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Editors

# Geospatial Technology

Application in Water Resources Management

 Springer

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## Preface

Water, one of the most important resources on Earth, has become the major concern of the century. The demographic and technological transformations related to globalization, trade, and climate change have major impacts on water issues that are key elements of sustainable development and territorial governance. In particular, in the Mediterranean area, where the increasing demand for water is associated with a decrease in its resources, which urges a rational and optimal management. To address this problem, it is necessary to carry on applied research on water management in order to develop innovative practices based on the integration and use of the geospatial technology.

The importance of these technologies resides their ability to bring together, in a single tool, variable and geographically located data. They do not only reassemble and communicate information, but also allow to model, analyze, manipulate, and manage it, to simulate various evolution scenarios and present the results. This book illustrates the contribution of geospatial technologies for better water resources management, a preliminary step to establish a real integrated management of water resources.

This book is addressed to academicians, scientists, hydrologists, meteorologists, and consultants working in the field of water resources management. It is organized into eight chapters:

- Global Data for Watershed Modeling: The Case of Data Scarcity Areas.
- Extraction of Water Information Based on SAR Radar and Optical Image Processing: Case of Flood Disaster in Southern Morocco.
- Soil Moisture Retrieval Using Microwave Remote Sensing: Review of Techniques and Applications.
- Hanaa Aguedai—Intrusion Zones Identification in the Mnasra Aquifer (Morocco) Using the Seawater Intrusion Models and the Geophysics Data.
- The Effect of Surface Water Pollution on the Incidence of Viral Hepatitis: A Spatial Assessment Using GIS Maps.
- Contribution of the GIS in Terms of Knowledge of the Situation of the Water Resources of the Plain of Saïs Fez and Its Middle Atlasic Borders—Morocco: Aspects, Methods and Quantification of Water Resources.
- Assessment of Rainfall Soil Loss in Allal El Fassi Watershed (Mean Atlas Morocco) Using RUSLE Method Combined to GIS and Remote Sensing.
- Collaboration Between Water Stakeholders Needs a National Standard for Data Exchange: Exploratory Study.

Casablanca, Morocco

Prof. Dr. Hassane Jarar Oulidi

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