

Information and Knowledge Management for Disaster Risk Reduction (IKM4DRR) Framework – draft

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1. Introduction

Over the past five years, the domain of disaster risk reduction (DRR) has evolved significantly and has emerged as a topic of global interest and importance. The global dialogues around climate change adaptation (CCA) are also closely linked to DRR.

As a result, there has been a corresponding development and evolution of information and knowledge management systems in the DRR and CCA domains at the global, regional, national, and community levels.

The proceedings of the third session of the Global Platform for Disaster Risk Reduction (2011) reference 28 calls and commitments to enhanced access to information, exchange of information, and improved coherence among information management systems from Regional and National Platforms, Mayors and Private Sector to statements from children and vulnerable groups, to actors in preparedness, health, and climate change.

1.2. Need for IKM4DRR

Information and Knowledge Management for Disaster Risk Reduction (IKM4DRR) enables and sustains informed decision-making for managing disaster risk. Informed decision-making needs a solid information and knowledge base as well as dedicated and skilled professionals.

1.3. Issues in Information and Knowledge Management

The following issues in managing knowledge and information clarify the need for a systematic approach to guide collaboration and decision-making at all levels:

- Information is scattered among various agencies without coherence, coordination and sharing.
- Information about hazard events, exposure, vulnerability, and the impacts of disasters is not systematically collected.
- Different methodologies and tools are used for disaster risk information.
- Standards or structured metadata are lacking.
- Limited analysis has been done to understand the trends, spatial and temporal impacts of potential risks and their impacts.
- Disaster risk information is not systematically used for policy and decision-making in disaster risk management.
- Dedicated capacity and skill development in information and knowledge management are lacking, as well as communication.

1.3. Need for an IKM4DRR Framework

The purpose of this document is to provide a framework to guide the initiation, creation and sustain information and knowledge management for DRR at all levels in order to address the above issues and improve the impact of DRR efforts.

2. Definitions

2.1. Content management (CM)

The process of managing paper and electronic information through its life cycle creation, review, storage and dissemination all the way to their disposal as well as tracking and storing different versions.

2.2. Information management (IM) / Information intermediary

Collecting, processing, organizing, and enabling access to and disseminating to DRR information from multiple sources. Key: transactional approach to information.

2.3 Knowledge management (KM)

Leveraging people, resources, processes and information in order to achieve a strategic objective.

2.3.2 Knowledge translation

Helping people make sense of and apply DRR information. Key: relational approach to information.

2.4. Knowledge brokering (KB)

Improving knowledge use in decision-making by fostering co-production of knowledge.

2.5 Innovation brokering

Changing contexts to enable innovation

2.6. IKM System

A system that provides the user with the explicit information required, in the right form and in the right way the user needs it.

2.7. Disaster Risk Reduction (DRR)

The concept and practice of reducing disaster risks through systematic efforts to analyse and manage causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

3. Principles and key concepts

The following are the key concepts, ideas and principles in developing Information and Knowledge Management initiatives for DRR:

- Standards for information and knowledge management, including:
 - Accessibility
 - Inclusivity
 - Interoperability and compatibility
- Collaborative partnerships to avoid duplication
 - National and regional initiatives sharing data and information
- Proactive, not reactive
- Sustainability
 - Systems managed and up-to-date/current
 - Recognized as an asset and considered to be beneficial
 - Needs of the business or other practice involved addressed
 - User driven (community-based), bottom-up
- Communication is central and strategic: with users and all stakeholders
- Transparency
 - Risk information transparent and open to all
 - Capture and share good practice and failures (ie. 'lessons learnt')

4. Enabling environment

4.1. Policy frameworks and legislation

A major barrier to IKM4DRR can be the economy, politics, social divisions/ castes/privileges, power relations, systematic corruption and attitudes to risk. In this sense, legislation and policy frameworks that address these issues are key. Information sharing should be an obligation under the law and supported by policy.

In addition, DRR should be endorsed by leading agencies and legislations. As much as possible, the same language about DRR should be used, within its appropriate cultural context. There should be appropriate and widely accepted, clear terms and messages associated with DRR "branded" action for impact that reduces risk and vulnerability to disasters.

4.2. Professionalization

- Ensure sufficient capacities and resources
- Provide training, education and capacity development in relevant competencies
- Cultivate information and knowledge professionals in DRR
- Provide public education to enhance awareness and user/audience capacity

5. Elements of a successful system

5.1. Stakeholder engagement and awareness creation

There should be engagement and communication with all concerned stakeholders dialogue among all actors (i.e., governments, parliaments, citizens, organizations) and across all sectors (private, public, UN, etc.); with special attention given to local leaders, indigenous peoples and women shall address:

- awareness about disaster risk and vulnerability, and DRR
- stakeholder networks and communities
- improved understanding between scientists and researchers and all other actors

5.2. Design and planning

- IKM4DRR system demand analysis
 - Establish business case
 - Assess level of readiness
 - Always start with and go back to user demand and needs
 - Engage IKM and communications professionals at the start
- People
 - Focus on user needs
 - Target users and build trust
 - Consult stakeholders
 - Respect indigenous knowledge
 - Communicate with and promote to target users
- Technology
 - Capture and make available disaster risk and disaster loss data.
 - Integrate social media, where appropriate
- Sustainable Funding
 - Budget for the entire IKM4DRR effort

5.3. Content

Information should be captured and made available for analysis, co-creation and synthesis where appropriate. The following are a number of content types currently captured to help facilitate analysis and make sense of disaster risk reduction as a domain of work:

- Disaster losses
- Projects and initiatives
- Institutional capabilities and professional expertise
- Disasters and risk - data and statistics
- Historic disasters and major hazards
- Risk assessment studies / projects
- News and announcements.
- Policy, plans, statements and legislation
- Descriptions of national and regional coordination mechanisms
- Hyogo Framework for Action progress reports (national, regional and local)

- Event calendar of meetings, conferences, training and workshops
- Networks and communities of practice
- Country profiles
- City profiles
- Academic programmes
- Jobs
- Fact sheets
- Methodologies and tools
- Contact directory of organizations and people
- Documents and publications
- Terminology for DRR
- Audio and video content
- Educational materials
- Maps (hazard, risk and vulnerability)
- Social media (microblogs, blogs, networks)
- Online resources (websites and online databases)

5.4. Monitoring and evaluation

- Formulate and use indicators based on action and change.
- Evaluate regularly.
- Communicate evaluation results.
- Evaluate resilience after project has taken place, not during when it is too early to measure resilience.
- Conduct participatory appraisals.
- Accountability processes to measure outcomes based on decisions made (or not made).

5.4.1 Learning from failures and good practice

- Methods and approaches that facilitate the capturing of good practice and flow of information and knowledge.
- Develop smart practice templates.
- Take stock of both failures and successes.

6.0 Communicating impact

- Develop a strategic communication plan - externally and internally
- Share successes and failures in 'lessons learnt'
- Communicate regularly with stakeholders and users – capture their stories