

IRRIGATION AND ECONOMIC DEVELOPMENT



Edited by

Dr.S. THEENATHAYALAN
Dr.P. KANNAN



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CHAPTER 8

IRRIGATION AND FOOD GRAINS PRODUCTION IN INDIA

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Abstract

India's agriculture by providing assured water supply to the agricultural sector. It increases the agricultural production through multiple cropping and also helps to achieve self-sufficiency and to avoid imports of food grains. Irrigation helps small and marginal farmers with adequate water supply for intensive cultivation. It ensures proper and sustained growth in dry wet areas. Appropriate irrigation methods increase the productivity of land. Apt irrigation reduces regional disparities in agricultural production in different regions of the country. Therefore the production is a joint effect of the productivity inputs like fertilizers, pesticides and improved HYV seeds on one hand and assured water supply ensured by irrigation facilities on the other hand. special programmes with attractive incentives need to be formulated to change the food grains production in India that can give increased water productivity as well as more return to every drop of water.

Economic and social development to a great extent depends upon the creation agricultural produce. This often requires extension of agriculture through new irrigation projects or the improvement of existing irrigation systems and practices to ensure optimum land utilization through efficient water use. Improved water management (including irrigation and drainage can probably do more towards increasing agricultural production, both of food and non food crops in the irrigated areas in India

The largest use of water in the world is for irrigating lands, as an agricultural input, especially for the production of food grains. For the growth of plants, water must be available in the appropriate quantities and the right time, depending on the species of plant, the soil and other climatic conditions. Crops like Sugarcane and Rice need large quantities of water that wheat, maize, jowar and other cereals. Even dry farming technology depends upon the moisture retained in the soil by conserving the scanty rainfall through the construction of small bunds. Efficient utilization of water resources is essential for agricultural producing for meeting the challenge of feeding the ever – increasing human population. Nearly 70 per cent of the country's gross cropped area depends exclusively on rainfall, which is unevenly distributed both in respect of time and in respect of space. Wherever rainfall fails or does not occur at the proper crop season, agricultural production will be declines. If deficiency of rainfall is 4 per cent or more it results in famine and crops do not even grow. To banish famines, the only remedy is artificial supply of water to the lands through irrigation.

About the Editors



Dr.S. THEENATHAYALAN is presently serving as Associate Professor and Head, Department of Economics and Centre for Research in Economics of The Madura College (Autonomous), Madurai, Formerly Member – Syndicate and Member Convener Committee, Madurai Kamaraj University. He has credibly maintained consistent academic records in his post graduate studies with a University Rank. He started his teaching career in July 1991 with a passion for teaching for more than 3 decades. He has produced 11 Ph.Ds, 32 M.Phil and published 15 books.

He was also the organizing secretary of 10 National Seminars, 1 National Conference and 3 International Conferences. In addition, he has delivered 80 plus invited lectures at the UGC HRDC and keynote addresses in Economics in National, International conferences and radio talks. His research contributions are also outstanding. Under his guidance, eleven students got their Ph.D. degrees. 31 M.Phil graduates and many PG students have completed their projects under his guidance. At present, 7 Ph.D Scholars and one post-doctoral fellow are working under him.

He has published 15 books, 34 research papers and reviews in national and international journals of repute. His academic contributions involve membership and chairmanship of Board of Studies of various institutes. He was also recipient of "Best teacher award", "Best NSS Programme Officers Award", "Senior Economists award" and "Eminent Academician award". Besides he served as NAAC Coordinator, IQAC Coordinator and Dean of Academics and Research in the college.



Dr.P. KANNAN graduated from N.M.S.S.V.N. College, Nagamalai, Madurai and took his M.A, M.Phil., Ph.D. from Madurai Kamaraj University. He began his teaching profession from 2000 onwards. He has been serving for more than two decades as Associate Professor, PG Department of Economics and Centre for Research in Economics, The Madura College, (Autonomous) Madurai.

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