

CADCHOG IRRIGATION SYSTEM

The ricefields irrigated by the Cadchog system are located in Bontoc poblacion (Mountain Province). Walking from the poblacion, one can reach the Cadchog ricefield area in about 50 minutes. It is also accessible by jeepneys, buses, and tricycles although one has to walk too part of the way (about 200 meters).

The System's Fields

The Cadchog system irrigates only about 3 hectares both in the wet and dry seasons. The area irrigated by the upstream dam and canal consists of about 2 1/4 hectares while the area served by the lower dam and canal is only three-fourths of a hectare. The 3-hectare ricefields are tilled by about 200 farmers. The size of rice paddies ranges from 10 to 300 square meters.

The farmers in this system plant only the local rice varieties, like the lad-ucan, burik, and walay. Our informants explain that the lad-ucan and walay thrive in both the dry and wet seasons while the burik thrives only in the wet season. The wet season rice crop is planted in August and harvested in December or January, while the dry season crop is planted in February or March and harvested in June or July.

Technical Aspects of the System

Water supply

The Cadchog system obtains its water from the Sang-ngan Creek. This water source is shared by four other systems, namely, the Sang-ngan system (with 100 farmers), the Lepchan system (with 18 farmers), the Kangaw system (with 20 farmers), and the Potot system (with 20 farmers). The Cadchog system is the second to the last downstream system.

Although there are four other systems which share the water source of the Cadchog system, our informants claim that their system's water supply is always sufficient for their irrigation needs. They explain that they can always obtain adequate irrigation in spite of their being situated at the downstream portion of the creek because the upstream dams do not divert all of the creek's water.

The physical structures

There are two temporary boulder dams which divert water into the Cadchog ricefields. The bigger and upstream dam diverts water into a canal which is about 1 1/2 kilometers long. This canal supplies irrigation to the upper ricefields. The smaller and downstream dam, on the other hand, diverts water into a 300-meter long canal which serves the lower fields. The entire length of the upper canal is earthen while the whole length of the lower canal is lined with stone riprap.

Along both canals are take-off points from which farmers draw water. We were not able to determine, however, the number of take-off points on each of the two canals. The take-off points on the upper canal are simply cuts on the canal. Those on the lower canal, on the other hand, are also holes dug on the canal, but the holes are surrounded by stone riprap to prevent the soil around them from eroding and blocking the water passage.

Management of the System

The overall management of the system does not rest on any particular person or formal organization. But in the maintenance of the system and the resolution of minor conflicts, the farmers who use the system rely on two women who are also farmers in the system.

Water allocation and distribution

As already stated, the users of the Cadchog system derive water from the canals through the take-off points. In the wet season, all the take-off points are opened at the same time and are usually kept open most of the time. After a farmer gets water directly from the canal, or through his take-off point, the water then flows downward toward the other ricefields. Thus, while the water from one take-off is directly shared by only one or two other farmers, the water may reach as many other terraced farms below as the available water flow can reach.

In the dry season when water is scarce, water is distributed through some kind of a rotation. For this purpose the total irrigated area is divided into four recognized but unnamed sections, and each section takes turn in obtaining water. The area and the number of farmers in each section are shown below.

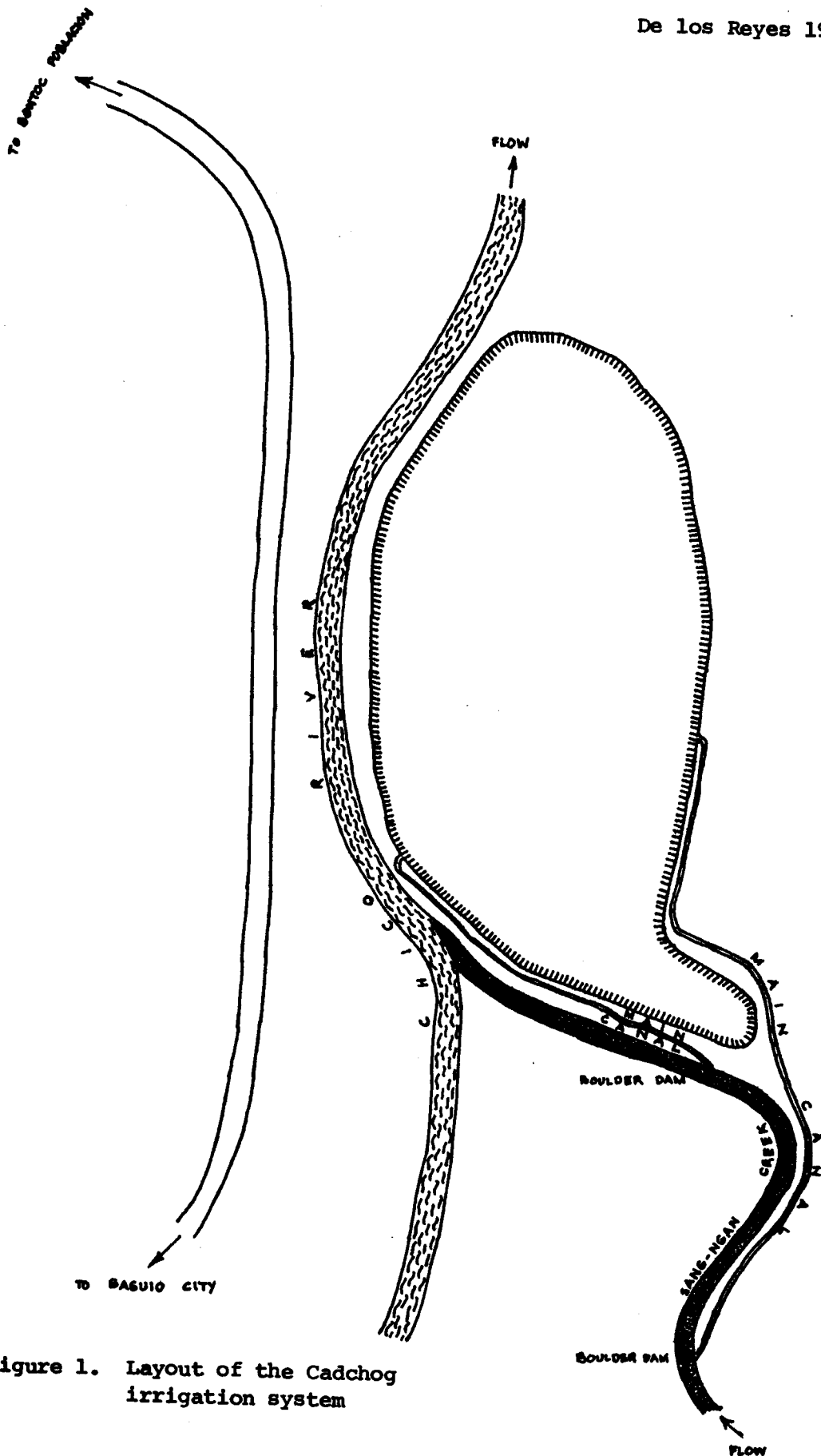


Figure 1. Layout of the Cadchog irrigation system

<u>Sections</u>	<u>Area</u> (in square meters)	<u>No. of farmers</u>
1	2,500	70
2	10,000	55
3	15,000	45
4	<u>2,500</u>	<u>30</u>
Total	30,000	200

Maintenance of the system

The Cadchog farmers maintain their system through obla, or group work. Two kinds of group work are conducted, namely, the regular group work for the yearly cleaning and repair of the system and the special group work for the cleaning and repair of damaged parts of the system. The regular obla is done for 2 days in January and for another 2 days in August, or just before the onset of a cropping season. The special group work, on the other hand, is convened only when there is a need for it.

Our informants report that the majority of the farmers cooperate in the regular group work. In 1977, for instance, almost all Cadchog farmers participated in the 2-day obla held before each rice planting season. Our informants say that the farmers who were unable to attend the obla had valid reasons, for example, they had to attend to urgent matters or were sick. Absentees from the group work are fined ₱8 for every day of absence. The money collected is then used to cover the cost of the food served during the group work.

Since 1975, the obla in the Cadchog system has been supervised by two women. These women were unanimously appointed by the farmers in a meeting held sometime in 1975. The farmers explained that they had selected these women as their leaders because they had the following qualifications: honesty and trustworthiness, industriousness, leadership, knowledge of farming techniques, and capability to present the system's problems before the local government agencies especially the NIA.

Conflict and conflict management

As in other irrigation systems, in the Cadchog system, farmers perceive water stealing as illegal. In fact, they have agreed among themselves that water deprivation should be used as a sanction against the offense. However, this sanction has not actually been used.

Conflicts which arise owing to water stealing are usually resolved by the farmers themselves. Occasionally, however, the two women leaders or the barrio captain of Chak-chakan (the barrio nearest the system) mediate in settling disputes.