

Preface

The sustainable development of global water resources faces three challenges: first to meet the increasing demands due to population growth and rising per capita consumption; second to improve water quality to provide a wholesome water supply and effective waste water management; and third to sustain water and land resources, including biodiversity and water conservation.

This symposium on *Sustainability of Water Resources under Increasing Uncertainty* examines the hydrological basis and management options which provide the scientific foundation for the sustainable use of water resources. As we approach the end of the twentieth century, we face increasing uncertainty, not only in the extremes of floods and droughts, but in the entire hydrological regime which controls our domestic, agricultural, industrial, energy and environmental use of water.

The objective of the symposium is to consider the key scientific issues which affect both surface water and groundwater availability and the policies and measures which should be introduced to provide reliable and sustainable water resource systems. A key focus of the symposium will be "increased uncertainty" which refers to the impact of environmental change, including climate, land use, urbanization, economic development and greater public awareness of environmental issues.

The symposium proceedings include a number of papers from the hydrological community in Africa where problems of sustainability have been highlighted by decreased rainfall which has resulted in severe and prolonged agricultural and water resource drought over extensive regions of the continent. In general the 160 submitted abstracts and the published and poster papers reflect the wide range of global issues and scientific challenges being encountered by hydrologists. The symposium themes illustrate important directions in hydrological science which must be advanced if sustainable water resources development is to prove a realistic goal.

The symposium has been jointly convened by the International Commission on Water Resources Systems (ICWRS), the International Commission on Surface Water (ICSW) and the International Commission on Groundwater (ICGW). The editors would like to thank the authors for the high scientific standard of their contributions which we are confident will provide an excellent foundation for a stimulating symposium at the 5th IAHS Scientific Assembly in Rabat.

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