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Nota di contenuto	Part I: Introduction -- Chapter 1. Introduction to “Sustainable Water Solutions in the Western Desert, Egypt: Dakhla Oasis” (Abdelazim M. Negm) -- Chapter 2. The Egyptian Western Desert: Water, Agriculture and the Culture of Oases Communities (Soheer Hussien Ibrahim Mohammed) -- Part II: Geology, Geomorphology, Archaeology and Climate -- Chapter 3. The Geology of Dakhla Oasis, Western Desert, Egypt (El-Sayed Zaghoul) -- Chapter 4. Geomorphology of Dakhla Depression (Atef Moatamed A. Mohamed) -- Chapter 5. Archaeological Sites in Dakhla Oasis, Western Desert, Egypt (El-Sayed Abbas Zaghoul) -- Chapter 6. Climate Features of Dakhla Oasis (Reiji Kimura) -- Part III: Land use, soil and Cultivation -- Chapter 7. Aeolian Sand Transport Potential and its Environmental Impact in Dakhla Oasis, Egypt (Abbas M. Sharaky) -- Chapter 8. Soil Conditions of Dakhla Oasis, Western Desert, Egypt (Abdelaziz Belal) -- Chapter 9. Remote Sensing and GIS for Land Use / Land Cover Change Detection in Dakhla Oasis (Adel Shalaby) -- Chapter 10. Crop Diversification and its Efficiency in Rashda Village, Dakhla Oasis (Erina Iwasaki) -- Part IV: Hydrological Aspects and Water Resources. Chapter 11. Hydrogeological and Hydrological Conditions of Dakhla Oasis (Salwa F. Elbeih) -- Chapter 12. History of Wells in Rashda Village (Erina Iwasaki) -- Chapter 13. Development of Land Use and Groundwater in Rashda Village (Dakhla

Oasis), 1960s-2018 (Erina Iwasaki) -- Chapter 14. Detecting and Controlling the Water Logging in El-Dakhla Basin (El-Sayed E. Omran) -- Chapter 15. Hydrogeophysical Investigations Using DC Resistivity Survey to Assess the Water Potentialities of the Shallow Aquifer Zone in East of Dakhla Oasis, Egypt (Khaled S. Gemal) -- Part V: Conclusions -- Chapter 16. Update, Conclusions, and Recommendations of "Sustainable Water Solutions in the Western Desert, Egypt" (Erina Iwasaki).

Sommario/riassunto

This book is a multidisciplinary manuscript bringing together contributions on water issues from natural and social scientists focused on water management and structures in a challenging environmental situation such as Dakhla Oasis in Egypt's western desert. The authors of this book are relevant scientists in hydrology, geology, remote sensing, agriculture, history, and sociology. It is devoted to various critical environmental topics such as geological and hydraulic structure, climate influence, underground water management, irrigation management, and human settlement. The book provides a range of new perspectives on solving different environmental problems in arid zones toward the region's sustainable development, based on the case studies and fieldwork in the Dakhla Oasis (Western Desert, Egypt). .
