training workshop was organized in January, 1992. The training was meant for technicians and female field staff working in TIP and was aimed at increasing the awareness of the importance of gender issues in irrigated agriculture and at providing the participants with some tools, methodologies and techniques which would enable them to better recognize and address women's needs. The philosophy underlying the workshop was to make the maximum use of the experiences and knowledge of the participants.

Participants of the workshop analyzed the roles of women. Women participate in construction activities; in operation and maintenance; in afforestation; in terracing and in road construction. Women's participation in meetings and water users' groups is negligible. The participants concluded that there was a discrepancy between the amount of labor women contribute to TIP activities and the degree to which they benefit from it. Only those women who actually own land in the TIP area are certain to benefit directly from their efforts in construction and maintenance activities. However, women do benefit from the afforestation activities; the newly planted trees provide them with fruits, timber, firewood, shade and fodder.

The major constraint for women is their lack of access to land, especially irrigated land. Suggestions to improve women's position, therefore, stressed the need for providing women with land, or of providing irrigation facilities to land controlled and cultivated by women. Other suggestions related to the possible increase of the afforestation activities and to ways of increasing women's participation in water users' groups.

The participants of the workshop realized that better recognizing and addressing women in planning and implementing activities require a different approach. It is necessary to know who the target group is and what its needs are. Discussions, formal and informal meetings with both male and female farmers, individually and ingroups are good ways of achieving an adequate understanding of the real problems in the different districts. The participants of the workshop emphasized that activities should not be implemented too rapidly and that the focus of the activities should not be only on construction.

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Role of Women in Water Management—Experiences in Sreeramsagar Project, Andhra Pradesh, India

Farmers at the tail end of a minor or a distributary often come together to resolve their problems of

water scarcity, and to devise ways and means for securing irrigation water. Groups of farmers take up activities aimed at procuring water through raising the water levels in the canals; at guarding the water by patrolling along the length of the minor; and at distributing the water by the group in an agreed pattern of rotation.

The above activities are being managed by men due to a number of social factors. However, some experiences seem to indicate that women are also slowly coming to share some of the responsibilities along with their menfolk and sometimes taking up the challenges by themselves.

In the village of Hyderpet, to get irrigation, farm families had to devise their own methods and tactics. The irrigation water has to flow a length of 6 km through the minor before reaching the outlet which irrigates their lands. Obviously it requires considerable manpower to procure the water and guard it against being drawn by the farmers in the outlets above. The main job consists of removing the blocks and obstructions along the length of theminor and closing or reducing the withdrawals into some of the upstream outlets.

The women of the farm families took the initiative to work along with their men in this area. They came forward to take up the responsibility for distribution, i.e., the application of water to the fields thus relieving the entire cadre of menfolk to attend to the procurement and guarding of the water. Through experience, the men and women have learned that they can manage to get water only from late evening to the late hours of the day, for about seven to eight hours. With the available flows, around 6 to 7 acres can be irrigated each day. People in the entire area under the outlet were divided by the women into five groups and it was agreed that each group would take the water by rotation, one day in a week. In about five days the rotation would be completed and the balance (two days) was left for any contingency.

Based on the turn, the particular group gets activated. The menfolk, consisting of 5 to 7 members, one from each family of that group, set out on bicycles, at about 5 p.m. They go up to the head of the minor, removing the obstacles en route. The outlets where water is being wasted or going into drains—which they know by experience—are also closed or throttled. After this, they move along the minor to patrol it. Sometimes clashes occur with farmers served by other outlets, but the menfolk sort them out.

While this is going on, the farm women of the 5 to 7 families are in the field. Irrigation is done by the women of the families during the night. The turns among them are adjusted. Normally 2 to 3 women are in the field at a time. After one group has finished another group takes over.

In Anantharam, another village, the minor serving the village lands is located in the lower half of the distributary. Most of the time the water flow is below the designed discharge, and rarely reaches the last three outlets, which are in the village. Women of the three outlets took the initiative to procure water. By mutual agreement, the women from an area of 25 acres, which can be irrigated in one day, set out in the morning, along the minor. Irrespective of the extent of holding or social status, one woman from each family joins the group. They carry with them spades and work along the minor, only in the day time. The women remove obstructions from the minor and guard it. One male farmer remarked: "We have seen that nobody is bold enough to obstruct women and it has made things easy for us." Men work in the fields guiding the water to irrigate different plots in the holding. Men are happy doing this job and women are proud in handling the normal maleoriented job.

In still another village, a female farmer—S. Sugunamma — took a leading role in settling village disputes over water. While her husband spends most of his time roaming around and drinking, she looks after all farming tasks. There were numerous quarrels in her village, because farmers from the lower outlets always tried to block the upper outlets. Sugunamma talked to her village neighbors and asked them why they should quarrel, instead of sharing the water.

She constructed an earthen divider in the minor; a small earthen bund running up-stream from the outlet in an acute angle. The height and length of the outlet are so adjusted to make sure that about one fourth to one third of the water flows into the upstream outlet, allowing the rest to flow down to the two remaining downstream outlets. This was seen and appreciated by the other farmers and demands came to her to help in providing such a divider in the other upper outlets as well. She also helps in sharing the water below the outlet, and she is consulted quite often to resolve problems in conveyance.

These examples show that women can play a dynamic role in irrigation management. With some training and exposure, the normal shyness in these women can be removed, and they can play more important and effective roles in irrigation management. With the increased role of women in irrigation management, the fighting, bickerings and other quarriels normally seen in villages caused by menfolk, are likely to decline. This is also likely to bring in better discipline in distribution and sharing of waters, increase the overall irrigated areas and help in solving the tailend problems.

[From a paper presented at a seminar on Men and Women Water Users in Water Management, held in Hyderabad on October, 28 and 29, 1991— by C. Sitapathi Rao; Turubul Hassan and Mrs. C. Vijaya Shyamala]