Introduction

Extreme weather events and associated increasing floods events across the world has brought the need to intensify community action in flood risk management efforts. Despite significant investments in the provision of flood infrastructure, structural defences are often overwhelmed by the frequency and intensity of recent floods. This means that, communities face increasing flood risk which calls for urgent action to intensify community-based flood risk initiatives. This is particularly critical in the knowledge that, while communities are generally not well-prepared to cope with floods, their activities can exacerbate the impact of floods. Moreover, flooding is influenced by geography, and climate and flood risk management initiatives are also shaped by economic circumstances, governmental policies and socio-cultural factors. There is therefore the need for an understanding of the best practices across the world including how government policies and cultures are influencing appropriate risk-taking behaviours toward recognising sustainable community initiatives. Thus, this handbook is at the core of understanding enhanced community-based flood risk initiatives that are making positive impact, and are influencing the perceptions, behaviours and cumulative resilience at the community level.

This edited book is therefore seeking to understand community-based flood risk management from an international perspective, focusing on practices that have received recognition and making positive impact, resulting in resilience-enhancing actions. Within this context, the emphasis is on understanding community efforts in mobilizing resources for engagements in communication task force, evacuation, and recovery; before, during and after flood incidence. This emphasis on community action aligns very much with Gilbert Fowler Whites' plain philosophy of “learning to live with Water” and the 2015 Sendai Framework focus on enhancing community effort in disaster risk reduction, as the 21st Century approach to building resilient communities. Hence, this handbook represents a unique addition to the flood risk management literature.

Book Structure

Section I: Building on local knowledge and nature-based solutions
Section II: Governance and community response
Section III: Community-based flood resilience
Section IV: Flood insurance options and support systems
Section V: Technologies to support community flood Initiatives.

Content and scope of chapters

The chapter should focus on the current state of affairs and of the research in that particular area (except for historical-comparative practices (in item 5 below) with the potential of providing new insight for the future). It should however not be overly descriptive, but instead give your critical analysis of the matter and contain suggestions for improvement and further developments. As such articles may do one of the followings:

1. Systematic Review: Present a thorough/systematic review of current research in an area pointing to future research direction.
2. Overview of research: Present a full overview of research in an area followed by highlighting some interesting themes perhaps drawing on the authors’ own research.
3. Case Study: Present a case study of good practice in regard to a specific aspect of flood risk management and drawing on real life projects, cases, processes and experiences
4. Action Research: Presents an action research seeking to demonstrate the use of applied research in incorporating ordinary or popular knowledge in creating public awareness and empowering communities.
5. Historical-comparative research: Presents a historical-comparative evaluation focussing on historical rather than contemporary practices including how nature-based solutions have been used in flood control across different cultures and useful lessons for modernity.