

Preface

With the frequency and variability of floods increasing due to urbanization, along with population growth in flood-prone areas, land-use changes, potential climate change and a rise in sea levels, the number of people exposed to devastating floods is expected to rise. Flood risk management actions are therefore increasingly required to build up the capacity necessary to cope with floods.

On 27–29 September 2011, the 5th International Conference on Flood Management (ICFM5) was held in Tokyo, Japan. More than 250 participants travelled to Tokyo from 41 nations to join about 200 other participants from Japan to attend the conference. ICFM is the only recurring international conference focused solely on flood-related issues. The umbrella title of ICFM5 was “Floods: From Risk to Opportunity”. In order to implement this concept, a paradigm shift is necessary from focusing on emergency response and recovery to flood risk management. This process should be supported by vulnerability monitoring and development of tools such as standards to measure risk and preparedness level in an integrated approach in order to build capacity for better response to floods by taking advantage of their benefits while at the same time minimizing their social, economic and environmental risks.

The ICFM5 Secretariat at the International Centre for Water Hazard and Risk Management (ICHARM) under the auspices of UNESCO received 417 abstracts covering all the announced topics. An international scientific committee reviewed all submitted abstracts for relevance to the ICFM5 objectives. Over 260 abstracts were selected for oral and poster presentation at the conference and authors of 130 selected abstracts were invited to submit their full papers in order to be considered for three post-conference publications, including this IAHS Red Book.

All submitted papers were peer-reviewed by external reviewers and the final 49 papers were selected for publication in this volume after they met all requirements made by reviewers. We know the other papers are a product of hard work with useful information and insights but had to limit the number of papers due to the publication capacity, and ask the authors for their understanding. The papers in this volume are published in five sections as follows:

- Section 1, with one introductory paper on Floods: From Risk to Opportunity and the ICFM5 Declaration
- Section 2, with 16 papers on Flood Risk Management (Prevention, Mitigation and Adaptation)
- Section 3 with 10 papers on Flood Disaster Management (Preparedness, Emergency Response and Recovery)
- Section 4 with 14 papers on Flood Forecasting and Early Warning Systems
- Section 5 with 8 papers on Flood Management in Different Climate Conditions and Geographic Zones

We would like to extend our great appreciation to all contributors to the success of ICFM5, with special thanks to the international scientific committee and co-editors of this publication for accepting our invitation to peer-review selected papers. Finally, we hope that this book promotes fruitful discussions on flood risk management and that outcomes will be soon put into practice to save more lives and livelihoods.

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