

The introduction to this book states that water is an important driver to achieve four of the Millennium Development Goals. Using this argument, the book focuses on the challenges of how to deal with extreme rainfall variability in the semi-arid tropics (SAT) for the benefit of agriculture, mainly cereal production.

For those who wish to be apprised of the current thinking and practice in the capture of rainfall, and its use as supplemental irrigation for rainfed crops, with emphasis on the SAT of West and South Asia and North Africa, then this is the ideal up-to-date source. The book deserves to be browsed chapter by chapter, although as with most edited texts, the quality and relevance of chapters vary enormously. For the reader wishing to read cover to cover, verbatim duplication between and within chapters of text and of the repetitions of justification for, and outcomes of, the research will become tedious. Principles grounded in one area are likely to be similar in another.

Major detractors are, from an environmental perspective the lack of discussion of negative impacts on wildlife due to impounding of overland water flows, from a social perspective absence of discussion on the impact of reduced availability of water for domestic usage, and from a geographic perspective the missing yet relevant deliberations from the American and Australian continents. Notwithstanding these, the book presents important contributions towards a more efficient capture and use of rainfall, with a major focus on engineering and agronomic practices, but also elaborating on the necessary genetic enhancement.

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