

PREFACE

The Disaster Risk Management Knowledge Centre has produced this flagship science report as a contribution to the Science and Technology Roadmap of the Sendai Framework for Disaster Risk Reduction.

This report is the result of the multi-sectorial and multi-disciplinary networking process and represents the combined effort of more than two hundred experts.

It will support the integration of science into informed decision making through synthesizing and translating evidence for disaster risk management and strengthening the science-policy and science-operation interface.

EXPECTATIONS

This report aims to provide reviews of scientific solutions and their practical use in various areas of DRM in Europe. It is comprehensive in scope but selective in topic and is written in a format that is intended to be accessible to all DRM actors. The reviews of the scientific evidence base are summaries of (1) recent advances/outcomes of EU research projects, (2) relevant national work and (3) relevant international work.

The report aims to bridge science and policy as well as operation communities. The intended audience consists of practitioners and policy makers in addition to experts from different scientific disciplines. It seeks to understand the scientific issues of relevance to their work; specifically civil protection operations and disaster risk policy, but equally climate adaptation policy. The audience includes government officials at EU, national, regional and local levels interested in finding better ways to use science, and also scientists to help them understand work in other disciplines that would allow the identification of possible cross-sectoral synergies and needs from practitioners.

THE PROCESS

The Disaster Risk Management Knowledge Centre has committed to producing a series of reports to analyse, update the state of the art and identify research and innovation gaps in the field of DRM. Each report will be multi-hazard, multi-disciplinary, and will address the full disaster risk cycle; it will have

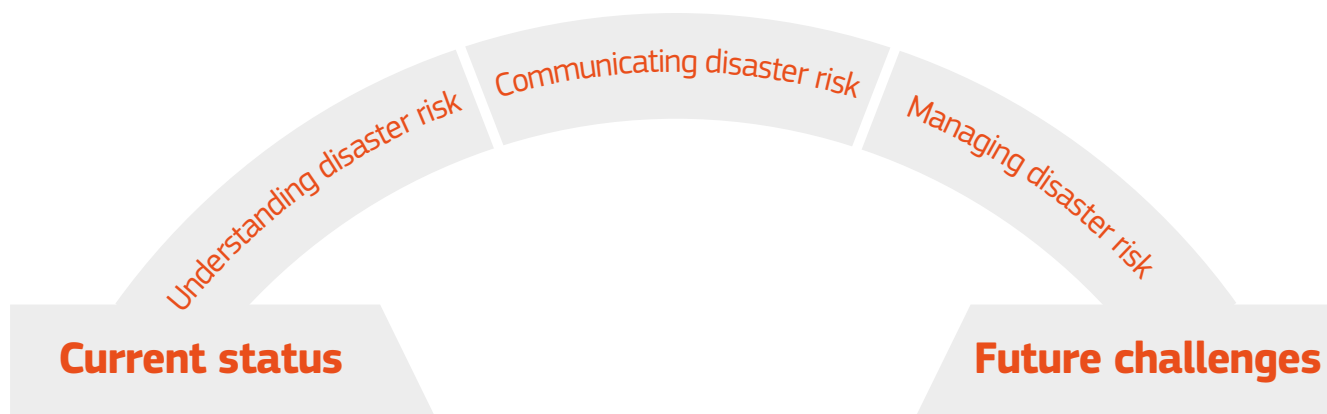
scientific-oriented contributions presenting the state of science, and practitioner-oriented contributions presenting the use of science.

The process started in January 2016, when the DRMKC working group defined expectations and developed the outline of this report, the first in the series. The process was run by the JRC Editorial Board of 4 members with strong support from the European Commission Advisory group of 79 experts in specific topics. The writing phase was carried out by Author teams consisting in total of 8 Coordinating Lead Authors, 3 Facilitators, 34 Lead Authors and 140 Contributing Authors. The drafts were circulated for formal review to 123 scientific experts, policymakers and practitioners. The preparation of the report succeeded in pulling together a network of 273 contributors from 26 mostly European countries and 172 organizations. It has been endorsed by 11 European Commission Services and will be officially released at the Global Platform for Disaster Risk Reduction in May 2017.

STRUCTURE

Understanding disaster risk to manage it is one of the main focus of Sendai Framework. This perspective already opens two big issues: understanding disaster risk with the focus on scientific evidence, and managing disaster risk with the focus on knowledge applied by different actors. In order to convey the DRMKC's mission of bridging science and the policy/operation community, the issue of communicating disaster risk has been introduced with a

The "Bridge concept"



strong focus on how to successfully overcome barriers to implementing knowledge in the field of DRM.

The scope of the report is divided conceptually into three distinct parts: understanding disaster risk, communicating disaster risk and managing disaster risk, forming the “bridge concept” of the report.

The “Understanding disaster risk” part has been split into two chapters: Chapter 2, covering risk assessment methodology and examples in general, and Chapter 3 that provides a comprehensive overview of hazard related risk issues, the structure of which follows the Sendai taxonomy of hazard classification. Chapter 4 on “Communicating disaster risk” tackles many issues on communication in different phases of DRM among different actors. Chapter 5 “Managing disaster risk” addresses the governance issues of the full disaster risk cycle.

The first and last chapter wrap the scope of the report into a whole.

Chapter 1 “Current status of disaster risk management and policy framework” aims to explain why recent global and European initiatives are beginning to seek help to strengthen society’s resilience by using science and technology. The final Chapter 6 “Future challenges of disaster risk management” aims to inform decision makers and practitioners of existing science that should find its way into legislative form and practice as well as tackling a much more challenging purpose: to recognise knowledge gaps that could serve as valuable reference based input for a Horizon2020 call.

ACKNOWLEDGEMENTS

We wish to express special thanks to all the Coordinating Lead Authors, Lead Authors, Contributing Authors, Reviewers and EC Advisors. Without their expertise, experiences and a huge commitment to a cause, this report with such a holistic understanding of both disaster risk and disaster risk management could never have been completed.

It is our pleasure to invite you to explore the content of this report and we wish you pleasant and informative reading.

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