
The European Union approach to disaster risk reduction

The Hyogo Framework Priorities and the EU disaster risk reduction policies

Priority 1 Ensure that DRR is a national and local priority with a strong institutional basis for implementation

Minimum standards for disaster prevention

Priority 2 Identify, assess and monitor disaster risks and enhance early warning

Member States to produce own risk assessments 2011

EU overview of risks 2012

Priority 3 Use knowledge, innovation and education to build a culture of safety and resilience

Improving EU knowledge base - Report prepared by the European Environmental Agency (EEA) covering natural and technological disasters

Priority 4 Reduce the underlying risk factors

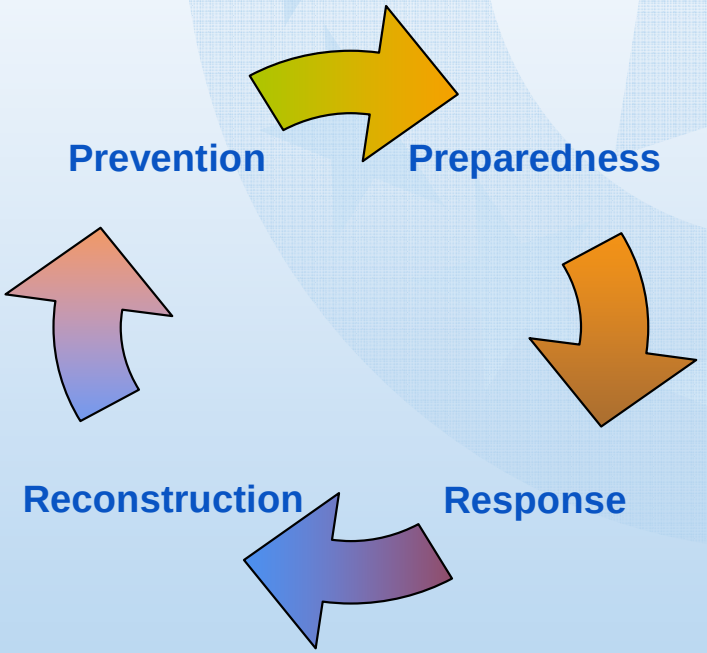
Use of EU funding, disaster risk insurance, transfer solutions

Priority 5 Strengthen disaster preparedness

Hyogo Priority 1 EU Contribution

Ensure that Disaster Risk Reduction is a national and local priority

- Linking the actors and policies throughout the disaster management cycle
- Making existing instruments perform better for disaster prevention
- Implementation Plan of the EU Strategy for DRR in developing countries. Political dialogue and mainstreaming of DRR
- Guidelines for minimum standards for disaster prevention
- Development of a risk management policy



Hyogo Priority 2 EU Contribution

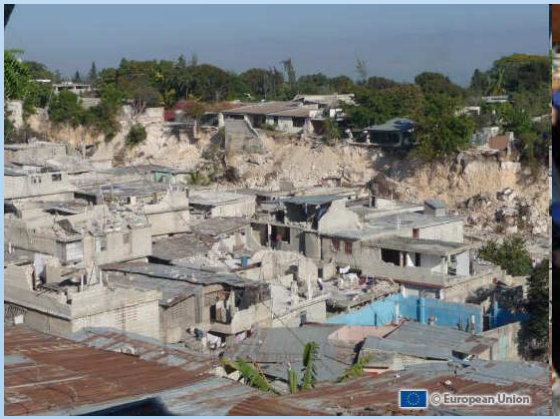
Identify, assess and monitor disaster risk and enhance early warning

- Guidelines for national (and cross border) Risk Assessments
- Focus on process and methods
- Importance of multi-risks assessments
- Building on Member States and (inter-)regional good practice plus R&D results
- Enhancing Early Warning systems – increased financial resources 2011-13

Hyogo Priority 3 EU Contribution

Use knowledge, innovation, and education to build a culture of safety and resilience at all levels

- Education and Awareness raising depend on good knowledge
- EU report on natural and technological hazards
- Increased support for DRR from EU research programmes, including outside Europe
- Awareness raising supported through cooperation projects



Mapping the impacts of natural hazards and technological accidents in Europe

Available at the stand of the European Commission

Content:

Overview of the impacts of various hazards in EEA32 for 1998–2009, including spatial analysis, trends, management options, data gaps and information needs

Coverage:

Storm, extreme temperature, forest fires, water scarcity and drought, floods, avalanches, landslides, earthquakes and volcanoes, oil spill, industrial accidents, toxic spills

Data sources:

Mainly EM-DAT (CRED) and NatCatSERVICE (MunichRe)

Impacts of natural hazards in Europe 1998-2009

Disasters caused by natural hazards caused nearly **100,000 fatalities** and about **150 billion € in economic losses**

Hazard type	Recorded events	Fatalities	Mio. people affected	overall losses (bn €)	insured losses (bn €)
Storm	155	729	3.803	44.338	20.532
Extreme temperature events	101	77 551	0.005	9.962	0.186
Forest Fires	35	191	0.163	6.917	0.097
Drought	8	0	0	4.940	0.000
Flood	213	1 126	3.145	52.173	12.331
Snow avalanche	8	130	0.01	0.742	0.198
Landslide	9	212	0.007	0.551	0.206
Earthquake	46	18 864	3.978	29.205	2.189
Volcano	1	0	0	0.004	0.000
Total	**576**	**98 803**	**11.112**	**148.831**	**35.739**

Source: EM-DAT

Data issues:
Do we get a comprehensive overview?

…yes and no…

A combination of several global databases can give a good overview for some hazards, but not for all.

Hazard type	Global databases
Storms **Extreme temperature** **Earthquakes**	
Forest Fires **Water scarcity and drought** **Floods** **Avalanches** **Landslides**	?

Main core areas of "Natural Hazards" in the Environment Research Work Programme

- Hazard assessment, triggering factors and forecasting
- Vulnerability assessment and societal impacts
- Risk assessment and management
- Multi-risk assessment and mitigation strategies

Example of on-going research

Research on multi-hazard risks

MATRIX:
New Multi-Hazard and Multi-Risk assessment methods for Europe

- Multi-hazard and risk assessment of simultaneous events, development of methods and tools to consider multiple natural hazards within a common framework, including risk comparability, cascade effects, and time dependence of social and infrastructure vulnerability

- Comparison of new developed methodologies with state-of-the-art single risk analysis

- Establishment of an information technology framework for test case analysis within a multi-risk context

12 partners from Europe, EC contribution of 3.4 M€, end September 2013
– International partners: Canada

Example of on-going research

Research on Floods

CORFU:
Collaborative research on flood resilience in urban areas

- Overall aim to enable European and Asian institutions to learn from each other through joint research, development, implementation and dissemination of strategies that will enable more scientifically sound management of the consequences of urban flooding in the future

- Assessment of flood impacts and possible through different scenarios of relevant drivers: urban development, socio-economic trends and climate changes.

- Evaluation of cost-effectiveness of resilience measures and integrative and adaptable flood management plans for the defined scenarios.

10 partners from Europe, EC contribution of 3.5 M€, end March 2014
– International partners: Bengladesh, China, India

Example of on-going research

Research on Droughts

DEWFORA:

Improved drought early warning and forecasting to strengthen preparedness and adaptation to droughts in Africa

- Improvement of knowledge on drought forecasting, warning and mitigation, and advancing understanding of climate-related vulnerability to drought

- Development of prototype operational forecasting systems and piloting methods: bringing advances made in the project to the pre-operational stage for drought monitoring

- Knowledge dissemination through stakeholder platform including national and regional drought monitoring and forecasting agencies

19 partners from Europe, Africa and EC JRC
EC contribution of 3.5 M€, end December 2013
– International partners: Egypt, Kenya, Mali, Morocco, Mozambique, South-Africa

Example of on-going research

Research on tsunamis

TRANSFER:
Tsunami risk and strategies for the European region

- Improved understanding of tsunami processes in the Euro-Mediterranean region, through systematic identification and characterisation of tsunamigenic seismic and non-seismic sources

- Inventory of available instrumental observing and monitoring networks in support of a Tsunami Early Warning System in the Euro-Mediterranean area

- Testing of developed strategies to produce tsunami inundation, vulnerability and risk maps

29 partners from Europe, EC contribution of 3.3 M€, ended in September 2009

EUROPEAN COMMISSION

Humanitarian Aid and Civil Protection

Hyogo Priority 4 EU Contribution
Reduce the underlying risk factors

- Effective use of EU funding
- Prevention conditionality in EU funding
- Increased use of disaster insurance policies
- Actions to address Climate Change. GCCA
- Integration of DRR in development cooperation

EUROPEAN COMMISSION

Humanitarian Aid and Civil Protection

Hyogo Priority 5 EU contribution

Strengthen disaster preparedness for effective response at all levels

- **Broadening the scope of Training**
- **Promotion of DRR practices that build the capacity of communities to identify, prevent, mitigate and prepare for disasters**
- **Advocacy, coordination, capacity-building and dissemination of best practices**

More information :

- On **Research** (catalogue of projects, research results)

http://ec.europa.eu/research/environment/index_en.cfm?pg=hazards

- On **Humanitarian aid and civil protection**
http://ec.europa.eu/echo/index_en.htm

- **On Development Cooperation**
http://ec.europa.eu/europeaid/index_en.htm