Water has become a major issue in the public debate. In her book *Pillar of Sand*, Sandra Postel gives a historical view of the role of water for food production. She presents an extensive description of various civilisations that came and went as a result of the impossibility of keeping agricultural systems functioning in a proper way without it. The critical role of irrigation in sustaining agricultural production in many old, well-developed societies, such as the cultures in the valleys and deltas of the Euphrates and Tigris in Mesopotamia, the Yellow River in China, the Nile valley, and the various cultural upheavals in the Americas, is well documented. It is clearly described how salinization and other results of overly intensive cultivation have jeopardized the continuity of these cultures. This historical background, which is extensive, detailed and complete, is used as a context for the present developments in agriculture. It is shown that the dependence on irrigated agriculture is increasing, but that at the same time the waste of water is continuing. The salinization of once productive areas is continuing to cause a considerable decrease in productivity in areas of Kazakhstan, Uzbekistan, and Russia; the use of salt water is creating more and more problems in various Arab countries; and the challenge of agriculture is becoming more and more complicated.

In the coming five decades agricultural production has to increase considerably. Expansion of good agricultural land in the critical areas of the world, such as in Asia, is virtually impossible, and the need is increasing to raise productivity with less water and other natural resources and external inputs. It is for this reason that Postel documents extensively the various changes that are taking place in different parts of the world to achieve a “doubly-green” revolution: an increase in productivity not only per hectare but also per kilogram of water and external inputs, and with more biological feedback mechanisms to limit the use of pesticides and herbicides.

As a new century begins, and at a time when food production has reached unprecedented levels, new ways are required. These are not impossible, as Sandra Postel argues, but she gives rather few good examples of highly productive, water- and input-efficient agricultural systems, which do exist in various places. Ecological approaches may well lead to the changes in agro-ecosystems and land use that are so sorely needed.
The book is informative, well documented, well written, and complete in its historical and present-day analysis of agriculture. It is thus a pity that this reader was left with the unpleasant feeling that disasters and dramatic events in our agricultural and food production systems are inevitable. Various positive developments could have been presented to help the reader see that the challenges ahead can be overcome. Such a message would have made the book complete. Nevertheless, this is a stimulating read for anybody interested in the future of food production and water use.

R. Rabbinge
Department of Theoretical Production Ecology,
Wageningen University,
6700 AK Wageningen,
The Netherlands