

OECD-RIETI Special Session

Green Growth in Asia  
アジアにおけるグリーン成長

Handout



MANAGI Shunsuke

Faculty Fellow, RIETI  
Professor, Kyushu University

馬奈木 俊介

RIETIファカルティフェロー  
九州大学大学院工学研究院都市システム工学講座教授

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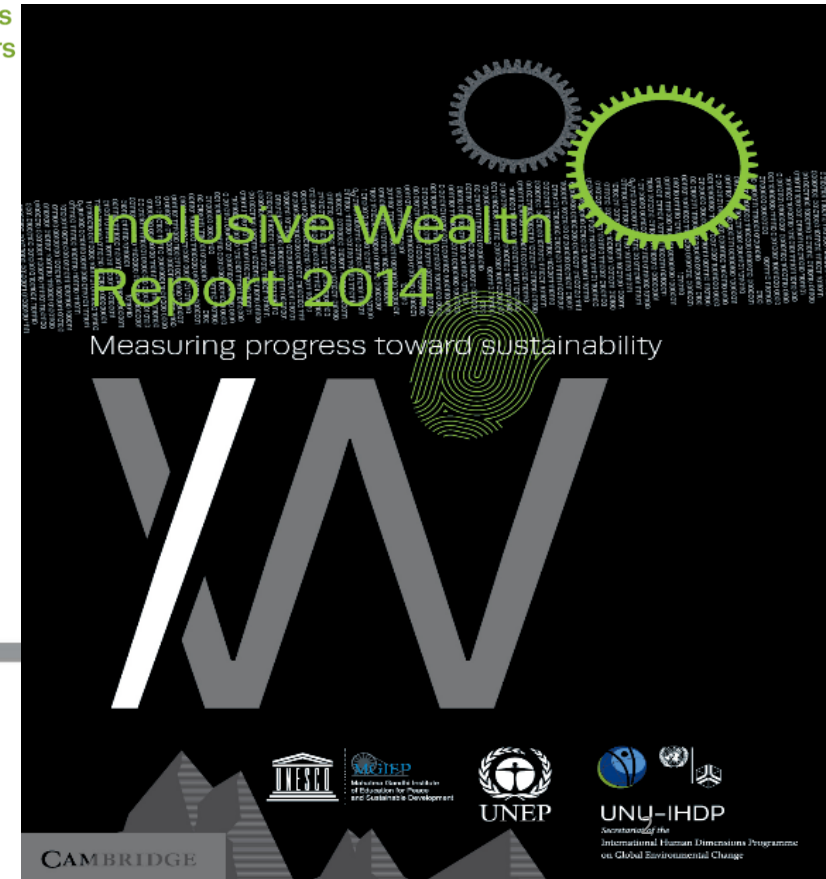
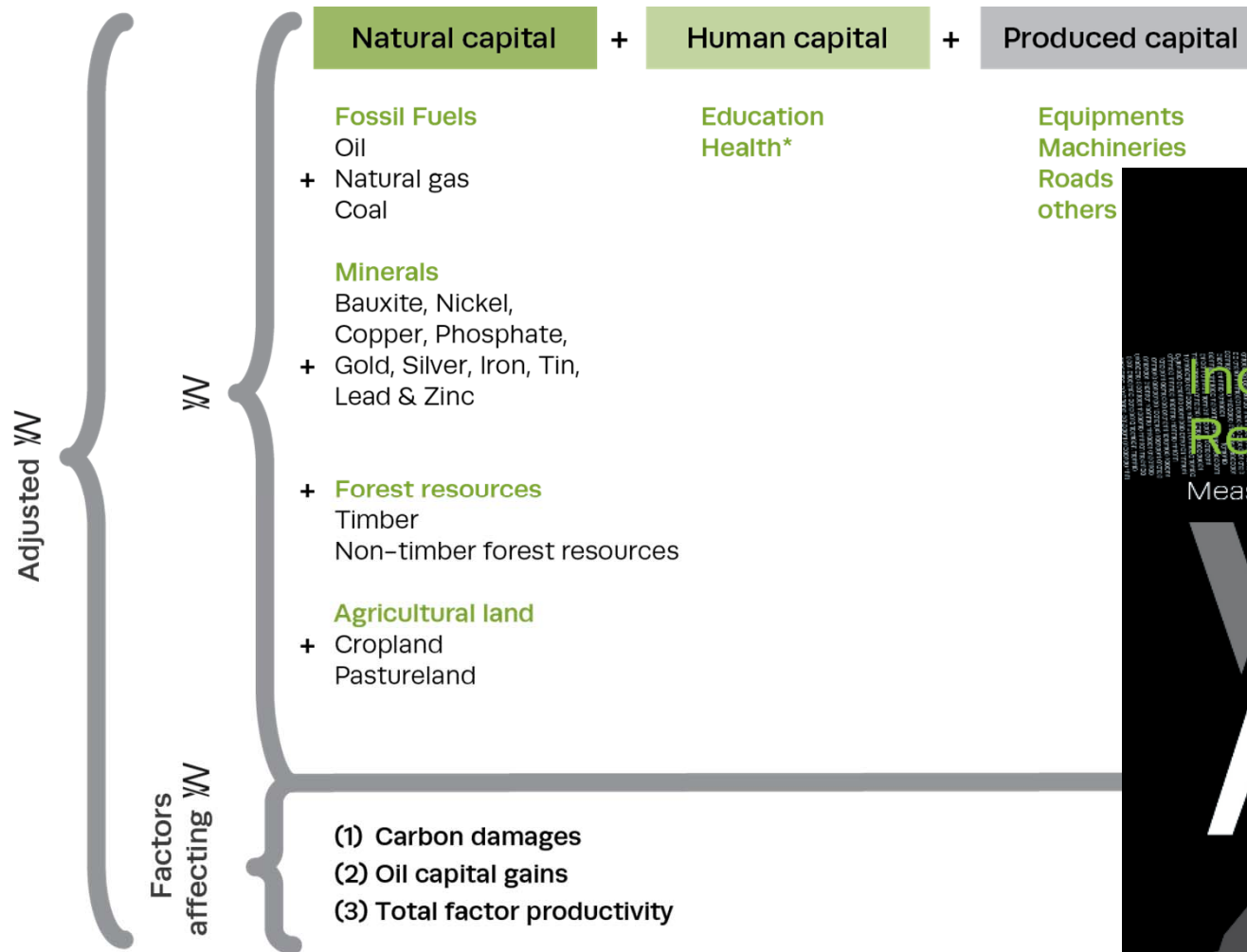


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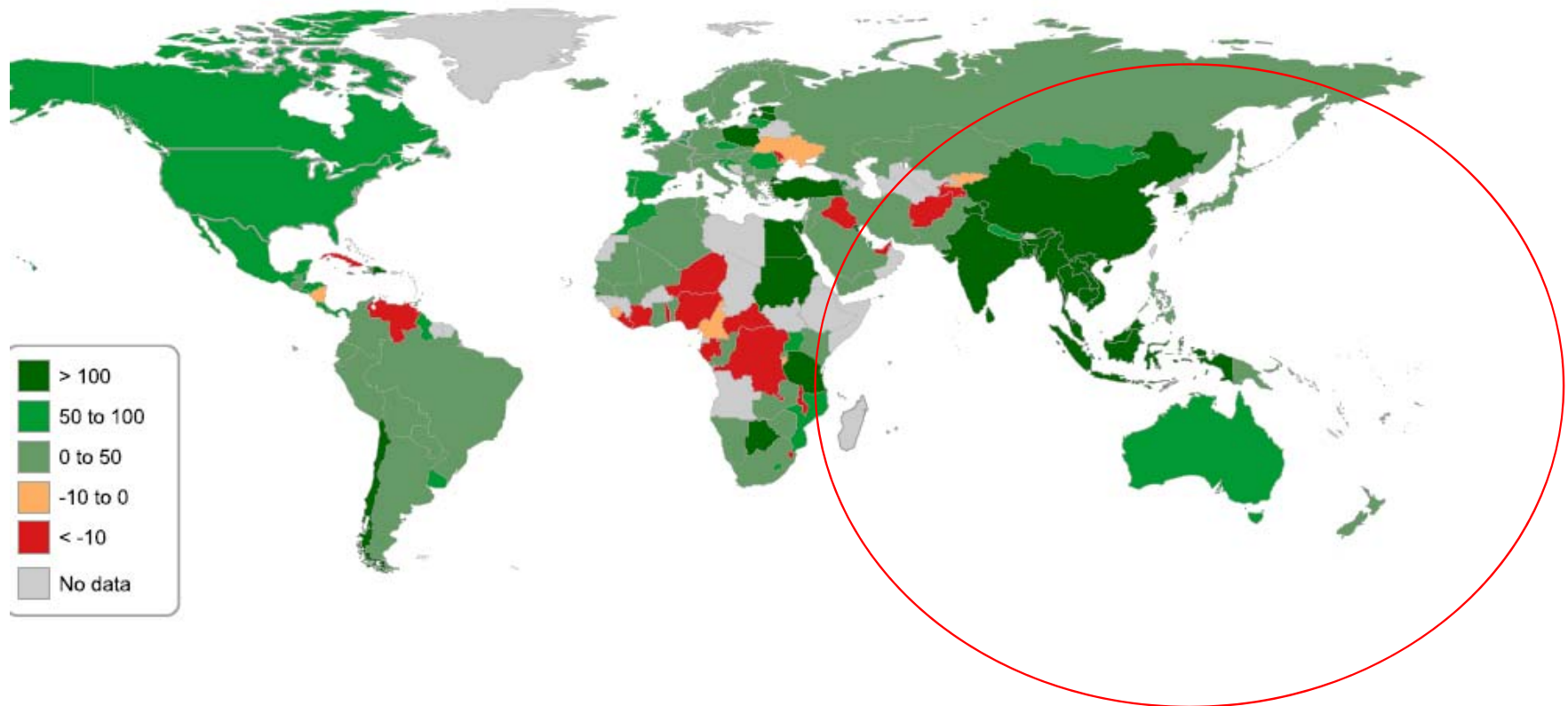
# Green growth in Asia

Shunsuke Managi  
Professor of Technology and Policy  
Kyushu University  
RIETI Faculty Fellow  
[managi@doc.kyushu-u.ac.jp](mailto:managi@doc.kyushu-u.ac.jp)

# Inclusive Wealth Report (IWR) 2014

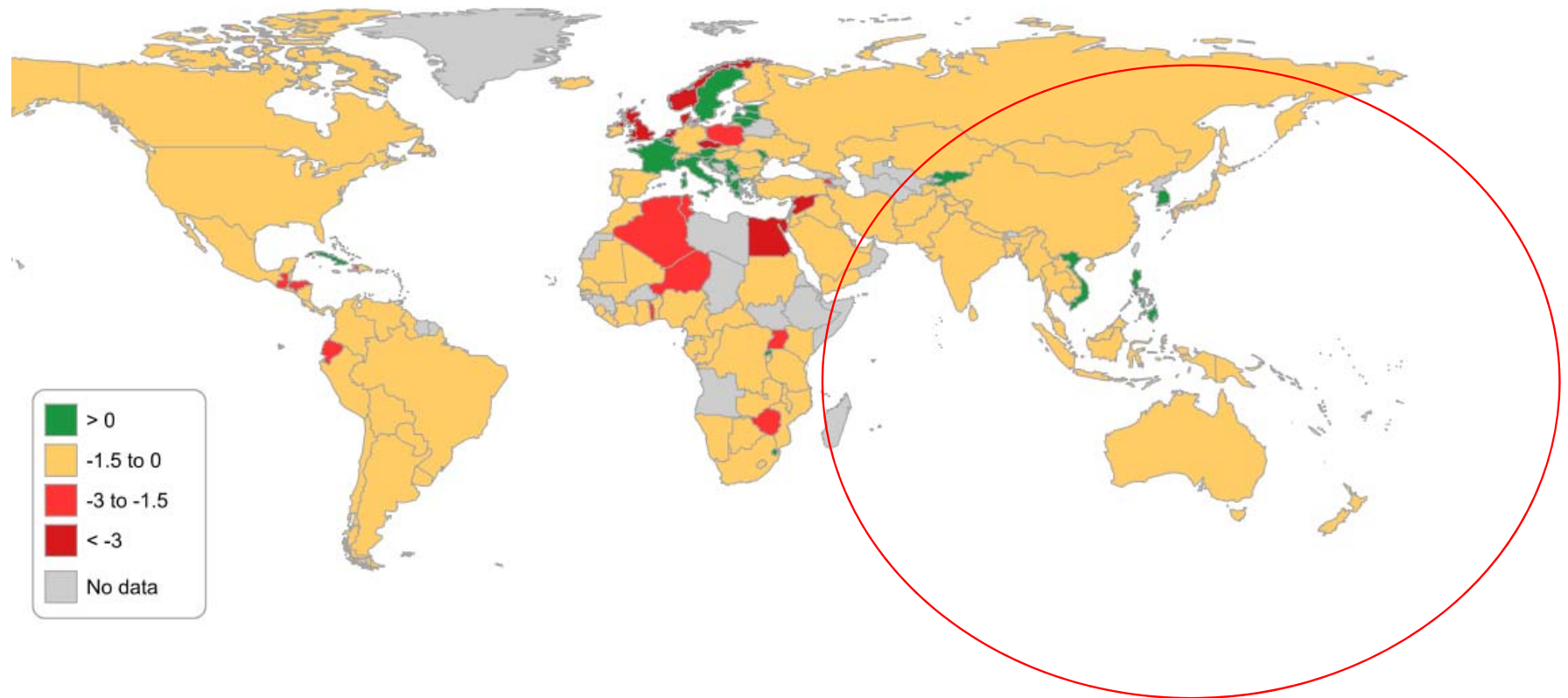


# Changes in Produced Capital



Key message: Produced capital per capita increased in 116 of the 140 countries.

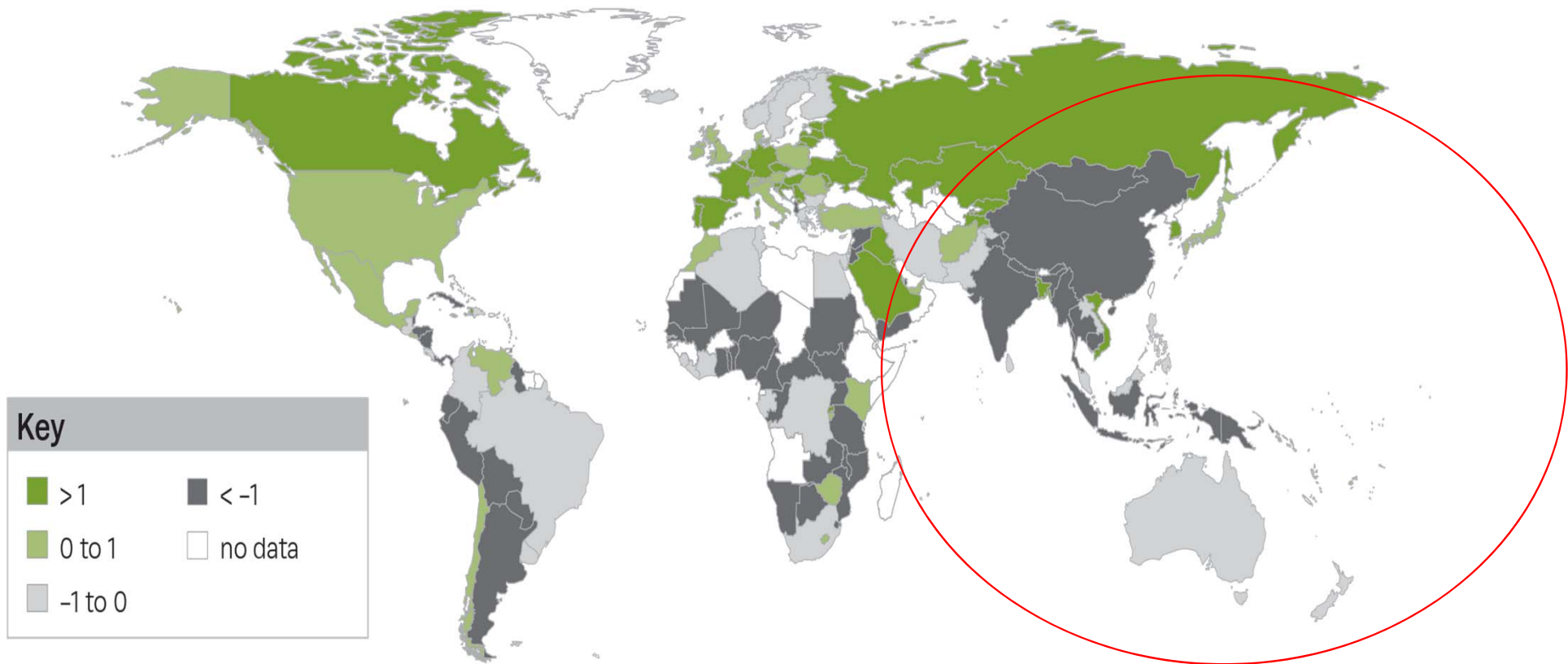
# Changes in Natural Capital



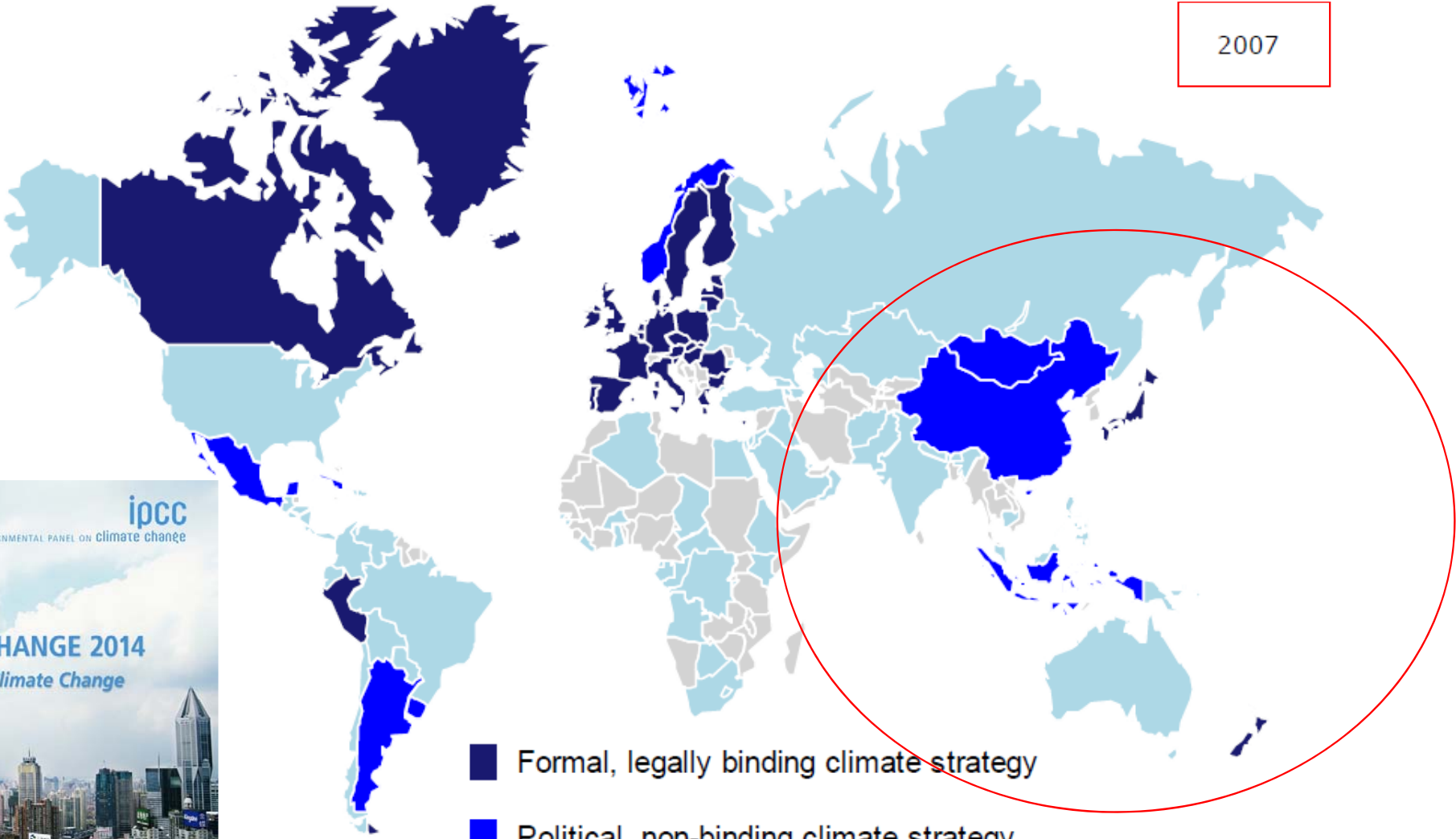
Key message: Natural capital per capita increased in only 13 of the 140 countries.

## Growth in Productivity Adjusted **Inclusive Wealth**

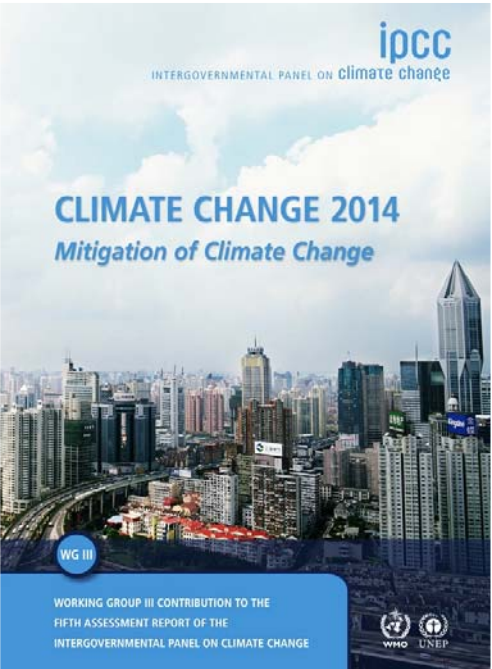
*When TFP, climate change and increases in oil prices are factored in  
Only 58 of 140 countries experienced a positive growth in Wealth*

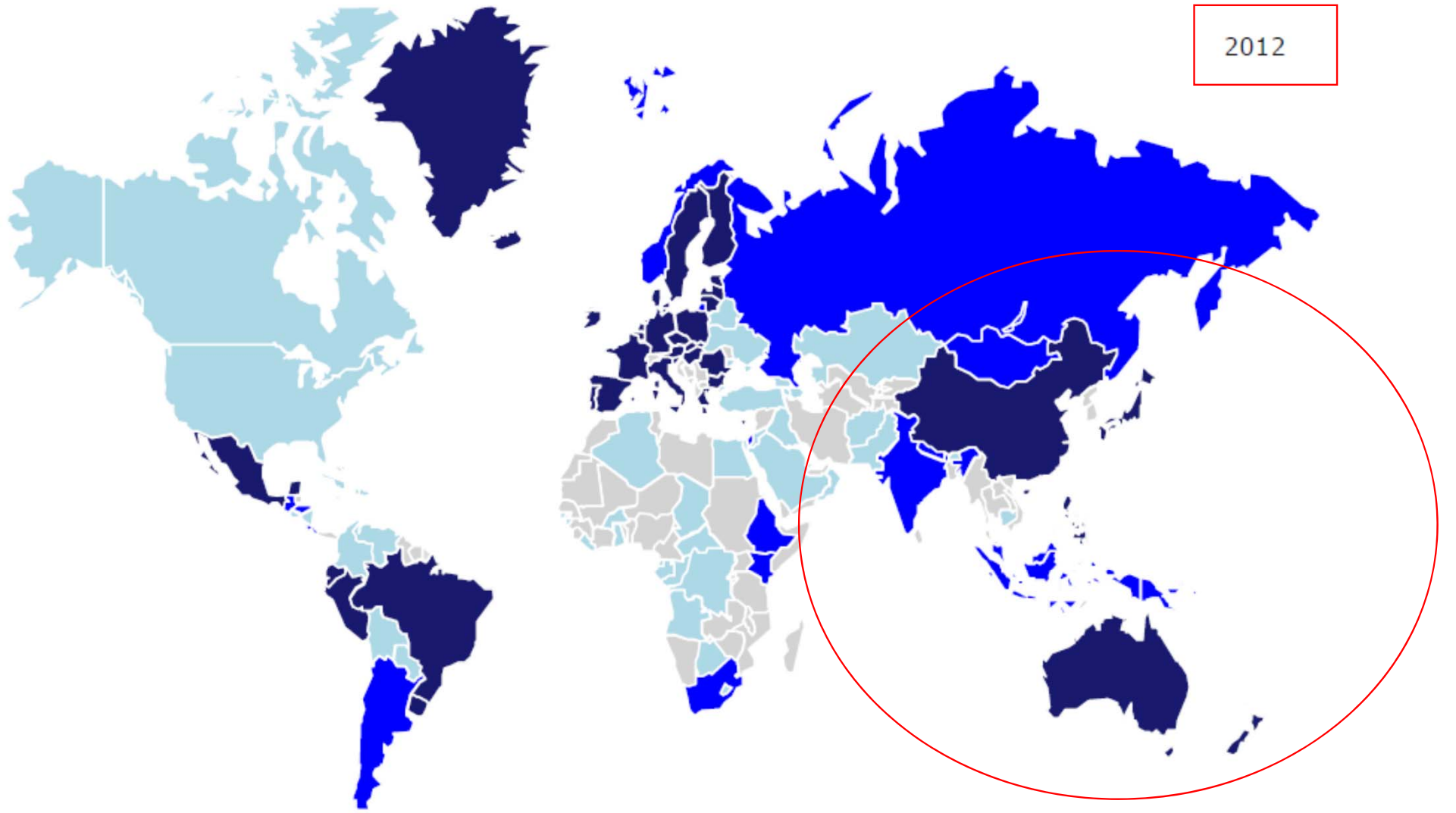


2007



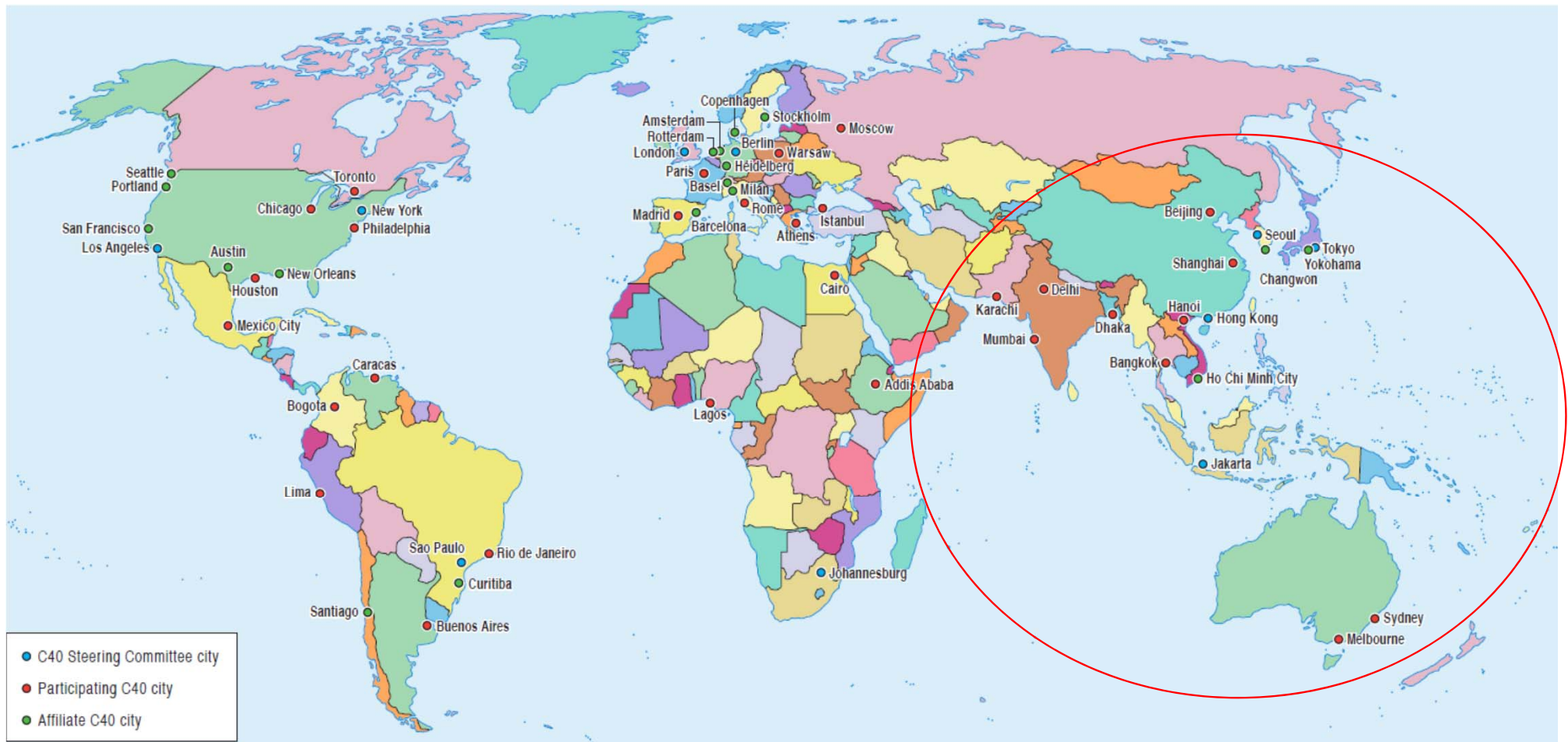
- Formal, legally binding climate strategy
- Political, non-binding climate strategy
- None of the above
- Not studied

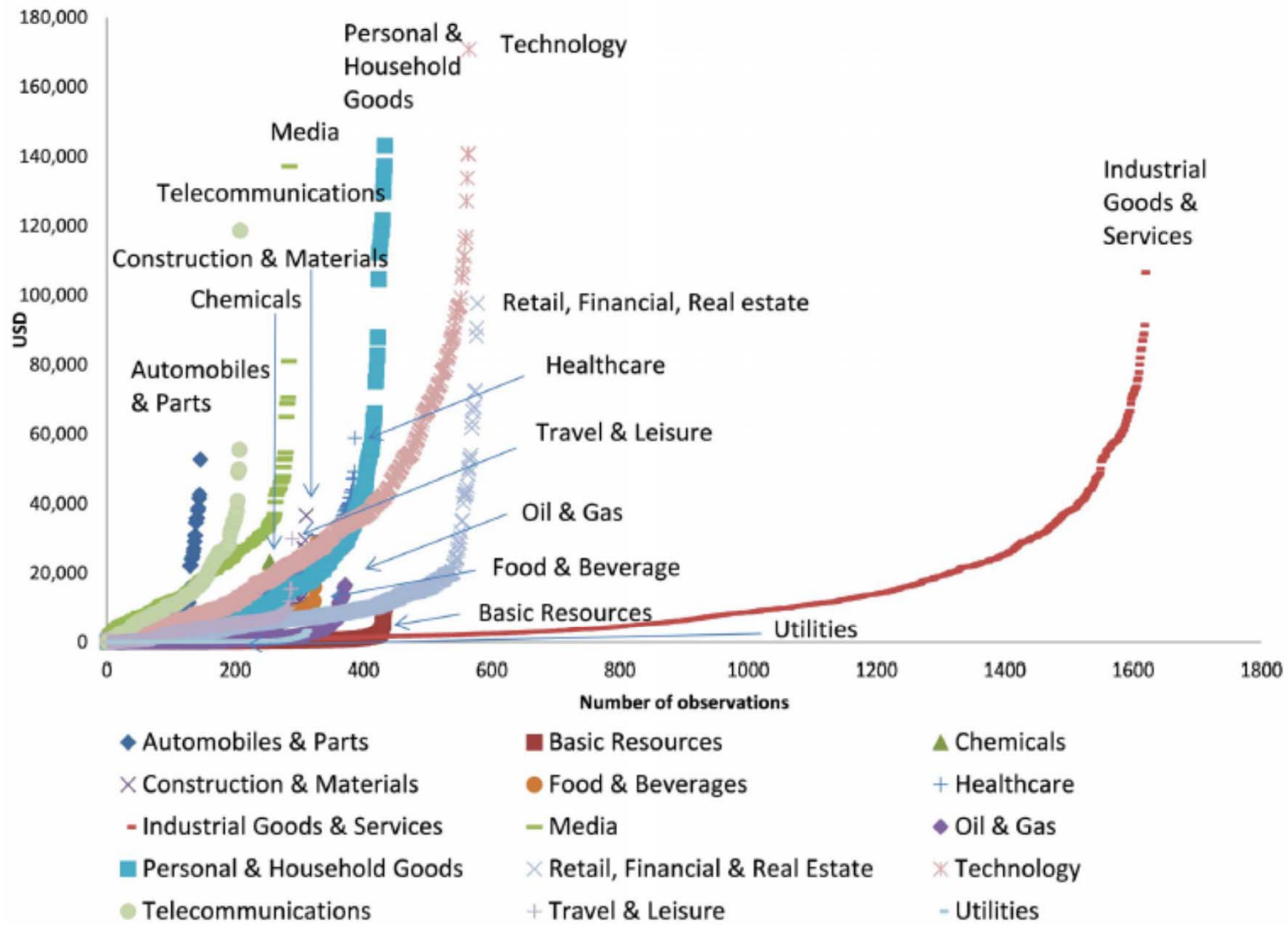






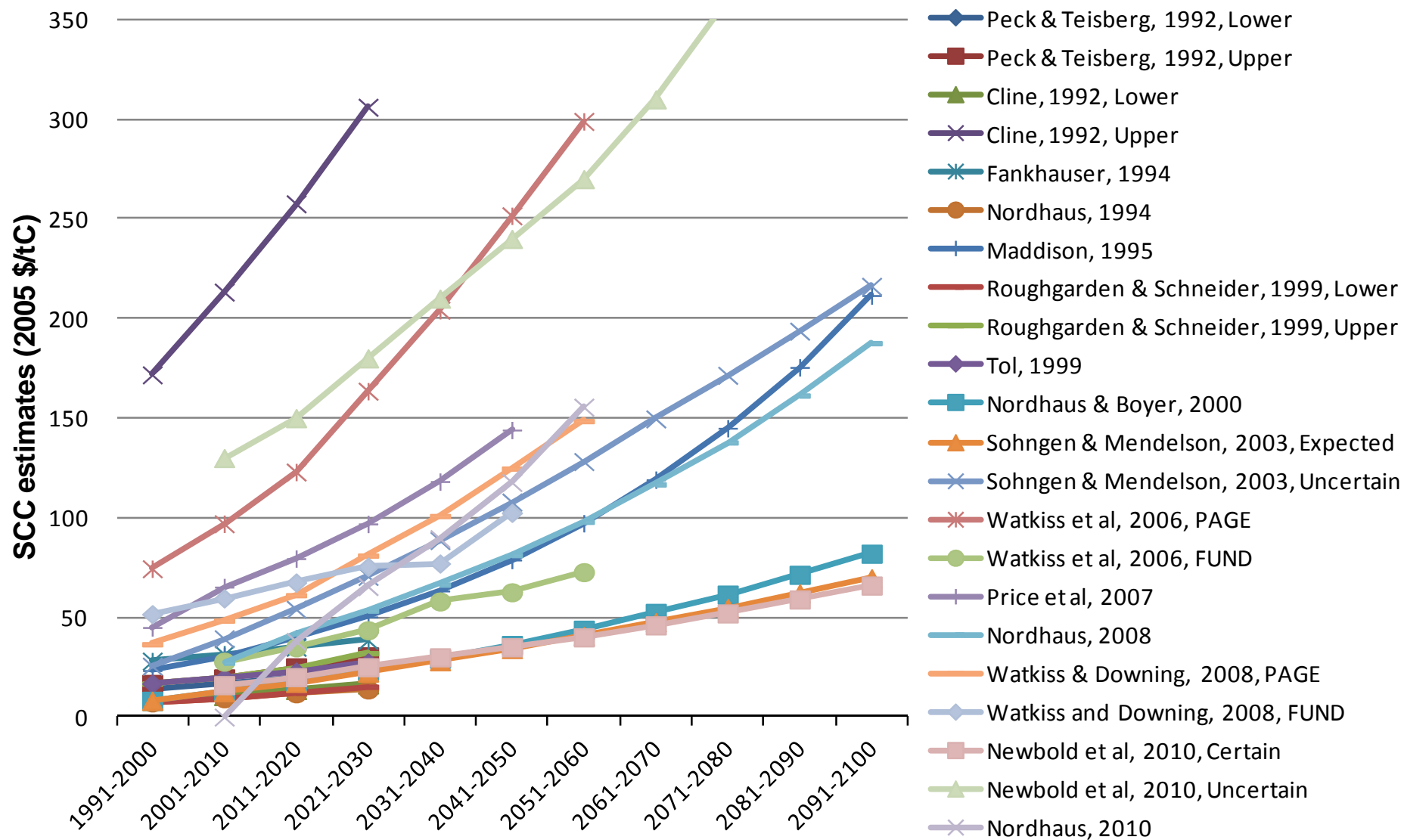
# The C40 Cities Climate Leadership Group (C40)





Source: Our study, 2013.

# All social values are different



# Sector-specific policies

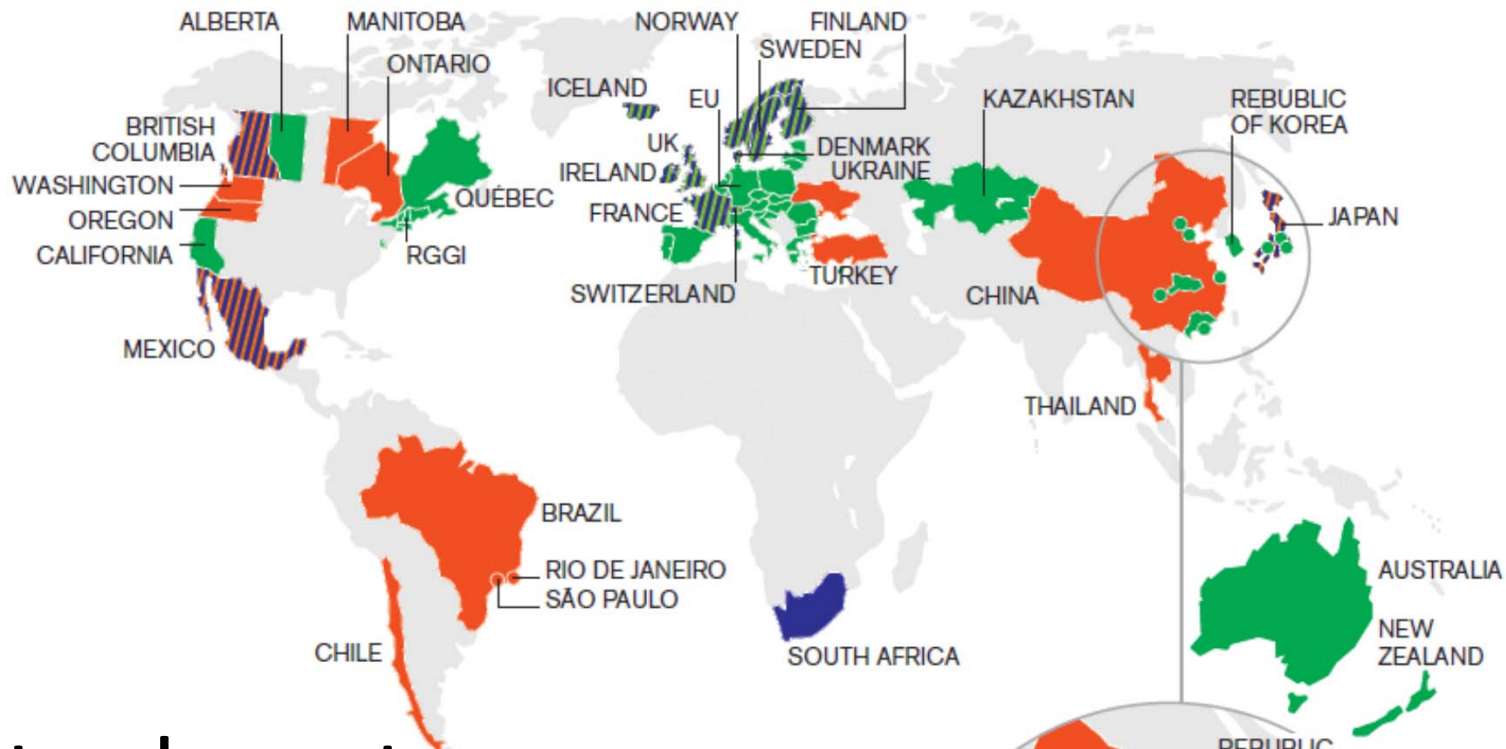
- more widely used than economy-wide policy instruments
- e.g., packages of complementary policies in transport
- Fuel taxes: 10% higher fuel prices correlate with 7% reduction in fuel use and emissions in the long run.

# Regulatory approaches and information measures

- often environmentally effective.

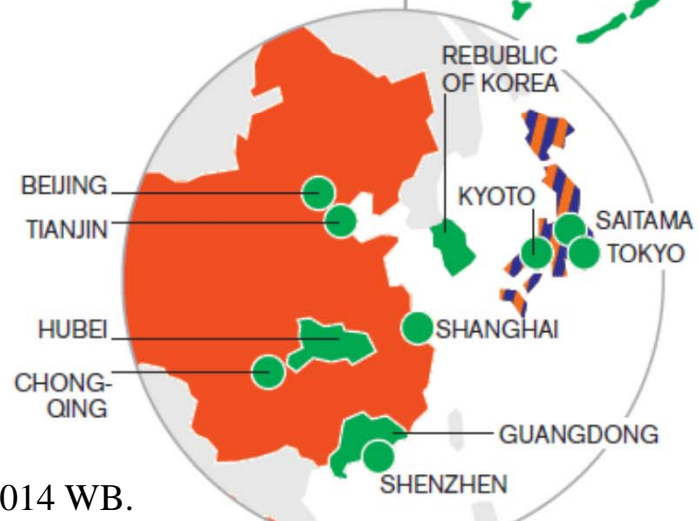
# Reduction of subsidies to fossil energy

- can result in significant emission reductions at negative social cost
- many countries have reformed their tax and budget systems to reduce fuel subsidies

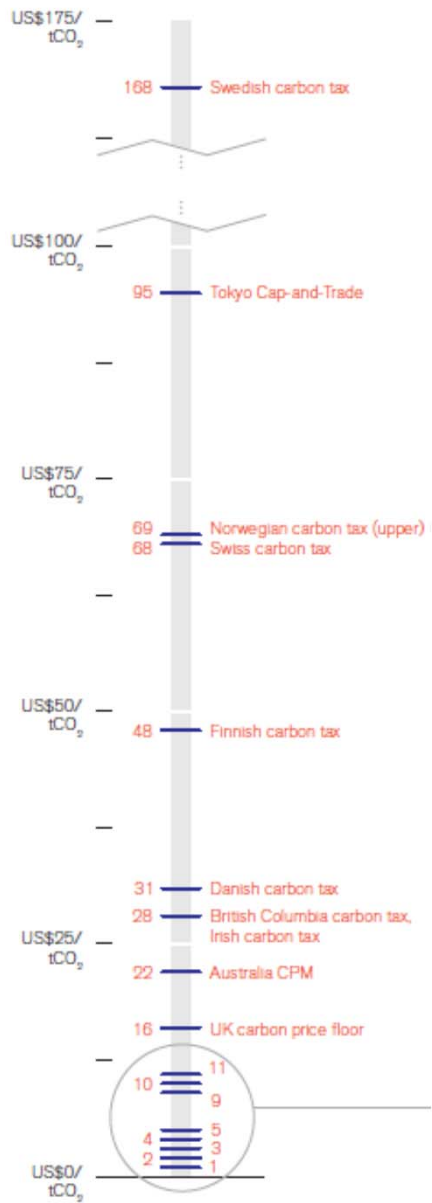


# Cap and trade systems

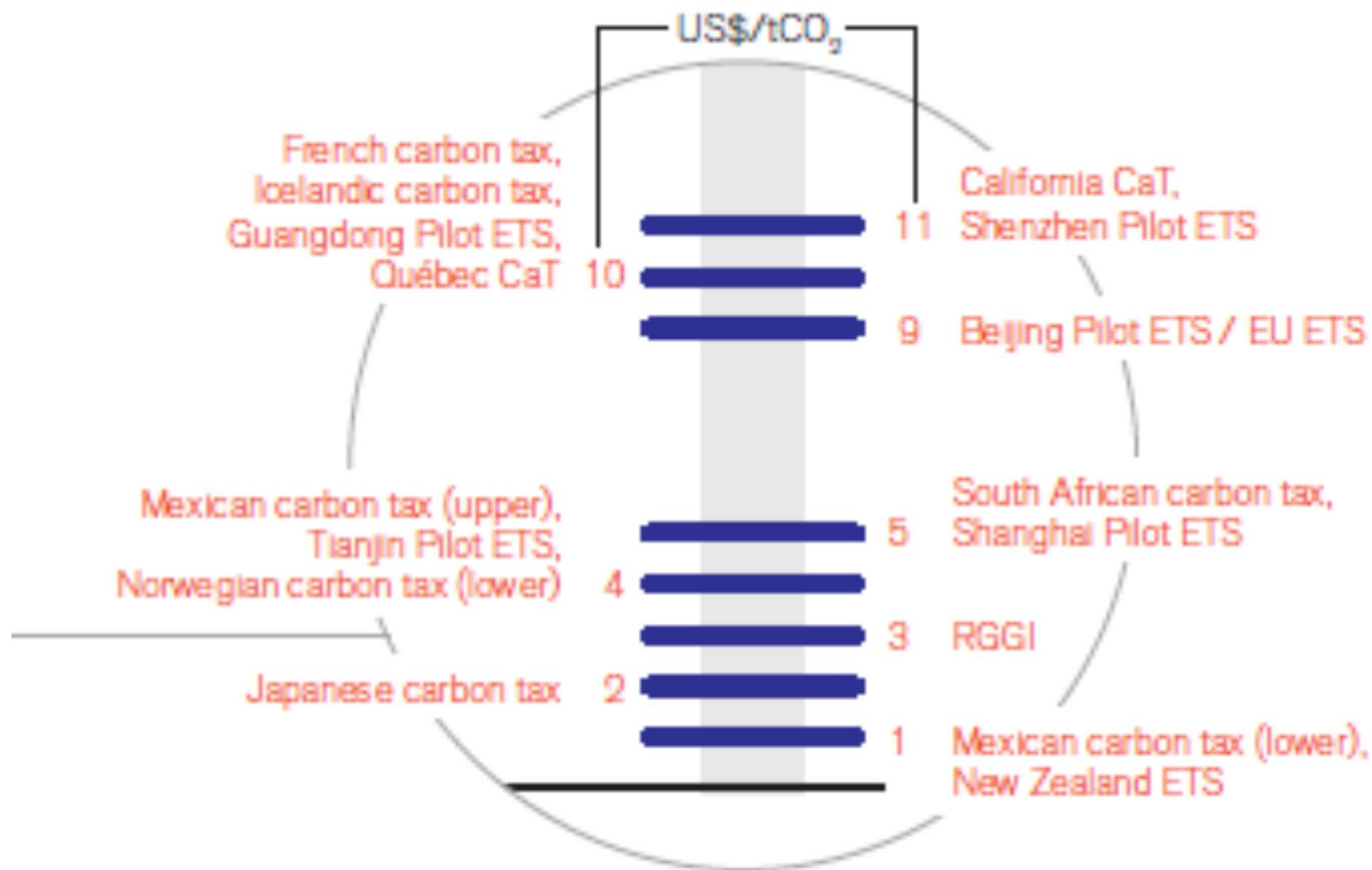
- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- Carbon tax implemented or scheduled, ETS under consideration
- ETS and carbon tax implemented or scheduled



Source: State and Price of Carbon Trading 2014 WB.



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# Cap and trade systems

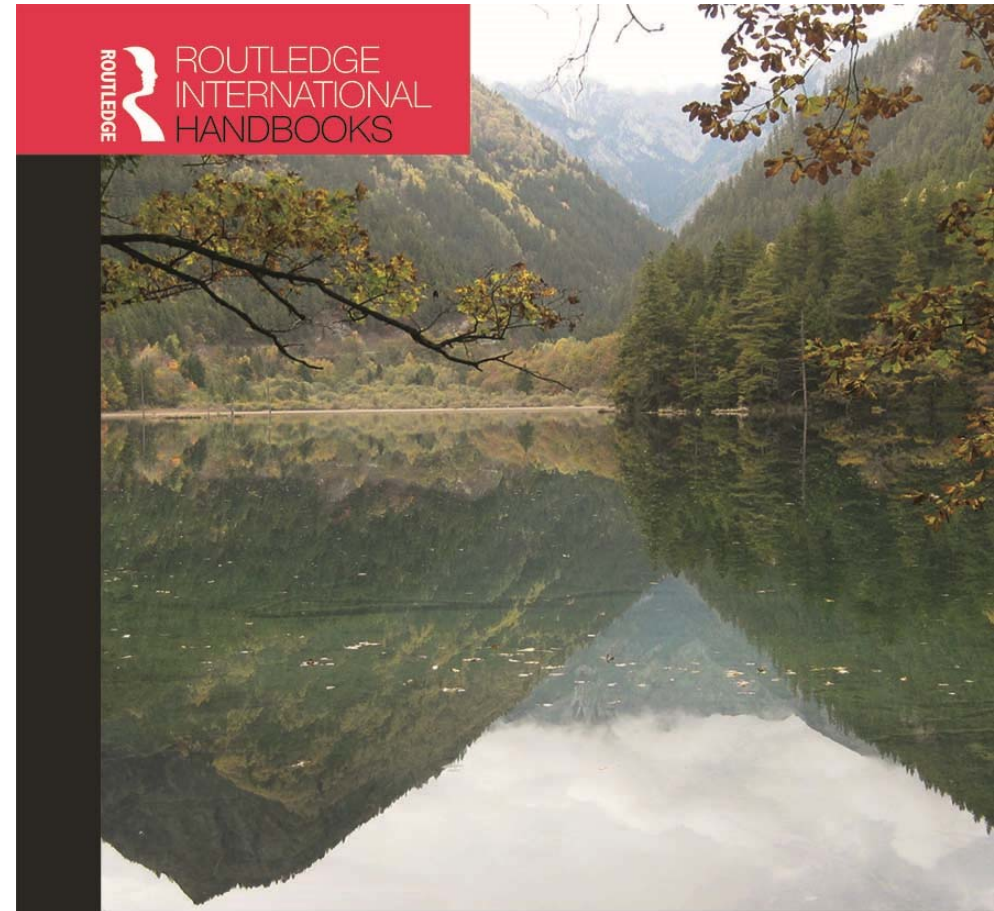
- Their environmental effect has so far been limited because caps have either been loose or have not yet been binding.
- There appears to have been a trade-off between the political feasibility and environmental effectiveness of these programs, as well as between political feasibility and distributional equity in the allocation of permits.
- Greater environmental effectiveness through a tighter cap may be combined with a price ceiling that makes for political feasibility.
- Encouraged technological change

- Importance of Asia

Energy intensities decrease.

More policies over time.

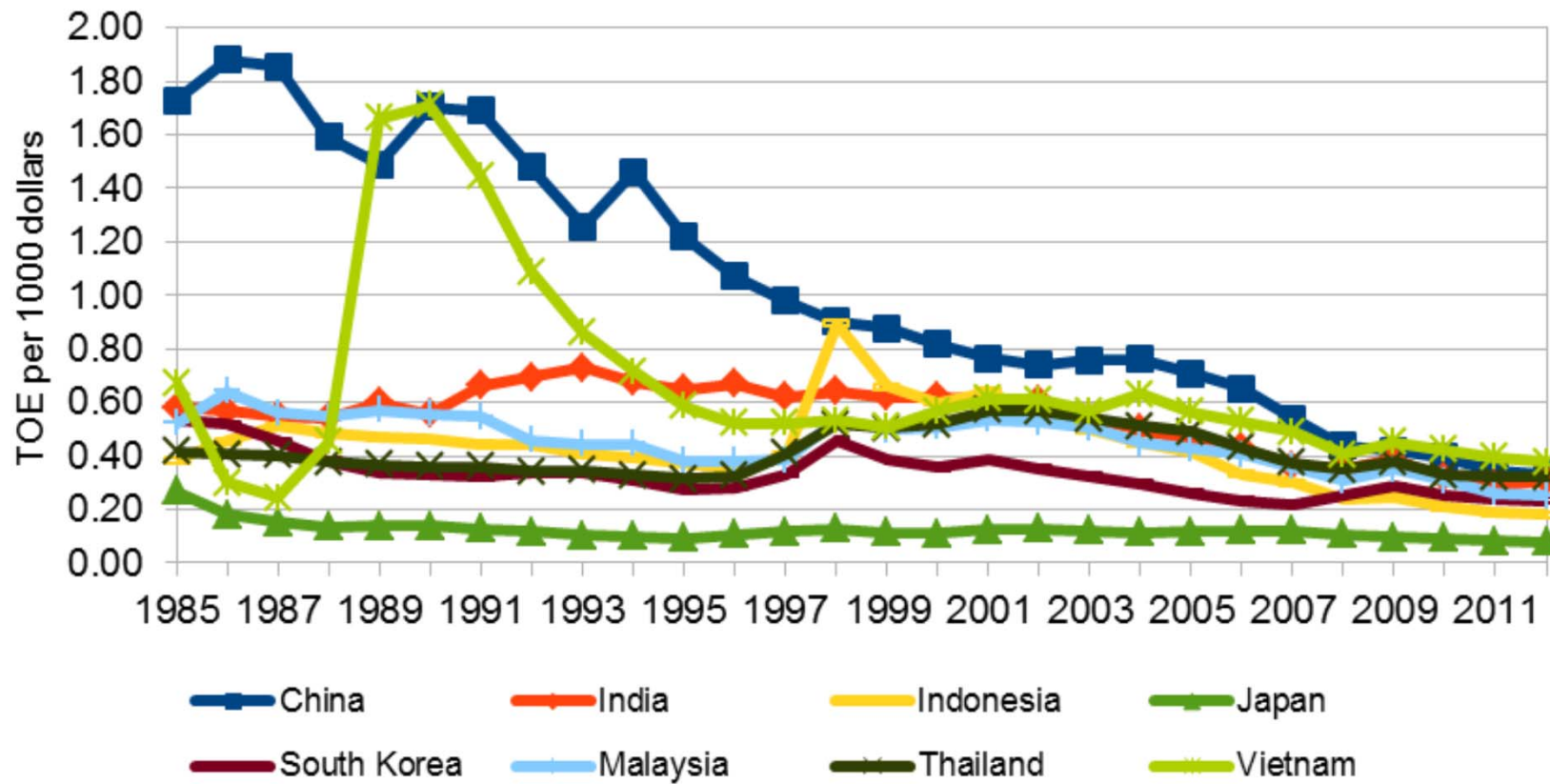
Green productivity  
improvements sometimes.



The Routledge Handbook  
of Environmental Economics  
in Asia

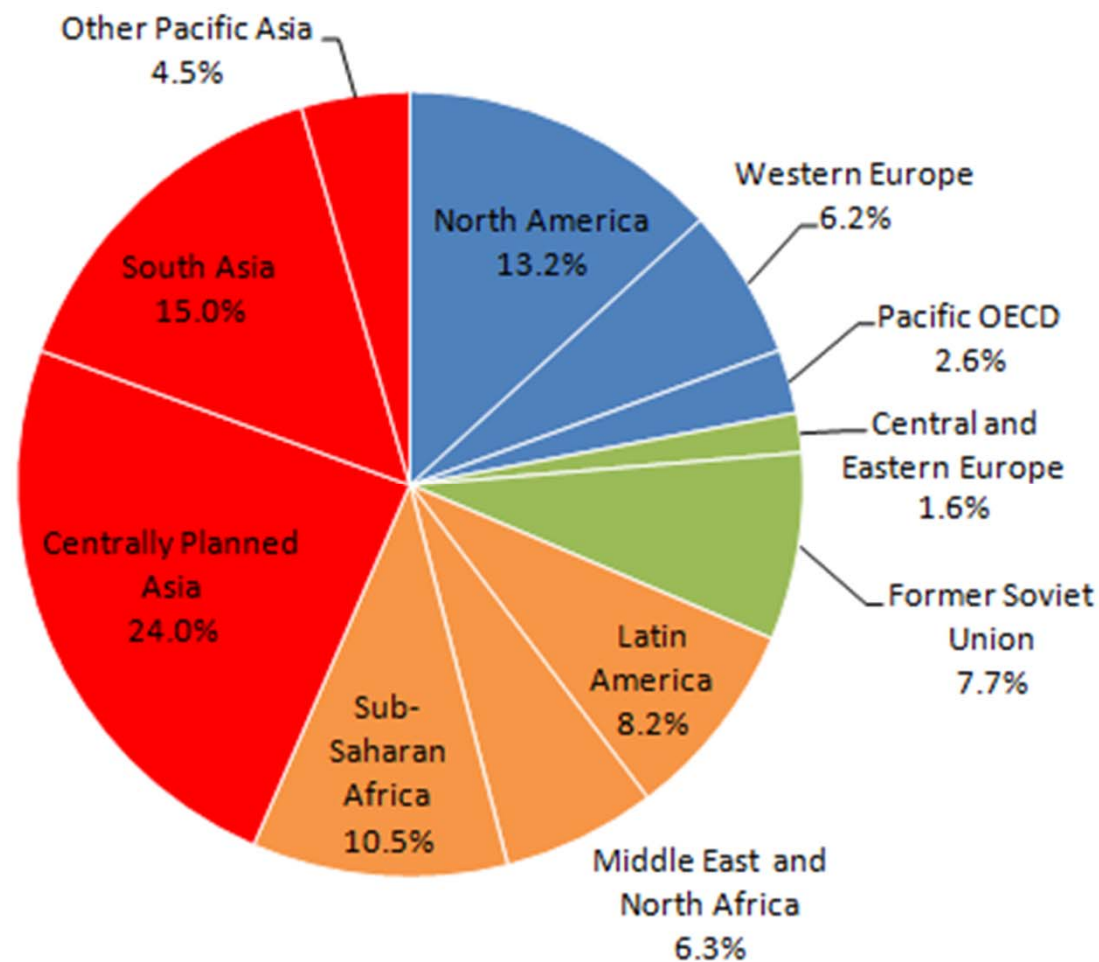
Edited by Shunsuke Managi

## Energy Intensity of GDP



Source: Chang and Li in Managi S. (eds) Handbook

# Reduction in cumulative GHG emissions over 2010-2100



Source: Takeshita, T. in Managi S. (eds) Handbook

# Policy mix

- Tax/cap&trade
- R&D
- Subsidy
- Information
- Industry agreement with gov