

# Community Organizers and Farmer Participation: A Case Study of Traditional Irrigation Systems in South Sumatra, Indonesia

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## **INTRODUCTION**

THE GOVERNMENT OF Indonesia has been actively and intensively engaged in rehabilitating existing irrigation systems and in building new ones since the first Five-Year Plan (1969/74). Community organizers in irrigation development were first fielded in Indonesia in **1982** in a pilot project called the High Performance Sederhara Irrigation Systems Projects.

This pilot project was originally carried out by the Department of Agriculture and was funded by the United States Agency for International Development and the Ford Foundation. A year later the Public Works Department took over the pilot project. This was necessary as field experience showed that engineering problems could not be dealt with by the Department of Agriculture because it lacked the necessary authority to rehabilitate and build new irrigation systems. The Public Works Department was already vested with the duty, responsibility, and authority for the whole process of irrigation development and therefore appeared to be the right agency to undertake the pilot project. The Department of Agriculture was authorized to deal only with

The community organizers were fielded both in government-managed irrigation systems and in farmer-managed irrigation schemes, or what are usually referred to as traditional irrigation schemes. The latter are thought to have high potential for development. According to the Public Works Department data there are 4,819,470 hectares (ha) under irrigation in 6,731 government systems and 1,036,613 ha in 25,304 traditional schemes.

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Because its resources are limited the government has undertaken to turn over responsibility for operation and maintenance of small-scale irrigation schemes to water users' associations. Before turnover, water users' associations must be strengthened and prepared to manage their irrigation schemes. The government has launched a program based on community organizers to prepare water users' associations for this responsibility. In the past no such preparation was made.

Since the start of the community-organizer program in irrigation development the Indonesian government has been cooperating with nongovernment organizations such as the Institute for Social and Economic Research Education and Information which has considerable experience in the application of participatory approaches in rural development. In the traditional irrigation schemes in South Sumatra Province the role of the Institute for Social and Economic Research Education and Information was to select and recruit community organizers, to train them, and to supervise and monitor their work in the field. The government has asked the Sriwijaya University, located in the region, to monitor the project and to periodically compile the lessons learned.

This paper focuses on traditional irrigation schemes which are being developed in Lahat, South Sumatra Province with funding from the Ford Foundation. This case is of interest for several reasons. First, the schemes are traditional ones which are fully managed by the farmers. Other projects which use community organizers are government irrigation systems. Second, in this project, construction is done by "swakelola" (agency force account), in which the farmers, through their local-irrigation committee (*panitia siring*) act as contractor. In other projects a private contractor is normally engaged. Third, even though the government is investing in the development, the irrigation schemes will remain the property of the farmers after construction is completed.

## BACKGROUND TO THE LAHAT CASE

Three irrigation schemes are included in this pilot project Siring Agung, Siring Curup Ganam, and Siring Batu Surau Ilir. The water source for the three schemes is the Air Mata Lintang River. Six other schemes also draw water from this river. Even though the nine schemes divert water from the same river there are no arrangements for allocation of water among them. Each scheme distributes water independently using a type of proportioning weir called *tanggap*.

The farmers have their own institutions for repairing and cleaning canals, which may be done in two ways: by contract or by mutual cooperation. If done by contract, the *panitia siring* carries out the work. This method is distinguished from mutual cooperation in which all farmers participate in the activity. Mutual cooperation is the method applied when there is a major damage to the canal and is not called for frequently.

The *panitia siring* normally has two to four members. The members receive a salary from the irrigation fee paid by the farmers each cropping season. Basically, the *panitia siring* functions as a forum for discussing and solving irrigation problems. It is usually formed when farmers are ready to start planting their rice fields. The term of the irrigation committee is one cropping season; in the next cropping season a new committee will be elected. The systems of customary water allocation and of canal operation and maintenance have been in existence for many years.

## STRATEGIES

The purpose of the project is to define patterns and procedures suitable for channeling government assistance to traditional irrigation schemes. Several strategies are applied. The first is a participatory strategy in which farmers take an active part in the planning and construction of the rehabilitation and finally in their operation and maintenance. To stimulate farmers to take part in that process a community organizer is posted in each project location.

The second is the swakelola strategy in which farmers, through their indigenous organizations, implement the improvements to their irrigation schemes. This strategy can be applied because the farmers have experience in developing irrigation schemes and are capable of carrying out the necessary works. With this strategy farmers continue to feel a sense of ownership of their irrigation scheme. Usually, when government agencies improve irrigation schemes, implementation is done by contractors. When this is the case farmers participate less in the rehabilitation process.

The third is the institutional strategy. As mentioned above, in the pilot-project schemes, the institutions created by the farmers themselves, the panitia siring already exist.

## THE ROLE OF COMMUNITY ORGANIZERS

For the pilot project three community organizers were recruited from outside the government service by the Institute for Social and Economic Research Education and Information. Had government employees been used, the vested interests of the agencies might have made themselves felt. This would have been contrary to the goal of the participatory approach which emphasizes the aspirations of the farmers. Furthermore, it was assumed that their heavy work load would not have permitted government employees to implement the participatory approach.

Candidates for the positions were required to take three tests: an administrative, a psychological, and a general-knowledge test. The administrative test was to verify the eligibility of the candidates in terms of the announced qualifications. The psychological test was to determine the suitability of the candidates for the position of community organizer while the third test was, obviously, to assess their general knowledge.

The three community organizers chosen (one woman and two men) were relatively young, between 23 and 27 years of age, and all were graduates of the local university. The woman's field of study was geology and the men had studied social science and agricultural economics.

To gain the necessary capabilities and skills the three community organizers underwent training carried out by the Institute for Social and Economic Research Education and Information. During the two weeks of training, topics such as project background, government policy in irrigation development, the community-organizer philosophy, and community-approach principles were covered. In addition, the community organizers also did practical field work. At the conclusion of the training the community organizers formulated their work programs.

The main function of the community organizers is to stimulate the farmers to participate in the design and construction processes and in operation and maintenance of their irrigation schemes. Facilitation of farmer participation by the community organizers proceeds through the following stages: 1) social preparation, 2) socialization of ideas, 3) a walk-through of the existing system, 4) prioritization, 5) design and budgeting, and 6) construction.

### **Social Preparation**

As the community organizers were new to the farming communities, farmers and community organizers had to become familiar with each other. One way this was accomplished was through their participation in social activities such as religious or customary ceremonies. It was hoped that this would lead to their acceptance by the farmers. At first, some farmers thought that the community organizers were contractors or Public Works Department employees. This reaction was normal as community organizers were a totally new and unfamiliar element. Another part of social preparation was the identification of the problems and conditions of the farmers. Identification was done through private interviews with individual farmers, meetings with the farmers as a group, observation, and the study of data, usually available in the village office.

### **Socialization of Ideas**

At this stage, the community organizers assisted the farmers to identify and formulate their problems and needs, especially in the field of irrigation. The community organizers suggested to the farmers that they should think in terms of solving their problems themselves. The community organizers also informed them of the government's intention to assist them to improve their irrigation schemes through the swakelola method in which they would, through their institutions, implement the work. The response of the farmers was generally positive and even enthusiastic.

### **Walk-through of the Existing System**

The next step was a walk-through to assess the condition of the existing system. Before this, a meeting was held to discuss any preparations required. Farmers, together with community organizers and a technician from the Public Works Department then walked from the dam through the entire system. The canal length was measured and staked every 100 meters. The condition of existing structures which needed repair, was observed and notes were prepared describing their condition.

The notes of the walk-through became the basis for planning the improvement of the irrigation scheme. Many sections were found to be in need of repair. In **Siring Agung** it was found that **20**

sections of the canal were in need of repairs; in Siring Curup Ganam, 33 sections: and in Siring Batu Surau Ilir, 12 sections. Landslides were the main cause of damage to canals.

## Prioritization

As it was not possible to carry out all the repairs found necessary due to a limited budget the farmers met to prioritize the works to be done. This was then checked in the field and discussed with the Public Works Department technician so that the commitments could be settled.

## Design and Budgeting

After reaching agreement among farmers, community organizers, and the Public Works Department staff on construction priorities and obtaining the commitment of the farmers the works were designed and the budgets prepared. This activity was the responsibility of the Public Works Department but community organizers and farmers were also involved.

## Construction

Before the start of construction, at the initiative of the panitia siring, farmers appointed a group to formulate a work plan with the assistance of the community organizers. The panitia siring prepared a register of farmers who would work in construction and divided them according to the type of labor required, such as collector of materials, transporter, or skilled laborer. After all preparations were completed the Public Works Department delivered the materials to the panitia siring in stages, which in turn handed them over to the work teams. Construction took two months. During construction, the panitia siring and sometimes the village headman or the Public Works Department staff supervised the work.

In addition to the works agreed to with the assistance of the Public Works Department farmers also organized to repair sections of their canals through pure self-help. The total value of self-help activities may be seen in the following table.

*Self-help activities and their value (value in millions of rupiah).*

Scheme	Work with assistance from the Public Works Department	Value	Work through pure self-help	Value of pure self-help
Siring Agung	3 sections of canal	1.6	1 section of canal	2.3 (US\$1,350)
Siring Curup Genam	1 dam	1.6		2.5 (US\$1,645)
Siring Batu Surau Ilir	3 sections of canal	1.6 (US\$966)	1 section of canal	0.7 (US\$411)

Notes: Value of farmers self-help = Volume of work X wages per day.

Source: Final Report of the Pilot Project on Development of Traditional Irrigation Systems, the Institute for Social and Economic Research Education and Information. 1988.

In the final workshop held at the provincial level, community organizers and the Sriwijaya University team reported that the farmers were very satisfied. Farmers said "we haven't seen such a large quantity of water in the canal before."

Unfortunately, this paper cannot report on the role of farmers in operation and maintenance because the project is still in progress and till now the community organizers have concentrated on the design and construction process.

## CONCLUSION

The Public Works Department assistance in developing traditional irrigation schemes with active farmer participation, as applied in South Sumatra, has shown positive results in the design and construction process. The application of swakelolain the context of this approach has encouraged active farmer participation. Under swakelola, decisions concerning irrigation development have become the responsibility of the farmers while the Public Works Department provides services and assistance. Empowering the farmers to make their own decisions is a key element of participation.

Where irrigation development is done by contract, farmer participation is very limited and farmers are observers rather than participants. Development of irrigation systems need not be by contractors but, within certain limits, may be turned over to the farmers who through their own institutions can execute the work. For best results, farmers' institutions should be strengthened with the assistance of community organizers.

The case of traditional irrigation schemes in South Sumatra has shown that community organizers fill an important function in facilitating farmer participation at every stage of the process. Farmers have the will and the potential to participate; the role of the community organizer is to stimulate and to accelerate the participatory process.

Although this project has shown positive results it should be remembered that it is a pilot project. If the government wishes to adopt this approach more widely government policy should be revised to provide more opportunities for farmers to implement works in irrigation development. There are many advantages to this approach:

- \* It elicits farmer participation in the form of pure self-help construction, in addition to the Public Works Department-assisted construction.
- \* The irrigation scheme continues to be farmer-managed and does not become a government responsibility.
- \* There is a sense of ownership, responsibility, and participation on the part of farmers. There is also a strong likelihood that such schemes will continue to be managed by the farmers.

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