

# Resilience Infrastructure in the Anthropocene

ESI Quicker Bites April 2022



## Global Principles for Resilient Infrastructure

In the context of rapidly increasing risks of climate change, and systemic hazards like the global pandemic, the United Nations Office for Disaster Risk Reduction (UNDRR) has been facilitating the development of global principles for resilient infrastructure and critical services such as energy, digital, transport, water and waste.

The 6 Principles for Resilient Infrastructure are:

1. Adaptively transforming
2. Environmentally integrated
3. Protected by design
4. Socially engaged
5. Shared responsibility
6. Continuously learning

## Nature-Positive Actions: The Many Benefits of Biodiversity

BiodiverCities by 2030 is a project of the World Economic Forum, the Alexander von Humboldt Institute and the Government of Colombia. It proposes a variety of ways of 'healing and resetting cities' relationship with nature, guiding 'nature-positive' actions in infrastructure, economy, health and wellbeing.

This 'Insight report' includes a great deal of information on land use, risks, economic costs and savings, transport, job creation and other relevant matters.

## Digital and Beyond: Resilient Infrastructure in the Anthropocene (ESI Member)

This paper contributes to the emerging literature on the governance of security by studying the impacts on critical infrastructures of recent cases of cyber-attacks and natural disasters in the U.S and Canada, and by analysing the practices that are promoted to ensure the resilience of critical infrastructures.

Considering the interconnections and interdependencies between human beings and the increased digitalisation of human activities, new perspectives on the governance of security are needed. The unexpected character of current disasters requires improving the capacity to improvise of local responders, as well as the flexibility of rules, roles and procedures.

Resilient infrastructures enable critical flows (water, electricity) to be maintained in the face of damage, going beyond digital analysis and digital cooperation and promoting a decentralized system of energy based on renewables and having a public and community orientation.

## Disaster Risk Management and Infrastructure in the Anthropocene

South Africa's northeast coast is regularly subject to heavy rain-bearing cyclones off the Indian Ocean, but the recent notable increases in the severity of this phenomenon have shown up the high cost to lives and to infrastructure of inadequate planning and maintenance: massive damage to roads, bridges and railway lines, with the most impact on the poor and knock-on effects such as the closure of Durban's port, the main shipping entry in the country.

Disaster Risk Management in the Anthropocene requires an unprecedentedly high level of institutional agility and a holistic and long-term approach to mitigation and adaptation.



**Mapping Narratives of Urban Resilience in the Global South (ESI Member)**

**Extreme Heat is a Disease for Cities. Treat It That Way.**

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**Our email address is:**  
[esi@proactive-resolutions.com](mailto:esi@proactive-resolutions.com)

**Our website is:**  
[evolvingsecuritiesinitiative.com](http://evolvingsecuritiesinitiative.com)

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