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

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### **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 Programe for Action on Climate** offering a **common language** between national and subnational governments allowing for national

## **Proposed (major) indicators**

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#### 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

## Functional Urban Areas (FUA)



## Response indicators (actions and opportunities)

**TL2 and TL3 regions** 

- 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 CO<sub>2</sub> 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)



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### **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)



### **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 <a href="https://www.oecd.org/cfe/cities/tacar.htm">https://www.oecd.org/cfe/cities/tacar.htm</a>

## Thank you



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