



Bordeaux – Ateliers du développement durable

Impacts et opportunités économiques consécutifs au
changement climatique

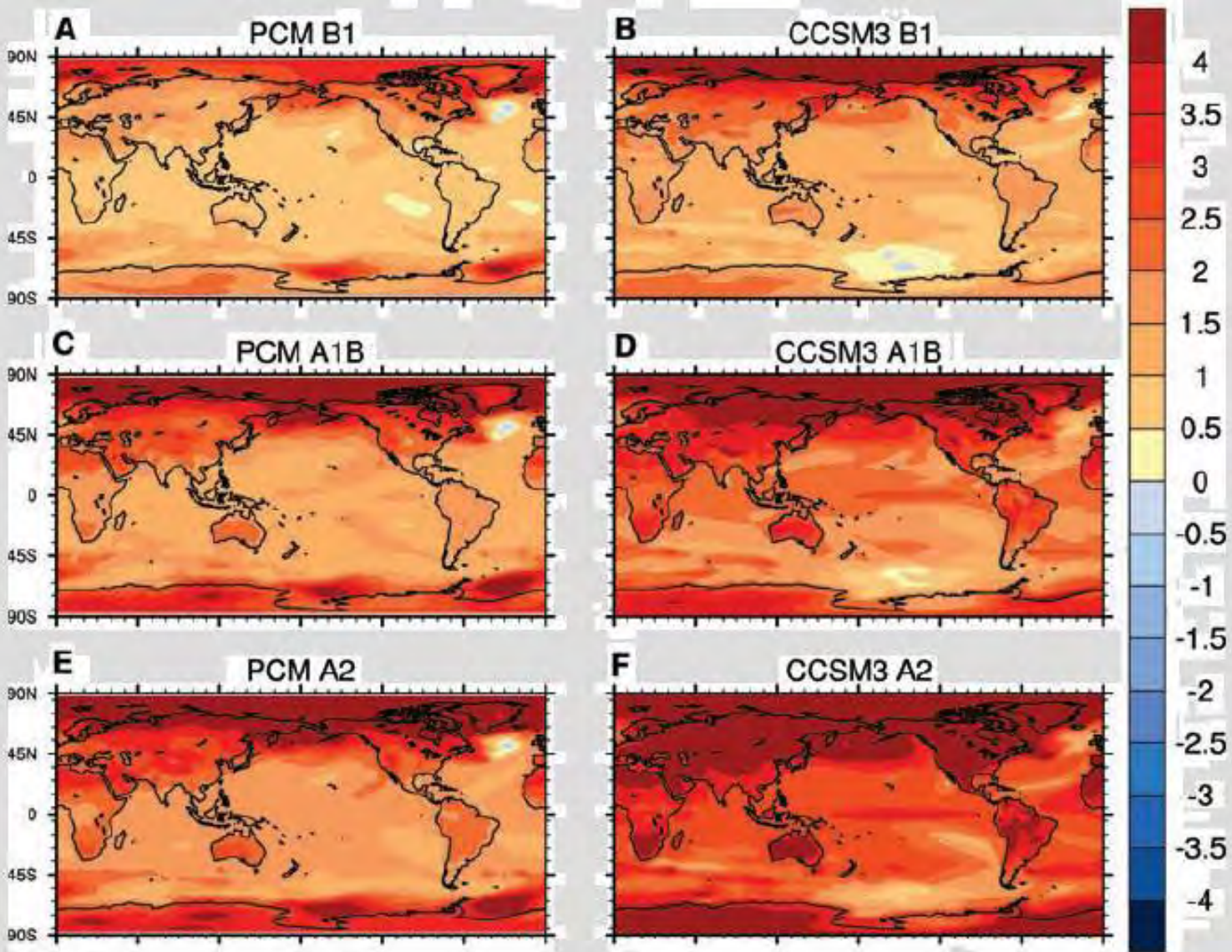
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Evolution of Climate Change

Hypothesis for the next century (inaction)



Source: Meehl et al. 2004 (Sciencemag)

- (Climate) Impacts are defined by IPCC TAR (2001) as:
The consequences of climate change on natural and human systems.
 - Potential Impacts *All impacts that may occur given a projected change in climate, without considering adaptation.*
 - Residual Impacts *The impacts of climate change that would occur after adaptation*

Costs of Climate Change

- Market Impacts** - Impacts that are linked to market transactions and directly affect gross domestic product (GDP, a country's national accounts) -- for example, changes in the supply and price of agricultural products.

Total economic cost of inaction (including general equilibrium impacts)
- Non-Market Impacts** - Impacts that affect ecosystems or human health but that are not directly linked to market transactions -- for example, an increase in the number of premature deaths.

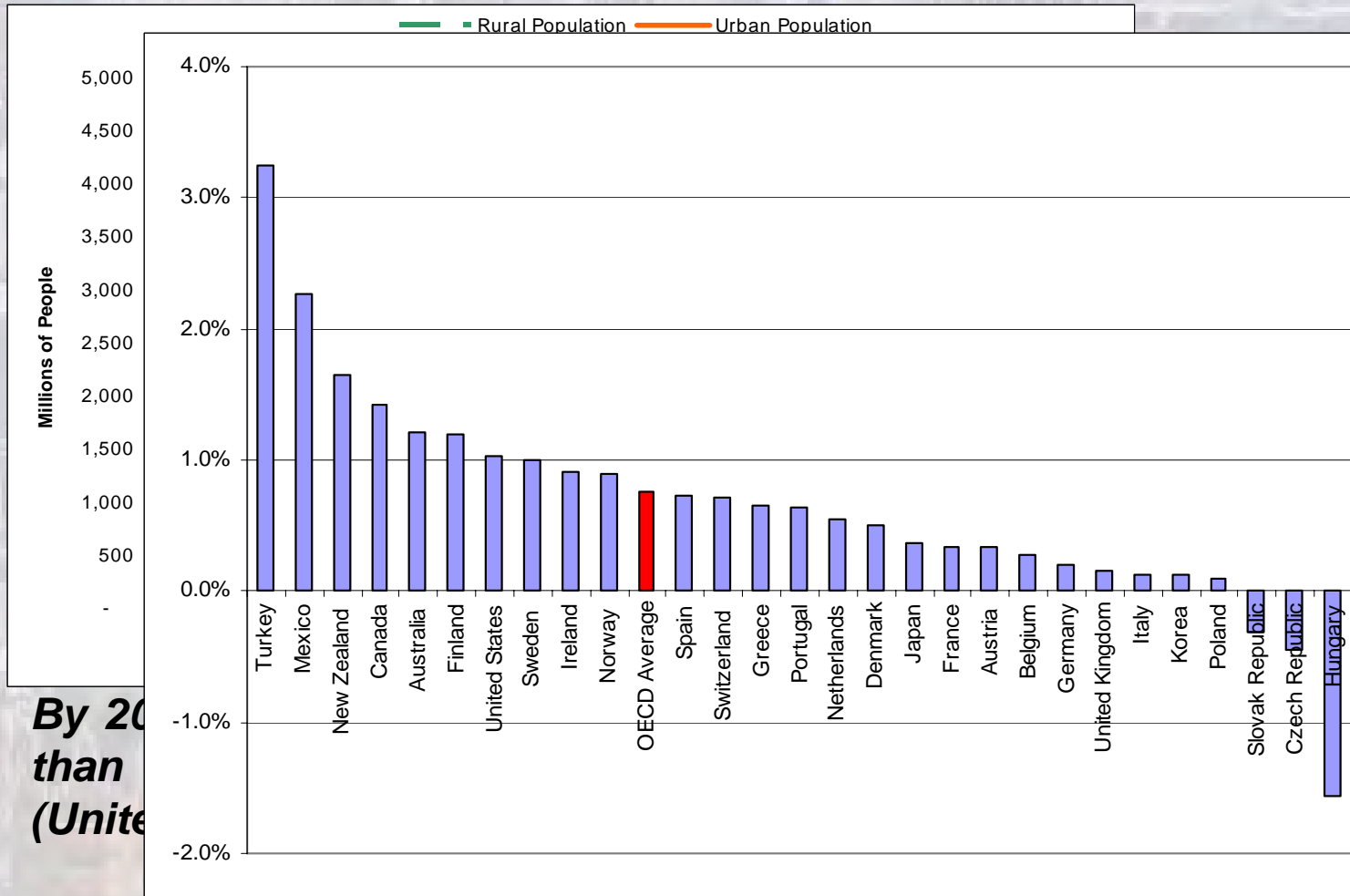
Public finance expenditures (health, service costs, remediation, etc.)

Direct financial cost of inaction (including private defensive expenditures, insurance costs, etc.)
- Social Costs** - a measure of change to social welfare and so include non-market values as well as market impacts.

Total Social welfare cost of inaction (including non-use values)

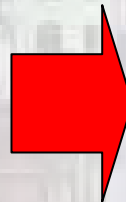


Urban regions: where such costs are higher



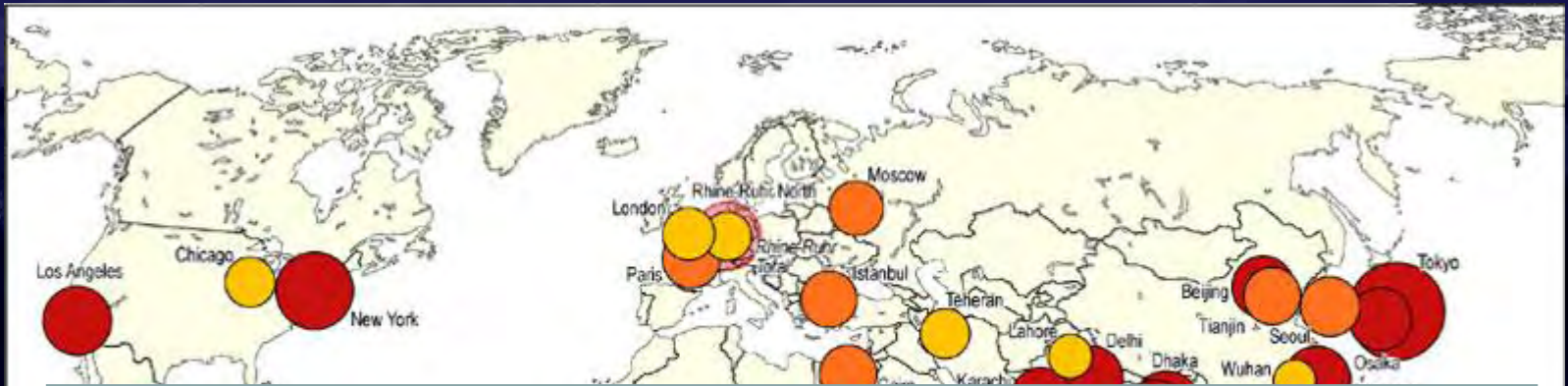
By 2030
than
(United States)

**53 % of the OECD
total population
lives in urban
regions**



**80% including less
densely populated areas
in intermediate regions**

...especially along the coast line

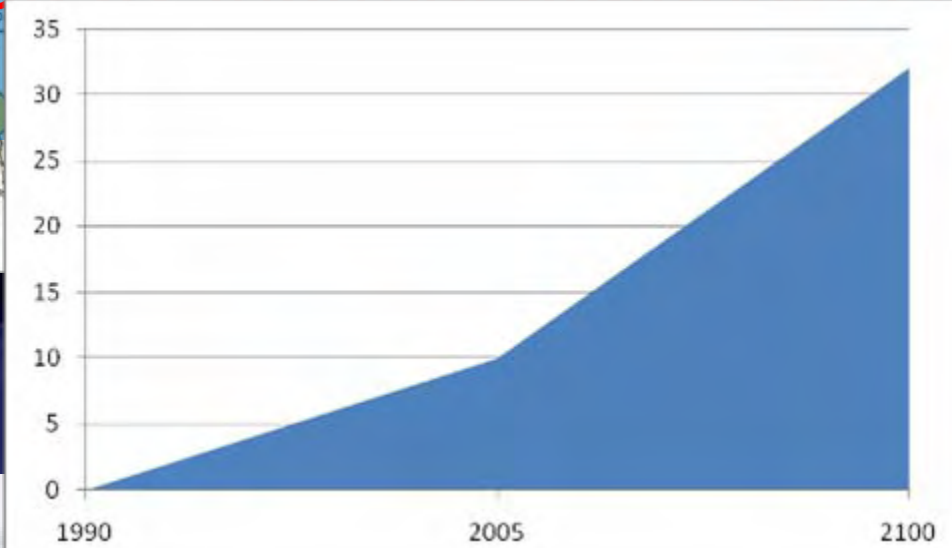


...where the effects of Climate Change are stronger

320% sea level rise
caused by thermal expansion by the

0 1000 2000 3000 km

Source: UN 2002
Draft and Copyright: F. Kraas
Cartography: R. Spohner



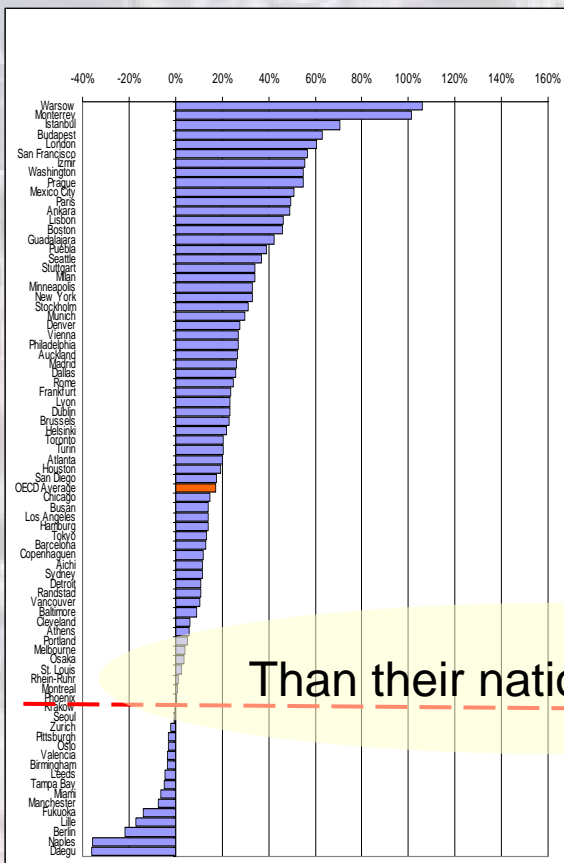
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Urban Regions produce the bulk of national GDP

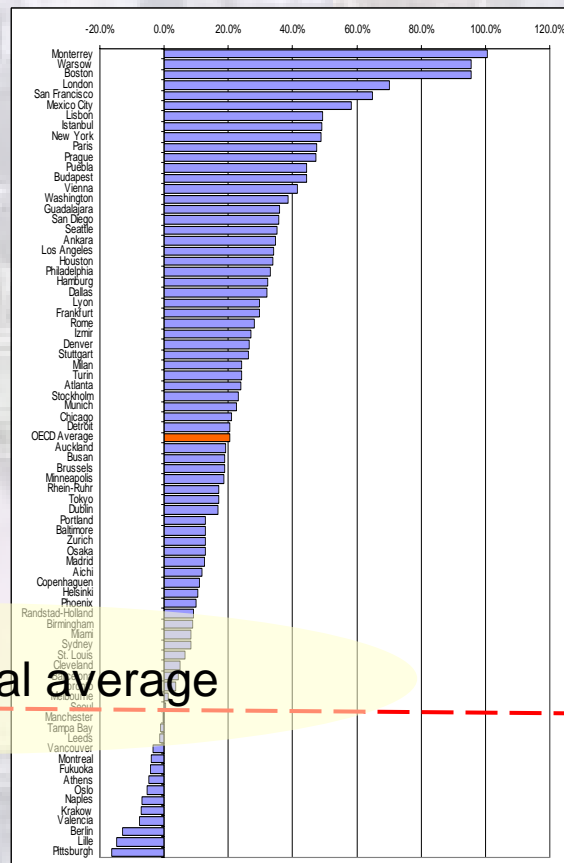
Around 50%: Budapest, Seoul, Copenhagen, Dublin, Helsinki, Brussels, (Montreal, Toronto, Vancouver in their respective provinces), etc.

One third: Oslo, Auckland, Prague, Tokyo, Stockholm, London, Paris

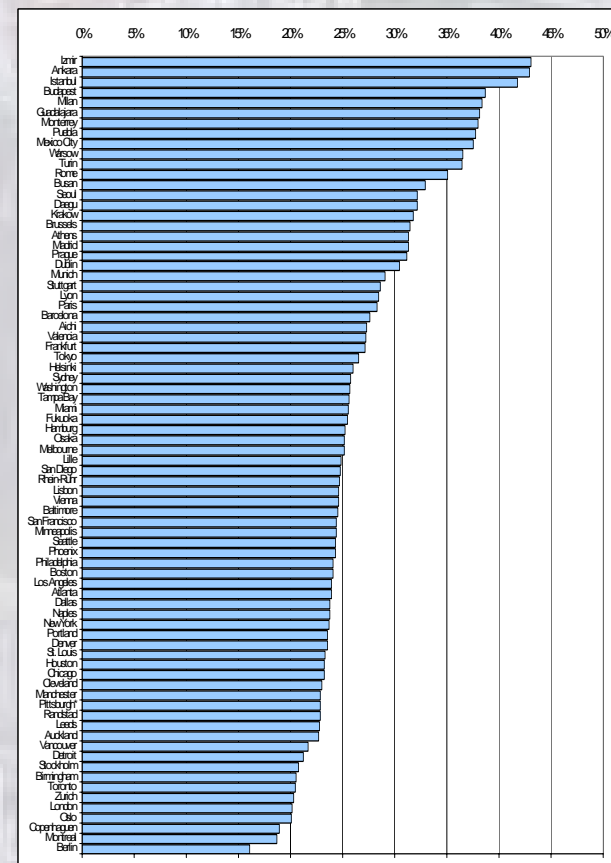
Higher GDP per capita...



Higher productivity...



Higher employment...



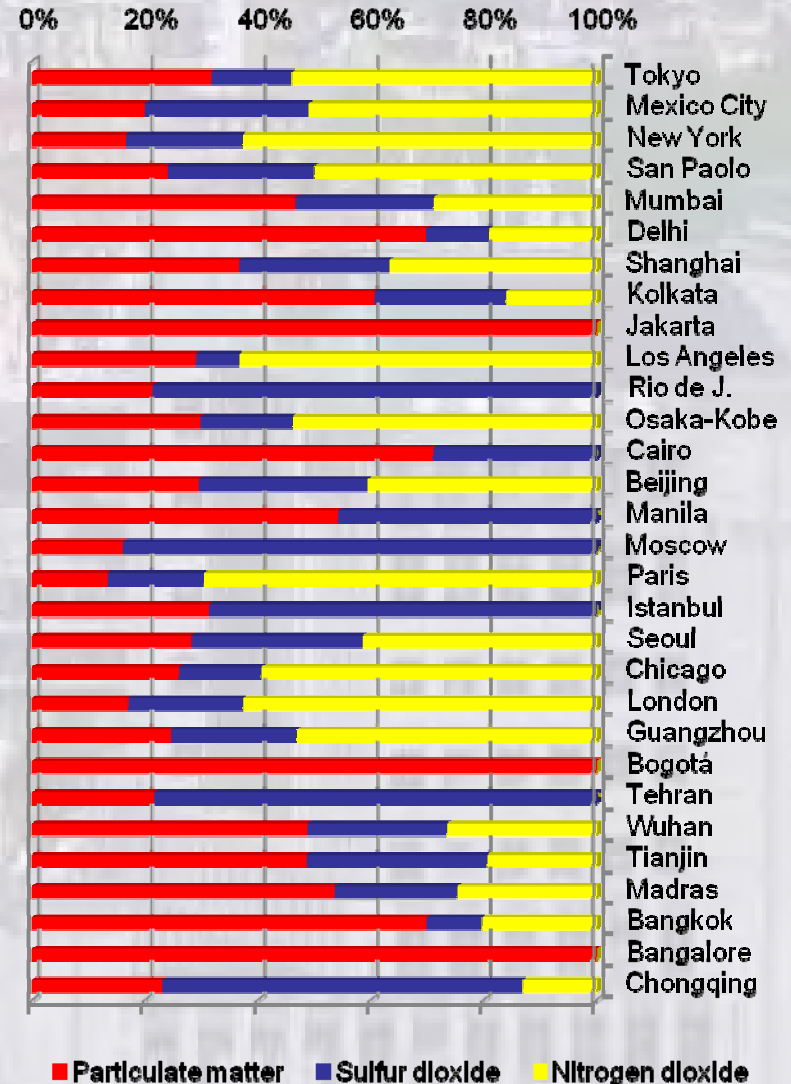
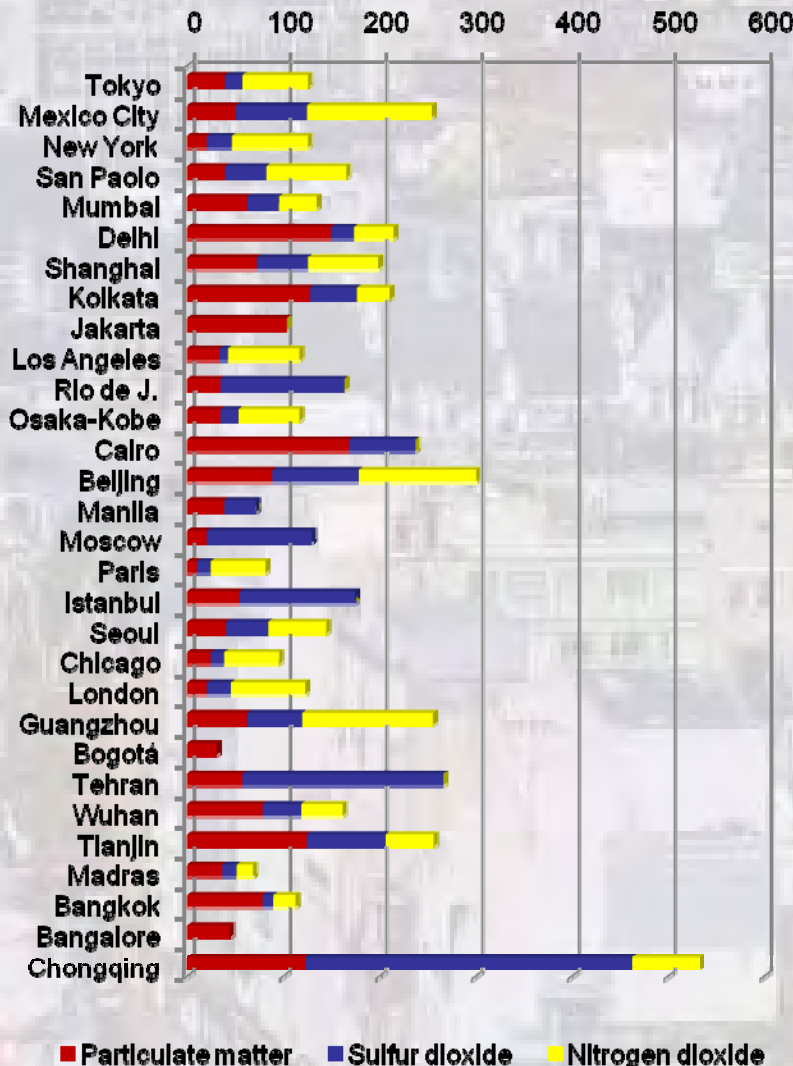
Than their national average

...and main polluters...

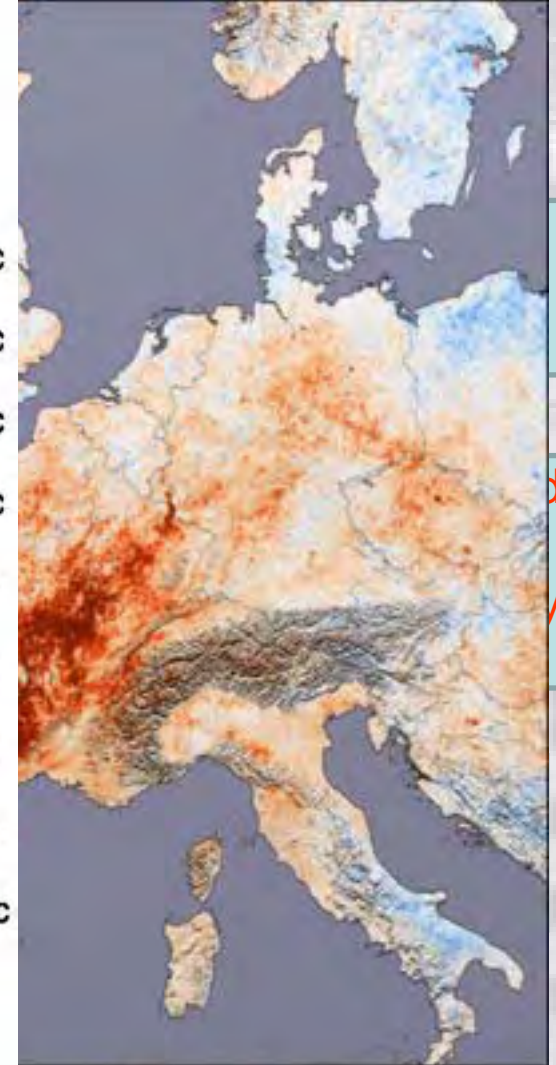
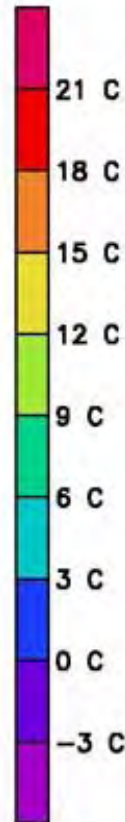
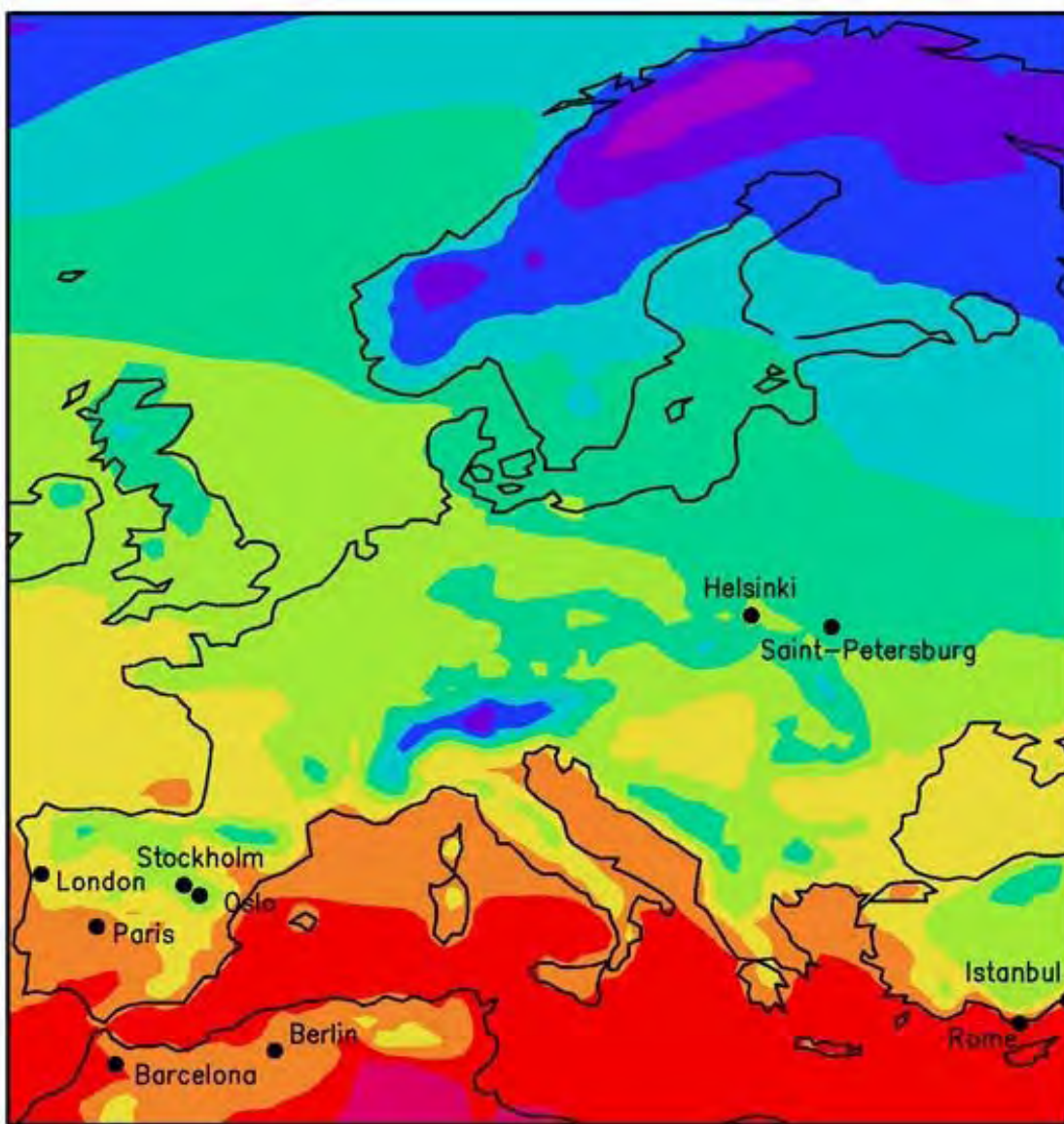
Cities contribute the most to **Global Warming**



80% of the world's energy
75% of all heat-trapping greenhouse gas emissions.



Boston, New York,



rights (e.g. Johannesburg)

ABN Amro (**London**) has launched the **Climate Change & Environment Index**. This is an equity index tracking firms that address climate change and other environmental issues. Such financial instrument can be used to invest in the growth potential of the market and also manage and measure risk associated with these issues. The index includes **Birmingham-based** water utility Severn Trent and **Paris-based** environmental services firm Veolia Environment, both at 6.25%”.

E.Capital Partners, based in **Milan**, also launched an index earlier this month, which tracks companies likely to benefit from climate change.

Boston-based KLD also offers a similar index surge in investor appetite for green funds is leading to a boom for investment banks creating bespoke indices and structured products related to them.

CC is a global phenomenon with a local impact

- **Horizontal governance**
 - Networks of cities dealing together with the issue of climate change (exchanging experiences and creating consortia; assess the possibility of producing new public goods): for instance, **C40**.
- **Vertical governance**
 - Cities lobbying to national governments to have more power and more funds to face CC.
 - National governments begin to be aware about the importance of the local level (e.g. British Council)
- **Multilevel governance**
 - Networks of cities meet networks of central governments to assess together the problem and find shared solutions (For instance, the OECD Roundtable for Urban Strategy)

- Cities and Climate Change are directly linked
- Climate change is a cross-sectoral topic that goes beyond the “market”
- To face Climate Change is important to have multilevel governance and to involve private actors (global players)

An aerial, slightly blurred photograph of a city with numerous buildings and streets, serving as a background for the text.

Merci de votre attention

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