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| Nota di contenuto | Cover; Copyright; Contents; About the Editors; Foreword; Foreword; Acknowledgements; Glossary; List of Abbreviations; Chapter 1: Introduction to natural water treatment systems in the Indian context; 1.1 Introduction to Saph Pani; 1.1.1 Water resources in India; 1.1.2 The role of natural treatment technologies in mitigating water scarcity in India; 1.1.3 Saph Pani project objectives; 1.1.4 Saph Pani approach and methodology; 1.2 Saph Pani Case Study Sites; 1.2.1 Field site in Haridwar by Ganga River; 1.2.2 Field site in Srinagar by Alaknanda River; 1.2.3 Nainital by Nainital Lake<br>1.2.4 National Capital Territory (NCT) Delhi by Yamuna River1.2.5 Maheshwaram; 1.2.6 Chennai; 1.2.7 Raipur; 1.2.8 Mumbai; 1.2.9 Hyderabad, Musi River watershed; 1.2.10 MAR and SAT Case study summary; 1.3 Structure of the Book; 1.4 References; Chapter 2: Overview of bank filtration in India and the need for flood-proof RBF systems; 2.1 Introduction; 2.2 Overview of Bank Filtration Systems in India; 2.2.1 Summary of design-parameters of bank filtration systems in India; 2.2.2 Overview of water quality aspects at bank filtration sites; |

2.2.3 Mitigation of risks to bank filtration sites in India
2.3 Risks from Monsoon Floods to Bank Filtration Systems in India2.3.1 The effect of the monsoon on drinking water production; 2.3.2 Risks to riverbank filtration sites from floods; 2.3.3 Flood-risk identification at the RBF case study sites of Haridwar and Srinagar; 2.4 Assessment of Risks to Bank Filtration Wells; 2.4.1 Design of wells and direct contamination; 2.4.2 Field investigations on the removal of bacteriological indicators; 2.4.3 Removal of coliforms under field conditions simulated for the river-aquifer interface; 2.5 Mitigation of Flood-Risks at RBF Sites
2.5.1 Risk management plans for RBF sites in Haridwar and Srinagar2.5.2 Need for construction of flood-proof RBF wells; Acknowledgments; 2.6 References; Chapter 3: Lake bank filtration for water supply in Nainital; 3.1 Introduction; 3.2 Study Site; 3.3 Geology of the Tube-well Site; 3.4 Water Balance; 3.5 Methodology; 3.5.1 Sample collection; 3.5.2 Sample analysis; 3.6 Results and Discussion; 3.6.1 Spatio-temporal variation in lake water quality; 3.6.2 Proportion of bank filtrate and groundwater in the wells; 3.6.3 Attenuation of coliforms, turbidity and dissolved organics
3.6.4 Ionic composition of waters3.6.5 Comparison with previous literature; 3.7 Conclusions; Acknowledgments; 3.8 References; Chapter 4: Application of bank filtration in aquifers affected by ammonium - The Delhi example; 4.1 Introduction; 4.2 Nitrogen; 4.2.1 Occurrence and effects; 4.2.2 Guideline values; 4.2.3 Nitrogen in surface water bodies; 4.2.4 Nitrogen in sewage water; 4.3 The Delhi Case Study; 4.3.1 Overview; 4.3.2 Study area; 4.3.3 Field studies; 4.3.4 Laboratory studies; 4.3.5 1D Transport modelling; 4.4 Overview of Remediation and Post-Treatment Options
4.5 Conclusion and Recommendations