

# Journal of Sedimentary Research

An International Journal of SEPM

Paul McCarthy and Eugene Rankey, Editors

A.J. (Tom) van Loon, Associate Editor for Book Reviews

Review accepted 15 April 2008



## *A New Approach to Sediment Transport in the Design and Operation of Irrigation Canals*, by H. Depeweg & N. Méndez V., 2007.

UNESCO-IHE Lecture Note Series. Taylor and Francis, London.

Hardback, 227 pages, Price GBP 59.00, ISBN 978-0-415-42693-0.

Paperback, price GBP 29.95, ISBN 978-0-415-43065-4.



Sediment transportation in irrigation canals has considerable influence on the sustainability of the irrigation and drainage systems. Proper understanding of the behaviour and transport of sediment is a must in order to design and implement efficient operation of irrigation canals.

The content of this book is presented in seven chapters. The importance of sediment transport processes in canal designing and operation is highlighted in the introductory chapter (Chapter 1). Fundamentals of open-channel flow and sediment properties are discussed in Chapters 2 and 3. Chapter 4 illustrates the role of sediment transport in the design of irrigational canals, and Chapter 5 elaborates the fundamentals of sediment transport. The two subsequent chapters (Chapters 6 and 7) are devoted to mathematical modeling for sediment transport in irrigation canals and its application.

The book is generally well written and its presentation is lucid and easy to follow. Some relevant information and research methodologies are presented in four Appendixes. The short glossary will be helpful for the readers. The illustrations are generally good, but the structure of the book is sometimes difficult to follow. For example, I strongly believe that Chapter 5 on the sediment-transport concept should be placed before discussing the design criteria for irrigation canals (Chapter 4). Incorporation of one or two field/case studies would also have been fairly useful for the readers.

In spite of the shortcomings, which are of relatively minor importance, I believe that the book will be helpful for students and professionals alike. I recommend this book for libraries of universities and research institutes.

Rajat Mazumder  
R-406, Natural Science Building  
Graduate School of Environment and Information Sciences  
Yokohama National University  
79-7, Tokiwadai, Hodogaya  
Yokohama 240-8501  
Japan  
e-mail: [mrajat@isical.ac.in](mailto:mrajat@isical.ac.in)



SEPM—The Society for Sedimentary Geology