

# Management Brief

The International Irrigation Management Institute

## RAPID RURAL APPRAISAL FOR IRRIGATION SYSTEMS

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Rapid Rural Appraisal (RRA) refers to cost-effective techniques which can help managers and development professionals find out about rural conditions. RRA has already been applied to development projects in agriculture, farming systems, natural resources, health and nutrition, fisheries, firewood and energy, and, recently, irrigation.

RRA sets out to help managers and development professionals avoid two problems:

The first is *rural development tourism*, which is hurried fact-finding visits to selected projects during working hours. For example, observations made during a drive from the irrigation headworks down the main canal, followed by a brief meeting with better-off farmers, may be the only source of information for major development decisions.

The second problem is *excessive and inappropriate data collection*. Surveys, readings, and routine reports often pile up for years, are seldom analyzed or checked for accuracy, and are rarely, if ever, used in making management decisions. In contrast, RRA stresses timeliness, seeks cost-effective trade-offs between the amount and utility of information obtained, and emphasizes the personal involvement of managers.

### USES FOR RRA

RRA may be useful in many situations. A system manager may want to investigate water deprivation among farmers at a canal's tail-end, gauge the effects of missing a cultivation season on laborers and small-scale farmers, or know actual water delivery rates and times. A visiting team may want to work out new operational plans with project staff or investigate waterlogging, salinity, flooding, or water shortages.

### HOW TO AVOID BIASES

Managers and irrigation professionals who conduct appraisals can offset the biases caused by rural development tourism and excessive and inappropriate data collection by attending to the following suggestions:

#### Source of bias

Visiting only head reaches and traveling canal roads by car.

Examining the distribution system.

Visiting only during working hours and in daylight.

Making only one visit, or visiting at the same time each season.

Observing only physical works such as headworks, canals, cross regulators, and gates.

Visiting only demonstration trials or special projects.

Meeting only the elite: staff, better-off farmers, influential people, and men.

Blaming farmers for misusing the system.

Telling people what they should do.

Visiting people hurriedly.

#### What to do

Go to the tails and off the roads; walk around.

Look at the drains.

Go before and after working hours, and at night.

Inquire about the situation at other times, and in other seasons.

Find out about processes - distribution, communications - and meet people.

Visit farmers lower down the same channel who may get less water because of a trial or project.

Make an effort to meet poorer farmers, laborers, and women.

Find out why farmers do what they do.

Listen to people and learn from them.

Plan to spend more time and be patient with people.

### TECHNIQUES

Specialized RRA techniques have yet to be worked out. However, experience in many development projects has revealed techniques that may prove helpful in various irrigation systems and situations. The purpose of the appraisal and the conditions under which it is carried out determine which techniques are suitable. The following are suggested:

1. *Use existing information.* These include: maps, aerial photographs, design documents and project appraisals, reports about crises, reports about the visits of previous teams, surveys and studies, annual and other reports, hydrological information in chronological sequence, and manuals and circulars on water distribution.

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2. *Use key informants.* These should be chosen for their specialized knowledge: irrigators (tail, middle, and head); women; laborers; irrigation project staff, and those of other departments and voluntary agencies; and specialists and consultants.

3. *Use a teamwork approach.* Choose a mixture of professionals, staff, and farmers who can work together on a RRA. Combine them in pairs or small groups, and meet with them frequently to plan and discuss findings.

4. *Conduct small group interviews.* To take advantage of a group's specialized knowledge and ability, and to validate information, talk with farmers, women, and irrigation staff in small groups. Guide interviews with a checklist to ensure important points are not missed. Allow open-ended discussion by avoiding a formal questionnaire.

5. *Use quick sampling techniques.* Use maps, aerial photographs, and survey numbers either to select small random samples or to pick out key categories of people.

## CONCLUSION

Specialized RRA techniques for irrigation are needed. Besides the general methods outlined above, agricultural and irrigation engineers, hydrologists, agronomists, agricultural economists, and sociologists need to develop their own techniques. Initially, these would be improvised and invented. Through application, unproven techniques could be tested and improved. Experiences could be recorded and, eventually, manuals would be written for training and education programs.

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