

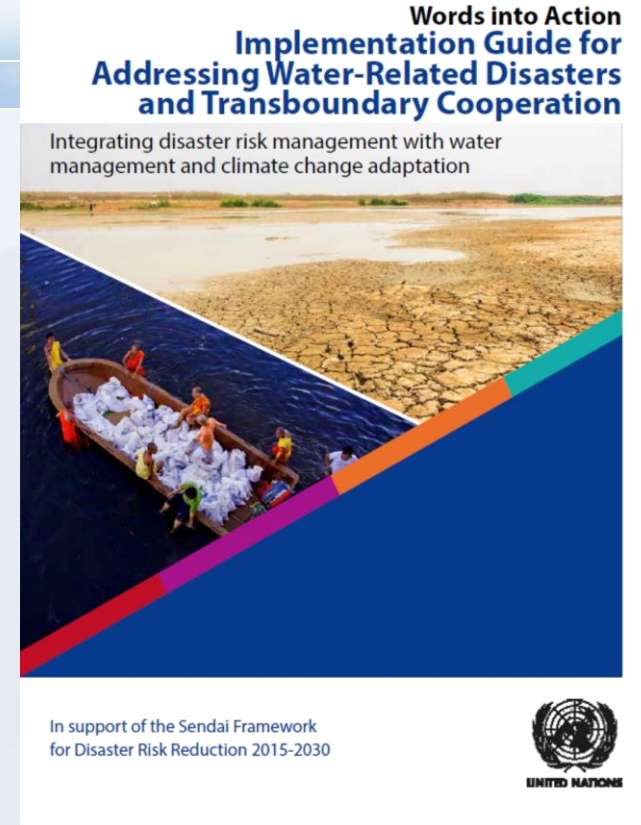
# Implementation Guide for Addressing Water-Related Disasters and Transboundary Cooperation

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# Words into Action

## Implementation Guide for Addressing Water-Related Disasters and Transboundary Cooperation –

*Integrating disaster risk management with water  
management and climate change adaptation*



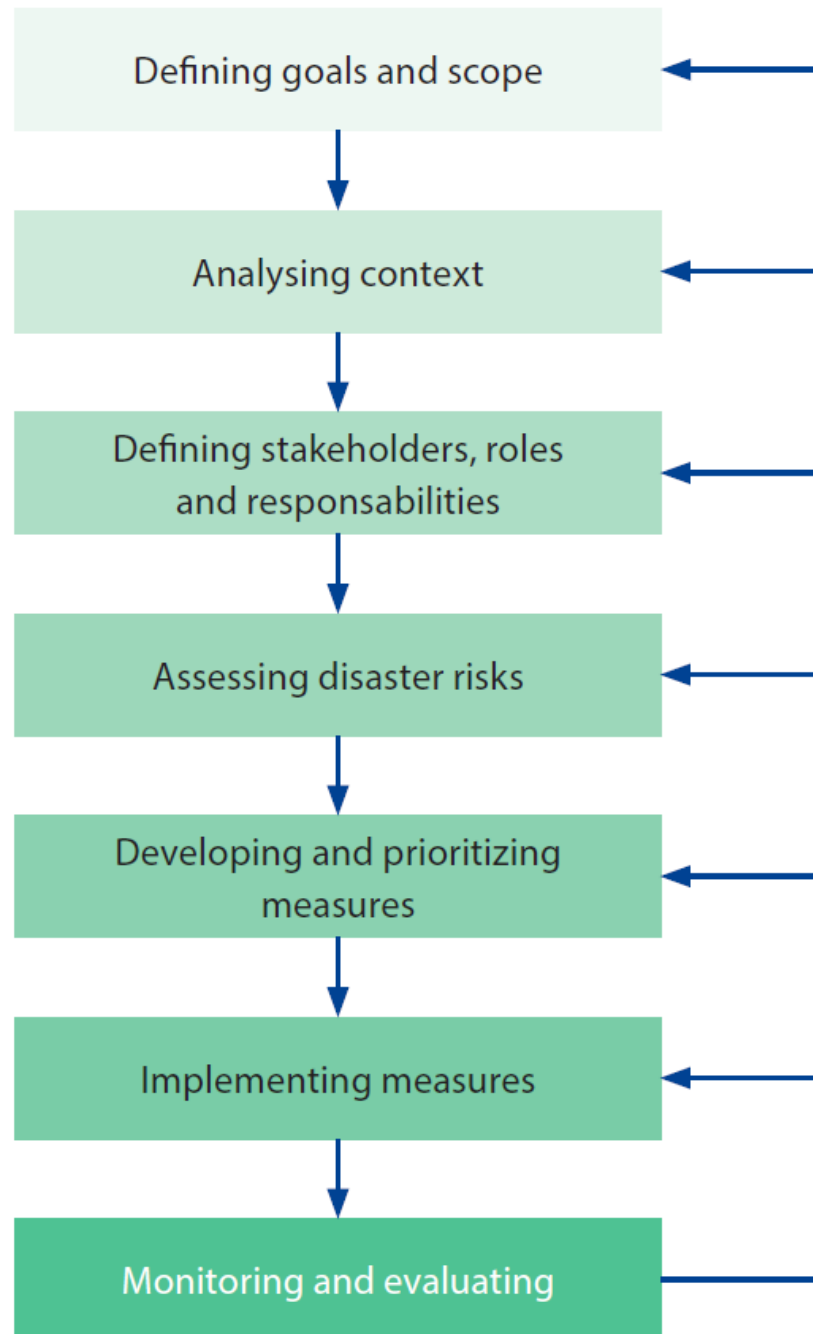
# Aims and scope

- Support to the implementation of the Sendai framework in (transboundary) basins
  - Ensure that IWRM issues are considered at all levels including the international level
  - Ensure that the role of water and basins is taken into account
- Taking into account various international commitments including the Paris Agreement and the Sustainable Development Goals (SDGs)

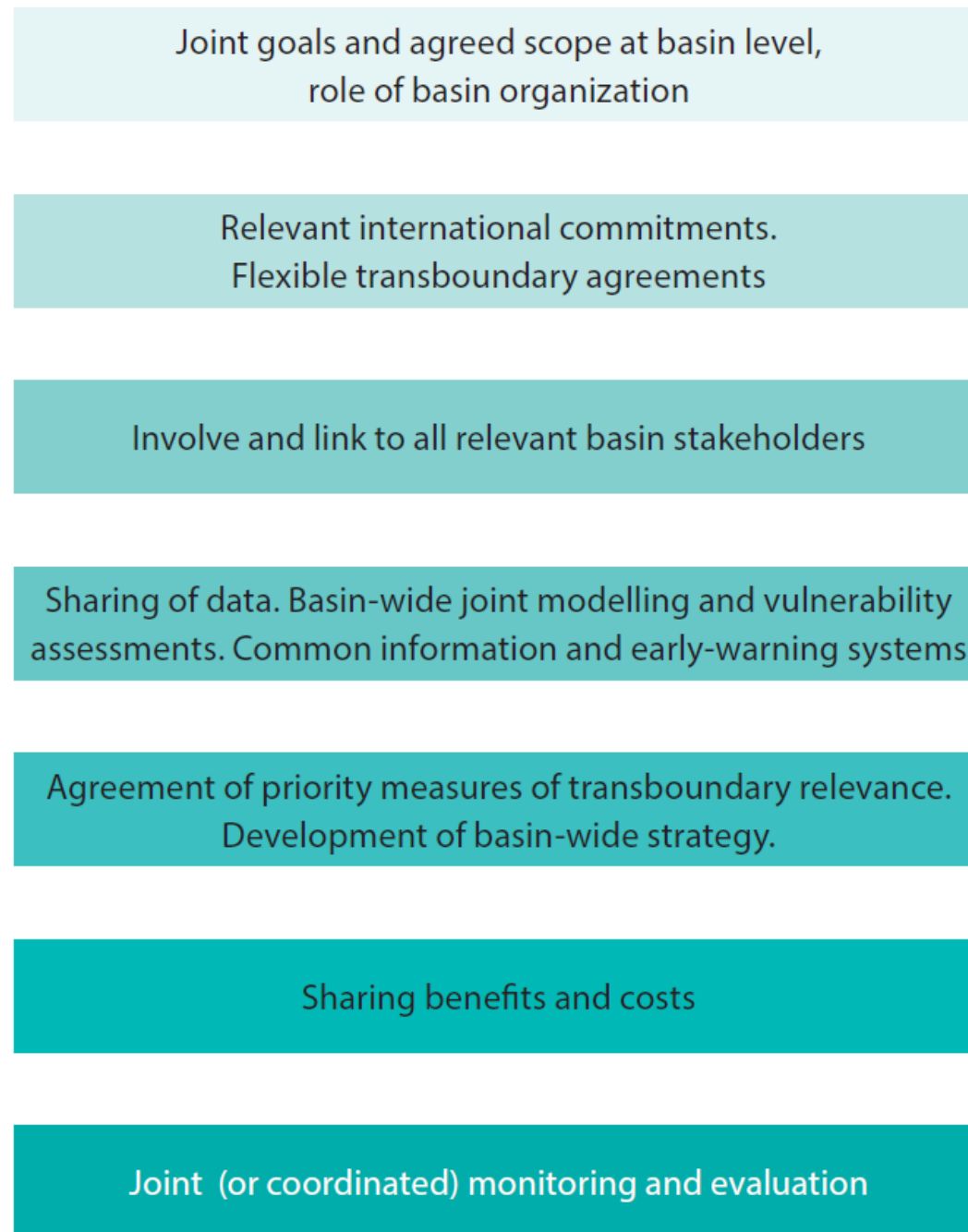
# Target audience

- Practitioners in DRR and water management
  - Water managers and institutions responsible for water management
  - Authorities and institutions responsible for DRR, at local, regional, national and international level
- Also relevant for, but not specifically target water users, a.o. from the industry, agriculture and energy sectors
- The guide will also be brought to the attention of the humanitarian sector and development aid

## Typical steps



## Transboundary cooperation elements



# Contents

- 1 Key messages
- 2 Introduction
- 3 International commitments and legal framework
- 4 Main principles and approaches
- 5 Responsibilities and stakeholders
- 6 Understanding the risks and hazards
- 7 Develop strategies to reduce risk
- 8 Implementation
- 9 Monitoring and evaluation
- 10 Glossary
- 11 References

# Illustrations from cases

- Mekong River
- Niger River
- Scheldt River
- Mississippi River
- Sava River
- Rhine River
- Danube River
- Dniester River
- Lake Titicaca
- Kyrgistan
- Netherlands
- WMO
- European Commission

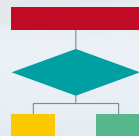
# From basin level to national and local level

- Align national strategies with basin strategy
- Measures implemented at local level - Communication is essential
- Pilot projects
  - Learning by doing
  - Improve understanding
  - Make midcourse corrections
- Exchange of knowledge and experience



# Early warning

- Risk knowledge
- Monitoring and warning service
- Dissemination and communication
- Response capability



1

Real-time data  
collection

2

Modelling &  
forecasting

3

Early warning  
dissemination

4

Decision  
support

5

Response to  
warning

# Ecosystem-based approaches

- Degraded ecosystems are contributing factor for water-related disasters - can propagate downstream in transboundary systems.
- Ecosystems themselves can be heavily damaged from disasters - disturbing ecological balances or even completely turning an ecosystem into a different regime
- DRR and climate change adaptation include:
  - Maintaining / restoring ecosystems to good ecological state
  - Protecting ecosystems from being damaged by disasters
  - Using ecosystems as naturally 'engineered' landscapes to help lessen the impacts of hazards
- Need to integrate DRR (and climate change adaptation measures) into wetlands and other ecosystem management plans and vice-versa

# Stakeholder involvement

- Consultation and participation
- Cross-sectoral
- Across levels – national – regional - local
- Need for capacity development

# Financing

- Regular budget - especially Operations and Maintenance
- Level of measure – level of budget
- Benefit sharing
  - Payment for benefits – compensation for costs
- External financing
- Attribution
- Insurance and reinsurance
  - Incentive for adaptation