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CHAPTER 31

Conclusions

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In the field of flood risk reduction, comparative international work is rare. Even more so are book-length treatments that look not only across international boundaries, but disciplines as well. *Coastal Flood Risk Reduction* does just that and more. This book is the most systematic, integrated, and detailed study of flooding ever produced between the Netherlands and the Upper Texas Coast in the United States. Based on an ongoing 6-year collaborative investigation, **43** authors representing numerous academic entities in both countries contributed **35** chapters addressing seemingly every angle of the problem and their potential solutions. Even more unique, this body of work is driven by a place-based research and learning approach to address floods, where students provide the inspiration for inquiry and innovation.

The book organized many different perspectives through five major thematic areas associated with flood risk reduction: (1) predicting floods based on environmental and physical characteristics, (2) investigating the socioeconomic and political drivers of flood risk, (3) examining the role of planning, design, and the built environment, (4) finding solutions that enhance flood resiliency, and (5) assessing the impact of place-based and authentic learning. These themes provide an analytical framework in which expositions move from tulips to tacos, and back again.

In telling this story, we span multiple disciplines, scales, methods, and solutions all aimed at increasing resiliency to floods not just within the two countries, but also around the world. For example, ocean engineers wonder how the movement of sand in coastal environments may form the first line of defense against flooding. Hazard economists assess the risks, benefits, and costs of decision-making. Environmental planners focus on the impacts of development and local plans in reducing future flood risk. Landscape architects probe the effectiveness of nature-based approaches and the incorporation of green infrastructure in urban design. Educators describe how to provide students with integrative research and authentic learning experiences. And, students tell their own research stories stemming from an immersive place-based approach to learning about local issues in both countries. Above all, this book is about leveraging research to find solutions that reduce the adverse impacts of floods—whether that entails constructing

a major surge barrier, protecting open spaces or critical habitats, communicating risk to local residents, or some combination thereof.

Integrated comparisons of flood issues across international boundaries, combined with a collective focus on problem solving is what sets this book apart from others. Only by looking beyond borders and across disciplines can we fully understand and potentially solve such a complex, global problem. Moreover, the transfer of knowledge across sites, regions, and countries provides invaluable insights into flood risk reduction that cannot be gained by less holistic work. Readers can draw from lessons learned in the upper Texas coast and the Netherlands, and apply this knowledge to their own localities, contexts, or situations around the world.

However, this book focuses on just two countries in two areas of the world. More work is needed comparing and integrating findings from many more flood-prone regions coping with rapid development, environmental change, and inundation threats coming from both the sky and the sea. Additional studies are especially needed in Asian, African, and island nations. *Coastal Flood Risk Reduction* should be just the start of future work on flooding as a transboundary, multidisciplinary problem addressed through in-depth, place-based, comparative investigations.