1. Record Nr. UNINA9910798400603321 **Titolo** The California Nitrogen Assessment: Challenges and Solutions for People, Agriculture, and the Environment / / Thomas P. Tomich Pubbl/distr/stampa Berkeley, CA:,: University of California Press,, [2016] ©2016 **ISBN** 0-520-96223-0 1 online resource (341 pages): illustrations, maps Descrizione fisica 631.8/409794 Disciplina Soggetti Nitrogen - Environmental aspects - California Nitrogen cycle - Environmental aspects - California Nitrogen fertilizers - Government policy - California Biodiversity conservation - California Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia "Collaborating Institutions: Agricultural Sustainability Institute at UC Note generali Davis, UC ANR Sustainable Agriculture Research and Education Program, UC ANR Kearney Foundation of Soil Science, UC ANR Agricultural Issues Center, UC ANR California Institute for Water Resources, Water Science and Policy Center at UC Riverside." Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front matter -- CONTENTS -- LIST OF ONLINE APPENDICES -- LIST OF BOXES -- LIST OF FIGURES -- LIST OF TABLES -- LIST OF MAPS --PREFACE -- ACKNOWLEDGMENTS -- LIST OF CONTRIBUTORS --MEMBERS OF THE TECHNICAL ADVISORY COMMITTEE -- MEMBERS OF THE STAKEHOLDER ADVISORY COMMITTEE -- LIST OF REVIEW EDITORS -- LIST OF SCIENTIFIC REVIEWERS -- COMMON ACRONYMS AND ABBREVIATIONS -- CHEMICAL FORMULAS -- 1. Introducing the California Nitrogen Assessment -- 2. Underlying drivers of nitrogen flows in California -- 3. Direct drivers of California's nitrogen cycle --4. A California nitrogen mass balance for 2005 -- 5. Ecosystem Services and human well-being -- 6. Scenarios for the future of nitrogen management in California agriculture -- 7. Responses: Technologies and practices -- 8. Responses: Policies and institutions -- REFERENCES -- INDEX

Nitrogen is indispensable to all life on Earth. However, humans now

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dominate the nitrogen cycle, and nitrogen emissions from human activity have real costs: water and air pollution, climate change, and detrimental effects on human health, biodiversity, and natural habitats. Too little nitrogen limits ecosystem processes, while too much nitrogen transforms ecosystems profoundly. The California Nitrogen Assessment is the first comprehensive account of nitrogen flows, practices, and policies for California, encompassing all nitrogen flows-not just those associated with agriculture-and their impacts on ecosystem services and human wellbeing. How California handles nitrogen issues will be of interest nationally and internationally, and the goal of the assessment is to link science with action and to produce information that affects both future policy and solutions for addressing nitrogen pollution. This book also provides a model for application of integrated ecosystem assessment methods at regional and state (subnational) levels.