

Overview of AR6 Chapter 8

"Urban Systems and Other Settlements"

and Prospects for AR7

Prof. Yoshiki Yamagata
Chapter 8 Lead Author
Keio University, JAPAN

Executive Summary

Although **Urbanization is a global trend**, it often leads to higher incomes and consumption.

The increasing concentration of people and activities is **an opportunity** to increase resource efficiency and **decarbonize** at scale.

Achieving **transformative change in cities** for climate change **mitigation and adaptation** requires engaging multiple **scales** of governance, including **governments and non-state actors**, and linking them to substantive **financing beyond sectoral approaches**.

What is new Since AR5?

AR5 was the first IPCC report with a separate chapter on urban mitigation of climate change.

Main Issues:

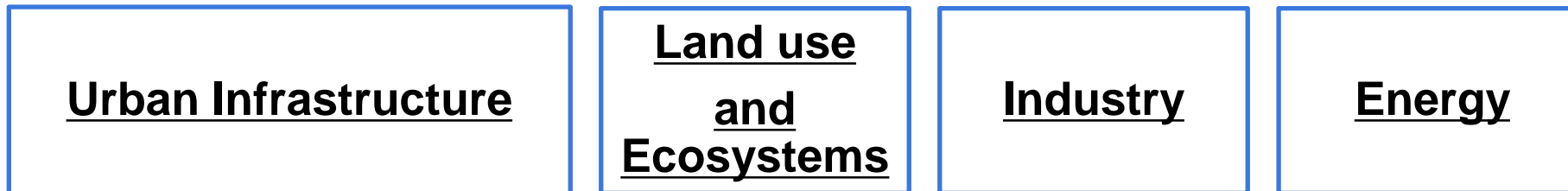
Impacts of urban form and infrastructure on facilitating climate change mitigation

Suggestion: urban form shapes urban energy consumption and GHG emissions.



Cities have been the focus of much attention in the work of the IPCC

Elements that urgently need to change in a fundamental and transformational way:



Preparation of the Special Report on Cities and Climate Change for the AR7

Global policymakers and practitioners co-hosted the “IPCC Cities and Climate Change Science Conference” and endorsed the AR7 “Special Report on climate change and cities”

Identified key research priorities as drivers of GHG emissions:

- **Need** for a comprehensive **systems approach** to understanding sector interactions in cities
- **Relationship to climate and other urban processes**
- Achieve transformation toward a **low-carbon, resilient** future society



Items that should be covered as areas of scientific research after the AR6 cycle as the report addresses global policy issues:

- **Multiscale**
- **Co-benefit**
- **Green & Blue Infrastructure**
- **Governance with GX and DX**
- **Finance**