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The importance of subnational actions in addressing climate change

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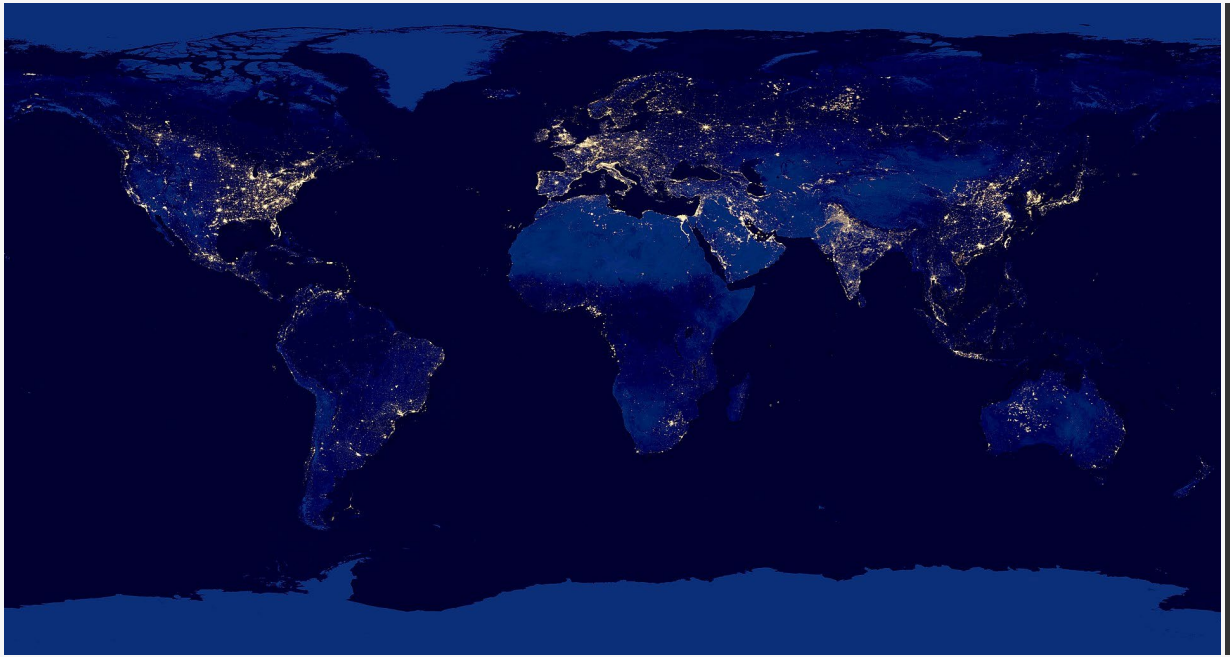
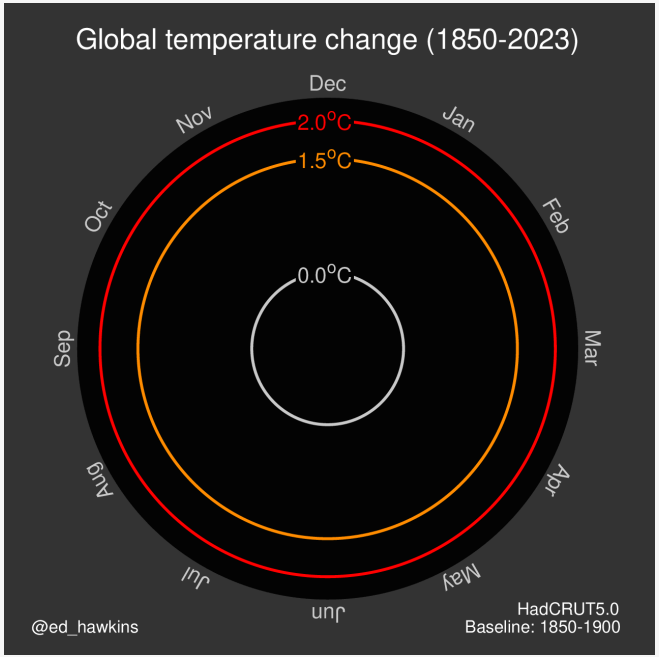
The urban century and the climate century



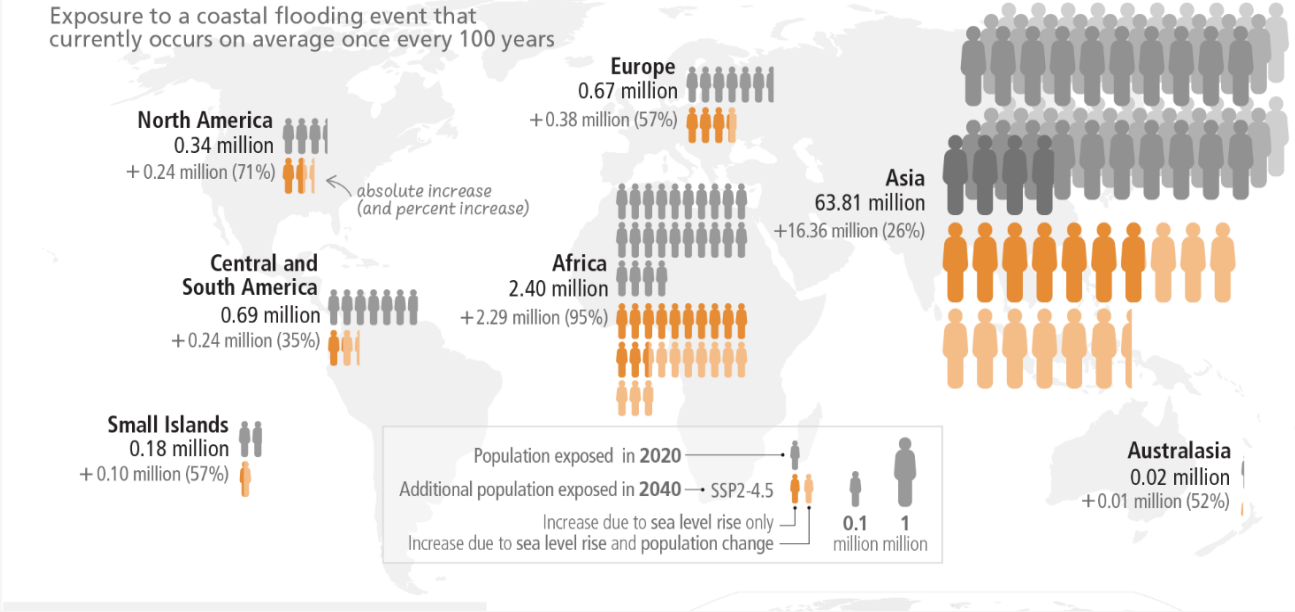


NASA Earth Observatory; Ed Hawkins

Increasing risks facing cities compounded by inequalities

Every region faces more severe and/or frequent compound and cascading climate risks

a) Increase in the population exposed to sea level rise from 2020 to 2040



IPCC AR6 Synthesis Report; Johnny Miler

What can be done to reduce urban emissions?

Established cities

Emissions can be reduced by 23-26% by 2050 and offer public health benefits. Options include:

Improved land use and rezoning, e.g. through spatial planning for compact and resource-efficient cities

Breaking out of lock-in – e.g. by replacing, improving or retrofitting buildings.

Electrifying the grid – and employing low emissions public transport.

Rapidly growing cities

Designing human-centered streets and infrastructure layout is essential for lowering urban demand for energy and achieving low- or net-zero carbon.

Employing low-emissions materials and reducing embodied emissions.

E.g. going straight to electrification of urban services, like transport, heating, cooking etc.

E.g. with urban planning for compact urban areas and co-locating homes with jobs

New cities

These yet-to-be-built cities have tremendous opportunity for low emission design and construction. Achieving this provides benefits for health and economic development.

Smaller-scale, walkable cities

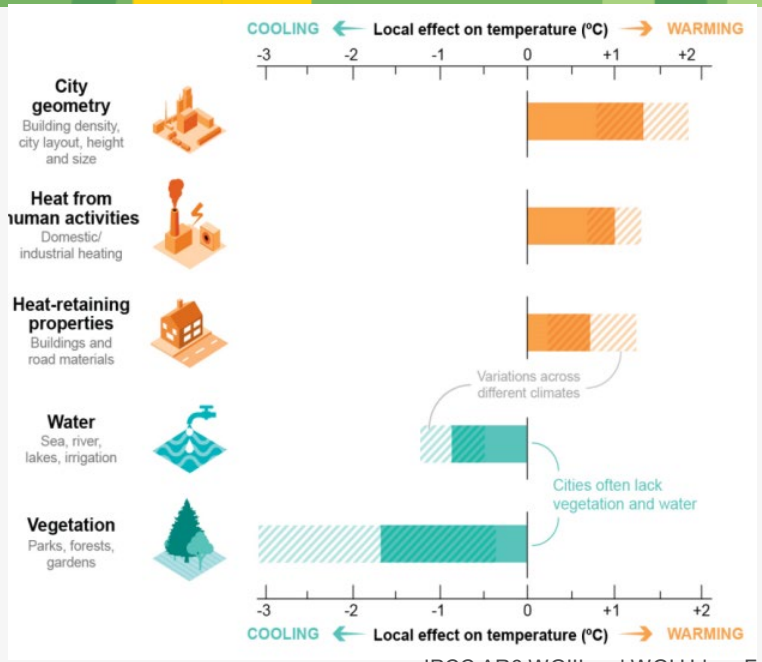
Reducing materials demand and use

The integrative role of green and blue infrastructure

Urban green and blue infrastructure (in all cities): Urban forests, street trees, green roofs and other permeable surfaces can directly mitigate climate change by sequestering and storing carbon. They can also indirectly help by creating a cooling effect which reduces demand for energy and water.

Green and blue infrastructure can help in reducing the urban heat island (UHI) effect and heat stress, reducing stormwater runoff, improving air quality, and improving the mental and physical health of people living in cities.

Measures that promote walkable urban areas combined with electrification and renewable energy can create health benefits from cleaner air and more physical activity.



IPCC AR6 WGIII and WGI Urban Factsheet

How can urban action be enabled?

BEYOND CITY BOUNDARIES

Beyond city boundaries:
Cities can only achieve net zero emissions if emissions are reduced both within and outside of their administrative boundaries through supply chains (e.g. importing vehicles and building materials).

PARTNERSHIPS & COOPERATION

Addressing emissions beyond administrative boundaries depends on cooperation with national and subnational governments, industry, and civil society.

Putting in place infrastructure to mitigate climate change is often beyond the capacity of local budgets and jurisdictions.

INVESTING IN CITIES

Partnerships, e.g. between cities, institutions, regional governments, transnational networks etc. play a pivotal role in mobilising global climate finance. Current investment in urban areas is only 10% of the climate finance required for low-carbon urban development.

In conclusion

Thank you!

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