

BOOK REVIEW

GROUNDWATER CONTAMINATION – MASS TRANSPORT MODELLING OF HAZARDOUS WASTE DUMP SITES by V.V.S. Gurunadha Rao. National Geophysical Research Institute, Hyderabad – 500 606, 278p., Price Rs.500.

In India groundwater contamination is an emerging issue, critically limiting drinking water availability, which if not abated in time will reach a point of crisis. In urban and industrial centers untreated effluents and waste waters are potential sources of groundwater pollution from alien chemical substances and toxic metals. A general lack of awareness of the planners, administrators or public on the issue is a major hurdle in taking preventive or remedial actions. At the instance of the Central Pollution Control Board several environmental impact assessments have already been conducted across the country. There is need to develop replicable models out of these case studies for use in contamination control. With this objective the editor has compiled 22 articles based on lectures delivered in a recently held training programmes.

The articles in the first part of the book give an overview of various methodologies used in environmental impact assessment including mass transport modeling. The second part deals with the core issue of the book giving brief accounts of groundwater contamination studies in varied environmental set ups, like industrial areas; red mud ponds; solid waste dumps from sugar mills; oil refinery; land-fill disposal; ash ponds and power plants; tannery effluents; and pesticides used in agriculture. The articles dealing

with restoration, contamination and ecological studies in urban lakes will surely help town planners and city administrators of Bangalore where lakes are in dire straits because of encroachment and infilling. The paper on rain gardens by landscaping is a welcome inclusion in this book. Further, groundwater flow models and mass transport processes as presented in the book reveal spatio temporal and vertical migration of contaminants in groundwater which should constructively help in preventive and remedial actions. The articles in the book cover almost all aspects of groundwater contamination prevalent in the country.

This compendium of articles supported by data tables and figures may serve as a useful reference or guide for the students, general public, administrators, and planners, but for the deficiencies in printing which substantially lower the value of the publication. The reproduction of photographs or figures is mostly substandard. The papers, too, are not well organized without abstracts or reference lists. A few articles are too brief to be meaningful. Hopefully NGRI will take care to correct these deficiencies in the subsequent editions.

Email: subhajyoti_das@hotmail.com

SUBHAJYOTI DAS