Water security and disaster risk reduction

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Some of UNISDR Partners
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

Managing risk in urban environments

Disaster preparedness and contingency plans, training drills

Assessing disaster risk impacts of major development projects
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.
A risky world

**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.
Summary of estimated damages and losses

- 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

<table>
<thead>
<tr>
<th>Sector</th>
<th>Damage</th>
<th>Losses</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>227.5</td>
<td>5.7</td>
<td>233.2</td>
</tr>
<tr>
<td>Education</td>
<td>3.4</td>
<td>0.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Health</td>
<td>3.0</td>
<td>2.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Culture</td>
<td>1.0</td>
<td>0.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Agriculture</td>
<td>107.9</td>
<td>120.1</td>
<td>228.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>56.1</td>
<td>64.9</td>
<td>121.0</td>
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<tr>
<td>Trade</td>
<td>140.6</td>
<td>55.2</td>
<td>224.8</td>
</tr>
<tr>
<td>Tourism</td>
<td>0.6</td>
<td>1.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Mining and energy</td>
<td>181.9</td>
<td>305.8</td>
<td>487.7</td>
</tr>
<tr>
<td>Transport</td>
<td>96.0</td>
<td>70.4</td>
<td>166.5</td>
</tr>
<tr>
<td>Communications</td>
<td>8.9</td>
<td>1.1</td>
<td>10.0</td>
</tr>
<tr>
<td>Water and sanitation</td>
<td>12.4</td>
<td>3.2</td>
<td>15.7</td>
</tr>
<tr>
<td>Cross cutting</td>
<td>17.2</td>
<td>10.6</td>
<td>27.9</td>
</tr>
<tr>
<td>Environment</td>
<td>10.6</td>
<td>10.1</td>
<td>20.7</td>
</tr>
<tr>
<td>Governance</td>
<td>6.7</td>
<td>0.6</td>
<td>7.2</td>
</tr>
<tr>
<td>Total</td>
<td>885.2</td>
<td>640.1</td>
<td>1,525.3</td>
</tr>
</tbody>
</table>

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

Summary of estimated recovery and reconstruction needs

- 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

<table>
<thead>
<tr>
<th>Sector</th>
<th>Post-Disaster Needs, million EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recovery</td>
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<tr>
<td>Agriculture</td>
<td>40.8</td>
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<tr>
<td>Manufacturing</td>
<td>16.6</td>
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<tr>
<td>Trade</td>
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<tr>
<td>Tourism</td>
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<tr>
<td>Mining and energy</td>
<td>211.8</td>
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<tr>
<td>Housing</td>
<td>58.8</td>
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<tr>
<td>Education</td>
<td>2.0</td>
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<tr>
<td>Health</td>
<td>2.7</td>
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<td>Culture</td>
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<td>2.8</td>
</tr>
<tr>
<td>Governance</td>
<td>2.3</td>
</tr>
<tr>
<td>Employment</td>
<td>46.4</td>
</tr>
<tr>
<td>Gender</td>
<td>2.0</td>
</tr>
<tr>
<td>Totals</td>
<td>403.0</td>
</tr>
</tbody>
</table>
The topic raising at the top of the international agenda: Attendance to the WCDRR

187 Member States
25 Heads of States, Heads of Governments & Vice Presidents
49 IGOs
200 Media

50,000 visitors to the Public Forum
150 Official Sessions
340 Side Events
350+ Bilateral Meetings

6,500 registered delegates
188 NGOs
38 UN Entities
3,500+ Local staff & Volunteers
325,000 tweets released
2,500 users of the Conference Box, saving 10M pages and 124 trees

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

- 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

Four priorities

**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
Four priorities

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

Four priorities

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
Four priorities

(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 techniques and technologies, in flood relief and reconstruction phase).

Recent outcomes in Serbia

• 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 practices**.
• Improvement of the monitoring and early warning system**.
• Initial steps to the promotion of risk transfers mechanism**.

*Activities financially supported by

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Further opportunities for cooperation

- 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

Thank you

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