



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



Strengthening National Capacities for Sustainable Housing

8-9 September 2015, Chisinau Moldova

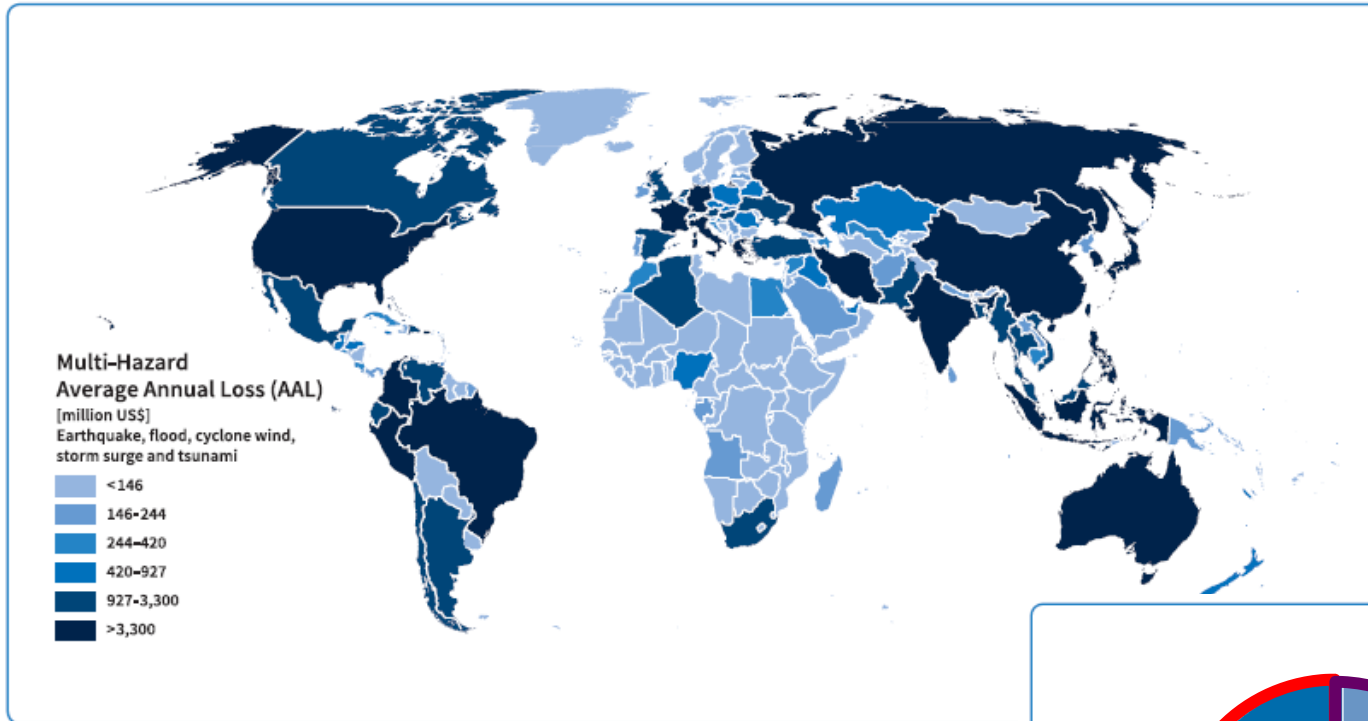


Luca Rossi, UNISDR Regional Office for Europe



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

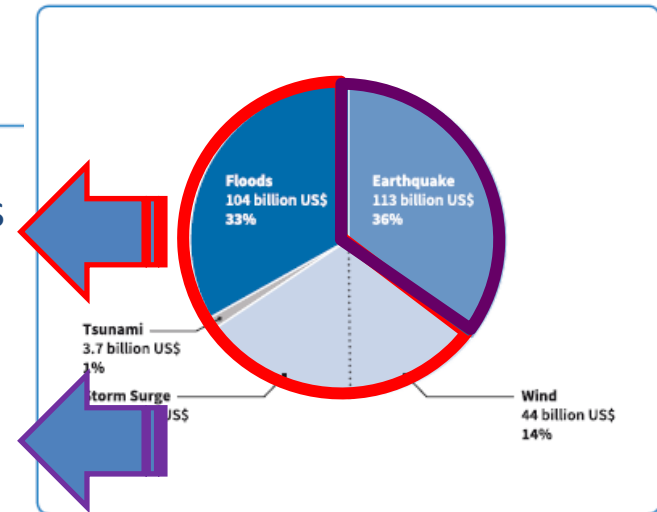
Global multi-hazard average annual loss



(Source: UNISDR with data from Global Risk Assessment.)

Most of the events are due to extensive events (e.g. climatological and hydro-meteorological driven);

Most of the victims and damages are due to intensive events (e.g. earthquakes);



(Source: UNISDR with data from Global Risk Assessment.)



Global Assessment Report
on Disaster Risk Reduction

2015



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Serbia Flood 2014



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

Estimated damages and losses

		Disaster Effects, million EUR		
		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
- 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



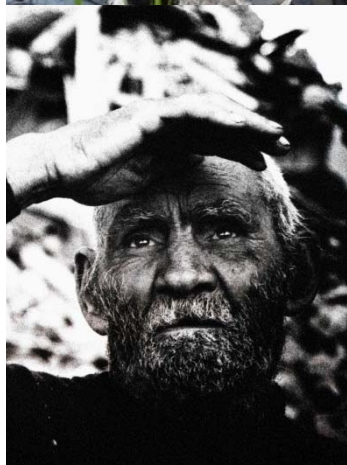
UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Emilia Romagna Earthquake 2012

Side effects – financial impact



- ✓ Biomedical factories
- ✓ Ceramics
- ✓ Parmesan
- ✓ Balsamic vinegar
- ✓ fodder for livestock
- ✓



1,5% GDP
Gross Domestic Product

Topic raising at the top of the international agenda and triggering a **Global Call on DRR**

Sustainable development cannot be achieved unless disaster risk is reduced and appropriate life conditions, also in terms of security as well as financial and economic capacity, are ensured for everybody:

- The Hyogo Framework for action 2005-2015
- The new regulation of the UNION Civil Protection Mechanism
- The conclusions of the Council of the European Union on disaster risk management capabilities and related guidelines
- The OSCE Ministerial Council Decision No. 6/14 Enhancing Disaster Risk Reduction
- The Sustainable Development Goals
- The Climate Change Agenda



*Coherence and mutual reinforcement between
a post-2015 framework for disaster risk reduction, Sustainable Development Goals and the
Conference of Parties to the UNFCCC*

April 2014

- The world cannot afford to perpetuate a disconnect between disaster risk reduction, sustainable development and climate change. UNISDR continues to lead efforts to promote coherence and mutual reinforcement in three landmark agreements set for 2015: a post-2015 framework for disaster risk reduction, the Sustainable Development Goals and the 21st Session of the Conference of Parties to the UN Framework Convention on Climate Change.
- All three agreements share a common aim of making development sustainable. Strong commitment to ambitious goals and accelerated implementation of these international agreements must be a global priority.
- Given the complementarities between the post-2015 agendas, leveraging the total impact of these instruments creates shared value. Efforts must be deployed to ensure that each of them do not build in “policy risks” or, contradictory policies, that generate more - rather than less - risk in development.

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



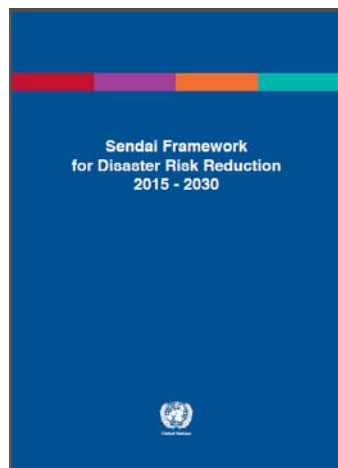


UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

The Sendai Framework for Disaster Risk Reduction 2015-2030



The United Nations Office for Disaster Risk Reduction



Way FW:

Technical Expert WGs on Indicators and Terminology

EFDRR 2016 – Development of the Road Map for implementation of the Sendai Framework



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



Priority 1 Understanding disaster risk

Policies and practices for DRR should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.

Disaster risk management need to be based on an **understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets**, hazard characteristics and the environment. Such knowledge can be used for risk assessment, prevention, mitigation, preparedness and response.

- Implement a proper multi-risk assessment which includes cascade effects and social impact as well as climate change scenarios
- Share information with decision makers, private sector and citizens (tax payers) on the above



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Disaster Loss Accounting and Multi-Hazard Risk Assessment to

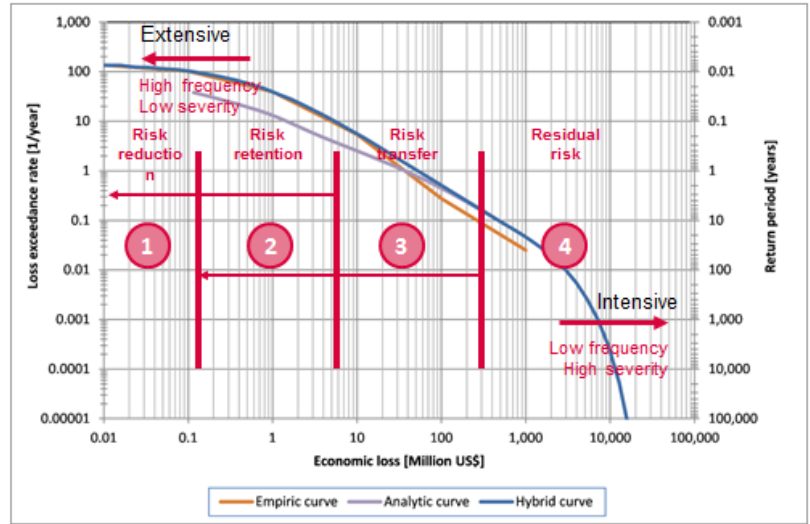


support DRR strategies evidence based

Guidelines on Risk Assessment

Serial	Event	Date	State	District	Block	Location	Comments	Deaths Injured Missing	Houses Destroyed	Victims Affected	Relocated Evacuated
107	CYCLONE	1979/06/18	Orissa	Bargarh	Ban	Ban		11	2		
108	GALE	1995/03/31	Orissa	Kandrapara	Kandrapara	Christus village	Many trees are fall on the road.	1	10	100	
109	STORM	1995/04/02	Orissa	Cuttack	Cuttack Sadak	Cuttack Sadak		6		100	
110	STORM	1995/04/02	Orissa	Bargarh	Bargarh	Bargarh		2			
111	GALE	1995/04/02	Orissa	Bargarh	Bargarh	Bargarh		2	230	900	996
112	STORM	1995/05/04	Orissa	Talcher	Talcher	Talcher		4	400	402	
113	GOIT	1995/05/07	Orissa	Keonjhar	Keonjhar	Keonjhar		1	17	740	
114	GALE	1995/05/07	Orissa	Keonjhar	Keonjhar	Keonjhar		1	30	251	
115	GALE	1995/05/07	Orissa	Keonjhar	Keonjhar	Keonjhar		1	32	3	298
116	STORM	1995/05/13	Orissa	Bargarh	Bargarh	Bargarh	07 villages affected in the above cyclone and 10000 people affected and 1000 houses destroyed. 10000 people affected in the above cyclone and 1000 houses destroyed. 10000 people affected in the above cyclone and 1000 houses destroyed.	1		1000	30000
117	STORM	1995/05/13	Orissa	Bargarh	Bargarh	Bargarh		1			
118	STORM	1995/05/13	Orissa	Bargarh	Bargarh	Bargarh		2			
119	GALE	1995/05/18	Orissa	Keonjhar	Keonjhar	Keonjhar		200		100	
120	GALE	1995/05/28	Orissa	Ganjam	Ganjam	Ganjam		2		100	
121	CYCLONE	1995/05/28	Orissa	Ganjam	Ganjam	Ganjam		10		10000	

- 1 Risk reduction**
Corrective: Building retrofitting, mitigation strategies.
- 2 Risk retention**
Prospective: Financial reserves, public investment, laws and regulations.
- 3 Risk transfer**
Compensatory: Insurance, contingency funds.
- 4 Residual risk**
The risk we will have to live with..."



Methodology already implemented in 87 countries and territories including Belarus, Serbia and Kosovo (Under UNSCR1244/99)



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



Priority 2 Strengthening disaster risk governance to manage disaster risk

Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk.

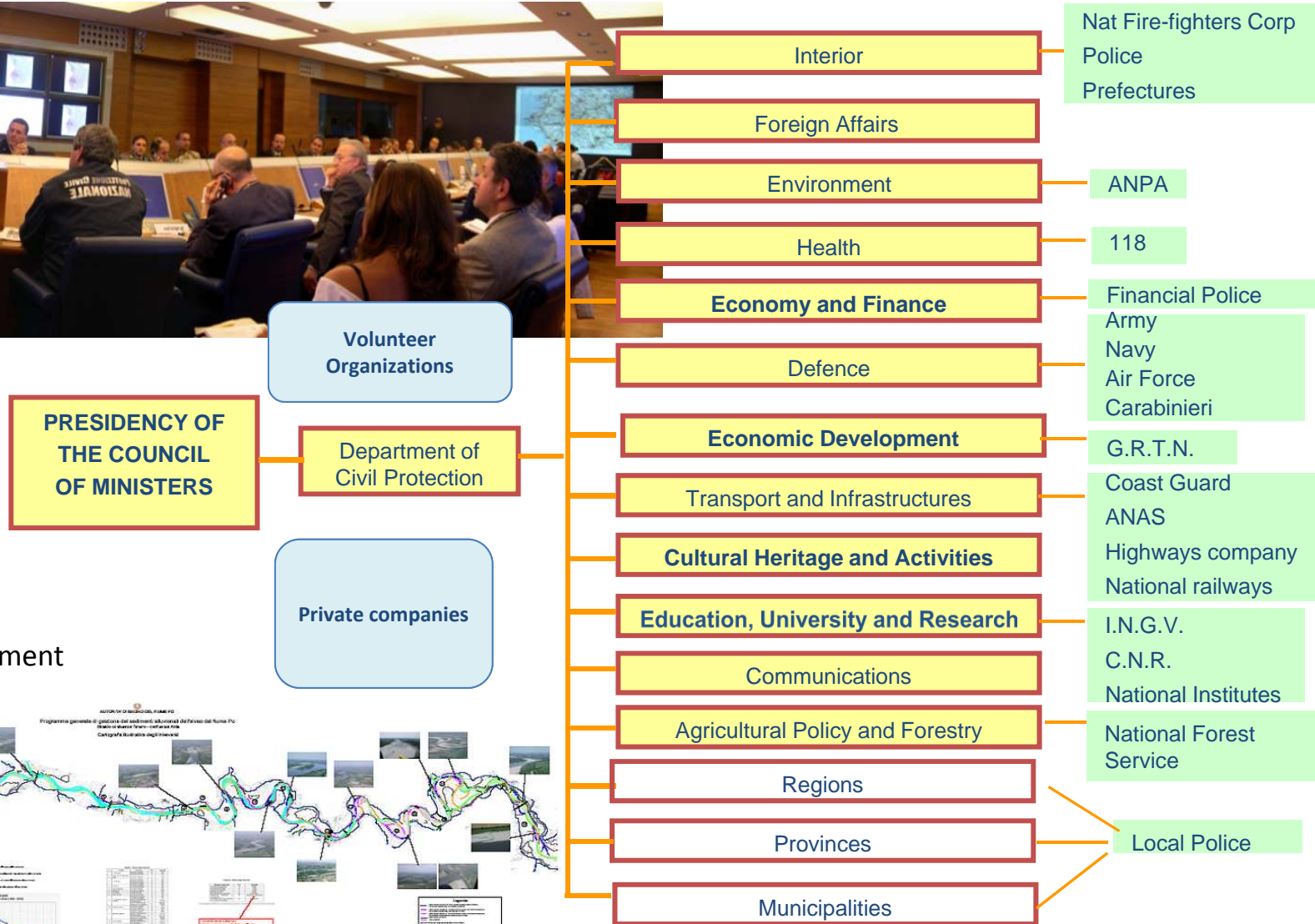
Disaster risk governance at the national, regional and global levels is very important for prevention, mitigation, preparedness, response, recovery, and rehabilitation. It fosters collaboration and partnership.

- Strengthening of the **National Platform for Disaster Risk Reduction** and its link to the Regional Level to ensure a **coherent and 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

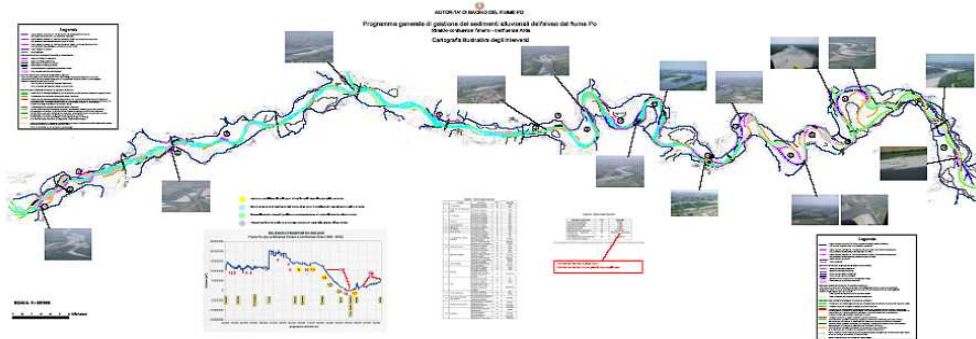


UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Promoting development of National Platform for DRR



Po River,
interregional catchment





UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



Priority 3 Investing in disaster risk reduction for resilience

Public and private investment in DRR are essential to enhance the economic, social, health & cultural resilience of persons, communities, countries, their assets, as well as environment

Public and private investment in disaster risk prevention and reduction through **structural** (river banks, dams, secure floodable areas) **and non-structural measures** (monitoring and –probabilistic- early warning systems) are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment.

- 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.
- Develop and diffuse an appropriate risk transfer system (insurance and reinsurance mechanism)
- Include DRR implementation costs already in the planning phase

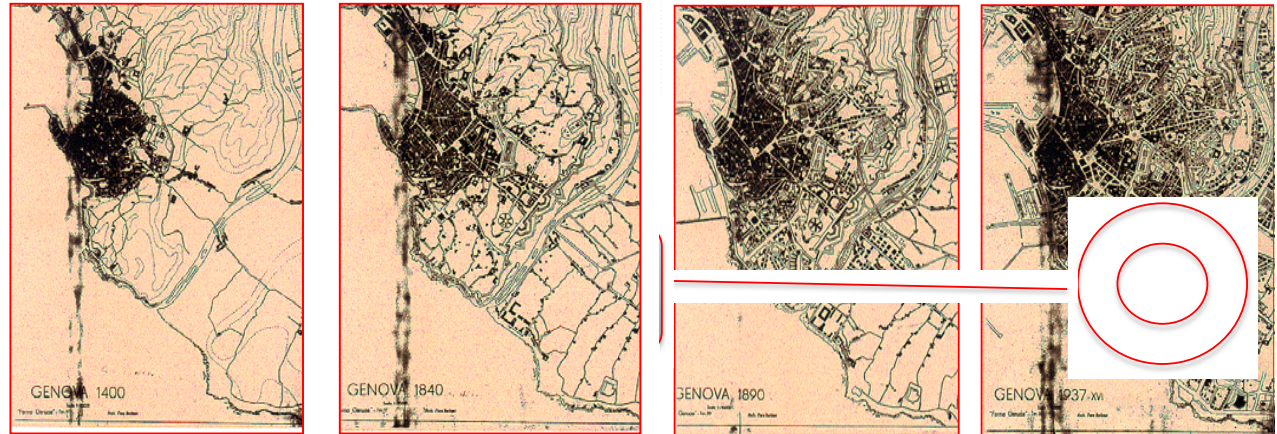


UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Promoting investments on DRR

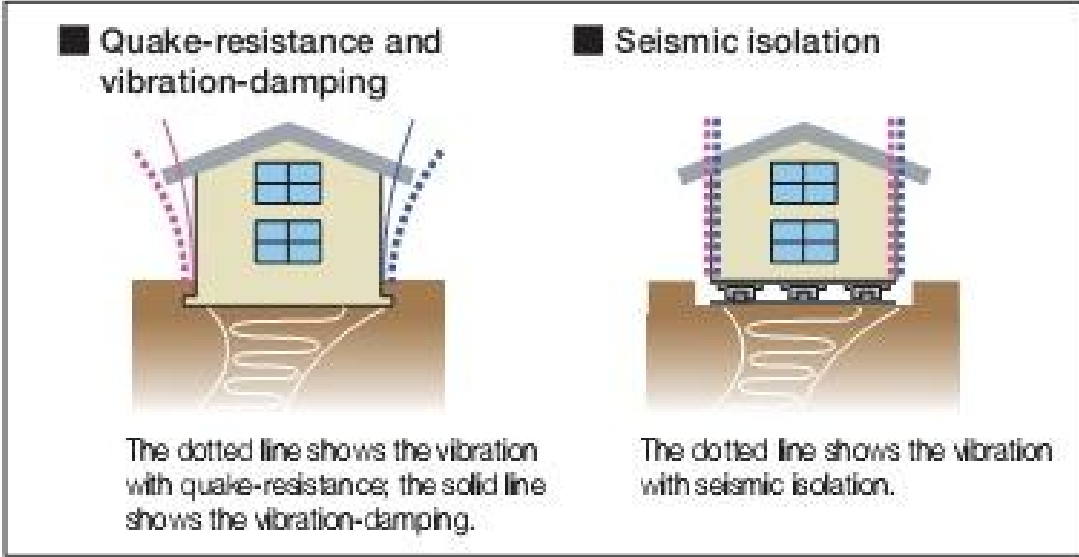


- Plan new urban/industrial setting along with related CCA & DRR measures
- Adopt appropriate building codes for the specific area
- Protect your private/governmental strategic investments with insurance and reinsurance mechanisms



1840

1940 t





UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



Priority 4 Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction

Strengthened disaster preparedness for response, recovery, rehabilitation and reconstruction are critical to build back better

The growth of disaster risk means there is a need to strengthen disaster preparedness for response, take action in anticipation of events, and ensure capacities are in place for effective response and recovery at all levels. **The recovery, rehabilitation and reconstruction phase is a critical opportunity to build back better, including through integrating disaster risk reduction into development 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
- **Build back better (develop a proper land use planning based on risk analysis, do use the proper construction technics and technologies, in flood relief and reconstruction phase, coordinate with neighboring administrations, share responsibilities, inform and engage the private sector and the general public)**



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan



The Making Cities Resilient Campaign



- ✓ More than 2600 resilient cities registered worldwide
- ✓ Approaching 700 resilient cities in Europe Region
- ✓ Opportunities for exchanges and twinning
- ✓ Local level Peer Reviews



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

MCR Tools & Initiatives



City Disaster Resilience
Scorecard Based on the
Ten Essentials

<http://www.unisdr.org/campaign/resilientcities/toolkit/handbook>



Ten-point Checklist - Essentials for Making Cities Resilient

- ✓ **Essential 1:** Put in place organization and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role to disaster risk reduction and preparedness.
- ✓ **Essential 2:** Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and public sector to invest in reducing the risks they face.
- ✓ **Essential 3:** Maintain up-to-date data on hazards and vulnerabilities, prepare risk assessments and use these as the basis for urban development plans and decisions. Ensure that this information and the plans for your city's resilience are readily available to the public and fully discussed with them.
- ✓ **Essential 4:** Invest in and maintain critical infrastructure that reduces risk, such as flood drainage, adjusted where needed to cope with climate change.
- ✓ **Essential 5:** Assess the safety of all schools and health facilities and upgrade these as necessary.
- ✓ **Essential 6:** Apply and enforce realistic, risk compliant building regulations and land use planning principles. Identify safe land for low-income citizens and develop upgrading of informal settlements, wherever feasible.
- ✓ **Essential 7:** Ensure education programmes and training on disaster risk reduction are in place in schools and local communities.
- ✓ **Essential 8:** Protect ecosystems and natural buffers to mitigate floods, storm surges and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.
- ✓ **Essential 9:** Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.
- ✓ **Essential 10:** After any disaster, ensure that the needs of the survivors are placed at the centre of reconstruction with support for them and their community organizations to design and help implement responses, including rebuilding homes and livelihoods.

People in unsafe schools, hospitals and health facilities are at the greatest risk of losing their lives when a disaster strikes. We can improve the safety of schools, hospitals and health facilities to address the increasing risk due to climate change and other disasters - natural and man-made.

One Million Safe Schools and Hospitals

The One Million Safe Schools and Hospitals initiative is a global advocacy effort to make schools and hospitals safe from disasters.

People in unsafe schools, hospitals and health facilities are at the greatest risk of losing their lives when a disaster strikes.



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

The Local Government Self-Assessment Tool (LGSAT)



The (LGSAT) provides key questions and measurements against the Ten Essentials for Making Cities Resilient and builds upon the priorities and national indicators of the Hyogo Framework for Action. Using the Local Government Self-Assessment Tool will help cities and local actors to set baselines, identify gaps and have comparable data across local governments, within the country and globally, to measure advancements over time.

The main purpose of the LGSAT is to:

- ✓ Help local governments engage with different stakeholders to map and understand existing gaps and challenges in disaster risk reduction in their city or locality.
- ✓ Set a baseline and develop status reports for cities and municipalities that have committed to the Making Cities Resilient Campaign and its Ten Essentials.
- ✓ Complement information gathered through the national Hyogo Framework for Action monitoring system (HFA Monitor) by providing local-level information. Cities can choose to share their results with national HFA focal points as part of the national reporting process.

Sample template online self assessment tool

Section	Description	Status	Completion
Essential 1	Put in place organization and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role to disaster risk reduction and preparedness.	●○	Ongoing
Essential 2	Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and public sector to invest in reducing the risks they face.	○○	Not started
Essential 3	Maintain up-to-date data on hazards and	○○	Not started

Practical Guidelines on integration of DRR in CCA

Bumps at the entrances of
the underground parking
lot and elevated air
openings (Genova, Italy)



Infiltration dams inside
levee, to handle storm
water runoff.



Final Remarks

Sustainable development cannot be achieved unless disaster risk is reduced and appropriate life conditions, also in terms of security as well as financial and economic capacity, are ensured for everybody .

Disasters are most often caused by unappropriated land use management and unappropriated building codes, rather than to natural events.

Comprehensive and inclusive approach towards Disaster Risk Reduction is the key to success. Appropriate land use planning, adoption of appropriate building codes, raising of risk awareness, active participation of public and private stakeholders at national and local level are preliminary conditions to achieve DRR.

The Sendai Framework for DRR set the strategy for next 15 years toward comprehensive and coherent DRR strategy, shifting the focus from what to do to how to do, identifying roles and responsibilities of different stakeholders and providing practical tools and guidelines.

The Regional Office for Europe will keep supporting countries in European Region to develop and implement strategy aligned with Sendai Framework



UN World Conference on
Disaster Risk Reduction
2015 Sendai Japan

Thank you



www.unisdr.org
www.preventionweb.net
www.wcdrr.org

