

IRRIGATION AND ECONOMIC DEVELOPMENT



Edited by

Dr.S. THEENATHAYALAN
Dr.P. KANNAN



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CHAPTER 1

DRINKING WATER ACCESSIBILITY AND CONNECTIVITY IN MADURAI SMART CITY - AN ANALYSIS

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Introduction

Water is important for the life of human being, potable water determines the quality of human health and productivity. Water is called "indrjal" in mythology the nature's gift by rainfall. It satisfies the thirst of human beings and also gives food and sustains life of human beings, plants and animals. In fact, great civilizations formed and developed around water sources and societies evolved their entire cultures and livelihoods based on it. According to *Thiruvalluvar* "நீர் ன்றி அமையாது உலகு" A man can survive without food for 21 days but difficult to survive without water even a day. water is a gift of nature

India is a country which has abundance of natural resources is blessed with large resources in terms of water. However, the availability of potable water varies from one place to another place in the country. At present, irrational water withdrawal from ground, tank and reservoirs is increasing rapidly. Water is mainly being used for Agriculture and industrial purposes which are drinking water scarcity to the human being. Moreover, water use for drinking and domestic purposes is estimated around 7 to 9 per cent of the total potable water in India. According to the national water commission estimation, the total demand of water India in the year 2050 will be about 973 billion cubic meters depending on its population growth.

The surface water and groundwater resources of the country play a major role in agriculture, hydropower generation, livestock production, industrial activities, forestry, fisheries, navigation, recreation activities, etc, According to the National Water Policy in the planning and operation of systems, water allocation priorities should be broadly as: (i) drinking water (ii) irrigation (iii) hydropower (iv) ecology (v) agro-industries and non-agricultural Industries and (vi) navigation⁶. India receives annual precipitation of about 4000 km³, including snowfall. Out of this, Monsoon rainfall is in the order of 3000 km³.

Objectives of the Study

1. To find the zone wise demand ratio between water supply connectivity and households in Madurai City.
2. To offer the suggestions for the betterment of Water Supply Connectivity in Madurai City

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.

He has been handling Classes from undergraduate to M.Phil levels with greater reliance on insight, lateral thinking inspiration and sagacity. He has organized and participated in quite a few number of National, State level and Regional Seminars, Workshop and Conferences and has contributed articles in research journals of repute. His academic contributions exemplify his ability towards carrying out high quality teaching, research and extension work with focuses understanding, sanctity of thought and liveliness. Being a Research Guide he produced 13 M.Phil candidates. He is effectively affianced with all the college curricular and co-curricular activities.



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