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A FIVE-YEAR RESEARCH PROGRAM IN ONE BOOK

READING GUIDE

Dr Baukie Kothuis was a Postdoc in the STW-MFDD program at the Faculty of Technology, Policy & Management, TU Delft in the project ‘Integrated Design’. Currently she works at the Faculty of Civil Engineering & Geosciences as a researcher in the NWO Program ‘Integral & sustainable design of ports in Africa’ and for TU Delft and Texas-based universities as an independent consultant and co-PI in the NSF-RIE research and education exchange program ‘Coastal Flood Risk Reduction’ to develop partnerships for international research and education.

A whole five-year research program in one book? That is no doubt impossible. The true record of our efforts can be found in multimedia of papers, reports, journal articles, posters, presentations and, ultimately, twelve dissertations across multiple disciplines. However, to create an overview for various interested parties, to hint at where to start looking for in-depth disciplinary knowledge and, not unimportantly, to communicate the efforts and outcomes of integral design, is what we hope to provide for with this book.

In the Table on page 14, the up-to-date of the STW Perspective ‘Multifunctional Flood Defenses research program (MFDD)’ is summarized. Two research lines were envisioned to address the anticipated challenges. The research questions arising from these challenges were ultimately translated into eight research projects:

- Hydraulic impact of overlapping waves on a multifunctional flood defense;
- Structural assessment of multifunctional flood defenses;
- Safety and reliability assessment of multifunctional flood defenses;
- Urban design challenges and opportunities of multifunctional flood defenses;
- Contributions of multifunctional flood defenses to landscape values and spatial quality;
- Governance and finance of multifunctional flood defenses;
- Design support for multifunctional flood defenses; and
- Adaptive capacity and robustness of multifunctional flood defenses.

The white pages in this book describes disciplinary knowledge developed within these research projects, including methods and approaches. Case studies where this knowledge often derived from

Finally, we would like to thank all contributors to the program, to this book, to the case studies, and to all of our other knowledge development efforts; we hope this book will be an inspiration for anyone who is involved in one way or another in the integral design of multifunctional flood defenses.