



23rd OSCE Economic and Environmental Forum “Water governance in the OSCE area – increasing security and stability through cooperation”

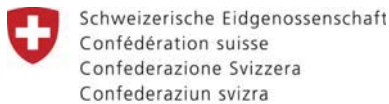
Water security and disaster risk reduction



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Some of UNISDR Partners



GAR

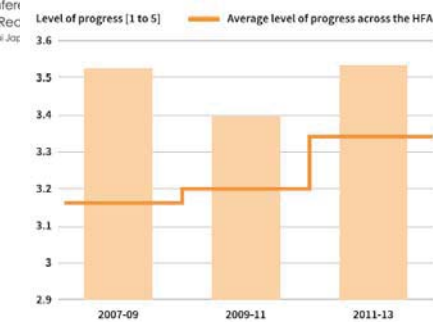
Global Assessment Report on Disaster Risk Reduction

2015

Making development sustainable: the future of
disaster risk management

<http://www.unisdr.org/we/inform/publications/42809>

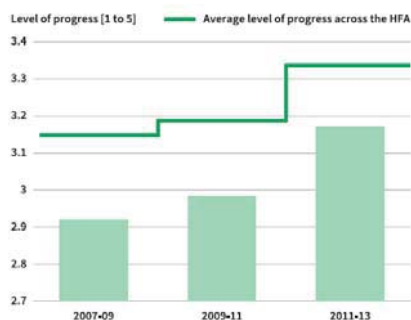
Less progress in managing risks



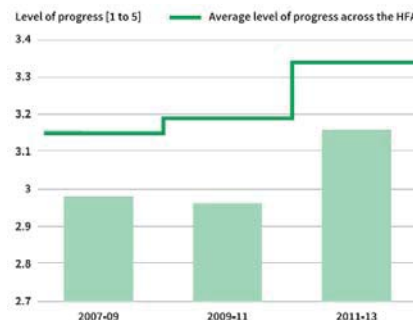
Strong policy, technical and institutional capacities and mechanisms



Disaster preparedness and contingency plans, training drills



Managing risk in urban environments



Assessing disaster risk impacts of major development projects

Impacts of Disasters since the 1992 Rio de Janeiro Earth Summit

In 1992, the United Nations organized a conference on environment and development in Rio de Janeiro, called the Earth Summit. The purpose of the conference was to rethink economic growth, advance social equity and ensure environmental protection.

Twenty years later, the UN is organizing Rio+20, a chance to move away from business-as-usual and to end poverty, address environmental destruction and build a bridge to the future. Disaster risk reduction (DRR) plays an important part in this future of sustainable development.

Here's a look at the impact of disasters since the Earth Summit (1992-2012).



<http://www.unisdr.org>
Created on 11 June 2012

DATA SOURCES

EM-DAT - <http://www.emdat.be/> - The OFDA/CRED International Disaster Database. Data version: 11 June 2012 - v1.2.07. Disaster: Natural Disasters as categorized in EM-DAT. Affected: The sum of injured, homeless, and people requiring immediate assistance during a period of emergency - it can also include displaced or evacuated people from disasters. Damage: Estimated figures. Killed: Persons confirmed as dead and persons missing and presumed dead.

¹UN Stats - <http://stats.un.org/> - Estimated mid-year world population for 2010 is 6.9 billion.

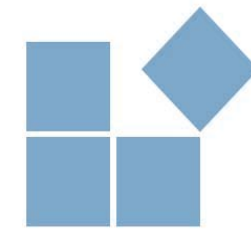
²OECD - <http://stats.oecd.org/> - ODA from 1986-2010 totals approximately USD 7 trillion.

³Airbus - <http://www.airbus.com/> - A380 maximum capacity is 853.



4.4
BILLION
AFFECTED

Roughly 64% of the world's population¹.



\$2.0
TRILLION
DAMAGE (USD)

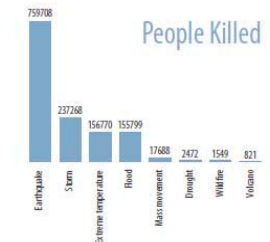
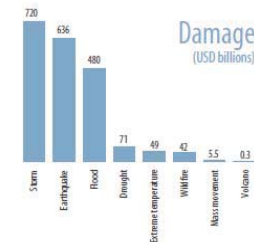
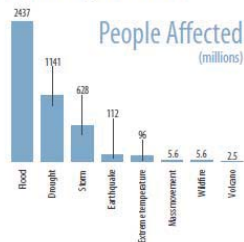
Approximately 25 years of total Overseas Development Aid².



1.3
MILLION
KILLED

Comparable to over 1500 airplane³ crashes.

Impact by disasters



Impact by top 10 countries



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Economic losses in Europe



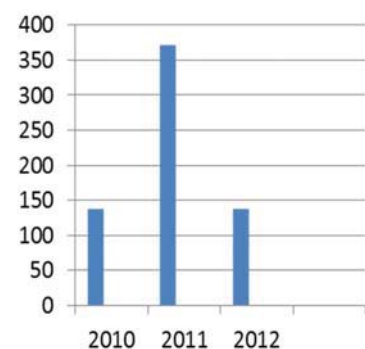
Three consecutive years: annual economic losses have exceeded \$100 billion globally due to enormous increase in exposure of industrial assets and private property to extreme disaster events.

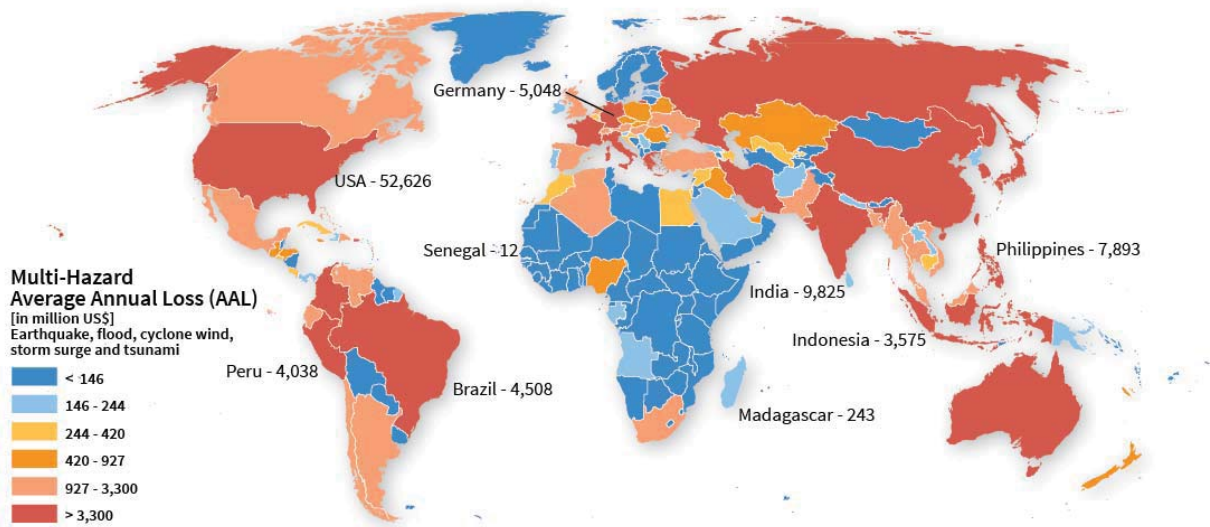
Europe's 10-year average of disaster losses totaling to **US\$ 13.4 billion** makes it the third most affected region in the world after the Americas and Asia;

The Global Assessment Report on Disaster Risk Reduction released in 2011 indicates that **in OECD countries disaster economic losses tend to grow faster than their average GDP growth;**

Most of the damages are due to climatological and hydro-meteorological events;

Reduced number of casualties, but high economic losses.





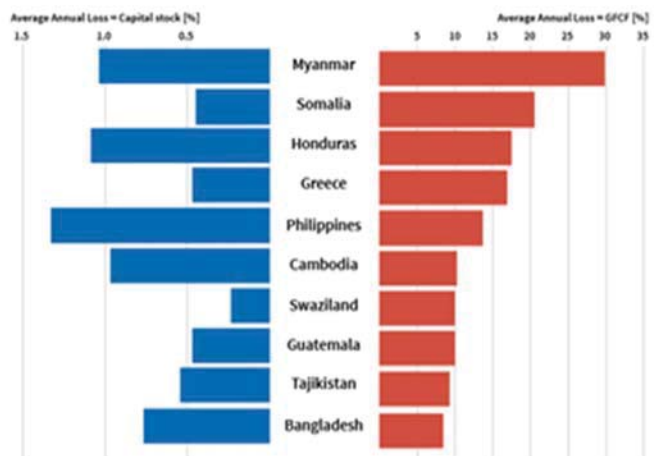
Expected future disaster losses annualized over the long term

Multi-dimensional risks

In countries with a high ratio of average annual loss to their capital stock and savings, disasters can lead to severe economic disruptions. In those with a high ratio of risk to capital investment, future economic growth can be compromised. And in those with a high ratio of risk to social expenditure, social development may be challenged.

A number of countries are characterized by all three scenarios, implying that **disaster risk could seriously undermine their capacity to develop across multiple dimensions. This is a challenge** not only for low-income countries such as Madagascar and Haiti, but also for middle-income countries like Honduras, Jamaica and the Philippines, and **for high-income countries** like Greece.

An opportunity cost for development



The risk to social progress, stability and economic development

Summary of estimated damages and losses

	Damage	Losses	Total*
Social	234.6	7.1	241.7
Housing	227.3	3.7	230.9
Education	3.4	0.1	3.5
Health	3.0	2.7	5.7
Culture	1.0	0.6	1.6
Productive	516.1	547.6	1,063.6
Agriculture	107.9	120.1	228.0
Manufacturing	56.1	64.9	121.0
Trade	169.6	55.2	224.8
Tourism	0.6	1.6	2.2
Mining and energy	181.9	305.8	487.7
Infrastructure	117.3	74.8	192.1
Transport	96.0	70.4	166.5
Communications	8.9	1.1	10.0
Water and sanitation	12.4	3.2	15.7
Cross cutting	17.2	10.6	27.9
Environment	10.6	10.1	20.6
Governance	6.7	0.6	7.2
Total	885.2	640.1	1,525.3

*Due to rounding up some totals do not exactly add up.

- The private sector sustained higher values of destroyed assets than the public sector, and that production losses were higher in the public sector domain because of the impact on the mining and energy sector
- Social impact



Source: SERBIA FLOODS 2014

Summary of estimated recovery and reconstruction needs

Sector	Post-Disaster Needs, million EUR		
	Recovery	Reconstruction	Total*
Agriculture	40.8	111.4	152.1
Manufacturing	16.6	53.3	69.8
Trade	12.9	144.0	157.0
Tourism	0.5	0.7	1.2
Mining and energy	211.8	202.0	413.8
Housing	58.8	204.5	263.3
Education	2.0	4.3	6.3
Health	2.7	4.4	7.1
Culture	0.1	1.2	1.3
Transport	-	128.2	128.2
Communications	-	12.6	12.6
Water and sanitation	3.5	24.0	27.5
Environment	2.8	38.7	41.5
Governance	2.3	14.1	16.4
Employment	46.4		46.4
Gender	2.0		2.0
Totals	403.0	943.5	1,346.4

Only 2% of damage and losses covered by insurance and reinsurance (source Ministry of Finance of Serbia)

- Recession of 0,5% instead of growth 0,5%1% GDP
- Reduction of exportation and increasing of importations results in 1% of GDP
- Fiscal position will deteriorate further by about 1% of GDP





The topic raising at the top of the international agenda: Attendance to the WCDRR



There is a global call for
A comprehensive, integrated and participatory approach

- **The Hyogo Framework for Action 2005-2015**
- **The new Regulation of the European Civil Protection Mechanism**
- **The Conclusions of the Council of Europe on disaster risk management capabilities, in 2014**
- **OSCE Ministerial Council Decision No. 6/14 Enhancing Disaster Risk Reduction**
- **The Sendai Framework for Disaster Risk Reduction 2015-2030**

ON THE OUTCOME DOCUMENT

The Sendai Framework for Disaster Risk Reduction 2015-2030

The outcome document builds on the knowledge and experience of all stakeholders across public and private sectors. It builds on 10 years of work with the Hyogo Framework for Action and nearly three years of consultations.

Improvements from the Hyogo Framework for Action include:

Reducing the existent risks and avoiding the generation of new risks by:

- The stronger focus on risk prevention
- The strong mention of reconstruction
- The guiding principles
- The clear articulation of measures at national / local and regional / global levels
- The role of stakeholders

Understanding disaster risk (Risk assessment and Disaster Loss)

- Implement a proper multi-risk assessment which includes cascade effects and social impact
- Account damages caused by catastrophes and costs for reconstruction
- Inform decision makers, private sector and citizens (tax payers) on the above

Strengthening disaster risk governance to manage disaster risk

- Strengthening of the National Platform for Disaster Risk Reduction and its link to the Regional Level to ensure a coordinated approach toward DRR and maximize the use of always limited financial resources
- Inclusive approach to involve and to share tasks and responsibilities with all stakeholders, local governments, academy, private sector, general public

Investing in disaster risk reduction for resilience

- Design and implement a DRR strategy which is evidence based, scientifically supported and sustainable in the long term from the technical, financial and administrative point of view.
- Ensure that the strategy is not blocking development of new urbanization and industrial settlement, as needed, but plan those ones at once with the required mitigation measures settings.
- Promote the development and the implementation of DRR measures as an opportunity to create new job opportunities

(Enhancing disaster preparedness for effective response, and to
“Build Back Better” in recovery, rehabilitation and reconstruction

- Develop structural (river banks, dams, secure floodable areas) and non structural (monitoring and ~~–probabilistic–~~ early warning systems) mitigation measures.
- Improve emergency response capacity to better handle the **residual risk and unexpected events**.
- **Prepare responders and the general public on how to react to early warning messages**
- Develop and diffuse an appropriate risk transfer system (insurance and reinsurance mechanism)
- Build back better (develop a proper land use planning, do use the proper construction technics and technologies, in **flood relief and reconstruction phase**)

- Establishment of the NPDRR
- Establishment of the new Government Office for reconstruction and flood relief
- Development and implementation of the Disaster Loss Database in support of evidence based decision on DRR policy*
- Participation to Programmes for the exchange of knowledge and experience*
- Development of a consultative paper on Disaster Risk Reduction Policy*
- Improving risk awareness and sharing of good parctises**
- Improvement of the monitoring and early warning system**
- Initial steps to the promotion of risk transfers mechanism**

- Consolidation of ongoing activities
- New lines of action include:
 - Awareness campaign (MCR Campaign)
 - Contribution to the development of the road map for implementation of the SFDRR
 - Contribution through the EFDRR to the COP21 agenda and the overall CCA strategy
 - Support the development of a national strategy aligned with the Sendai Framework for Disaster Risk Reduction, the new legislation of the civil protection mechanism
 - Support development of training on resilience at local level
 - Sharing of the past experience, lesson learned and good practices developed with neighboring countries

