

Berichte aus der Umweltwissenschaft

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**Hydrologic Data Analysis and
Water Harvesting Structures**

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Summary

In two introductory chapters, the book provides a brief overview over the most important branches of hydrology including the measurement of hydrologic elements such as atmospheric pressure, temperature, humidity, wind, radiation, sunshine, evaporation, precipitation and streamflow.

The first main part of the book addresses the statistical analysis of hydrologic data. Here, full particulars are given on a great variety of statistical tools and methods. The focus is not put on the theoretical foundation, but rather on the application of statistical methods. Many examples are given in great detail so that the text basically represents a statistics by example. It is a special feature of the entire first part of the book that readers are enabled to perform statistical analysis even without using a computer. On the other hand, everybody who uses statistical software is given the opportunity to learn what the program being in use is really doing. After description of general statistical methods special emphasis is placed on hydrograph analysis and routing procedures.

Part two of the book is dedicated to water harvesting structures. The main topics are harvesting of rain water, surface water harvesting and extraction of groundwater. Again, the book provides methods for planning earth dams, performing diversion head works and constructing wells which do not necessarily enforce using computers. Furthermore, lots of valuable hints are mentioned concerning the strategy and the execution of structures. This part of the book zooms in the conditions prevailing in African countries.

Everybody who is concerned with land and water management in developing countries will take great advantage of this book.