

Infrastructure: IPCC WGII Climate Change 2022 Report

Infrastructure includes the social, ecological, and physical systems that underpin safe and productive life in cities and on Earth. Globally, infrastructure is at risk from climate change, with sanitation, water, health, transport, communications, and energy infrastructure all projected to become increasingly vulnerable unless they are designed to be resilient to changing climate conditions.

Adapting infrastructure to the changing climate includes measures from land-use planning and early warning systems, to disaster risk reduction. The [IPCC report](#) highlights several adaptation pathways to transform infrastructure around the world in response to the changing climate.

1. Protect vulnerable communities first

Understanding how livelihoods are impacted by climate risk is central to climate adaptation. When making changes to infrastructure, it is important that finance is allocated to protect vulnerable populations across rural and urban locations in high-, middle-, and low-income countries.

2. Enhance social safety nets

Measures to enhance social safety nets are vital to boost resilience and support those most vulnerable to the impacts of climate change. These include social insurance, cash transfers, subsidized health services and relocation support for those disproportionately affected by the changing climate.

3. Value Local & Indigenous knowledge

The inclusion of local and Indigenous knowledge in adaptation policy solutions is essential for building resilience to climate risks at the local level. Placing local and Indigenous leaders in positions of decision-making power is crucial for building sustained adaptation efforts in line with community needs and avoiding maladaptation.

4. Use nature-based solutions

Adaptation solutions rooted in nature can help cities, settlements and infrastructure become more resilient to climate hazards. The benefits of nature-based solutions include temperature regulation, air quality improvement, storm impact reduction, and coastal flooding protection, all of which strengthen resilience to climate change.

5. Invest now in physical infrastructure

Physical infrastructure is sensitive to climate risks. However, investing in upgrading the world's physical infrastructure to make it low-carbon and resilient to climate risks now will provide compounding benefits in the future. Improvements will reduce climate-related losses, protecting the future of livelihoods, agricultural productivity, food security, health, property and income.

6. Plan for a resilient future

Decisions on new building developments and retrofitting infrastructure must consider climate resilience from the outset. This requires collaboration between national governments, NGOs, and international agencies across sectors and in partnership with local communities.

Adaptation Action Coalition

The Adaptation Action Coalition (AAC) is a state-led coalition of 40 (and counting) member countries driving adaptation action to achieve a climate-resilient world by 2030. By accelerating global action on adaptation, the AAC will help people, economies and the planet become more resilient and equitable.



To find out more visit the AAC website.

To learn more about joining, contact AAC@wri.org

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