About the Book
The hydrogeological aspect of groundwater science is universal and applied in nature to have a sustainable water resource development with social, economic, ecological, cultural and aesthetic background. Since 99% of the world's fresh available water is groundwater; yet, the majority of financial resources are directed to surface water found in rivers and lakes. This serious imbalance requires urgent redress. This volume addresses the issue to facilitate the joint analysis of groundwater management studies and problems faced by scientists, engineers, managers and other scholars from natural and applied sciences. Significant financial support is required for basic groundwater research if sustainable development is to be a realistic goal. As a fresh water resource, groundwater has major advantages over surface water. This is the basic idea that explicitly appears in almost all paper of this book. The authors have tried to focus their task on those topics that seemed to us more urgent and relevant and have paid much attention to questions related to management of aquifers, groundwater pollution, the long-term problems and the key issues in developing countries, where majority of world population live and where at present enormous groundwater abstraction occurs.

We (editors) have dissipated proper information in a systematic scientific manner to make the concept of groundwater management and sustainability understandable to everyone, through this book.

The book provides a platform to bring together earth scientists, professionals from chemical and engineering science disciplines, public health professionals and social scientists involved with the management and development of groundwater resources. The book is expected to reflect the current understanding of all the issues related to management of groundwater resources and their sustainable use.

Salient Features
Salient Features:

- A compilation of 49 chapters, the book deals with all the issues related to the management of groundwater resources and its sustainable use.
- Topics covered include reuse, drainage, toxicity/poisoning and remediation, nutrient chemistry, recharge, reserve, aquifer remediation, modeling, legislation, quality monitoring, hydrogeochemistry, and many more.
- The text is well supported with line diagrams, pictures, and data tables.

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JOCHEN BUNDSCHUH completed his PhD on numerical modelling of heat transport in aquifers in Tubingen in 1990. For over 14 years he is working in international academic and technical co-operation in different fields of sustainable use of groundwater systems and connected disciplines, including the water-related economic, social, health, and political aspects. The last 12 years he spent in different Latin-American countries, where his main tasks comprised capacity building for institutional strengthening and human resources development applied research, and project management. The countries comprise: Paraguay, Argentina, Brazil, Uruguay, Brazil, Mexico, Bolivia, Costa Rica,
Honduras, Guatemala, Panama, Pakistan, India, Bangladesh, middle East, Tunisia and South Africa. From 1993 to 99 he served as expert of the German Agency of Technical Cooperation (GTZ) and as long-term professor for the DAAD (German Academic Exchange Service) in Argentine to install a centre for water and environment offering training, consulting and research. Currently (since 2001) he is integrated expert of the GTZ/CIM programme for technical cooperation between Germany and costa Rica and deals with the sustainable use of surface and groundwater resources for power generation. This mission comprises to develop and apply capacity building programmes, research, and to identify and formulate project proposals. Additionally to these principal activities, he is involved in many consultancies, capacity building programmes and projects in Latin- America, but also in Africa and Asia, which are comprising-in between others- research of groundwater contamination by arsenic originating from gelogenic resources.

**Prosun Bhattacharya :-** PROSUN BHATTACHARYA received his Ph.D. degree in Petrology and Sedimentary Geochemistry from the University of Delhi, India in 1990. He joined Kungliga Tekniska Hogskolan in 1993 and started his carrier as a Research Scientist and worked on the genesis of high fluoride groundwater in Western India. He developed expertise on solid phase characterization through detailed soil chemical studies and their bearing on the high fluoride groundwater in the region. Since 1995, he has been working on heavy metal contaminated soils which have resulted from different industrial activities, particularly the wood preservations sites contaminated by CCA, ammunition industries, and shooting in Sweden along with the studies on chemical remediation. Since 1995, he is actively engaged with the studies on the genesis of high arsenic in groundwater of the sedimentary aquifers in the Bengal Delta Plain, West Bengal and Bangladesh and devising sustainable techniques for safeguarding ground water resources. At present his primary research interest is directed towards the understanding the mechanisms of arsenic mobilization in groundwater of the sedimentary aquifers based on hydrogeochemical, sediment geochemical and stable isotopic characteristics in Bengal Delta Plain (BDP), Huhhot Alluvial Basin (HAB), Mekong Delta (MD) and the chaco-Pampean Plain of Argentina. He established the Groundwater Arsenic Research Group (GARG) at the Department of Land and Water Resources Engineering, KTH in 1999, a group which is dedicated on research on the groundwater arsenic occurrences in different parts of the world. At present GARG is collaborating with a number of universities and research organizations in India, Bangladesh, China, Australia, Argentina, Costa Rica, Bolivia, Pakistan and Ghana. He has received the title as a Docent (Associate Professor) in Groundwater Chemistry at the KTH in April 2002. Prosun has authored nearly 170 international publications in peer reviewed journals, books and conference proceedings and has organized a number of international workshops on Arsenic in Groundwater of Sedimentary Aquifers.