# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFACE</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xix</td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Irrigation Management</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Participation of Farmers</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Relevance of the Study</td>
<td>6</td>
</tr>
<tr>
<td>2. FARMER PARTICIPATION IN IRRIGATION MANAGEMENT: AN OVERVIEW</td>
<td>10</td>
</tr>
<tr>
<td>2.1 Irrigation Management</td>
<td>10</td>
</tr>
<tr>
<td>2.1.1 Criteria for Irrigation Management</td>
<td>12</td>
</tr>
<tr>
<td>2.1.2 Constraints in Irrigation Management</td>
<td>15</td>
</tr>
<tr>
<td>2.1.2.1 Main System Management</td>
<td>17</td>
</tr>
<tr>
<td>2.1.2.2 Tail-end Deprivation</td>
<td>17</td>
</tr>
<tr>
<td>2.1.2.3 Free Riding</td>
<td>18</td>
</tr>
<tr>
<td>2.1.2.4 Fragmentation of Holdings</td>
<td>19</td>
</tr>
<tr>
<td>2.1.2.5 Corruption</td>
<td>21</td>
</tr>
<tr>
<td>2.1.3 Improvements to Irrigation Management</td>
<td>22</td>
</tr>
<tr>
<td>2.2 Participation of Farmers</td>
<td>24</td>
</tr>
<tr>
<td>2.2.1 Objectives and Benefits</td>
<td>24</td>
</tr>
<tr>
<td>2.2.2 Participation through Farmer Associations</td>
<td>28</td>
</tr>
<tr>
<td>2.2.3 Components and Models of Participation</td>
<td>31</td>
</tr>
<tr>
<td>2.2.4 Prerequisites for Participation</td>
<td>34</td>
</tr>
</tbody>
</table>
2.3 Diffusion

2.3.1 Training
2.3.2 Catalyst
2.3.3 Motivation

2.4 Strategy for Irrigation Management through Participation of Farmers

2.4.1 CADA
2.4.2 Rotational Water Supply
2.4.3 Rationing and Charging

2.5 Conclusion

3. THE PROCEDURE

3.1 Objectives of the Study

3.2 Definition of Concepts

3.2.1 Irrigation Management
3.2.2 Participation of Farmers
3.2.3 Command Area
3.2.4 Outlet
3.2.5 Farmer Association

3.3 Identification of Variables

3.4 Hypothesis

3.5 Research Design

3.6 Universe and Sample

3.7 Method of Data Collection

3.8 Preparation of the Tool and the Field Work
4. RESPONDENTS AND PERCEPTIONS

4.1 Introduction

4.2 Background of the Respondents

4.2.1 Farmers
  4.2.1.1 Area of Survey
  4.2.1.2 Classification of Area of Survey
  4.2.1.3 Occupational Features
  4.2.1.4 Age and Farming Experience
  4.2.1.5 Sex of Farmers
  4.2.1.6 Communitywise Classification
  4.2.1.7 Educational Background
  4.2.1.8 Land Size
  4.2.1.9 Cropping Pattern
  4.2.1.10 Income Level

4.2.2 Officials
  4.2.2.1 Institutionwise Distribution
  4.2.2.2 Level of Officials
  4.2.2.3 Disciplines Represented
  4.2.2.4 Qualification
  4.2.2.5 Age and Experience
  4.2.2.6 Jurisdiction
  4.2.2.7 Interest of Officials in Farming
  4.2.2.8 Training Status of Officials

4.3 Perception of Farmers and Officials

4.3.1 With Regard to Irrigation
  4.3.1.1 Availability of Water
  4.3.1.2 Reasons for Inadequate Supply
  4.3.1.3 Type of Irrigation
  4.3.1.4 Quantity of Water Applied

4.3.2 With Regard to Participation of Farmers
  4.3.2.1 Participation of Farmers
  4.3.2.2 Areas of Participation
4.3.2.3 General Factors Hindering Participation
4.3.2.4 Tradition of Cooperation

4.4 Observations and Discussions

5. COMMAND AREA DEVELOPMENT

5.1 Introduction

5.2 CADA and the Three-Tier System

5.2.1 CADA
5.2.1.1 Functions of CADA
5.2.1.2 Perception of Farmers about CADA
5.2.1.3 Warabandi System
5.2.1.4 Benefits Yielded from CADA
5.2.1.5 Opinions of Officials About CADA
5.2.1.6 Measures to Improve CADA

5.2.2 Farmer Associations
5.2.2.1 Functions of Farmer Associations
5.2.2.2 Popularity of Farmer Associations
5.2.2.3 Membership in Farmer Associations
5.2.2.4 Intensity of Involvement
5.2.2.5 Activities of the Associations
5.2.2.6 Lethargy in the Functioning of the Associations
5.2.2.7 Type of Contributions Possible
5.2.2.8 Measures to Improve Farmer Associations
5.2.2.9 Catalysing Participation

5.2.3 Canal Committees
5.2.3.1 Functions of Canal Committees
5.2.3.2 Popularity of Canal Committees
5.2.3.3 Canal Committee Meetings During 1989-92
5.2.3.4 Measures to Improve Canal Committees
5.2.4 Project Committee

5.2.4.1 Functions of Project Committee
5.2.4.2 Popularity of Project Committee
5.2.4.3 Project Committee Meetings During 1989-92
5.2.4.4 Measures to Improve Project Committee

5.3 Observations and Discussions

6. FACTORS INFLUENCING PARTICIPATION

6.1 Introduction

6.2 Factors Influencing

6.2.1 Farmer-Officer Relations

6.2.1.1 Contact of Farmers with Officials
6.2.1.2 Expectation About Officials
6.2.1.3 Capability of Officials in Ensuring Participation
6.2.1.4 Officials and Targets
6.2.1.5 Interest of Officials to Meet Farmers
6.2.1.6 Opinion of Officials About Other Officials

6.2.2 Incentives

6.2.2.1 Motivating Factors
6.2.2.2 Incentives Received
6.2.2.3 Whether Satisfied with Incentives
6.2.2.4 Relation of Incentives with Participation
6.2.2.5 Incentives to Officials

6.2.3 Jealousy

6.2.3.1 Response to Better Yield of Others
6.2.3.2 Sharing of Experiences