

OAIG-DAYA IRRIGATION SYSTEM

The ricefields served by the Oaig-Daya irrigation system are located in the neighboring barrios of Oaig-Daya and Parioc of the municipality of Candon in Ilocos Sur. Oaig-Daya is about 3 kilometers from the Candon poblacion, while Parioc is about 1 kilometer from Oaig-Daya. The usual mode of transportation between Candon and these barrios is the tricycle.

The System's Fields

In the wet season, the fields served by the Oaig-Daya system are planted to rice. Planting is in July or August and harvesting is in October, November, or December. In the dry season, the system's fields are planted to tobacco.

The size of farms in this system ranges from 0.5 hectare to 2.5 hectares. The total area covered by the system is estimated to be about 100 hectares cultivated by around 86 farmers. Half of these farmers live in Oaig-Daya and the other half in Parioc.

Technical Aspects of the System

Water supply

The Oaig-Daya system derives its water from the Oaig-Daya Creek, also called the Bakir Creek.¹ This creek has sufficient flowing water only during the rainy months (June to October). In the dry season, the creek becomes almost dry. Farmers also report that when compared with the past years, the water of the Oaig-Daya Creek has decreased in the last 5 years.

¹NIA reports that the discharge flow at the creek in September 1977 was 3,500 lit./sec. while the flow at the main canal was 130 lit./sec. No measurements were made in the dry season since the creek was almost dry and no water was flowing into the system's main canal.

The physical structures

The Oaig-Daya system came into existence in the late twenties. The construction of the earlier dam was initiated by the landowners of the fields which were first served by the system. This dam was reinforced with concrete sometime in the late sixties, through the financial assistance of the Presidential Arm on Community Development (PACD). The farmers provided the labor in cementing the dam.

The present dam, which is cement grouted stone riprap, is still located at the site where the original dam was built. An 850-meter canal originates from the dam. Only about 5 percent of the main canal is lined with riprap; the longer portion is earthen.

At one point of this canal is a wooden gate from which five subcanals of varying lengths branch out. The subcanal nearest the road is about 2.5 kilometers; the second, third, and fourth subcanals are each a little more than 1.5 kilometers; while the fifth canal is about 2 kilometers. All these subcanals are earthen and similar to each other in width. The estimated number of hectares and number of farmers served by each canal are shown below.

<u>Canal</u>	<u>No. of hectares served</u>	<u>No. of farmers served</u>
1	14	10
2	18	15
3	20	17
4	25	26
5	<u>23</u>	<u>18</u>
Total	100	86

There are about 60 take-off points (a range of from 10 to 20 on each subcanal) on the system's canals. The take-off points are made either of bamboo tubes or are merely cuts on canal embankments. Since there are only 86 farmers in the system, it appears that the majority of them obtain water directly from the canals.

Management of the System

An irrigation group called the Penned Bakir Farmers Association, which had its beginnings in the late twenties, manages the Oaig-Daya system. The current officials of the association are the president, the vice-president, two secretaries, a treasurer, an auditor, and 10 board members (called the cabecillas) who also act as the water distributors of the system. Both the president and the treasurer have held

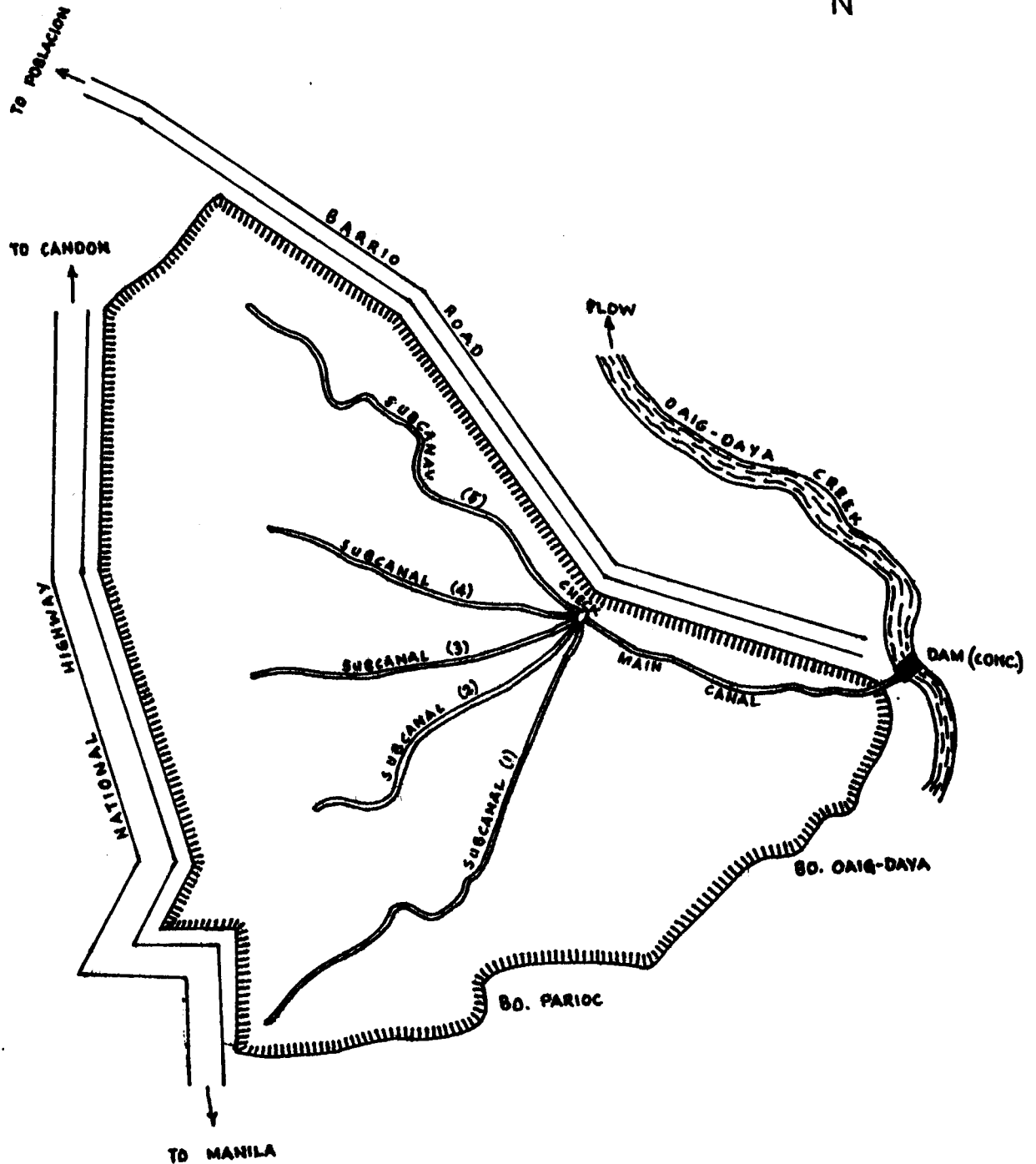


Figure 1. Layout of the Oaig-Daya irrigation system

their positions for about 20 years now while the other officials have been in office for more than 5 years. Not one of them receive any monetary compensation.

The officials meet about two or three times annually; general assembly meetings are held twice a year. The first general assembly meeting is convened sometime before the first Tuesday of August when the general cleaning and repair of the system's structures begin and the second is held after these activities, or on a later day in August. On the average, about two-thirds of the association members attend the general assembly meetings. Absence from these meetings is punishable with a fine of 50 centavos.² The collected fines are used to buy the materials needed for the repair of the system and to buy food served during the maintenance activities.

Records on absence from meetings, fines collectible, and yield of individual farmers date as far back as 1974. These records are kept by the president of the association. The minutes of board meetings and general assembly meetings are with the secretary.

Water allocation and distribution

There are 10 cabecillas who supervise the distribution of water in this system. For each area served by one of the system's five subcanals, there are two cabecillas who see to it that the water distribution schedule is observed.

For facility in supervision, the system's irrigated area is divided into five areas, each area being that served by a canal. For purposes of water distribution, however, the total field area of this system is divided into only two parts, namely, the upstream and downstream areas. The upstream farmers are allotted 3 days in a week to draw water while the farmers downstream are allowed to obtain water during the other 4 days. The amount of water that a farmer gets depends on the number of bundles of palay that he has reported to the association as his yield. Thus, for example, if a farmer reported to the association that his yield is 300 bundles (equivalent to 37.5 cavans), the farmer is allowed to obtain water for 24 hours. But if a farmer stated that his yield is 150 bundles, he can obtain water for only 12 hours.

²There are members, however, who refuse to pay the fine. The officials report that they have compelled some farmers to pay the fines by depriving them of water.

Maintenance of the system

The primary concern of the association president is system maintenance. He is responsible for planning maintenance activities and organizing work teams for the obra or group work.

The amount of work required of a farmer in terms of maintenance depends on his yield. Specifically, a farmer is supposed to contribute 3 days of work for every 100 bundles (about 1.25 cavans of palay) that he reports as his yield.

The cleaning and repair of the system's structures are scheduled on Tuesdays and Fridays, from August to the first week of December, or for a total of about 37 days per year. This schedule is not always followed, however. In 1977, for instance, the farmers worked for only 15 days, 5 days of which were for 8 hours per day and the rest for less number of hours.

Conflict and conflict management

As in other systems, the usual conflicts among farmers in this system are caused by water stealing. Our informants report that the association officials and sometimes even the barrio officials intervene in the resolution of some of the water-stealing disputes.