Disaster Risk Management Knowledge Centre (DRMKC):
First in a series of DRMKC Periodic Science Reports

Challenges in DRR
28 -29 June 2017, Varese, IT

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Joint Research Centre
the European Commission's in-house science service

Joint Research Centre
JRC Science Hub: ec.europa.eu/jrc

Ensuring the uptake of science in DRM policy formulation and implementation.

http://drmkc.jrc.ec.europa.eu/
DRMKC Large scientific community for DRM

EC Directorates

- DEVCO
- HOME
- ECHO
- GROW
- JRC
- CLIMA
- REGIO
- RTD
- ENV
- SANTE

Community of Users H2020
Science for Policy

DRMKC

PARTNERSHIP
1. Hazard Scientific Partnerships
2. Science Policy Interface

KNOWLEDGE
3. Pooling of Research Results
4. Identification of research needs and gaps

INNOVATION
5. Networks of Laboratories
6. Support System

Serving

Member States

EC

NGOs

UN

Others
What?

3 Pillars

**PARTNERSHIP**
Improving science based advice through networks and partnership

- **Where knowledge begins**
  Fostering EU-level disaster science networks in support to the European Response Coordination Centre (ERCC) and Member States.

- **Where knowledge applies**
  Improving the science-policy interface by providing science-based advice to policy development services and support to Member States for policy implementation.

**KNOWLEDGE**
Improving the use and uptake of research and operational knowledge

- **Where knowledge meets**
  Pooling of information and granting access to scientific results and expertise to boost transfer of research outputs to end-users.

- **Where needs are identified**
  Disseminating knowledge, research results and information looking for identification of research needs and gaps in disaster risk and crisis management.

**INNOVATION**
Advancing technologies and capacities in disaster risk and crisis management

- **Where gaps are filled**
  Implementing a Support System for Member States providing scientific and technical advice for harmonized development.

- **Where innovation is tested**
  Developing dedicated technologies and capabilities to support different types of emergency management operations and disaster recovery processes.

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European Commission
Objective 4

DRMKC periodic scientific reports will fill the gap in preparation for Sendai framework for DRR and show possibilities to strengthen society’s resilience by using science and technology.
The process ...

1. EXPECTATIONS
2. BRIDGE CONCEPT
3. ORGANIZATIONAL STRUCTURE
4. WRITING PHASE
5. REVIEW PHASE
6. PUBLISHING

After 18 months

2016 January

The result... SCIENCE FOR DRM 2017

Knowing better and losing less

2017 May
### SCIENCE FOR DRM 2017: Knowing better and losing less

#### Expectations at the conceptual level

<table>
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<tr>
<th>Title</th>
<th>Science for DRM</th>
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<tr>
<td>Purpose</td>
<td>Reviews of the scientific solutions in DRM for policy makers, practitioners and scientists.</td>
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<tr>
<td>Focus</td>
<td>European contributions, but on topics that can be global scale</td>
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<tr>
<td>Scope</td>
<td>Comprehensive in scope but selective in topics</td>
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<tr>
<td>Message</td>
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</table>
Purpose: show practical use of scientific knowledge in DRM actions in Europe

**WHY?**
Mission of DRMKC

**FOR WHO?**
For the needs of
Target Readers
Experts from different fields, practitioners and policy makers

**HOW?**
Adjusting Level of complexity
clarify patterns within complex systems

**INTERF ACE**
Knowledge (science, experts)
Users (Policy, CP, MS, experts)
The report shall focus on European contributions, but on topics that can be global scale (e.g. global risk assessments).
Scope

- Comprehensive in scope but selective in topics

State of science

European research

Scientific solutions in DRM

Underlying scientific evidence base

Current status of DRM

Future challenges of DRM
Bridge concept

Understanding risk to manage it

Current status of DRM

Future challenges of DRM

SDGs

COP21

SFDRR

Key messages tailored to user’s needs

Conclusions for European Research

Conclusions for UNISDR Science and Technology Roadmap
Outline

Science for DRM 2017
Knowing better and losing less

Foreword
Preface
Executive Summary

1. **Current status of DRM and policy frameworks**
2. **Understanding disaster risk 1: Risk assessment methodologies and examples**
3. **Understanding disaster risk 2: Hazard related risk issues**
4. **Communicating disaster risk**
5. **Managing disaster risk**
6. **Future challenges of DRM**
Organizational structure

Their work is closely **interrelated** but still **independent**.

**Authors team**
- **Coordinating Lead Authors**
- **Lead Author**
- **Contributing Authors**

**Review process**

**Reviewers:**
- **Scientific experts** (Accuracy and completeness of scientific data)
- **Target readers** (Accessibility and relevance of information)
160 Authors
123 Reviewers
172 Organizations
26 Countries
79 EC Advisors
11 DGs

273 Contributors

Scientific experts
Policy makers
Practitioners
Other DRM actors
SCIENCE FOR DRM 2017: Knowing better and losing less
Now available online
http://drmkc.jrc.ec.europa.eu/knowledge/Challenges-Sharing

Other activities of DRMKC:
• Disaster Loss Data and National Loss Databases
• Collection of Good Practices on Risk Assessment
• Risk Data Hub
• Collection and dissemination of information (website, project browser, newsletter, periodic reports, ...)
• DRMKC Support System

We value your feedback
The topic of the next DRMKC Science Report?

European society
Defined with exposure and vulnerability

This report tackles DRM by

Hazards

Next report may tackle DRM by

Impacts

Loss estimation

Disaster Risk Assessment

1. Disaster risk assessment is one of the most promising methods for assessing losses
2. Disaster risk assessment combines hazard, exposure and vulnerability models
3. The partial results of risk assessment are useful and used to plan DRR measures
The topic of the next DRMKC Science Report?

Next report may be global...

... or focus on developing world...