

## Introduction

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Throughout history water has always been considered to be an essential component for human survival in both developed and developing countries. The eminent Greek philosopher Pindar considered water to be the best of all things. Similarly, in the South, in the great Indian epic *Mahabharata*, which can easily be compared to the western epics of *Iliad* and *Odyssey*, Rishi Narada, who is probably the best known and earliest authority on politics, greeted the great Pandava King Yudhistira with the following words: "I hope your realm has reservoirs that are large and full of water, located in different parts of the land, so that agriculture does not depend on the caprice of the Rain God".

More than two millennia later, the importance of water has not diminished. On the contrary, it can be cogently argued that water is increasingly becoming a critical global resource issue, especially in all the arid and semi-arid countries. As the global population continues to increase, more and more water is necessary for drinking, agricultural and industrial production and hydroelectric power generation. Furthermore, past experiences indicate that, as their standard of living increases, people will use increasingly more water. This will further contribute to a higher level of water demand.

Water requirements have steadily increased in the past, and current trends indicate that these requirements will continue to increase in the foreseeable future. In contrast, however, the quantities of water that any country can economically develop on a long-term basis unfortunately continue to remain limited. This is clearly indicated by the fact that, for most countries, the cost of development in real terms of each m<sup>3</sup> of water for the next generation of water projects is significantly higher than the present generation.

For the above and a variety of other reasons, it is evident that the water management profession will face a complex challenge in the early part of the 21st century, the like of which has never been witnessed before in human history. Clearly water management practices have to become significantly more efficient in the future than they are at present. Furthermore, this change must occur within a short period, probably a decade or at most two.

The United Nations Environment Programme (UNEP), ever since its beginning some 20 years ago, has always considered efficient and environmentally sound water management to be an important goal that needs to be achieved within as short a time-frame as possible. To achieve this goal, UNEP has sponsored numerous pilot projects, studies, workshops and conferences during the past two decades.

The papers contained in this Special Issue were commissioned in 1992 by UNEP to promote discussions on sustainable water development in various international fora. They can be divided into two broad categories: environmental impacts of water development projects and management of international water bodies, both of which are priority subject areas for UNEP's water programme. It is hoped that the publication of these important papers as a Special Issue of this Journal will contribute to their wide dissemination all over the world, and contribute to much-needed dialogue in this critically important area.