Florida A&M University College of Law

Scholarly Commons @ FAMU Law

Faculty Books and Book Contributions

Faculty Works

2015

Climate Change Impacts on Ocean and Coastal Law: U.S. and International Perspectives

Randall S. Abate Florida A & M University College of Law

Follow this and additional works at: https://commons.law.famu.edu/faculty-books

Part of the Environmental Law Commons, Human Rights Law Commons, International Law Commons, and the Law of the Sea Commons

Recommended Citation

Abate, Randall S., "Climate Change Impacts on Ocean and Coastal Law: U.S. and International Perspectives" (2015). *Faculty Books and Book Contributions*. 3. https://commons.law.famu.edu/faculty-books/3

This Book and Chapter is brought to you for free and open access by the Faculty Works at Scholarly Commons @ FAMU Law. It has been accepted for inclusion in Faculty Books and Book Contributions by an authorized administrator of Scholarly Commons @ FAMU Law. For more information, please contact paul.mclaughlin@famu.edu.

Contents

Editor and Contributor Biographies xiii Acknowledgments xxix Foreword xxxi

> Robin Kundis Craig, William H. Leary Professor of Law, University of Utah, S.J. Quinney College of Law

Preface xxxvii
Introduction xxxix

1. Climate Change Impacts on Ocean and Coastal Law: Scientific Realities and Legal Responses 1

Randall S. Abate, Professor of Law and Director, Center for International Law and Justice, Florida A&M University College of Law

Dr. Sarah Ellen Krejci, Oceanographer and Adjunct Professor, Bethune-Cookman University

UNIT I OCEANS 25

- A. Ocean Governance Challenges in the United States <u>Ocean Acidification</u>
- Curbing CO₂ Pollution: Using Existing Laws to Address Ocean Acidification 27
 Miyoko Sakashita, Senior Attorney and Director of the Oceans Program,
 Center for Biological Diversity
- 3. Using the Clean Air Act to Address Ocean Acidification 43 Dr. Margaret E. Peloso, Attorney, Vinson & Elkins LLP

Fisheries and Marine Habitat

Introduction to the Magnuson-Stevens Act 65

11. The Impact of Marine Invasive Species on Endangered Species Protection Efforts in a Changing Ocean Environment 235

Eric V. Hull, Associate Professor, Florida Coastal School of Law

- B. International Ocean Governance Challenges Introductory Context
- 12. Climate Change and the International Law of the Sea: Mapping the Legal Issues 253

Dr. Marcos A. Orellana, Senior Attorney and Director of the Human Rights and Environment Program, Center for International Environmental Law (CIEL)

Polar Regions

- 13. Governance of Arctic Ocean Marine Resources 273
 - Dr. Kamrul Hossain, Senior Researcher, Northern Institute for Environmental and Minority Law (NIEM) of the Arctic Centre, University of Lapland
- 14. Climate Change and the Shifting International Law and Policy Seascape for Arctic Shipping 299

Dr. David L. VanderZwaag, Professor of Law and Canada Research Chair in Ocean Law & Governance, Marine & Environmental Law Institute, Dalhousie University, Schulich School of Law

15. Governance of Climate Change Impacts on the Antarctic Marine Environment 315 Elizabeth Burleson, Director, BurlesonInstitute.org Jennifer Huang, International Fellow, Center for Climate and Energy Solutions

Other International Ocean Governance Challenges

16. Climate Geoengineering and Dispute Settlement under UNCLOS and the UNFCCC: Stormy Seas Ahead? 345

Dr. Meinhard Doelle, Professor of Law, Associate Dean of Research, and Director, Marine & Environmental Law Institute, Dalhousie University, Schulich School of Law

17. The Regulation of Ocean Fertilization and Marine Geoengineering under the London Protocol 367

Bettina Boschen, PhD Research Associate, Netherlands Institute for the Law of the Sea (NILOS), Utrecht University

4. Moving Targets: Fisheries Management in New England in the Midst of Climate Change 73

Susan E. Farady, Assistant Professor of Ocean Studies and Marine Affairs, University of New England

5. Responding to Climate Change Impacts to Fisheries and Marine Habitat in the Gulf of Mexico 91

Dr. Richard J. McLaughlin, Endowed Chair for Marine Policy and Law, Harte Research Institute, Texas A&M University, Corpus Christi

6. Climate Change Impacts to Fisheries and Habitat in the Pacific and the Arctic 109

Janis Searles Jones, Chief Operating Officer, Ocean Conservancy Ivy Fredrickson, Staff Attorney, Ocean Conservancy Adena Leibman, Staff Attorney, Ocean Conservancy

7. The Endangered Species Act and Marine Species Protection in the Climate Change Era 133

Alexis K. Segal, Founder, Biscayne Bay Waterkeeper; Everglades Foundation Fellow; and currently serving as Ecosystems Policy Advisor at Council on Environmental Quality

Offshore Energy

8. Offshore Wind and Wave Energy and Ocean Governance 153 Megan E. Higgins, Senior Environmental Scientist, Tetra Tech, Inc. Jason Busch, Executive Director, Oregon Wave Energy Trust

Marine Mammals

9. Marine Mammal Protection Act Implementation in an Era of Climate Change 193 Keith W. Rizzardi, Assistant Professor, St. Thomas University School of Law, and Chairman, Marine Fisheries Advisory Committee

Marine Invasive Species

10. Confronting the Marine Invasive Species Threat: Practical and Legal Challenges 215

Stephanie Showalter Otts, Director of the National Sea Grant Law Center and the Mississippi-Alabama Sea Grant Legal Program, University of Mississippi School of Law

18. Law, Climate Change, and the Marine Environment in the Indian Ocean Region 393

Dr. Erika J. Techera, Professor and Dean of Law, The University of Western Australia

UNIT II | COASTS 417

- A. Climate Change Adaptation: National and Regional Perspectives in the United States
- 19. Climate Change and the Coastal Zone Management Act: The Role of Federalism in Adaptation Strategies 419

Chad J. McGuire, Associate Professor of Environmental Policy and Chair, Department of Public Policy at the University of Massachusetts-Dartmouth

- 20. Coastal Construction and Beach Nourishment in the New Climate 439 Patrick W. Krechowski, Of Counsel, GrayRobinson; City Attorney, Neptune Beach, Florida; and Adjunct Professor, Florida Coastal School of Law
- 21. Temporary Takings, More or Less 461 Timothy M. Mulvaney, Professor, Texas A&M University School of Law
- 22. Climate Change Adaptation Strategies in New England 479 Julia B. Wyman, Interim Director and Adjunct Professor, Marine Affairs Institute, Roger Williams University School of Law / Rhode Island Sea Grant Legal Program
- B. Climate Change Adaptation: Select State Case Studies
- 23. The Role of Alaska Natives in Climate Change Decision-Making in the Alaskan Arctic 503

David Roche, Staff Attorney, Environmental Law Institute Ramona Sladic, Visiting Attorney, Environmental Law Institute Jordan Diamond, Staff Attorney and Co-Director, Ocean Program, Environmental Law Institute

Dr. Kathryn Mengerink, Senior Attorney and Co-Director, Ocean Program, Environmental Law Institute

24. Rising to the Challenge: California Coastal Climate Change Adaptation 533 Sara C. Aminzadeh, Executive Director, California Coastkeeper Alliance

- 25. Sea-Level Rise and Species Survival along the Florida Coast 557

 Jaclyn Lopez, Staff Attorney, Center for Biological Diversity; Adjunct

 Professor, Stetson University College of Law
- 26. Sea-Level Rise and a Sinking Coast: How Louisiana Coastal Communities Are Addressing Climate Change 575 Melissa Trosclair Daigle, Research Associate, Louisiana Sea Grant Law and Policy Program
- C. Climate Change Adaptation: International and Comparative Law Perspectives
- Coastal Climate Change Adaptation and International Human Rights 593
 Megan M. Herzog, Emmett/Frankel Fellow in Environmental Law and
 Policy, UCLA School of Law
- 28. The Ebb and Flow of Coastal Adaptation in Australia 627 Jan McDonald, Professor of Law, University of Tasmania
- 29. Legal and Policy Responses to Climate Change in the Philippines 647
 Dr. Lowell Bautista, Lecturer, School of Law and Staff Member, Australian
 National Centre for Ocean Resources and Security (ANCORS), Faculty of Law,
 Humanities and the Arts, University of Wollongong

TABLE OF CASES 665 INDEX 671