committees and the general membership. In the case of the survey committee, however, its members were expected to accompany the NIA engineers and to help carry survey instruments and materials, oftentimes for one whole day. Thus while the presence of a female committee member might be ideal, the farmers felt that the survey committee's work was too strenuous for women.

The women who sat in the spot-map committees in Zona Cuatro generally joined the walk-throughs conducted in connection with the preparation of the farmers' paper location of terminal facilities. A few other female members accompanied them. Some women, however, sent an adult son to represent them, while others stayed in their farms and joined the investigation of the proposed farm ditch lines closest to their farms when the walk-through team reached their section of the rotational area.

The farmers in the rotational area were given another chance to scrutinize the initial paper location of terminal facilities which the leaders had drafted. When farmers' meetings were convened to discuss the ditch routes, a number of husband-wife teams usually attended the sessions; those who could not, sent proxies — sons, wives or mothers, depending on who was available. Attendance in these meetings was felt to be necessary for the rotational-area group's goals of

delineating a ditch network which was generally acceptable and of securing right-of-way agreements over the ditch routes. Objections to the preliminary ditch location were raised, and those which could not be settled during the meeting were tabled for resolution during the farmers' field investigations with the technical staff. The final location of terminal facilities was usually determined after a survey of the area. During the surveys, male farmers generally joined the NIA engineers. Female landowners, like their male counterpart, made sure that they were around or that a responsible representative was on hand to discuss the final ditch routes with the nursery team. Throughout the negotiations for the location of terminal facilities, male and female farmers guarded their interests and at the same time worked together to identify a ditch network which could maximize benefits while minimizing the costs of irrigation to individual farmers.

Performance of leaders

As of the end of March 1982, there were about 20 female leaders, out of a total of 131 leaders, distributed throughout Zona Cuatro. Of these, 16 sat in committees while four served as secretaries of their respective rotational-area groups. In one group, women exclusively composed the right-of-way committee, while in another, they dominated the membership committee. In a third group, a woman headed the membership committee which had both men and women as members.

In the discharge of their functions, the committees usually involved male and female farmers. The female-dominated membership committee of one group prepared the list of farmers by joining the male-dominated spot-map committee in the latter's walk-through of the rotational area. By inquiring from farmers whom they met in the field about the cultivators of adjoining ricefields, the membership committee was able to prepare or update rotational-area membership lists.

Moreover, the all-female right-of-way committee in another area accomplished its task together with the overall area chairperson and other leaders, most of whom were male. In rotational areas with all-male committee to negotiate rights of way, female leaders who were originally elected as secretaries (like Tiang Loring) or members of other committees were often asked to help deal with hostile landowners.

In several instances, Tiang Loring and other female members accompanied a group of male members and NIA engineers in a walk-through of the farmers' proposed location of a lateral canal and farm ditches. Tiang Loring and the other secretaries-elect in Zona Cuatro also participated in planning meetings and notifying farmers about these. Because they were entrusted a copy of the list of farmers in their respective rotational areas, they then became peripherally involved in updating the lists based on other leaders' reports of their list-confirmation efforts. While Tiang Loring and the other rotational-area group secretaries engaged in various leadership functions, their involvement was rarely continuous except in their performance of their secretarial duties, which consisted of keeping the minutes and attendance records of farmers' meetings as well as membership lists and other records of their group.

A number of the female leaders in Zona Cuatro, like Tiang Loring, had served as officers in other community organizations, both in those formed specifically for women as well as in general organizations like the Parents-Teachers' Association, the barangay council, and the Farmers' Class. Probably because of this, they had learned to juggle their time between household work, farm operations, and the demands of their leadership positions. Several of the female leaders shrugged off the additional work they had to do as rotational-area leaders as one of the things they had to accomplish at the moment.

The female leaders articulated a keen interest in seeing through what they considered as a serious government effort to bring

irrigation services to their communities. Like their male peers and the rest of the farmers, however, they often felt frustrated at the "slow pace" of the project, an impression which prevailed in places where rotational-area groups had been organized and had completed all preconstruction work long before construction started in their area. Despite the dissatisfaction among farmers which resulted from the long preconstruction organizing period (lasting for 16 months per community organizer), this organizing time enabled organizers to develop the capabilities of farmers' groups to accomplish various technical and organizational tasks under the leadership of men and women whom the farmers themselves had chosen.

*Women's Experiences in Irrigation Projects:
Issues, Lessons, and Implications*

The experiences in Aslong and Zona Cuatro indicate several interrelated issues and lessons in connection with integrating women in rural development endeavors such as the construction and management of irrigation systems. These issues and lessons touch on the assumptions about women's roles in an agricultural society, membership in organizations which are formed under particular rural development programs, the leadership pool from which a rural organization (such as an irrigators' association) could draw to mobilize its members for various activities, and the employment of female field workers (like community organizers). The lessons underscore the factors inhibiting women's participation as well as the countervailing forces which encourage women in rural communities to engage in project activities.

Assumptions and reactions

One lesson suggested by Aslong and Zona Cuatro data is the vulnerability of attempts to involve women in development projects. This vulnerability is traceable to two factors: the assumptions which project planners and implementors have about women's

roles in non-household enterprises, and the view project beneficiaries hold as to what constitute acceptable female participation. By design or by accident, non-female-oriented programs and projects in the Philippines, as elsewhere, tend to discriminate against active women's involvement. Such pro-male bias originates partly from the assumptions which government and other development agencies make concerning the roles women play in the community and the concerns which dominate their lives. In the conception of government planners, women are generally relegated to the domestic or household production sphere. Female participation in agriculture is assumed to be but secondary to home and family management. Moreover, although in some cases the women might be earning as much as their spouses, they continue to be regarded as auxiliary income earners. Finally, women are assumed to lack interest in the "affairs of the world." As a consequence of these role stereotypes, nutrition and family planning programs have women as "clients" while men are usually the "targets" of production and related programs, including the irrigation development efforts.

Farmers themselves, however, often take a different view about women's involvement in the project. In Zona Cuatro, for example, male farmers encouraged a number of women not only to join the rotational-area groups formally and participate in project activities but to assume leadership posts as well. Thus while the community organizers were initially predisposed to work often with male farmers, the openness of the local population to women's participation led women to actively pursue their interests in the project. In situations where the project beneficiaries favor female involvement, the pro-male bias of the project could be neutralized. The degree to which this effect could be achieved largely depends on the strength and direction of the organizers' prejudices, on the one hand, and the leeway given to the farmers to draft rules governing their participation in the project, on the other. In Zona Cuatro, the female organizers soon began encouraging

both men and women to engage in project activities. While for married couples they initially listed only males as potential association members, later they responded to the community's openness to women's participation by helping draw up an arrangement whereby women could also be members. The project was, therefore, subtly transformed to become a women's as well as men's enterprise.

In other areas, however, community organizers and project beneficiaries might hold a common view that the project is intended for male farmers. When the pro-male bias of the project or program designers gets echoed by both community organizers and project beneficiaries, women could be effectively shut out from the project. This non-participation of women would take place unless the issue of women's involvement in the project is raised in training sessions of community organizers.

Membership recruitment

A second lesson emerging from the Aslong and Zona Cuatro experiences concerns the relationships which women's formal involvement in the project bears on the membership recruitment strategy which the farmers had worked out with the help of community organizers. By extension, women's participation depended, too, on the empathy which the organizers felt with the women in the project area. In a program which does not seek female participation as an objective, the organizers' sensitivity to women's aspirations and interests in the project becomes crucial.

In Zona Cuatro, the organizers (who incidentally came from neighboring towns) and the farmers implicitly agreed to list farming households in as many rotational areas as they were cultivating rice farm lots. In several cases, this resulted in men being counted in more than one rotational area. In a number of instances, however, the man enlisted with one rotational-area group while the woman registered with another group. Dual

or multiple membership for households allowed the participation of women other than those whose husbands were either dead or working outside the project area. Because membership fees are usually kept low, households could afford to have more than one representative in the irrigators' association.

In Aslong, on the other hand, the association adopted the "one household, one member" rule which rural organizations generally adhere to. This rule reduced the percentage of female members. In 9 out of 10 cases, the registered members were the most senior adult males from the member-households. Nonetheless, a number of women represented their husbands in meetings and other organizational activities. Men and women in the project area considered sending husbands, wives, or children as proxies of the registered association members as a practical response to the demands of the organization and the project. They claimed that this arrangement allowed the household to shift the burden of organizational affiliation among the household members, depending on who was available or what was convenient to the household. The situation in Aslong suggests another alternative for allowing women to participate formally in project and association affairs. Rather than the restrictive single membership rule, recruitment and registration of members could be on the level of households, with the woman and her spouse listed as alternate representatives. Such arrangement would support the reality of what families did. It could also help avoid differences between husbands and wives in response to the association's demands on their resources. While the man, who was involved in the association, would more likely view financial contributions to the organization as a necessary expense, the woman, who was excluded from the association, would more likely consider it as an unnecessary drain in their finances. As the leaders of the Aslong association noted, the presence of wives during meetings might help the association extract firmer commitments from members to pay

membership fees and other dues. In Aslong as in other rural communities in the Philippines, the discharge of the household's financial obligations generally rested on the women.

Leadership selection

A third lesson indicates that women's inclusion in an organization tends to increase the talent pool from which the association leaders can be drawn. This is significant considering that rural organizations are often faced with limited or scarce leadership resources, both in terms of the number of potential leaders and the time which leaders can effectively invest in an organization. The opening of positions to women, expands the number of people who can perform leadership functions. Allowing a woman to occupy a leadership post also improves the chances of getting someone with the appropriate qualifications. In the Aslong project, for example, the association needed someone who lived near the *bodega* who could keep track of material delivered to the project site. While there might have been other male farmers who could have done the job, there were very few who had potential leadership capabilities and happened to live close to the delivery point. Had the association overlooked the women because of sex-based prejudices, the chances of getting responsible leaders would have been reduced considerably. Moreover, when the association wanted a treasurer, the number of people available with recording aptitude and the strength of character to resist personal-loan requests were few in the project area. Naming a woman to fill the position answered an important need of the association.

In Zona Cuatro, the project needed right-of-way negotiators and people who could keep the records of the different rotational-area groups; it also needed individuals who could lead the group to draft the paper location of canal lines. In the same spirit of openness with which women were encouraged to join project activities, several women were urged

to take on leadership functions, thus expanding the number of potentially qualified leaders.

In Aslong and Zona Cuatro, the associations displayed how the leadership core could be expanded with the entry of women. They also exhibited a healthy respect for competence and efficiency, regardless of whether these qualities are possessed by a woman or a man. While there lingered a predisposition among the predominantly male membership to choose male leaders, the proportion of female leaders to all leaders tended to reflect the membership's sex ratio.

Fielding of female community organizers

A final set of lessons suggested by the data from Aslong and Zona Cuatro revolves around the fielding of female community organizers. The launching of the participatory irrigation development program in the Philippines in the late 1970s marked a shift not only in the style and substance of irrigation assistance but also in the sex ratio of NIA's field staff. The organizers, most of whom were women, worked alongside the traditionally predominantly male field staff composed of engineers, surveyors, construction crew, and irrigation technicians. By the end of 1983, about half of NIA's field personnel assigned to communal irrigation projects were women, who comprised two-thirds of all community organizers then working in different projects throughout the country.

The fielding of female community organizers in Aslong, Zona Cuatro, and other project areas underscored the involvement of women in a development activity which had been traditionally the near-exclusive domain of men. While women outnumbered men in the organizing staff, the technical teams continued to be dominated by men. There occurs, therefore, a *de facto* division of work in the field along sex lines: men generally handled the technical, engineering activities, while women more often took care of organizing (or non-technical) tasks.

The presence of a considerable number of female community organizers saved the situation from a total sex stereotyping of field activities in the Philippine irrigation projects.

In the field, the farmers, whose previous dealings with NIA were largely limited to male engineers, were initially confused about the female organizers. In Zona Cuatro, the organizers were mistaken at first for social workers because they were women who conducted house to house visits. During home visits and discussions with farmers, the organizers eventually explained the project, the farmers' roles in it, and their own tasks of preparing farmers for participation in the project. On the whole, farmers in the two project sites were solicitous of the female organizers. With a few exceptions, community and association leaders responded positively to the organizers' demands on their time to carry out project activities. In fact, some residents in the two sites remarked that the farmers tended to be more cooperative with female field workers than with their male counterparts.

In the course of their organizing work, the female organizers tried to fit in with the farmers' schedules. Meetings were held whenever these were convenient for the majority of the farmers involved although these might take place late in the afternoon or during weekends. Home visits sometimes took place at night since this was the best time to reach a number of farmers in the area. The organizers were generally accompanied by a male farmer (usually a leader) or two during these visits. The female organizers' willingness to perform their duties regardless of the time of day impressed the farmers. Consequently, the organizers provided the farmers role models for active female participation in the project. In Zona Cuatro, the predominantly male groups urged some female members, and even nonmembers, to assume leadership posts "just like the community organizers."

While the female organizers stimulated or reinforced farmers' interests in having women involved in the project and in leadership func-

tions, this effect was more pronounced in Zona Cuatro than in Aslong. This could be because the Aslong irrigators' association was already formed before the organizers arrived and had only men as leaders. The organizers worked with these leaders and later, three women (or about 9 percent of all sector leaders) emerged as leaders. In Zona Cuatro, in contrast, there was no existing organization when the community organizers arrived in the area. The organizers were therefore free to choose "contact leaders" and they included several women among those chosen. This apparently reinforced the community's acceptance of women as leaders, as women subsequently held about 20 percent of the leadership positions.

On different occasions, community organizers, male or female, remarked that they developed leaders and mobilized farmers for project activities depending on the individuals' interests in the enterprise, and not on their sex. If more men than women were selected to be leaders, attended meetings, and joined other activities, they claimed that these were caused by men being more interested and willing to invest time in the project. Similarly, women who joined organizational and project endeavors and those who were eventually chosen to perform leadership functions were people who preferred to get involved in these activities. Views such as these place the onus of female participation in projects and organizations on the women themselves. This, in fact, was a lesson gleaned from Zona Cuatro. However, the experience in Zona Cuatro indicated that when organizers initially chose some female contact leaders, and subsequently arranged membership rules to open up membership to women, these seemed to stimulate greater female participation.

Summary and Conclusions

The data from Aslong and Zona Cuatro demonstrate how women participated in the project, and how these women belie the general

impression that they leave involvement in development projects to the menfolk. In both areas studied, a number of women, married or widowed, displayed considerable interest in the irrigation project, attended meetings, and joined field inspections of proposed location of irrigation facilities. Together with the men, women engaged in discussions which would determine the canal lay-out in their area, attributing their interest to their desire to ensure that water would reach their farms with the minimum loss of land to canals. Even among households which would not benefit from the projects, women tended to register concern as to how the construction of project facilities would affect their property. While in the majority of cases the men were more actively involved in working the land, ownership of the land or the right to cultivate it and management of the farm were shared by women with their spouses. Moreover, while care of the children and management of the home remained the dominant occupations of women in the two project sites, a number of these women attended to association or project matters either on their behalf or of their spouse's. It appeared that when women were adequately informed about the project and their interest sufficiently aroused, they could accommodate project demands on their time. Furthermore, where the organization allowed more than one member from each household, the proportion of female to total membership rose. In Aslong, where the "one household, one member" rule was observed, women accounted for but 10 percent of the total membership. In contrast, in Zona Cuatro, where multiple membership of households was possible, the proportion of female members rose to about 20 percent.

While a number of women became active participants in the irrigation projects in Aslong and Zona Cuatro, the majority of women in the two areas shied away from direct involvement. One reason, which these female non-participants shared with the less active male members, was a preoccupation with family

matters. This often-cited reason covered an array of concerns including care of children and sick household members, work in the farm or family business, employment outside the project area, and celebrations of weddings, death anniversaries and the like. This excuse was also sometimes given to disguise lack of interest. Another reason, which has been quoted in other studies concerning women's interest or participation in community affairs (Gonzales and Hollnsteiner 1976; Rojas-Aleta, Silva, and Eleazar 1978), was women's preference to leave membership in organizations to their husbands. This, however, does not necessarily imply that they totally withdraw from project or organizational affairs. A number of these female non-members attended meetings and sometimes engaged in on-site negotiations over canal routes. They deemed themselves nonparticipants primarily because they were not registered members of rotational-area groups or of the irrigators' association.

The Aslong and Zona Cuatro experiences underscore that beyond what formal records often showed, women were interested in programs and projects affecting the household's economy. When allowed or encouraged to participate, they had considerable impact. They served as leaders, improved attendance during meetings and other activities, helped to finalize the location of irrigation facilities, and lent firmer support to the contributions which their respective households had to make to the irrigators' association. Female leaders assisted in the negotiations for rights of way, record keeping, and management of association finances. The employment of female community organizers provided the farmers immediate role models of active female participants in the project.

The effect of fielding community organizers, however, needed to be reinforced by the organizers' overt or covert efforts to encourage female participation in the project. This might mean, as in Zona Cuatro, going along with the community's initial predisposition to involve women in the project. But in areas

where sex-based prejudices inhibit women's participation, discussing the project with both men and women could constitute the first step. A second move could be opening up the association membership to households, with husband and wife as alternate representatives. These two-step opening moves present attractive starting points for rousing women's interest in the project and for allowing them to directly engage in project activities.

Compared with the women of Africa, the women in rural Philippines are not as intimately associated with agriculture; thus, Philippine women could not be as radically alienated by pro-male-biased development pro-

grams (see Rogers 1980 for the effects of pro-male development programs on African women). Nonetheless, women in the Philippines are preoccupied with their households' economy; this govern their interest in projects like those introduced in Aslong and Zona Cuatro, an interest which focuses on the likely effects which these projects have on their farm and, by extension, on their family's chances of survival. Persistent pro-male bias in rural development programs, therefore, marginalizes the very people whose concern over family welfare is greatest. Aslong and Zona Cuatro provide some clues for averting such a disaster.

Notes

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¹In a number of cases, training sessions conducted by government agencies had more female than male participants. This persisted although the organizations for whom the training programs were conducted had predominantly male memberships.

²The sex ratio among NIA's community organizers compares favorably with that observed among extension workers of the Philippines' Ministry of Agriculture and Food. In 1983, for instance, the ministry fielded a total of 4,063 farm management technicians, about 58 percent of whom were women (Ministry of Agriculture 1983).

³The implementation of the Aslong communal irrigation project has been documented in Illo, de los Reyes, and Felix (1984), and in Illo and Volante (1984), while the application of the participatory mode to irrigation development in the Buhi-Lalo project was documented in Illo and Chiong-Javier (1983).

⁴The first two female organizers (CO-1 and CO-2) together covered the Aslong project until they left the area to assume the supervision of organizing work in specific regions of the Philippines. CO-2 left Aslong in March 1980 while CO-1 departed

in April 1980. They were replaced in the Aslong project by a male community organizer (CO-3), who was fielded in February 1980 and stayed on until June 1981 after which he, too, was promoted to supervise region-wide organizing work in the NIA communal program. CO-3 began his organizing work at the time when the Aslong project had barely started its construction phase, and left after the improved system's first season of operations. In mid-1981, he was replaced by a female organizer (CO-4) who worked in Aslong until she left the agency in late 1982. CO-4, together with her replacement (a male organizer), covered the Aslong project and another communal project. Between 1979 and 1983, the community organizers in the Aslong project were supervised by a total of three persons (two females and one male). Overall supervision of organizing work in NIA's communal program was provided until December 1983 by a male consultant.

⁵The water users of the Aslong system included some 23 nonmembers of the irrigators' association. Three of these users were women, all of whom were widows with farms in an upstream sector of the system, and who cultivated their lands with the help of hired labor.

⁶Beginning in the mid-1970's, the Philippine government required farmers who would benefit from assistance to develop or improve communal irrigation systems (1) to repay, within 50 years and without interest, part of the development cost, and (2) to raise as counterpart at least 10 percent of the construction cost.

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