



Concept Note

Resilient Infrastructure

26 November 2021, 14:00h – 15:15h CET

State of play

The resilience of critical infrastructure is both a key component of the Sendai Framework for Disaster Risk Reduction (Target D of the framework aims “Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030”), as well as the 2030 Agenda for Sustainable Development, which calls for “sustainable industrial development; universal access to affordable, reliable, sustainable and modern energy services; sustainable transport systems; and quality and resilient infrastructure.”

The combination of increasing demands for new and innovative infrastructure and services, on one hand, and the current reality of dangerously aging assets in Europe and Central Asia, on the other, calls for resilient and more sustainable strategies while planning and realizing projects related to infrastructure. According to a study by the EU Joint Research Centre, damage to infrastructure due to disasters and climate change in Europe currently amounts to approximately €9.3 billion annually. This is expected to soar to €19.3 billion by 2050 and €37 billion by 2080 (EU Members, Switzerland, Norway and Iceland are included in the study). The energy and transport sectors will be the most affected, with annual expected damages of €8.2 billion by 2080 for the energy sector and €0.8 billion by the end of the century for the transport sector (EU Science Hub, 2017). The Sendai Framework Monitor (SFM) reported that, in 2018 alone, 1,889 infrastructure assets in 20 countries in Europe and Central Asia were damaged or destroyed as a result of disasters, amounting to direct economic losses of over \$3 billion (UNDRR SFM report, 2020).

A common set of issues challenge efforts to change these dynamics:

- No common understanding of what “**resilient infrastructure**” constitutes (should go beyond simply recovering and into adapting to changing conditions and transforming for “building for the future”)
- Need for **common principles/ metrics/ indicators** to base resilience measures and policies on.
- **A lack of disaster loss data, in particular on indirect losses** (in relation to the implementation of SFDRR Target D) for evidence-based decision making
- **A lack of understanding on how cascading risks impact infrastructure systems** (linked to the interconnected nature of infrastructure)
- A lack of **risk disclosure** for major infrastructure projects
- Clarity on the role that **governance, the private sector, and incentives** play for integrating resilience and monitoring.

On top of these challenges, the COVID-19 pandemic has painfully shown the breadth of the consequences of systematically underinvesting in resilience. With investments going towards putting new infrastructure in place and given that the bulk of funding allocated for the COVID-19 recovery will be used to support public investment and key structural reforms, it is critical that considerations of risk reduction (natural and human induced) and resilience shape how and where these resources are spent. The objective of this session will be to explore ways forward and practical solutions for addressing these challenges.

<p>Session objectives</p>	<ul style="list-style-type: none"> • Identify the key factors that make infrastructure resilient including risk, recovery and functionality aspects, and review the status of resilient infrastructure in Europe and Central Asia. • Discuss the role of governance and policy mechanisms in making infrastructure resilient, and identify pathways to deal with complex interdependencies in order to facilitate evidence-based decision making. • Identify how governments, policy makers and the private sector can step-up and deliver on their commitments. • Explore how considerations of risk reduction can shape where and how investments are made aimed at the COVID-19 recovery.
<p>Questions to be addressed</p>	<p>What do we understand by “resilient” infrastructure?</p> <p>How can considerations of risk reduction (natural and human induced) and resilience shape how COVID-19 recovery resources are invested?</p> <p>How can we ensure that infrastructure investments are resilient and do not instead contribute to the creation of more risk?</p> <p>What are some of the incentives/good practices for engaging the private sector to invest in resilient infrastructure?</p> <p>What are the basic principles/indicators that need to be considered so that infrastructure could be marked as “resilient”?</p> <p>Can we use resilience as a performance indicator for our civil infrastructure?</p> <p>What regulatory and policy changes would bring the most dividends to communities and would ensure the resilience of infrastructure?</p> <p>What would climate change affect in terms of the operation of existing civil infrastructure?</p>
<p>Expected outcomes</p>	<ul style="list-style-type: none"> • A better understanding of vulnerabilities of infrastructure to climate change and other natural hazards. • Identify ways to optimize the return on investments and build the business case for resilient infrastructure • Improved knowledge of the interdependencies, interactions and connectedness of infrastructure systems. • Greater clarity on the role of governance and policy mechanisms available to make infrastructure resilient. • Best practices shared for de-risking infrastructure investments, particularly in the context of public and private investments in COVID-19 recovery.
<p>Background documents and links</p>	<ul style="list-style-type: none"> • Three new CEN Publications for Security Professionals on City Resilience Development https://www.cen.eu/news/brief-news/Pages/NEWS-2018-039.aspx • Proposal for a directive on the resilience of critical entities: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:829:FIN

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