

Finnish National Climate Change Adaptation Plan

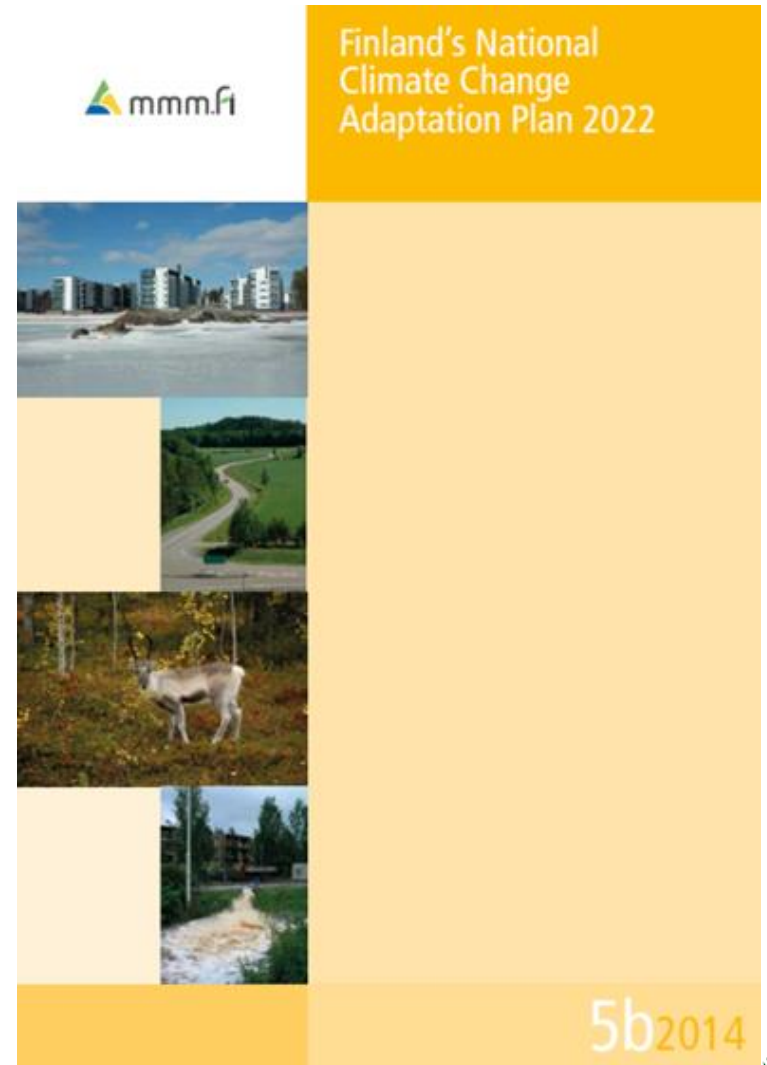
Training for Urban Climate
Adaptation Training Days

28.11.2017

Saara Lilja-Rothsten

Ministry of Agriculture and Forestry

13.12.2017



Watermanagement is the key issue in the climate change adaptation



City of Pori 12.8.2007



Kauhajoki 7.10.2012/ Photo Unto Tapio

see example from China:

<https://www.theguardian.com/cities/2017/sep/25/what-flood-proof-city-china-dhaka-houston>

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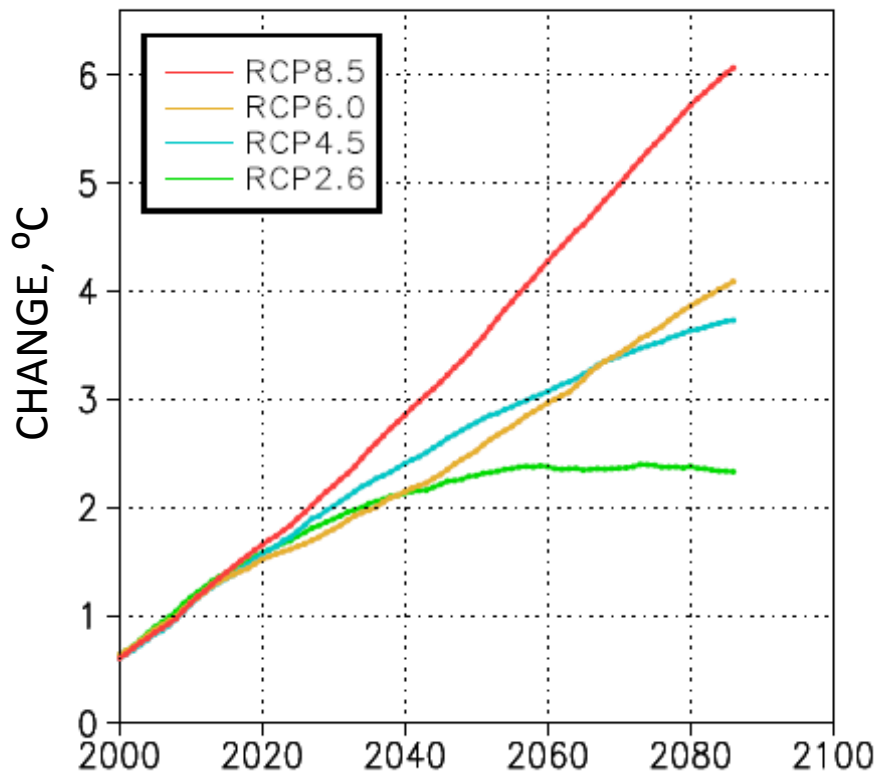



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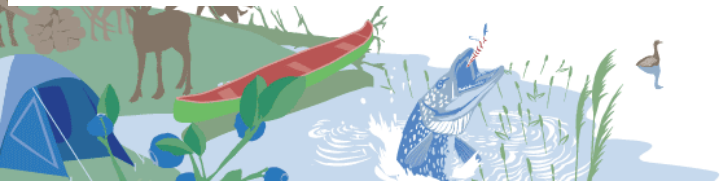
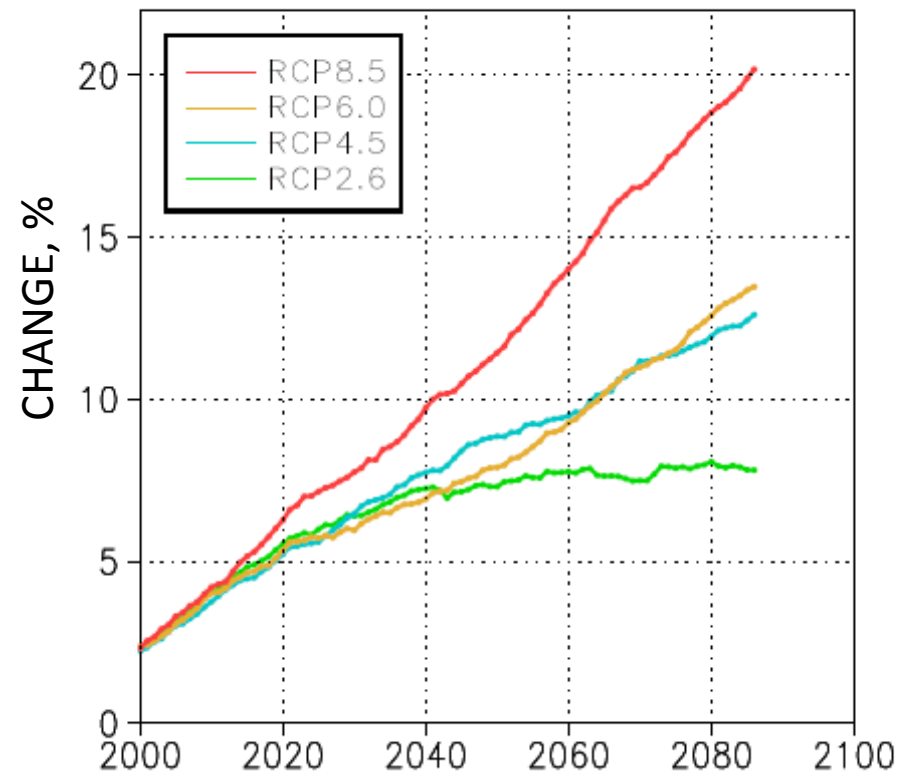


The temperature rise in Finland is above the rise in the global mean temperature

ANNUAL MEAN TEMPERATURE, FINLAND



ANNUAL MEAN PRECIPITATION, FINLAND

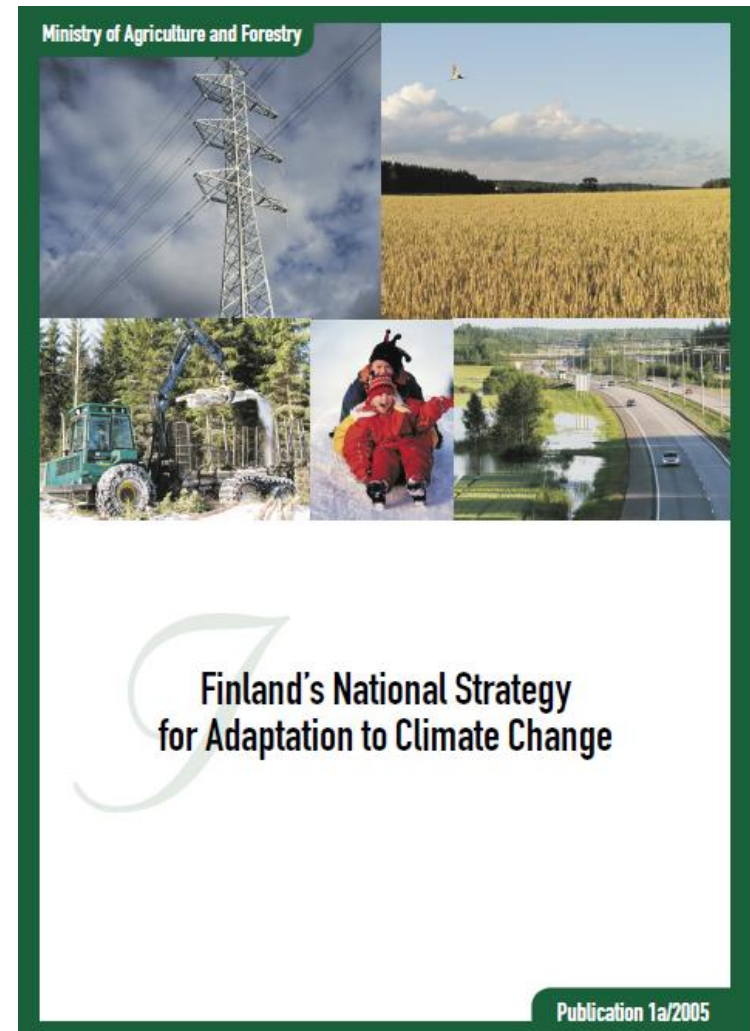


One of the first (if not the first) Adaptation strategy in the World (2005)

The objective is to strengthen and increase Finland's adaptive capacity.

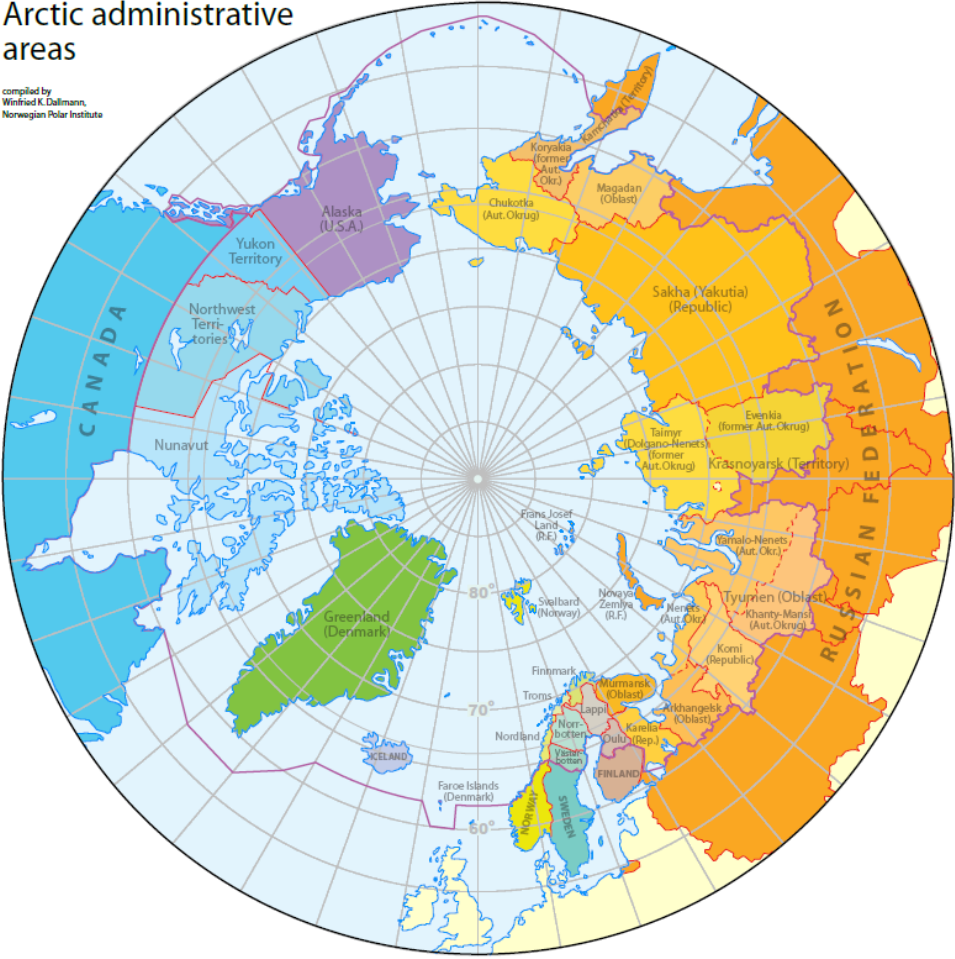
This is to be achieved by:

- **Describing climate change and its impacts**, as well as assessing the **sensitivity of sectors**.
- Assessing current **adaptive capacity, vulnerability and opportunities** associated with climate change; and
- **Presenting actions** that should be taken immediately (such as research and development) and policies for future actions.



Arctic administrative areas

compiled by
Winfried K. Dallmann,
Norwegian Polar Institute



Resilience is vital in the arctic areas



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The first NAS (2005) describes the impacts of climate change

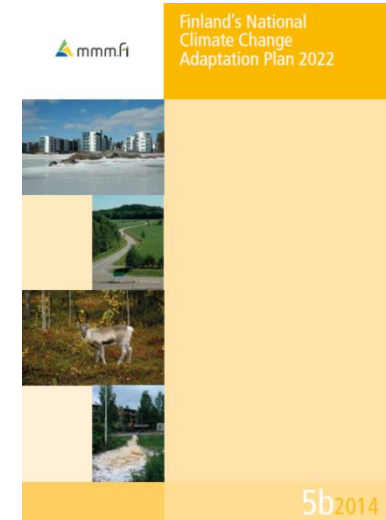
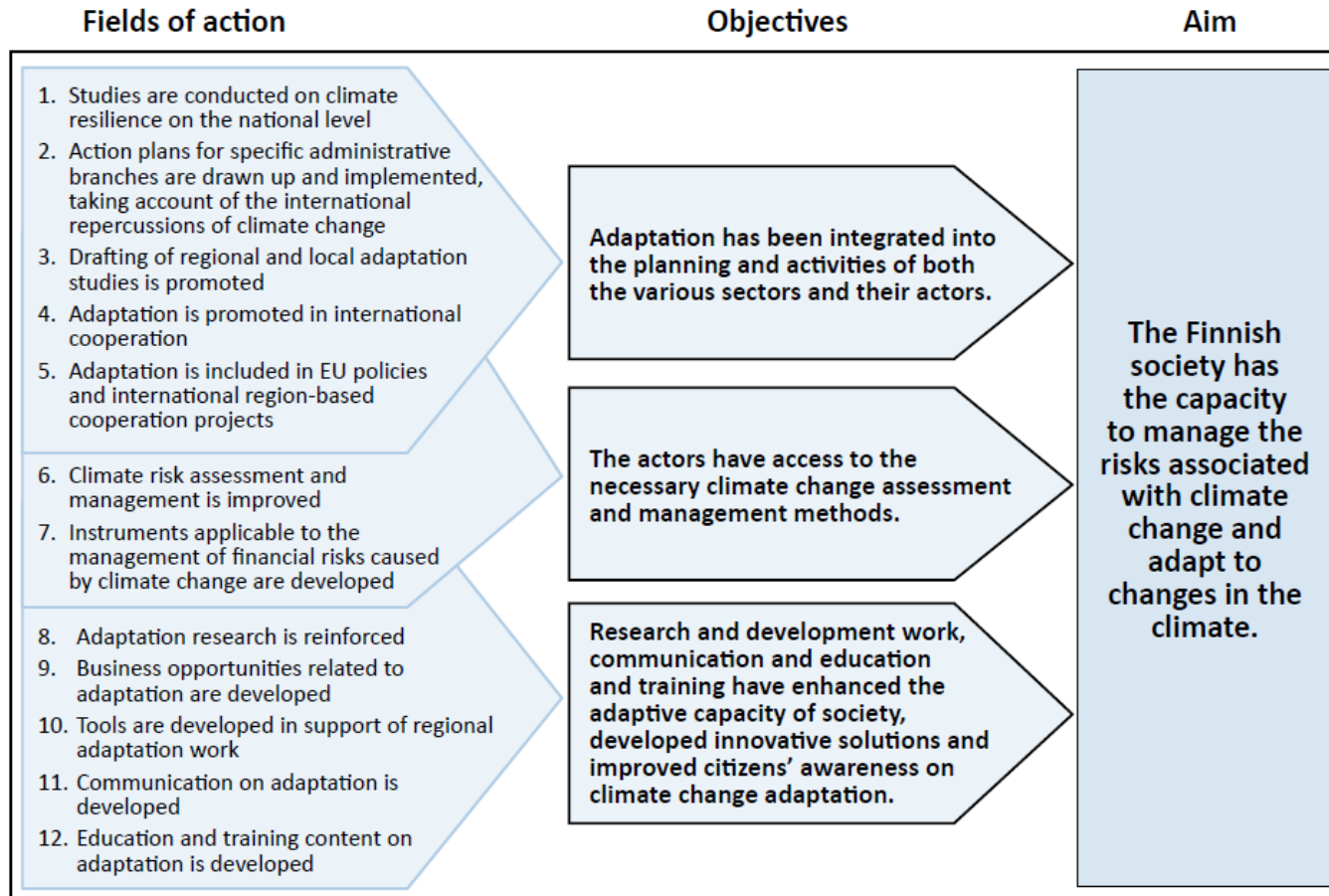
- contains adaptation measures for 15 sectors: agriculture and food production, forestry, fisheries, reindeer husbandry, wildlife management, water resources, biodiversity, industry, energy, traffic, land use and communities, building, health, tourism and recreation, and insurance
- -> Evaluation 2009
- -> Evaluation 2013

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Adaptation requires cross-sectoral actions

-> Finland's National Climate Change Adaptation Plan 2022 (NAP 2014)



Government Resolution
20th November
2014



The coordination group for NAP

- the Ministry of Agriculture and Forestry (coordination)
- the Prime Minister's Office & Ministry of Environment, Ministry of the Interior, Ministry of Education and Culture, Ministry of Economy and Employment, Ministry of Social Affairs and Health, + Ministry of Foreign Affairs, Ministry of Defence
- **Research institutes:** Finnish Meteorological Institute; Finnish Environmental Institute and the Natural Resources Institutes
- **Regional actors:** ELY-centre (Centre for Economic Development, Transport and the Environment), the Association of Finnish Local and Regional Authorities, HSY - the Helsinki Metropolitan Area
- **Other experts:** SPEK (expert organization in fire and rescue services), and FF Finance Finland

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Aim of NAP: The Finnish society has the capacity to **manage the risks** associated with climate change and adapt to changes in the climate

Objectives 2022:

A. Adaptation has been **integrated** into the planning and activities of both the various sectors and their actors.

B. The **actors** have access to the necessary climate change assessment and management methods.

C. Research and development work, communication and education and training have enhanced the adaptive capacity of society, developed innovative solutions and **improved citizens' awareness** on climate change adaptation.



Significant share of the practical adaptation measures is taken in the regions or locally

- All the provinces have been working for climate strategy or the climate strategy is important part of the strategy work. In 2015 already 125 municipalities had climate strategy.
- The Association of Finnish Local and Regional Authorities is a powerful advocate for all Finnish municipalities and regions. And together with Ecofellows Ltd./City of Tampere are supporting partners in the Covenant of Mayors.
- In 2017, 12 Finnish municipalities are part of Covenant of Mayors, but only 3 have signed up to the adaptation commitment available since 2015.





Keyword: RISK

Assessment of Weather and Climate Risks – now and in future -SIETO-project


Sää- ja ilmastoriskien arviointi ja toimintamallit (SIETO)

VNK TEA 3/2017-3/2018
LEAD: Heikki Tuomenvirta




SIETO

Weather & Climate risks



National Vulnerability and Risk Assessment

Literature: risk catalogue, vulnerabilities



STAKEHOLDERS
SECTOR STUDIES
EXPERT VIEWS
DRR & CCA



Plan for future assessments

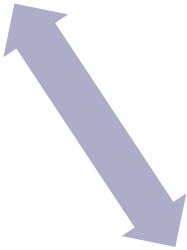
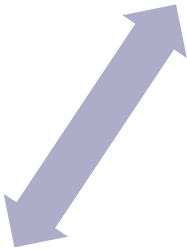
Why? Who? What?

How? national & international context



Plan for data & info gathering

Resources: present procedures, new data bases & technology, sharing, incentives



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Green and blue infrastructures have the key roles in the climate change adaptation



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Malta 2017/Lilja-Rothsten

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Adaptation needs good examples

- Helsinki, Lahti, Turku, Vantaa Climate-Proof City (ILKKA) – Tools for Planning –project <https://ilmasto-opas.fi/en/>
- Vantaa
https://www.vantaa.fi/instancedata/prime_product_julkaisu/vantaa/embeds/vantaawwwstructure/120411_Hulevesien_hallinnan_toimintamalli.pdf)
- Jyväskylä (mm. Green Street
<https://www.jyvaskyla.fi/kaavoitus/greenstreet>)
- Lahti (Runoff waters /Smart and clean)

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Adaptation in cities and in regions in Finland

- By the end of 2015, regional flood risk management plans were published for every significant flood risk areas, and currently the measures are being implemented.
- In addition, several bigger cities and municipalities have been active in **vulnerability assessment**.
- UN Country report- draft 2017

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China Europe Water Platform

- The China Europe Water Platform (*CEWP*) is a dialogue mechanism to enhance cooperation on water governance, policies, legislation, management, research, practical know-how and commercial technologies
- The practical cooperation forms consist of high-level discussion events, joint research and innovation projects, joint workshops and business cooperation



CEWP and cities

- Many cities in China and Europe will participate CEWP activities
- The city co-operation consists of, e.g., the following themes:
 - urban hydrology
 - nature-based solutions – adaptation to climate change
 - waste water reuse

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Resilient cities

What would an entirely flood-proof city look like?

The wetter the better. From sponge cities in China to 'berms with benefits' in New Jersey and floating container classrooms in the slums of Dhaka, we look at a range of projects that treat storm water as a resource rather than a hazard

by Sophie Knight

Keywords for adaptation water - risks- awareness

They call it “pave, pipe, and pump”: the mentality that has dominated urban development for over a century.

Along with the explosion of the motorcar in the early 20th century came paved surfaces. Rainwater - instead of being sucked up by plants, evaporating, or filtering through the ground back to rivers and lakes - was suddenly forced to slide over pavements and roads into drains, pipes and sewers.

Their maximum capacities are based on scenarios such as 10-year storms. And once they clog, the water - with nowhere else to go - simply rises.

The reality of climate change and more frequent and intense downpours has exposed the hubris of this approach. As the recent floods from Bangladesh to Texas show, it's not just the unprecedented magnitude of storms that can cause disaster: it's urbanisation.

Advertisement



<https://www.theguardian.com/cities/2017/sep/25/what-flood-proof-city-china-dhaka-houston>

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Thank you

- [saara.lilja-rothsten\(at\)mmm.fi](mailto:saara.lilja-rothsten(at)mmm.fi)
- @sliljaro
- <http://mmm.fi/en/nature-and-climate/climate-change-adaptation>
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