Engineers are increasingly being called upon to design and construct large scale coastal flood protection facilities that are expected to have long operational lives. Billions of dollars were spent in New Orleans and billions more are being spent in New York City and New Jersey for protection facilities expected to last for 50 to 100 years or more. A major consideration in such cases is sea level rise due to climate change. The federal government has recently required all agencies to develop long term plans to address all aspects of climate change. The most recent of these is from the Department of Defense, indicating sea level rise, loss of sea ice, and changing weather patterns are issues of major concern for our national defense and its facilities around the world.

Dr. Clough reflects on these growing national issues through the lens of his own experiences beginning with his four year service as Chair of the National Research Council Committee on New Orleans Regional Hurricane Protection Projects and continuing through his observations of work done by over one hundred Smithsonian scientists related to climate change. As Secretary of the Smithsonian he was integrally involved in planning to protect Smithsonian museums and facilities that are at risk from storm surges and sea level rise. He concludes with advice about the practical and policy issues that increasingly are facing the engineering profession on matters related to climate change.”