

Preface

In many regions of the world, the awareness of the wider community of the importance of water resources management has increased dramatically over the past few years. It has become increasingly clear that, in order to sustainably balance supply and demand of natural resources, the integration of a range of disciplines from a comprehensive systems perspective is essential and this certainly applies to one of our most precious resources: water. As a result of contamination issues, changes in land-use patterns and global climate fluctuations, water availability appears to be decreasing in many regions, contrasted by an increase in water demand as a result of a growing population and changes in the global economy. At the same time, dealing with the risk associated with extreme events—be it floods, droughts or other hazards—has become an integral part of the management and development of any water resources system, both in the short-term operation as well as the long-term planning of water resources.

During the 2003 General Assembly of the International Union of Geodesy and Geophysics, 30 June–11 July 2003 in Sapporo, Japan, a symposium was held entitled: *Water Resources Systems—Global Change, Risk Assessment and Water Management*. The Symposium was organized by the International Commission on Water Resources Systems, ICWRS, of the International Association of Hydrological Sciences, IAHS, together with other IAHS commissions.

The broad coverage and the multi-faceted nature of the subject area were reflected in the large number of contributions to the symposium drawn from a range of disciplines. The paper proceedings from this symposium have been compiled into two volumes. A companion volume (IAHS Publ. no. 280⁴) focuses on water availability while the present volume focuses on hydrological risk and water management. The first paper in this volume provides a summary of the contributions published here.

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