



# Collaborative Actions of Cities

## Tokyo's Experience

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### Outline

1. Cities and Climate Change
2. International Climate Cooperation in Tokyo
  - ❖ International network activities
  - ❖ City-to-city Initiatives
3. Lessons learned



# Cities & Climate Change: Responsibility

World Urban  
Population

**50%**

Urban Energy  
Consumption

**67%**

By 2050

**70%**

Urban CO2  
Emissions

**71%**

## Drivers to GHG Emissions

### Urban contributions to emissions

Emissions of GHG, wastes, aerosols

### Land use related factors

Deforestations, urban developments, impervious surfaces, filling wetlands, fragmented eco-system,  
⇒ Heat island effects



TOKYO METROPOLITAN GOVERNMENT

# Cities & Climate Change: Vulnerability

## Urban locations and its vulnerability

Close location to the large water source  
(Costal area, Large river, Lake...)

## Vulnerability of dense population

Growing high density areas

## Vulnerability in Infrastructure

Difficulty to catch up with the fast growth



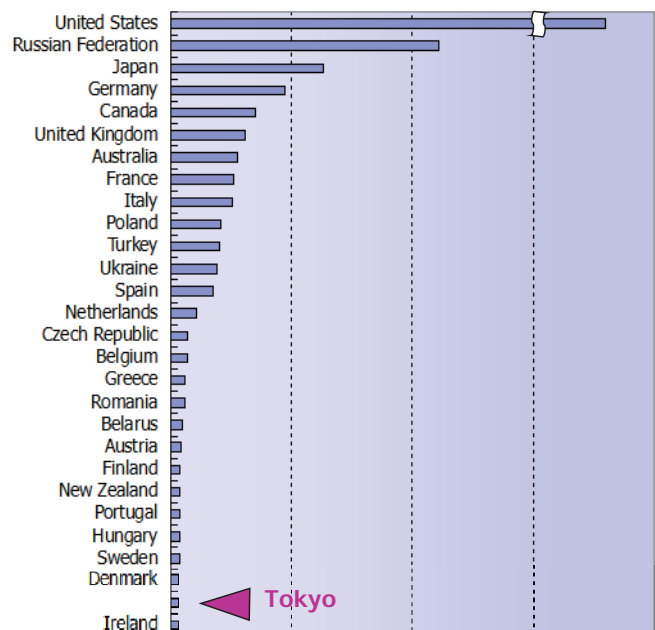
# Cities & Climate Change: Capability & Opportunity

- ◆ Various entities  
(Companies, Citizens, NGOs, Governments...)
- ◆ Scale of economy
- ◆ Innovation center
- ◆ Functions and experience of local governments



## Tokyo's Total GHG Emissions

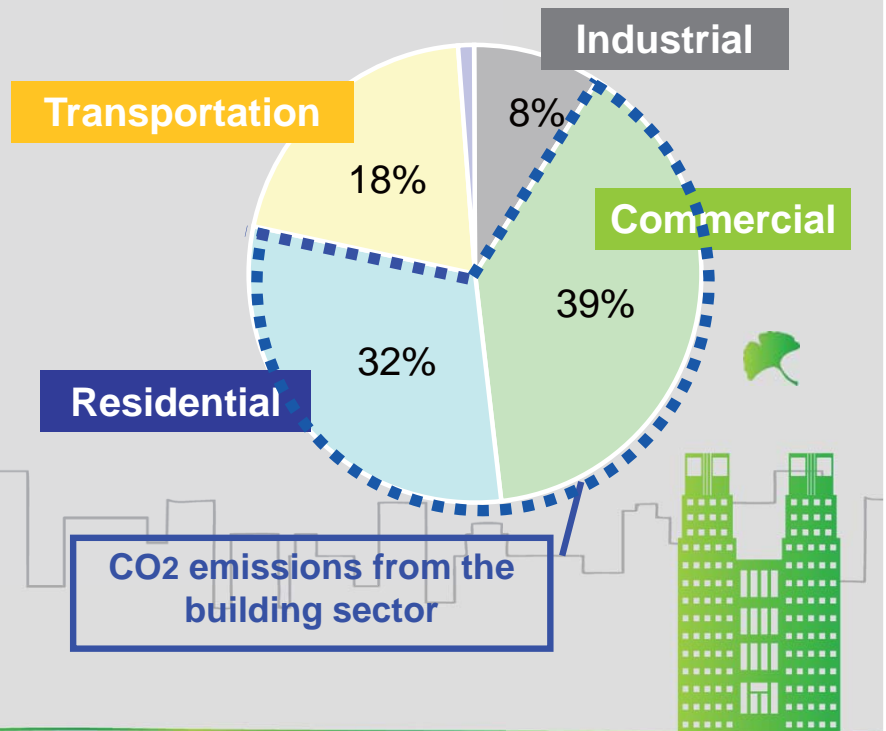
**66** million tons  
CO<sub>2</sub> eq(2012)



# Carbon Footprint in Tokyo

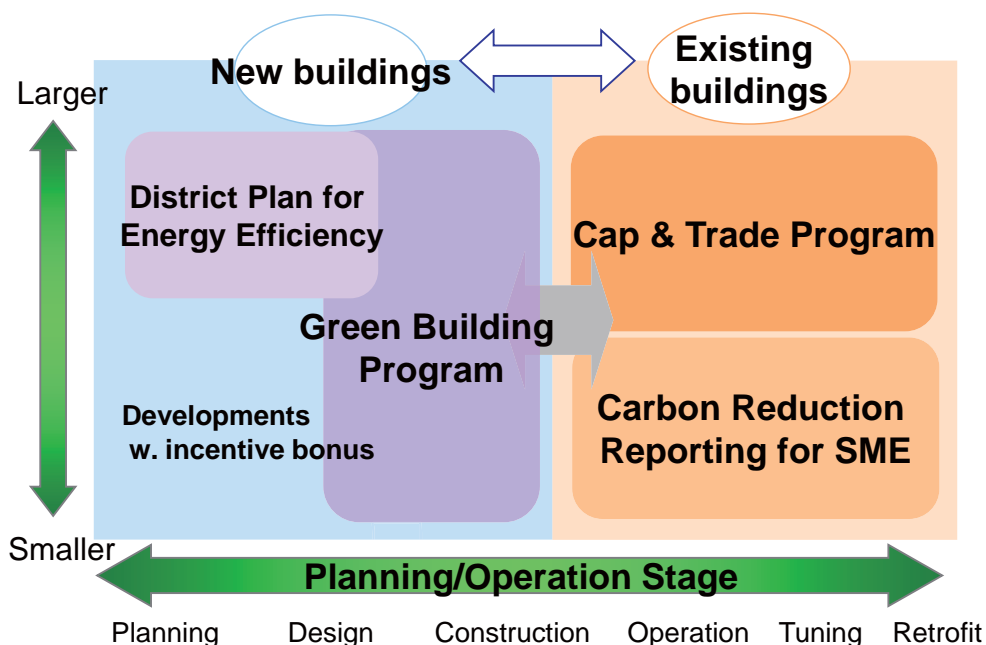


CO<sub>2</sub> Emissions in Tokyo Metropolitan Area by Sector



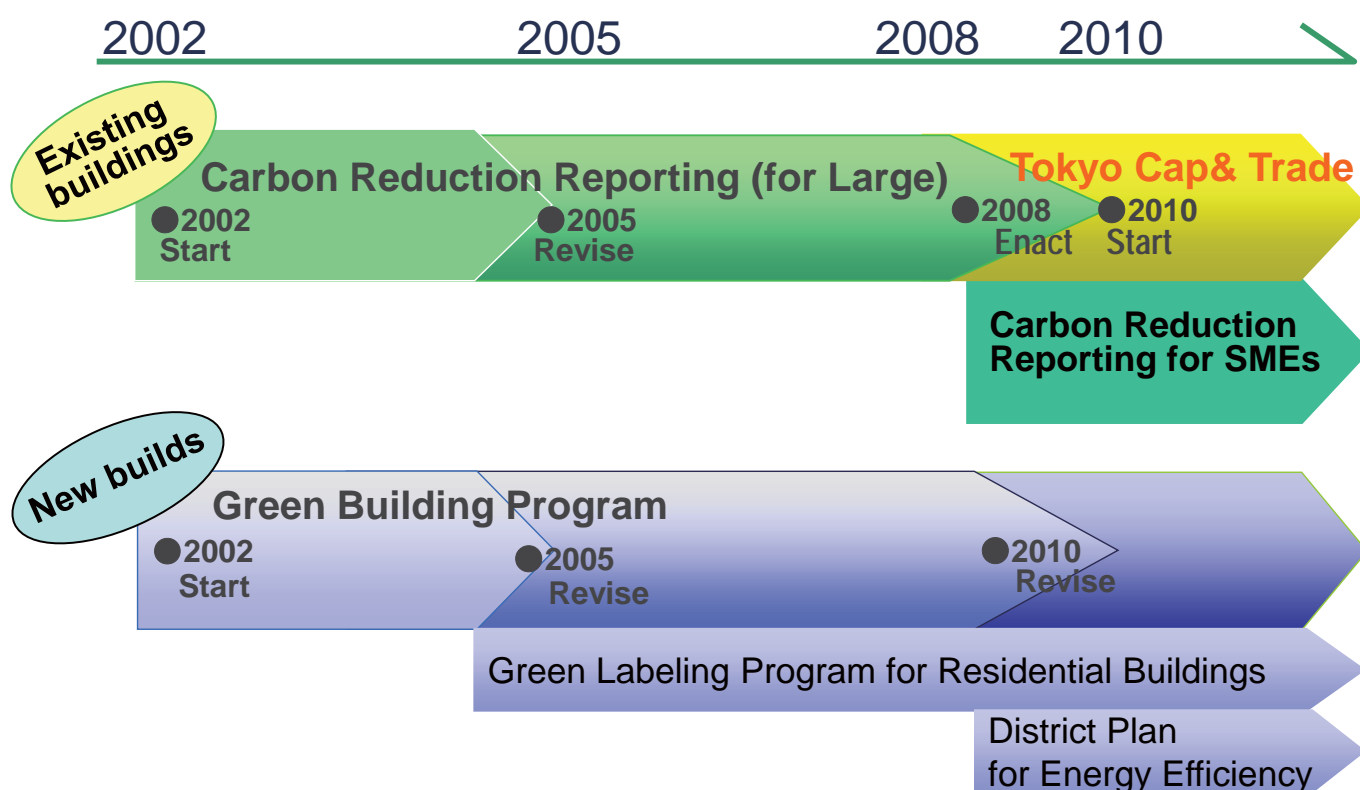
## Tokyo's Policy Framework

Policy Linkages & Policy Developments

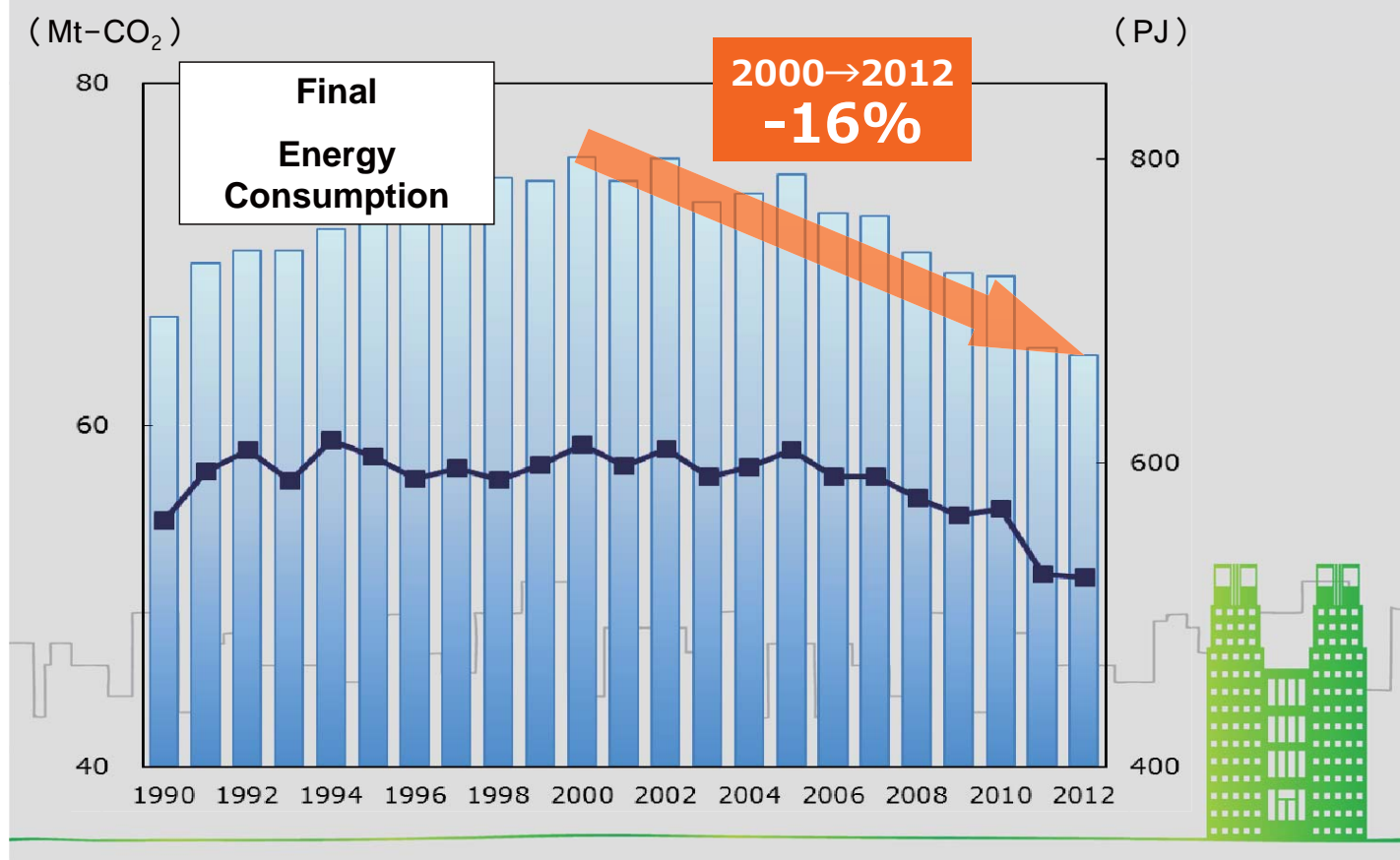




# Tokyo's Policy Development



## Energy Consumption Trend in Tokyo





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# Collaborative actions through networks of cities 1



## Lima Communique

- 1 Latest Science: A point of no-return
- 2 Inclusive and ambitious climate regime
- 3 Further enhancement of financial mechanism and regulatory frameworks for local governments
- 4 Partnership with all actors to scale up climate action
- 5 Accelerate advocacy and raise our ambition





## Collaborative work through networks of cities 2



The C40 Cities Climate Leadership Group Network of the world's megacities committed to addressing climate change



Without measurement, can't reduce !

Let's steal!





## ◆ Leadership by mayors



## ◆ Subject Specific Networks

**Adaptation and water:** Climate Risk Assessment, **Connecting Delta Cities**, **Cool Cities**

**Energy:** **District Energy**, Municipal Building Efficiency, **Private Building Efficiency**

**Finance and Economic Development:** Creditworthiness, Green Growth, Sustainable Infrastructure Finance

**Measurement and Planning:** Global Standards, Measurement and Reporting

**Solid Waste Management:** **Sustainable Solid Waste Systems**, Water to Resources

**Sustainable Communities:** **Climate positive development**, Sustainable Urban Development, Transit-Oriented Development

**Transportation:** Bus Rapid Transit, **Low Emission vehicles**



## and Tokyo

Joined in 2006

--Steering Committee

--Collaborative works

Forums, Workshops--Tokyo/Worldwide

Demonstrative events

--Network activities



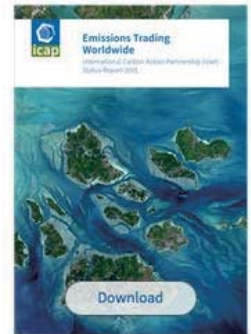
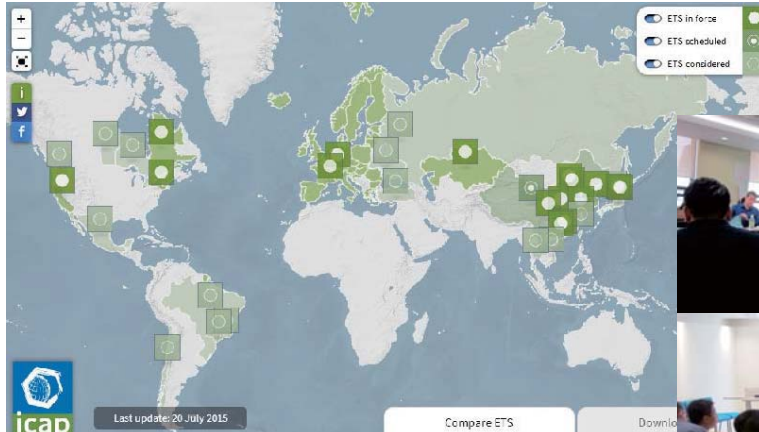


# Collaborative work through networks of cities 3

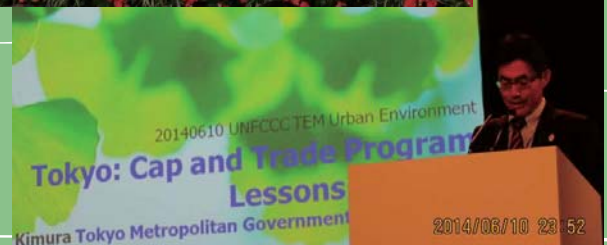


**ICAP**

The International Carbon Action Partnership

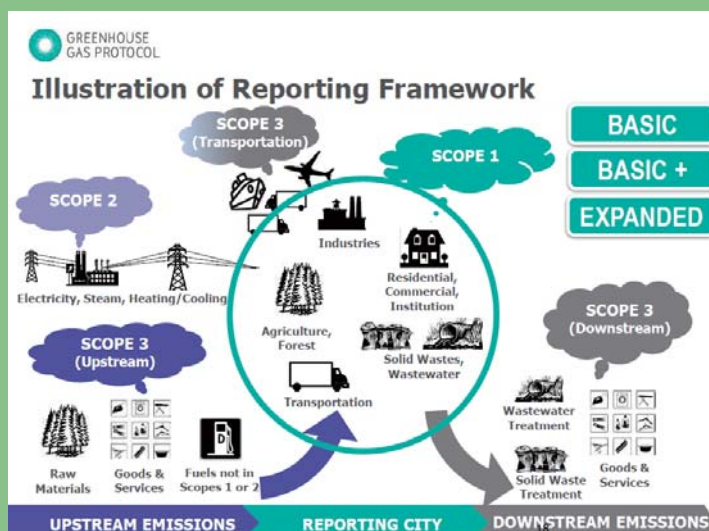


## Participation into the Global Framework Collaborative Actions among City's Network



# GHG Protocol for Cities

## Global Protocol for Community-Scale GHG Emission Inventories (GPC)



## Subject-specific network

### Private Building Efficiency Network



Collaboration of city's officials who engaged in building energy efficiency policy in each city

Workshop, Webinar, Conference call, Research, Joint action...

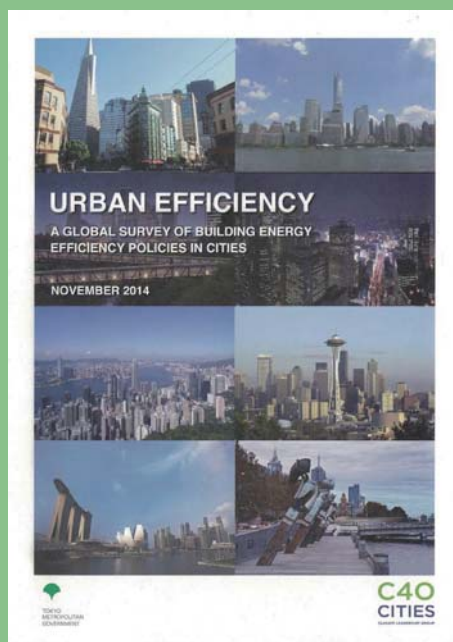
- Information exchange
- Collaboration for multinational stakeholders
- Data collections and analysis...





# Subject-specific network

## Private Building Efficiency Network



### Urban Efficiency

A Global Survey of  
**Building Energy Efficiency** Policies  
in **Cities**

Policy map

Case studies on best practices

Highlighting various BEE policies in cities  
to serve as a resource for city officials  
Success factors and key challenges

[www.kankyo.metro.tokyo.jp/en/int/c40/c40\\_pse\\_r.html](http://www.kankyo.metro.tokyo.jp/en/int/c40/c40_pse_r.html)

## Bilateral Cooperation : PUTRAJAYA

### Tokyo's Experience on Carbon Reduction Reporting



### Reporting Program for Existing Buildings

#### KEY Reporting Elements

- Annual CO<sub>2</sub> emissions & energy consumption
- Plan for reductions





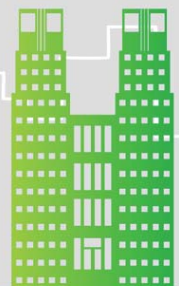
# Bilateral Cooperation: ISKANDAR Tokyo's Experience on New Building Program



Reporting Program for New Buildings/Developments

## KEY Elements

- Sustainable design requirement
- Energy efficiency standards
- Green buildings ratings



## Bilateral Cooperation Workshops and Forums



### Focus

- Exchange among the key city officials at work
- Understanding the Process
- Understanding the context





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## Lessons learned

For effective collaborations

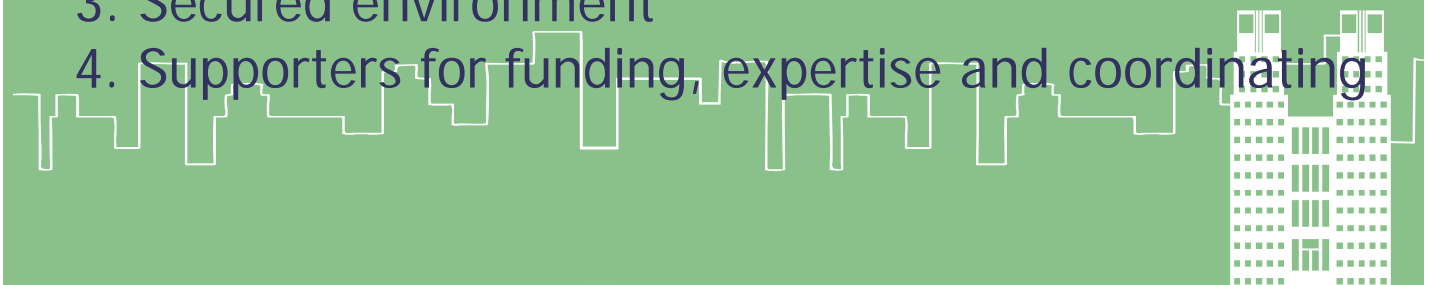
Understanding city's strong & weak points

Pragmatism based on the experience  
vs. Lack of resources



## Key Factors

1. Network of key officials
2. Close relationship among members
3. Secured environment
4. Supporters for funding, expertise and coordinating



# Lessons learned 2

## For effective collaborations

**Leadership**

**Communication**

**Motivation**

## Cities & Climate Change: Capability & Opportunity

**Toward COP21 and further**  
International collaboration of cities  
from Tokyo



### References

TMG Website: [www.kankyo.metro.tokyo.jp/en](http://www.kankyo.metro.tokyo.jp/en)

TMG Facebook: [www.facebook.com/Environment.TMG](https://www.facebook.com/Environment.TMG)

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