



OECD-Japan COP27 event “Leading action towards Zero Carbon Cities”

Thursday 17 November 2022

OECD PROGRAMME: A TERRITORIAL APPROACH TO CLIMATE ACTION AND RESILIENCE (TACAR)

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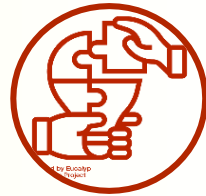


A Territorial Approach to Climate Action and Resilience: 4 pillars



Pilar 1. Localised indicator framework

- Localised benchmark on climate action and resilience



Pilar 2. Checklist for action

- Checklist for action
- Country-specific case studies



Pilar 3. Innovative climate policies/

- Compendium of leading examples of a territorial approach
- Country-specific case studies



Pilar 4. Subnational climate finance

- Database of financial flows and subnational green budgeting
- Self-assessment tool to introduce 'green-lens' into budgetary practices



Localised indicator framework

Why?

- ❑ National averages tend to **mask large territorial disparities**
- ❑ Lack of **'common languages'** between national and subnational governments
- ❑ Limited **international comparability** of existing climate subnational data



Proposed localised indicator framework

- ❑ **32 comparable** indicators
 - ❑ **25** indicators at **regional level** (TL2, TL3)
 - ❑ **7** indicators available at **city level** (FUA)
- ❑ Follows **Pressure-State-Response** approach
- ❑ Builds on the OECD Regional and Metropolitan Database **allowing international comparability**
- ❑ Consistent with the dashboard of the **OECD International Programme for Action on Climate** offering a **common language** between national and subnational governments allowing for national



Proposed (major) indicators

TL2 and TL3 regions
Functional Urban Areas (FUA)



Pressure indicators (drivers of emissions)

- (Cooling and heating degree days, levels and % change)
- Land use: built-up area growth; built-up area per capita, and difference between built-up area growth and population growth
- GHG emissions per capita, level and % change
- GHG emissions by sector: share of total emissions, level, per capita and % change



State indicators (impacts and risks)

- Population exposure to heat stress
- Urban Heat Island Intensity
- Population exposure to coastal flooding
- Population exposure to fires



Response indicators (actions and opportunities)

- Green areas in cities
- Patent applications in climate mitigation technologies as % of total technologies
- Citizens' satisfaction with efforts to preserve the environment



Emission levels and trends are diverse across regions within a same country

Southland (New Zealand)



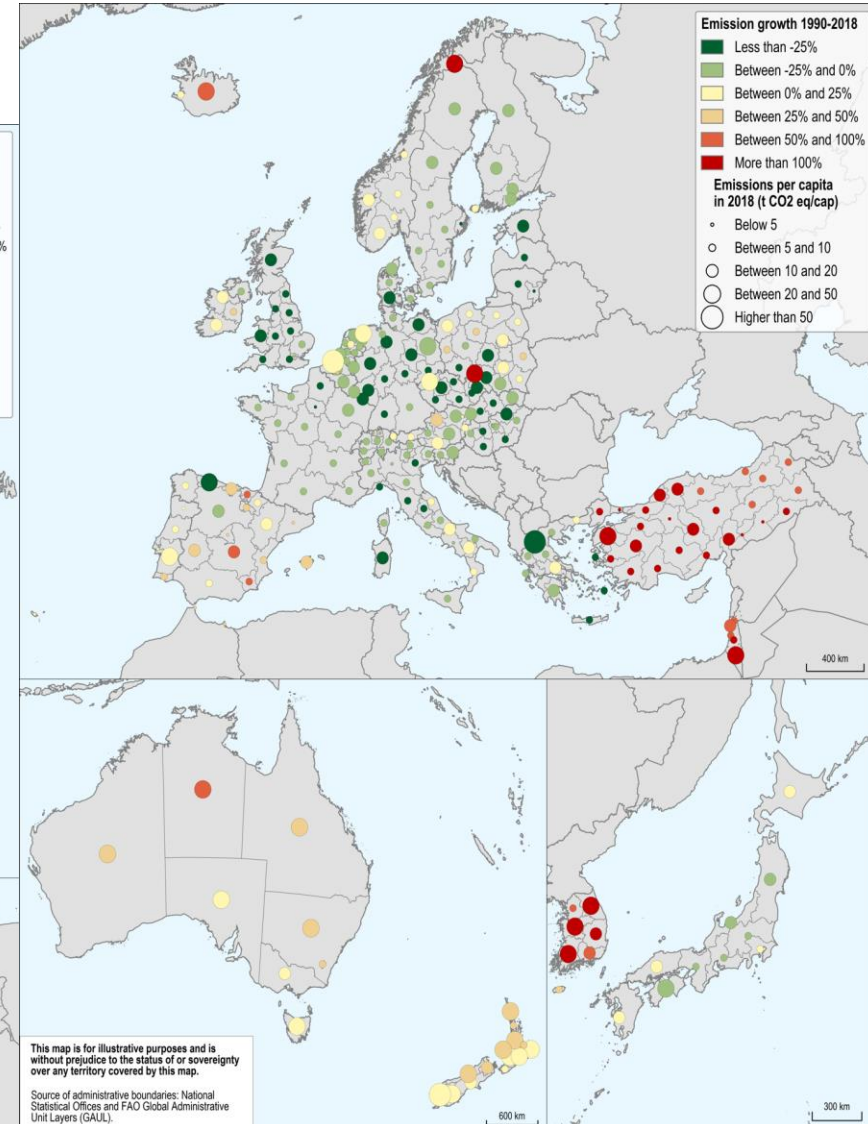
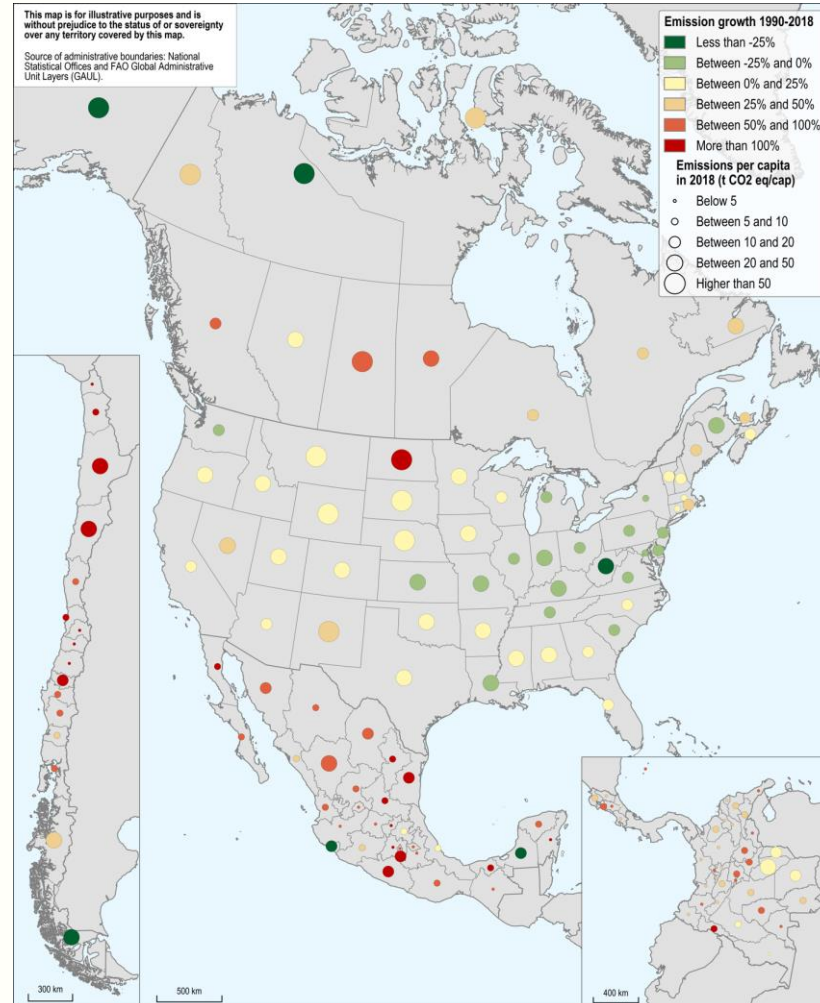
83.2 t CO₂ eq/cap

Auckland (New Zealand)



6.5 t CO₂ eq/cap

Indicator: Total production-based greenhouse gas emissions per capita (t CO₂-eq/capita), 2018; Emission growth (%) 1990-2018, OECD large regions (TL2)





Difference in temperature between cities and their surrounding areas reaches almost 5°C, and even 7°C

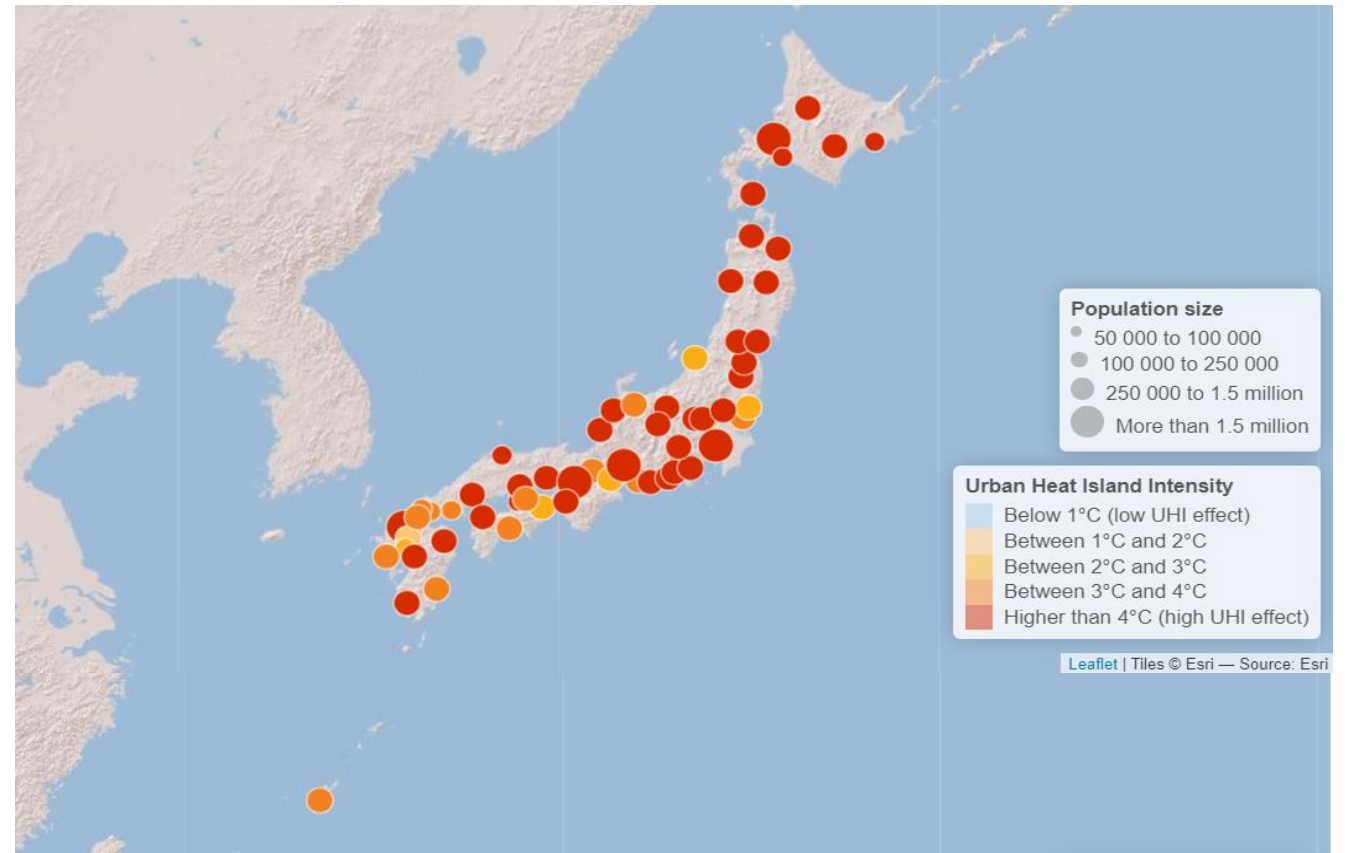
Asahikawa (Japan)

 **7.1°C** warmer than their surroundings

Kurume (Japan)

 **1.3°C** warmer than their surroundings

Urban heat island intensity index, 2021 (FUA)

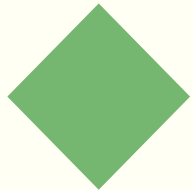




Green areas in urban centres

Green areas (trees, grasslands and shrublands) as % of the total area in FUA's urban centres, 2022

Puerto Montt (Chile)

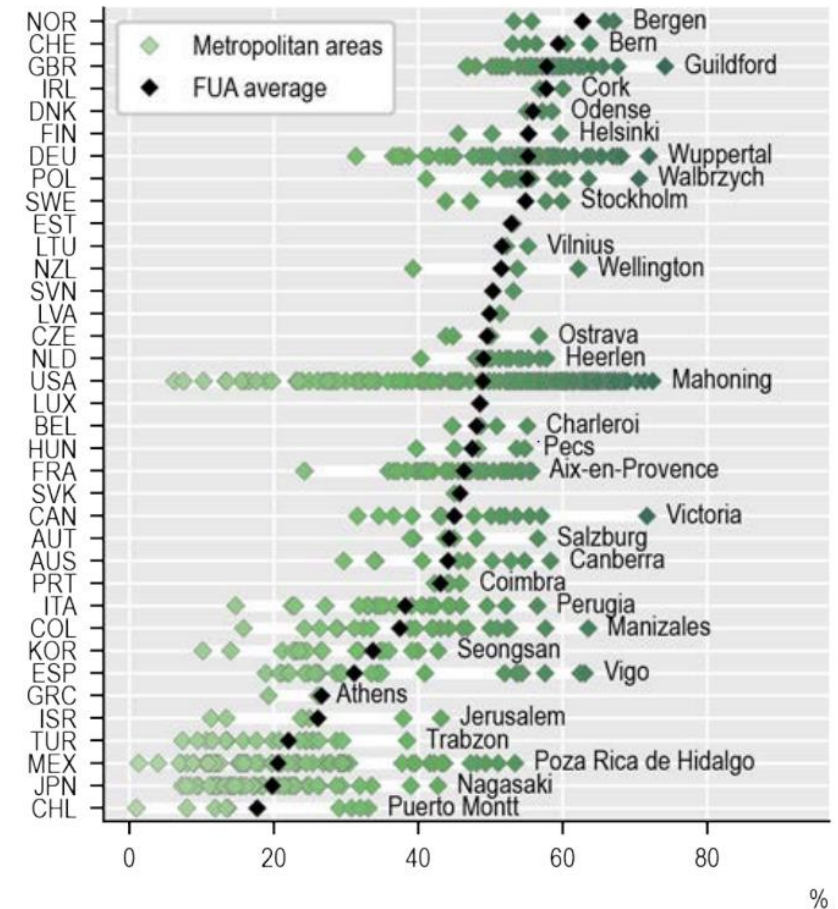


33.1% of the total area in FUA centre

Antofagasta (Chile)



0.97% of the total area in FUA centre

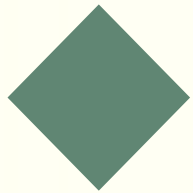




Large territorial disparities in exposure to river flooding in Canada

Population exposure to 100-year river floods in OECD large regions (TL2), 2015

Yukon (Canada)

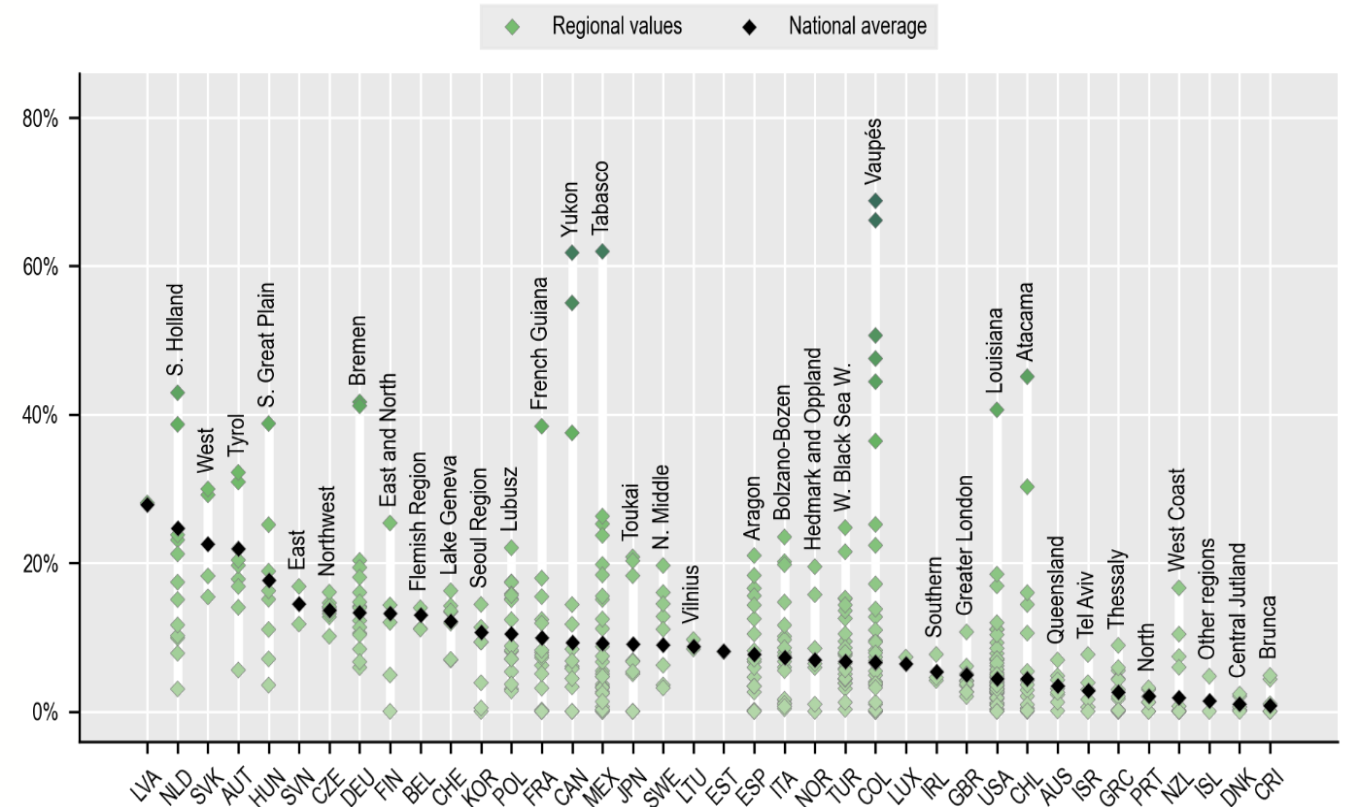


82.7 % of the total population exposed

Ontario (Canada)



7.68 t of the total population exposed





Policy implications: better understanding of territorial disparity can promote multi-level climate action

- ❑ Setting **locally differentiated climate targets** in policy framework such as NDCs or NAPs
- ❑ Challenging **national investment toward places** with high mitigation potential / vulnerability to climate change
- ❑ Aligning and co-ordinating **national and subnational climate strategies**
- ❑ Promoting **knowledge sharing among regions and cities** with that have similar opportunities and challenges



TACAR - next steps (2023-)

- ❑ Finalising the **indicator framework**
- ❑ Developing a **policy checklist** for a territorial approach to climate action and resilience
- ❑ Collecting **leading examples of a territorial approach** and producing an international compendium
- ❑ Case studies (country, region and city scales)
 - ❑ Applying the localised benchmarks to different geographies and scales
 - ❑ Assessing policies by applying the policy checklist

For more information about OECD TACAR Programme visit
<https://www.oecd.org/cfe/cities/tacar.htm>

Thank you

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