

Uphoff Norman, Priti Ramamurthy, and Roy Steiner. *Managing Irrigation: Analysing and Improving the Performance of Bureaucracies.* New Delhi/Newbury Park/London: Sage Publications. 1991. Hardbound. Price not given.

The book under review provides a valuable account of the issues and factors in managing the irrigation system, and presents a lucid and thorough discussion on the performance of the irrigation bureaucracies. It comprises two parts: the first outlines the factors affecting irrigation performance under a wide range of topics in the first five chapters. In Chapter One, the authors have attempted to assess the performance of the irrigation bureaucracies, conceptualise irrigation management issues, and build an empirical base for analysis while drawing upon the experience of ten country cases in Asia, Africa, and Latin America. The Second Chapter focuses on the variations in the management structures identified and the types of irrigation systems; and it defines the variables of the management structures.

The activities and objectives of irrigation management are discussed in Chapter Three. The objectives include: greater production and productivity of irrigation projects; improved water distribution; reduction in conflicts; greater resource mobilisation and a sustained system performance. The authors also highlight the performance criterion in this chapter. They identify about six contextual factors which affect the objectives and the performance of irrigation, which are discussed in detail in Chapter Four. In Chapter Five, some organisational variables, which would lead to improvements in irrigation, are examined.

The second part of the book deals with the strategies for improving bureaucratic performance. Chapter Six discusses methods for improving the management structure and style. The authors draw on the example of the Command Water Management Project in Pakistan; and the Mahaweli system management in Sri Lanka and Kenya. They also emphasise the need for the internal reorganisation of irrigation agencies. Chapter Seven suggests different approaches for agency reorientation. The authors discuss about ten approaches but place the major emphasis on the feed-back mechanism, interdependence, and water-users' associations. Later in the chapter, they also discuss some normative approaches such as value commitments, culture, peer dynamics, and career paths. Chapter Eight presents the framework of the performance variables, the greater emphasis being laid on institution building, effectiveness, specificity, and competition.

Finally, the authors make observations on the purpose and context; management vis-à-vis administration; internal structure; and leadership and values. They also suggest measures to improve the performance of the agencies concerned with managing irrigation as they take country examples of the main irrigated continents and try to analyse country-specific project interventions. One would tend to agree

with the authors that there is no specific answer and/or recipe for a particular irrigation issue.

However, the authors have taken into consideration only the success stories of some projects in the respective countries. For instance, they discuss the Command Water Management Project (CWM) in the case of Pakistan. The primary objective of this project was to increase irrigated agricultural productivity in the country by exploring ways of bringing about physical and institutional improvements within the irrigation command areas. This objective was to be realised through government capacity building, popular participation, water management and, thus, increased agricultural production through improved management of water and non-water inputs. A recent evaluation of the project revealed that despite the design focus upon institutional development and related goals, the majority of the project funds were utilised by the civil irrigation bureaucracy. The completion of such civil works was not the avowed objective of the project. The CWM has had little impact on institutional development and sustainability of project efforts. This requires foresight, operational vision, and objective clarity, which perhaps are non-existent in our irrigation bureaucracy. Pakistani irrigation engineers are more administrators than managers and goal-achievers.

The authors have also ignored the important aspect of inter-agency coordination and interdependence. For example, historically, the public sector management of Pakistan's irrigated agriculture has been divided among a number of government agencies. The differences in responsibility characterise the functions of the provincial irrigation and agriculture departments, as well as other government agencies such as the revenue and district administration. Similar separations occur within the same line agency, the most important being between the On-Farm Water Management (OFWM), Agriculture Engineering, and the Agricultural Extension Service in the provincial Department of Agriculture. The extension agent is not in communication with the water management specialist and/or agriculture engineer, and has no link with the irrigation engineer. All of them are not inter-acting at any time with the farmer, who is the principal beneficiary of these services. This separation has caused an inadequate integration among linked components and the uncoordinated use of resources. This lack of integration has caused a laxity in the management of water and non-water inputs and has contributed, ultimately, to low agricultural productivity.

A management model serves as a guideline for combining physical, financial, and human resources. Over time, models of management may become institutions and they may be widely accepted as a set of rules and conventions for resource management. The OFWM project in Pakistan is accepted as a management model, but not yet as an institution. However, the traditional system of watercourse maintenance is an institution. Similarly, the irrigation projects in Sri Lanka and

elsewhere which are mentioned in the book are management models. Thus, these new management models are short-term indicators of progress; and the new institutions are long-term indicators.

One may applaud the efforts of the authors in bringing together irrigation management issues and highlighting the factors affecting the productivity of irrigated agriculture. Irrigation managers and engineers must read this book, as it will help mould their attitudes in addressing management issues.

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