MICRO IRRIGATION IN KARNATAKA

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DEDICATED

This Book is affectionately dedicated to my beloved

Parents

Late. Shri. Andanappa V Ningoji

Rtd.Teacher

Smt. Rathnamma A Ningoji

PREFACE

Micro irrigation has emerged as a transformative solution for addressing the critical challenges faced by the agricultural sector in Karnataka, particularly the scarcity of water and irregular rainfall. With an ever-growing demand for food production, farmers in the state are increasingly turning to water-efficient irrigation techniques to ensure consistent crop yields and sustainable agricultural practices. Micro Irrigation in Karnataka explores this innovative approach in detail, offering valuable insights into the adoption, challenges, and benefits of systems like drip and sprinkler irrigation.

This book aims to provide a comprehensive resource for farmers, policymakers, researchers, and agricultural professionals interested in understanding how micro irrigation systems can be effectively implemented in diverse agricultural settings. By focusing on the specific conditions of Karnataka—ranging from its arid regions to its fertile lands—this work highlights the positive impact of micro irrigation on water conservation, crop productivity, and the overall economic well-being of the state. Through real-life examples, case studies, and expert contributions, we offer a balanced perspective on the promise of these technologies while addressing the hurdles to their widespread adoption.

Ultimately, this book seeks to empower readers to embrace micro irrigation not only as a means of water conservation but also as a pathway toward a more resilient and prosperous agricultural future for Karnataka.

ACKNOWLEDGEMENT

It is a pleasant time to express my heartfelt gratitude to everyone who has helped me in completing my research work; I dedicate this page to all those people who have helped me to explore the knowledge.

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Veeranna A Ningoji

LIST OF ABBREVIATIONS

MIS	Micro Irrigation System
NIMS	Non-Micro Irrigation System
HYV	High Yield Variety
SMAM	Sub Mission on Agricultural Mechanisation
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
RIDF	Rural Infrastructure Development Fund
SCP	Special Component Plan
TSP	Tribal Sub Plan
KAMICS	Karnataka Antaraganga Micro Irrigation Corportion Scheme
AIBP	Accelerated Irrigation Benefit Programme
NHM	National Horticulture Mission
ISOPOM	Integrated Scheme of Oilseeds, Pulses, Oil-Palm and Maie
RKVY	Rashtriya Krishi Vikas Yojana
NFSM	National Food Security Mission
NMSA	National Mission on Sustainable Agriculture
NAPCC	National Action Plan on Climate Change
GDP	Gross Domestic Product
GDDP	Gross District Domestic Product
NDDP	Net District Domestic Product
HKKP	Har Khet Ko Pani
PDMC	Per Drop More Crop
SC	Scheduled Caste
ST	Scheduled Tribe
OBC	Other Backward Caste
APL	Above Poverty Line
BPL	Below Poverty Line
PACS	Primary Agricultural Co-operative Societies
NMMI	National Mission on Micro Irrigation

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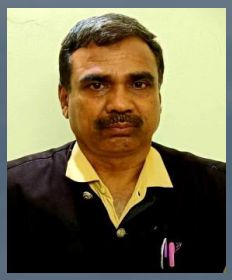

Dr. Veeranna A Ningoji is currently working as Assistant Professor and Head of the Department of Economics at Dr.P.G.A.S Samiti's Pandit Panchaxara Gavaigalavar Arts & Commerce College Gadag. He has more than 30 years of teaching experience and 20 years of dedicated Research experience. He has made significant contribution to the field of Economics. He has successfully completed 20 project works and completed in the different angles of Economics. He has published many articles in daily News papers, National and international journals; also he attended many seminars and conferences. Beside his extensive service in N.S.S. and youth Red cross units contributed to the society.

Dr. Nagaraj S. Mugadur is currently working as Associate Professor, P.G. Department of Economics, Karnatak University, Dharwad more than 14 years service of teaching experience and 18 years of research experience. Having obtained M.A. in 2001, M. Phil. in 2003, Ph.D. Degree in 2009 in Economics from Karnatak University, Dharwad. He has received Awarded ***Rajiv Gandhi National Fellowship*** for the Ph.D. programme during 2007-2009 sponsored by **UGC,** New Delhi. He has also Awarded ***Post-Doctoral Fellowship*** for the Post-Doctoral Research during 2011-12 and 2012-13 sponsored by **UGC,** New Delhi, the research work entitled **"Impact of Natural Calamities in India with Special Reference to Karnataka"**.

He has completed 07 research projects. Under his guidance successfully awarded 9 Ph.D. candidates. He has guided 121 PG Dissertation candidates for M.A. in Economics, Karnatak University, Dharwad. He has published more than 66 research papers. He has attended 81 seminars and conferences at State and National levels in the country and also 60 presented papers. In addition, he has also attended 21 workshops and participated in various research programmes. He has delivered more than 13 invited talks and he is Resource Person to many Workshop and training programmes conducted in the PG Students and research scholars. He has also been Coordinator of the Training Programme on Research Methodology and Application of Econometrics in Social Sciences Research, sponsored by ICSSR, New Delhi organized by the Department of Economics, Karnatak University, Dharwad in 2013. The life member of professional organisation namely Life Member of **The Indian Econometric Society (TIES)**, New Delhi, Life Member of the ***Indian Social Science Association (ISSA),*** New Delhi and Life Member of the **Indian Academic Research Association (IARA)**, Trichengodu, Tamil Nadu. Worked as Vice-President (Cultural), Post-Graduate Gymkhana 2020-21, 2021-22 and 2023-24, Karnatak University, Dharwad. Worked as Warden, Shalmala Hostel, Karnatak University, Dharwad from 2019 to 2024.

ABOUT THE BOOK

Micro Irrigation in Karnataka provides a comprehensive exploration of the growing importance of water-efficient irrigation practices within the agricultural framework of Karnataka. The book delves into the various micro irrigation techniques—primarily drip and sprinkler irrigation—and their relevance to the states distinct agricultural needs. It examines the challenges posed by water scarcity, climatic unpredictability, and the increasing strain on groundwater resources, all of which make efficient water management crucial for sustaining Karnataka's agricultural sector.

The book is structured to cater to a diverse audience, including farmers, government officials, agricultural researchers, and anyone with an interest in sustainable farming practices. It begins by introducing the concept of micro irrigation, followed by an in-depth analysis of the benefits and practical applications of such systems. Detailed case studies and success stories from across Karnataka offer real-world examples of how farmers are reaping the rewards of adopting micro irrigation, from higher crop yields to significant water savings.

Moreover, the book discusses policy initiatives, government schemes, and subsidies that support the adoption of micro irrigation. It concludes with a look at the future of irrigation in Karnataka, considering emerging technologies and their potential to further enhance agricultural efficiency. Through its holistic approach, this book aims to inspire the adoption of micro irrigation as a key tool for fostering sustainable and resilient agriculture in Karnataka.

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