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IRRIGATION INSTITUTIONS AND ORGANIZATIONS:

AN INTERNATIONAL BIBLIOGRAPHY

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1975
WITH modern methods of travel and communication shrinking the world almost day by day, a progressive university must extend its campus to the four corners of the world. The New York State College of Agriculture and Life Sciences at Cornell University welcomes the privilege of participating in international development — an important role for modern agriculture. Much attention is being given to efforts that will help establish effective agricultural teaching, research, and extension programs in other parts of the world. Scientific agricultural knowledge is exportable.

A strong agriculture will provide not only more food for rapidly growing populations in less-developed countries, but also a firmer base upon which an industrial economy can be built. Such progress is of increasing importance to the goal of world peace.

This is one in a series of publications designed to disseminate information concerned with international agricultural development.
INTRODUCTION

A basic part of the research process, usually appropriately enunciated in introductory courses in research methodology, is a review of the literature relevant to the topic to be researched. Needless to say, this is sometimes an arduous task. Such has been the task for those interested in undertaking research on the institutional and organizational dimensions of irrigated agriculture. As this bibliography illustrates, while there is a significant body of previous writing on this topic, the materials are located in widely disparate and sometimes fugitive literature. Thus, it is hoped that this present compilation of bibliographic information will make the review of literature somewhat more manageable for interested researchers.

The availability of this bibliography may be timely because of the widespread interest in the more effective design of irrigation systems and the improvement of water management processes in new and existing irrigation systems. In numerous nations throughout the world, and in particular in South and Southeast Asia, irrigation development is increasingly identified as a major component of agricultural and rural development policies. The recent development of high-yielding varieties of wheat, rice and other crops has created a situation in which the relative importance of irrigation as a constraint to agricultural development has increased. However, it is clear that unless our record of past experience with developing irrigation systems is enormously improved, the mere expansion of irrigation facilities is unlikely to result in the anticipated benefits.

Increased attention to irrigation has been paralleled by increased interest in the organizational and institutional elements that must accompany the provision of new, or the rehabilitation of old, physical facilities. The adequate, timely and reliable delivery of water in an irrigation system, while obviously a function of the natural and man-made environment of the system, is also a function of the cultural rules, the organizational roles, and the actual behavior of irrigation agents, water user associations and individual farm operators, to name just a few. It is widely recognized that the organizational and institutional features of an irrigation system can have a great impact on
the degree to which water is efficiently and equitably distributed within the command area.

Almost without exception, plans for irrigation development refer to these institutional and organizational elements, though the specification of how this portion of the plan will be achieved is usually inadequate. Our understanding of the range of organizational and institutional arrangements for water management that presently exist, of the important interactions between the physical and organizational-institutional components of systems, and of the processes by which these social arrangements are formed are all woefully inadequate and significant barriers to irrigation development.

While the items included in this bibliography will not offer any simple or direct answers to these complex and important problems, they may provide a useful beginning point for the interested student and researcher.

DEVELOPMENT OF THE BIBLIOGRAPHY

The items included in the bibliography have been collecting on my desk over the past several years during which I have actively engaged in research on this topic. Its compilation has followed the "snowball technique"—any article or book found on the topic had its list of references rigorously inspected and any new items were added to my tentative list for subsequent reading. This process has been especially facilitated by the excellent library facilities available at Cornell University. During the last year, more than a few spare moments have been devoted to using these facilities to add to this bibliography.

The bibliography took its first form as a reading list for a graduate seminar taught at Cornell and entitled: "Peasants, Water and Development." This course was jointly taught with Professor Milton Barnett (Department of Rural Sociology) and Professor Gilbert Levine (Department of Agricultural Engineering), both confirmed irrigation-philes. Their contribution to, comments on, and encouragement about the bibliography are much appreciated.
THE BIBLIOGRAPHY--WHAT IT IS AND ISN'T

As the reader will note, the bibliography is a bibliography in its simplest form--a mere list of items with bibliographic information complete enough to allow the reader to locate the original item. While it would clearly be useful to produce an annotated bibliography of this material, it simply has not been possible with the present level of resources available. While there was some suggestion that the availability of the bibliography be delayed for annotation purposes, perception of the need to identify materials in this topic area has prompted its issuance even in this less detailed form.

As you will note, the only ordering of items is by alphabetical arrangement of authors, and by year of publication if more than one item appears for a given author.

As suggested in the title, the bibliography is concerned with materials that deal with the institutional and organizational aspects of irrigated agriculture. Thus, the primary work cited is that done by anthropologists, geographers, political scientists and sociologists. The work of some economists has been included though most of the work on strictly economic aspects has been omitted. The bibliography includes some items dealing with irrigated agriculture in North America, perhaps enough to begin someone's snowball; however, the major emphasis is on materials dealing with the so-called LDC's.

Of course, no claim is made for the completeness of the bibliography. I can only say that it is as complete a list as I have at the time of publication, though hopefully by the time it reaches any particular reader, I will have on my desk new items to be included in the next version. On that point, any additional items that you could suggest for inclusion in the bibliography would be most appreciated.
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