Irrigation in India and the Philippines:
TWO COMPARATIVE VIEWS

An exchange visit between India and the Philippines provided two contrasting perspectives on the status of farmer-management in the two countries:

> The first report is by Venkata Reddy, who visited five communal irrigation systems in Central Luzon province, Philippines, in April 1988. The visit was hosted by Central Luzon State University (CLSU). Mr. Reddy met with the leaders of the systems, as well as with ordinary farmers, and with officials of the National Irrigation Administration (NIA).

> The second report is by Ireneo Agulto and Eduardo Marzan, who visited a government-managed system in Karnataka, India, where increased farmer participation in management is being promoted by the irrigation agency. The visit was hosted by the Institute for Social and Economic Change in Bangalore, India.

Readers should bear in mind that Mr. Reddy is comparing river-pump systems which are indigenously constructed by farmers (with no government involvement) against newly turned-over systems in the Philippines originally constructed by the NIA but now managed by farmers. While both cases are "farmer-managed irrigation systems" their histories are different. Many cases of indigenous FMISs can be found in the Philippines, but these tend to be fed by river diversions rather than pumps.

The Indian system which Agulto and Marzan discuss, however, is a reservoir-fed system managed by the government, but in the process of turning over greater management responsibility to farmers. Technically speaking, this system does not qualify for the label "FMIS" since farmers do not manage the upper levels or the head works of the system. Nonetheless, the observations of Agulto and Marzan provide an interesting glimpse of an irrigation system in transition.

RIVER-PUMP IRRIGATION SYSTEMS IN THE PHILIPPINES: An Indian Perspective

The minor irrigation systems in India (defined as those irrigating less than 2000 acres, or 803 ha) are similar in many respects to the "communal" systems of the Philippines. However, there are also important differences. The Indian systems [which the author has studied in Karnataka state] are purely farmer-managed, in the sense that they are initiated, built, operated, and maintained by the farmers without government participation at any stage. The Philippine systems [which the author visited], on the other hand, were initiated and built by the government agency and then handed over to farmers, in order to increase the efficiency of both water use and irrigation fee collection, and hence revenues to the agency.

The institutional processes for the formation of irrigators' associations (IAs) are similar in both cases. An IA in the Philippines registers with the Securities and Exchange Commission to obtain legal status, whereas in India it is done through the Societies Registration Act. The procedures followed for the election of executive committee members are more or less the same in both systems. However in the Philippines the initiative is taken by the agency and farmers are guided by those officials, whereas in India it is done exclusively by the farmers. In the Indian case, the by-laws of the association were developed through local dynamics and established

customs, and as a result problems that arise can be dealt with relatively easily. In the Philippine case, for example, the construction of farm roads in the command area is a source of conflict which can jeopardize community spirit. In the Indian case, farm road right-of-ways were planned from the beginning.

The role of field staff such as the Indian patkari (water master) is well understood and respected in the Indian case. Tampering with irrigation structures to take more water is a common problem in almost all systems, whether farmer or agency managed. The byelaws provide for penalties in this event, and earmark 25% of the money collected to go to the person who detects misuse of water and notifies the executive committee. These types of economic incentives for field staff do not seem to be provided for in the Philippine systems.

In the Philippine case, recurring losses to the NIA because of low rates of irrigation fee collection have been the chief motivating factor in organizing IAs. Because public funds are invested in the construction of the systems, it is logical to expect reasonable returns from the investment. The Indian lift irrigation systems [which the author has studied in Karnataka] have practically no help from the government. In fact, the government sometimes interferes with the irrigation societies. For example, when river flows are low the government may restrict power supply to the societies' pumps in order to ensure adequate water supplies downstream in government-managed irrigation systems.

The potential for water conflicts are minimized in the Indian case for two reasons: (1) the farmer-initiated by-laws and (2) the technical nature of the water distribution system. Buried pipes are used, which are less prone to tampering than the open channels used in the Philippines.

Conjunctive use of tubewell irrigation to supplement the water provided by the main system is another novelty of the Indian case. Part of the reason tubewells are promoted is to reduce the danger of waterlogging. This results both from irrigation and from percolation from the intermediary reservoir (water is pumped into a reservoir and from there distributed through underground pipes).

Tubewell irrigation provides farmers with greater flexibility in meeting irrigation schedules for particular crops, and in supplementing or, when the pumps fail, substituting for the main system supply. In the case of the Philippine systems, conjunctive use is totally absent. Farmers cited non-availability of adequate power as the primary constraint to tubewells, but in terms of groundwater depth it would appear feasible.

Water delivery schedules seem less elaborate in the five Philippine systems than in the Indian case. Unlined canals run for long distances, and measuring devices at the turnout level would help the IA attain equity in distribution. Under present conditions it is difficulty to determine how much water is being used by whom. In the Indian case water measurement is practically automatic since water is distributed through a pipe system.

Irrigation water charges contrast in the Indian and Philippine cases. In the Indian case water charges are levied on the basis of either area (for sugar cane) or the number of waterings. In the Philippine cases only an area basis was used. Irrigation fee collection rates are 100% in the Indian case, since payment is a pre-condition for receiving water from the society. In the Philippine systems, the rates were considerably lower.

M. Venkata Reddy, Institute for Social & Economic Change, Nagarabhavi (Post), Bangalore 560 072, INDIA.