

Performance Measurement in Farmer-Managed Irrigation Systems

*Proceedings of
an International Workshop of the
Farmer-Managed Irrigation Systems Network*

Organized by
The International Irrigation Management Institute (IIMI)
and
The Instituto Nacional de Ciencia y Técnica Hídricas (INCYTH)

and held at
Mendoza, Argentina
from 12 to 15 November 1991

Shaul Manor and Jorge Chambouleyron, editors



IIMI

f 6995

INTERNATIONAL IRRIGATION MANAGEMENT INSTITUTE

Contents

Foreword	ix
Objectives	xi
Program	xiii
Discussions and Outcome	xv
Overview	xxiii
List of Participants	xxix

PAPERS

Bounding the System: Precursors to Measuring Performance in Networks of Farmer-Managed Irrigation Systems <i>John Ambler</i>	3
Performance Indicators: A Case of a Newly-Developed FMIS in Bali, Indonesia <i>I Gde Pitana</i>	13
A Comparative Assessment of Farmer-Managed and Agency-Managed Irrigation Systems in Northern Pakistan <i>Mehreen Hosain</i>	21
Performance Evaluation in a Farmer-Managed Irrigation System in the Philippines: A Case Study <i>Benjamin U. Bagadion</i>	31
Self-Assessment of Performance by Irrigators' Associations <i>Fay M. Lauraya, Antonia Lea R. Sala and C.M. Wijayaratna</i>	41
Design Principles and the Performance of Farmer-Managed Irrigation Systems in Nepal <i>Elinor Ostrom and Paul Benjamin</i>	53
Performance Measure for Improving Irrigation Management <i>Ramchand Oad, and R. K. Sampath</i>	63
Resource Mobilization and Water Distribution in a Large Farmer-Managed Irrigation System: A Case Study of the Chattis Mauja Irrigation System in Nepal <i>Jitendra Rana</i>	73
Irrigation Efficiency as a Measurement Factor of Farmers' Performance in Irrigation Systems <i>Walter Olarte Hurtado</i>	83
Performance Evaluation of Selected Farmer-Managed Irrigation Systems in Nepal <i>Ganesh Thapa and Madhav Banskota</i>	95

Some Issues Pertaining to the Performance Measurement of Farmer-Managed Irrigation Systems: Empirical Evidence from Sri Lanka <i>M.D.C. Abhayratna</i>	107
Performance of Irrigation Systems in Hill Areas of Uttar Pradesh, India <i>U.C. Pande</i>	119
Performance Measures of Irrigating River Nile Islands (Gezirahs) <i>Abdel Fattah Metawie, Mohamed Lotfy Y. Nasr and Mohamed Abdel Hady Rady</i>	129
Evaluation of Performance Indicators Applied to Several Irrigation Systems in Portugal <i>Francisco F. Frazão and Luis S. Pereira</i>	137
Performance Measurement in Farmer-Managed Irrigation Systems: The Case of Kimani Irrigation Project in Tanzania <i>Mwanitu Kagubila</i>	147
A New Approach in the Performance Measurements of Irrigation Projects; A Case Study <i>E. Baars and B. van Logchem</i>	157
Sociocultural Factors in Farmer-Managed Irrigation System Performance Measurement: A Contribution to Methodological Approach <i>Ibrahima Dia</i>	167
Impact Analysis of the Agricultural Sector Crisis on the Performance of Water Users' Associations in the Province of Mendoza, Argentina <i>E. Herrera, J. Zuleta, E. Antonioli, G. Satlari and G. Pereyra</i>	173
Analysis of the Consolidation Process of Users' Associations of the Lower Tunuyan River, Mendoza, Argentina <i>C. Foresi, J. Zuleta, and G. Satlari</i>	183
Performance Measurement of FMIS in Soil Conservation and Reclamation <i>Carlos Mirabile and Ricardo Bagini</i>	191
A Diagnosis of Farmer-Managed Irrigation Systems' Performance in Mendoza, Argentina <i>J. Zuleta, G. Satlari, T. Croda and A. Osta</i>	201
Study on Measurement and Evaluation of Performance of Farmer-Managed Irrigation Systems in China <i>Mao Zhi</i>	209
Performance Measurement in Farmer-Managed Irrigation Systems: Case Studies of Tubewells in a Selected Area of Bangladesh <i>M.A. Hakim and D. E. Parker</i>	221
Irrigation Efficiency and Users' Performance in Water Management <i>J. Chambouleyron, S. Salatino and L. Fornero</i>	231
Performance of FMIS Improved Under NGO Assistance: The Case of the National Development Foundation in Sri Lanka <i>M.H.S. Dayaratne</i>	241

ABSTRACTS

A Comparison of Farmer-Managed and Agency-Managed Minor Irrigation Projects in the Thakurgaon District of Bangladesh <i>M.T.H. Miah</i>	253
For a System Analytic Approach <i>Nirmal Sengupta</i>	253
Performance Measurement in Farmer-Managed Irrigation Systems from the Israeli Experience <i>Moshe Sne</i>	254
The Mexican Experience in the Transfer of Responsibility of Irrigation Districts to their Users <i>Enrique Palacios-Velez</i>	254
Interventions in a FMIS in Bolivia: The Hidden Logic in Local Irrigation Water Management <i>Hans Bleumink, Piet Sijbrandij, Jacques Slabbers</i>	255
Performance Measurement in FMIS: The Case of Sri Lanka <i>IJsbrand H. de Jong</i>	255
Survival — Not Productivity: Criteria to Evaluate FMIS in a Drought-Prone Region <i>S.T. Somashekhara Reddy</i>	256
Performance Measurement of Farmer-Managed irrigation Systems <i>Washington Teran Caceres and Jorge Sotomayor Valarezo</i>	257
Developing a Social Learning Framework of Performance Indicators System: A Study for Effective Irrigation Management at Pulangui River Irrigation System (PRIS), Valencia, Bukidnon, the Philippines <i>Josefino M. Magallanes</i>	258
Performance Parameters for Irrigation Water Users' Associations in Catamarca, Argentina <i>Carlina Beatriz Jedliczka de Hansen</i>	258
The Organization of Irrigation in Peru: Four Case Studies in Paruro <i>Jesus S. Mora</i>	259
The "El Carmen" Irrigation Subdelegation (Province of Jujuy): Transfer to the Private Sector <i>Hugo A. Mattiello</i>	259
Evolution of the Prospects for Users' Participation in Water Management in Mendoza, Argentina <i>Pedro Luis Marchevsky</i>	260
FMIS Performance and Pollution: The Case of Campo Espejo <i>Graciela Fasciolo, P. Scardia, O. Zoia and J. Hernandez</i>	260
Performance Indicators for Large Irrigation Systems in the Coastal Valleys of Peru <i>Jan Hendriks</i>	261

Hydro-Economic Indicators for the Evaluation of the Performance of Irrigation Systems in Farming Communities in the Southern Andean Region of Peru. An Effort to Measure the Efficiency, Equity and Sufficiency <i>Carlos de la Torre P. and Carlos Pereyra</i>	261
Assessing the Cultural Factors that Effect Water Use Efficiency <i>Jorge Tacchini and Kiyoe Hiramatsu de Carballo</i>	262
Performance Measurement of the Farmer-Managed Irrigation Systems in the Province of Tacuman, Argentina <i>Juan Taboada and Anibal Comba</i>	263
Irrigation Systems Performance in Venezuela's Andean Region <i>C. Grassi, L. Razuri Ramirez and J. Perez Roas</i>	263
The Functioning of Peasants' Managed Irrigation in the Northern Ecuadorian Andes (Mira Watershed) <i>Patrick le Goulven and Thierry Ruf</i>	264
Causes and Indicators of Poor Performance in Traditional Irrigation Schemes <i>C. K. Chiza and R. L. Daluti</i>	265
Water Management and Self-Management Projects in the Andean Region <i>Fransh Medina Durand</i>	265