

# **Sustainability Assessment of Cities based on Paris Agreement and SDGs**

**– Activities of FutureCity Initiative in Japan –**

**Shuzo Murakami**

**Chair of Promotion Committee of FutureCity**

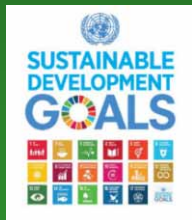
**Professor Emeritus(Dr.), the University of Tokyo**

# Global policy issues for a sustainable society



The Paris Agreement (2015.12)

⇒ Reduction of environmental load, L  
(Emission of CO<sub>2</sub>)

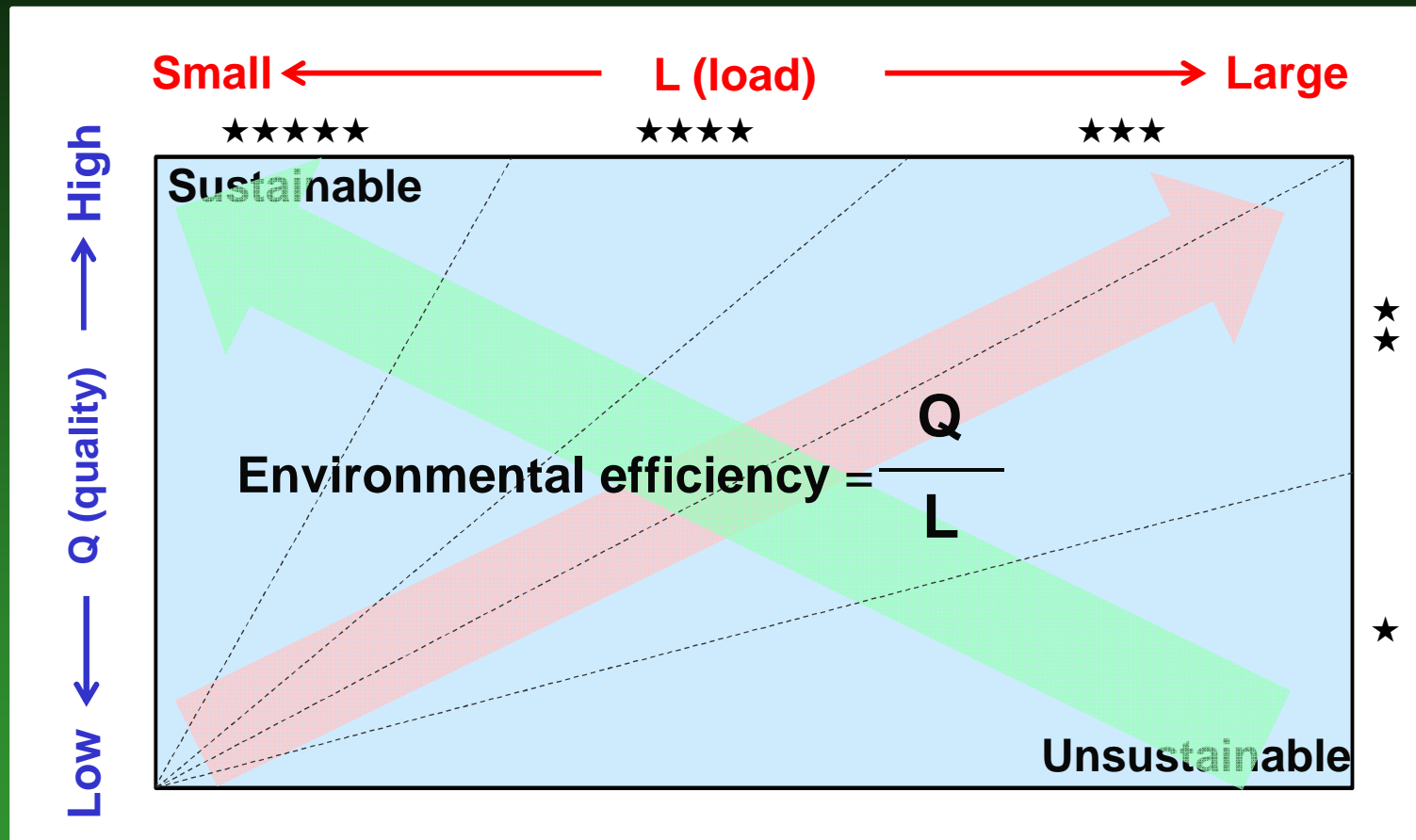


SDGs (Sustainable Development Goals) (2015.9)

⇒ Improvement of environmental quality, Q

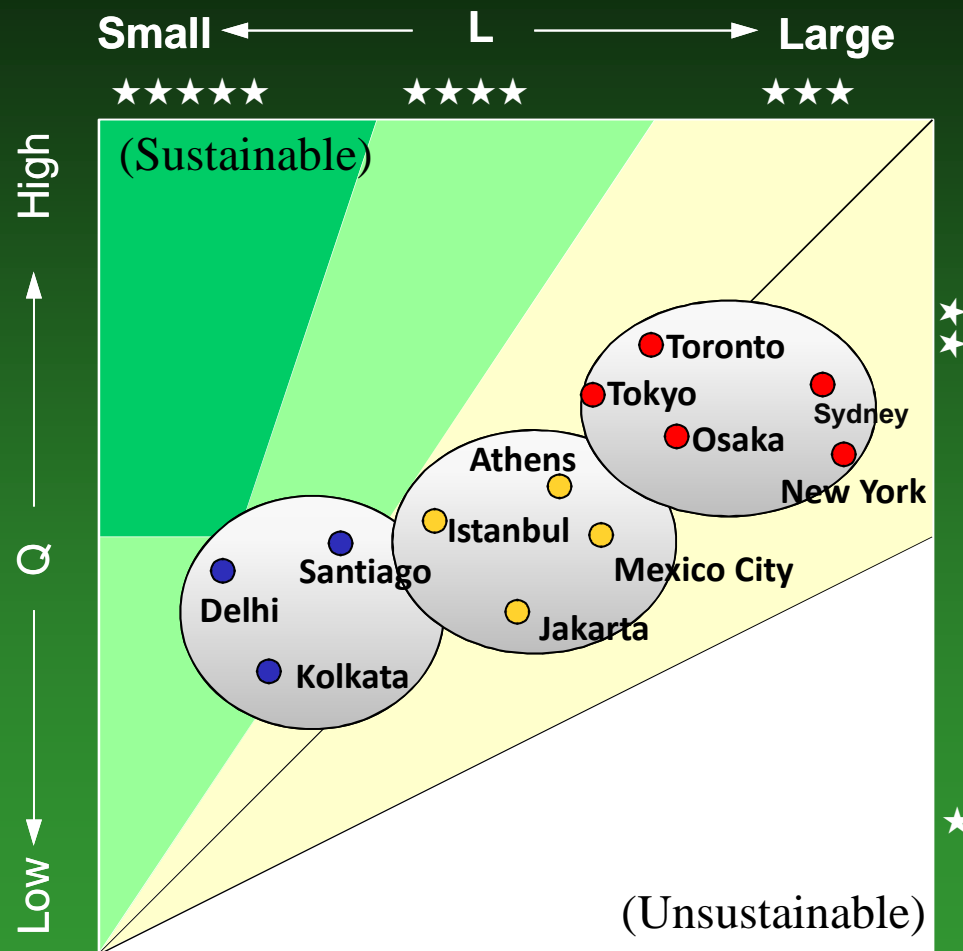
⇒ Q and L are the two major factors  
for sustainable society design

# Integrated assessment of the two policy issues based on Q - L chart



⇒ Realization of a sustainable society based on reduction of L and improvement of Q

# Sustainability assessment of cities based on Q - L chart (tentative, by CASBEE-City)



**Group Red** (e.g., Tokyo)  
(in developed countries)

**Group Yellow** (e.g., Jakarta)  
(in emerging countries)

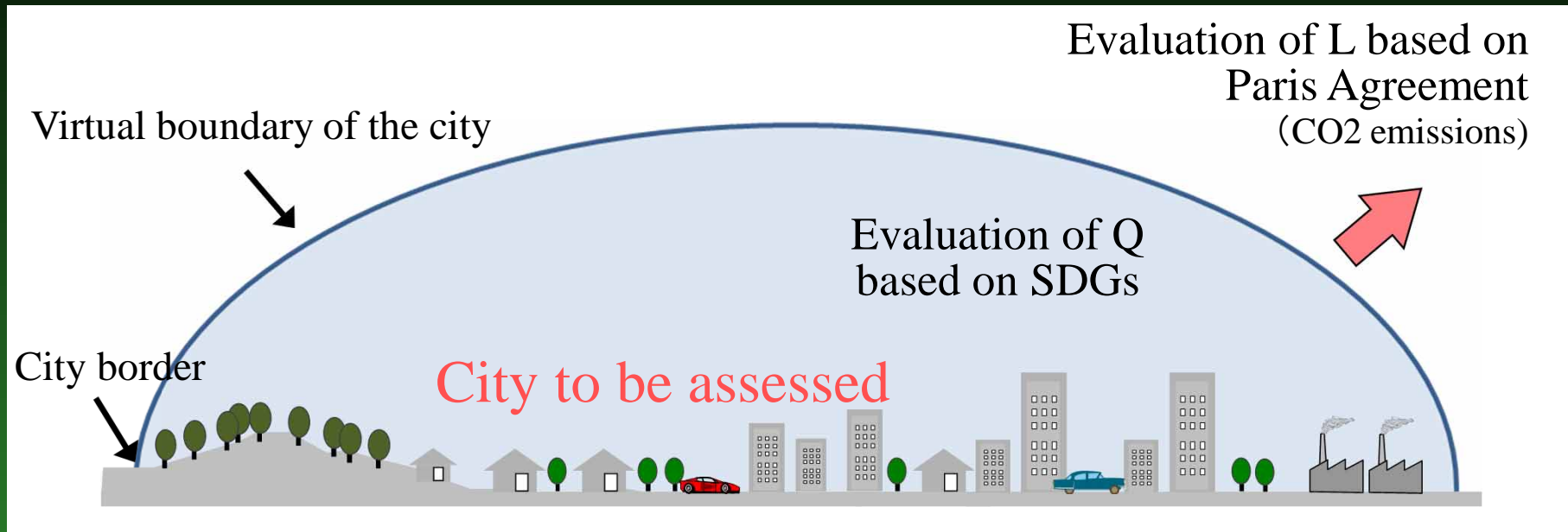
**Group Blue** (e.g., Kolkata)  
(in developing countries)

L = Environmental Load  
as CO<sub>2</sub> emissions (per capita)

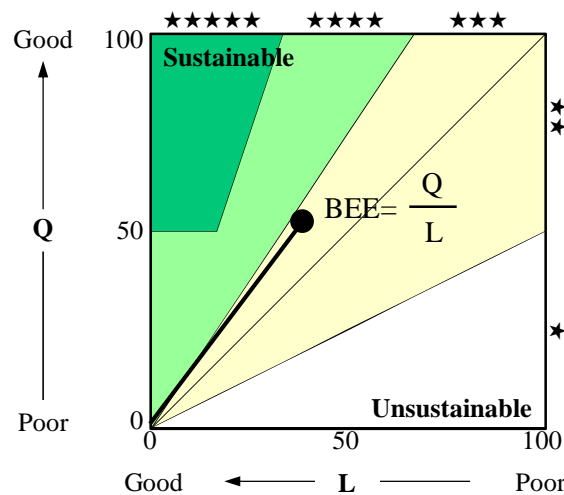
Q = Quality of City Environment  
based on the SDGs, etc.

⇒ Built Environment Efficiency Q/L :  
★★★★ for blue cities while only ★★/★★★★ for red cities

# CASBEE-City : Assessment tool developed in Japan

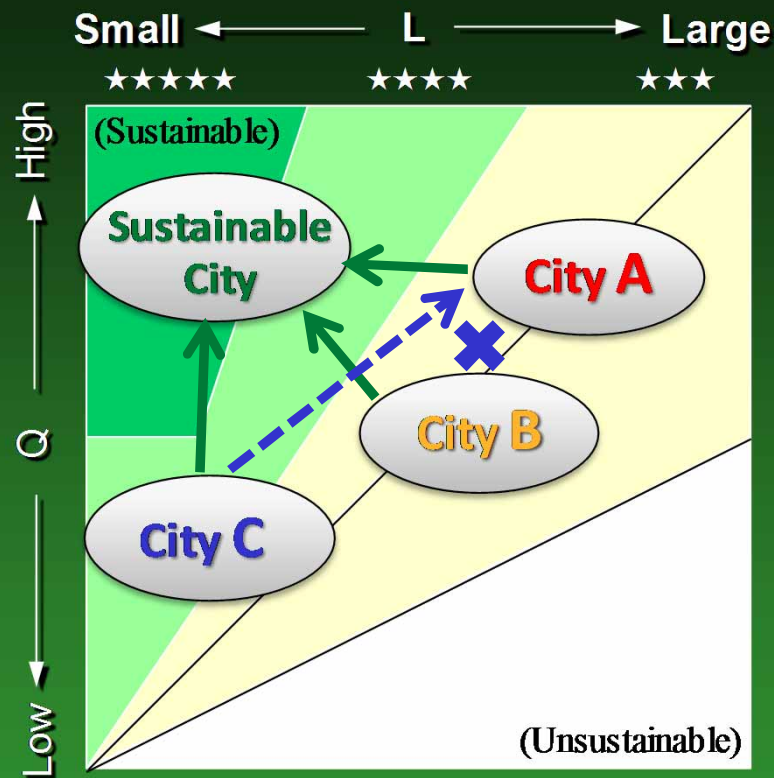


Q – L chart  
and  
BEE =  $\frac{Q}{L}$   
(Built  
Environment  
Efficiency)



**CASBEE:**  
Comprehensive  
Assessment  
System for  
Built  
Environment  
Efficiency

# Direction for reform of City Environment (based on reduction of L and improvement of Q)



City A  
(in developed countries):  
Necessary to reduce L

City B  
(in emerging countries):  
Necessary to improve Q,  
while reducing L

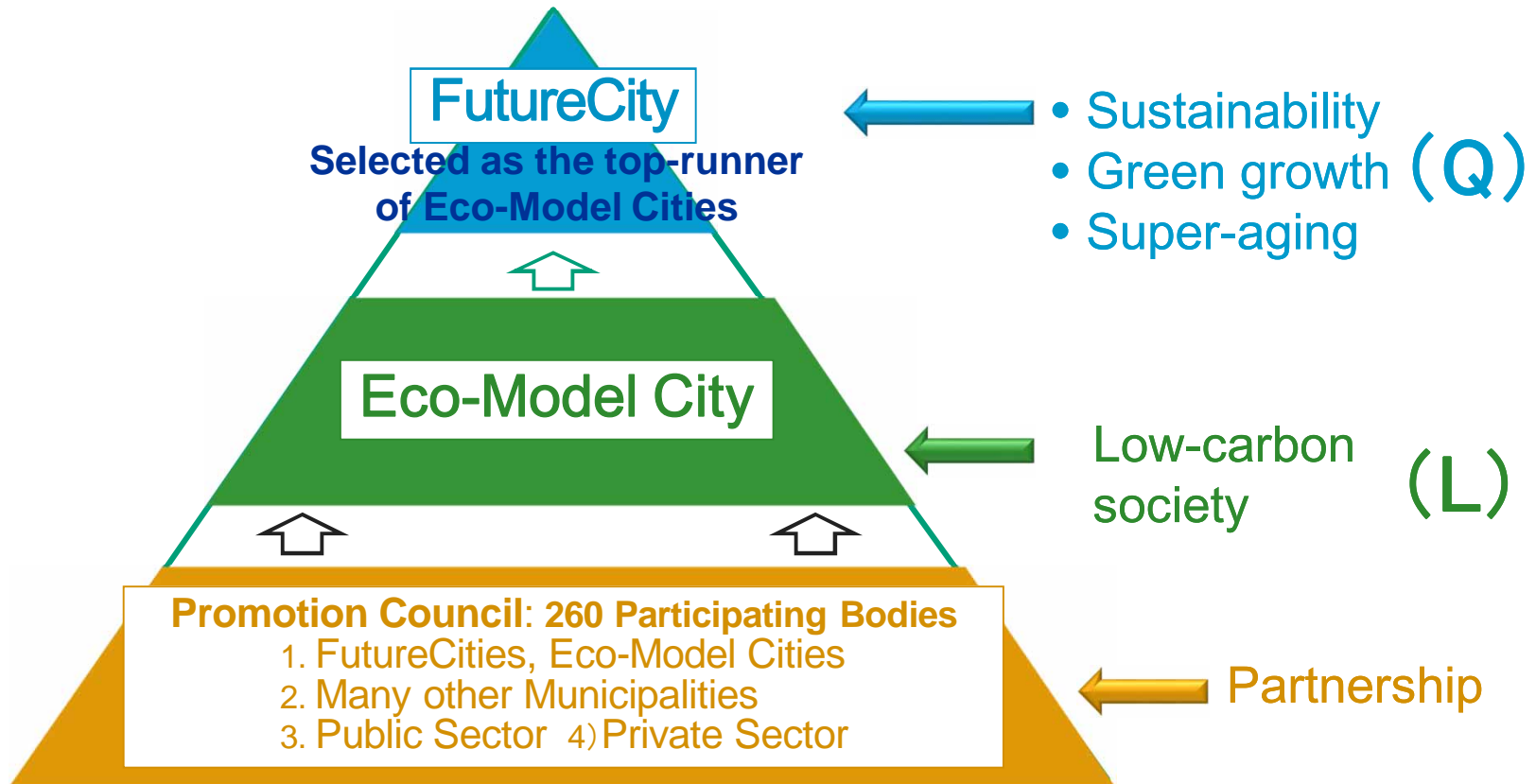
City C  
(in developing countries):  
Necessary to improve Q  
without increasing L

- ⇒ Duty of developed countries: present the models for realizing sustainable cities as quickly as possible to developing countries.
- ⇒ Urgency for reduction of CO<sub>2</sub> emissions in developed countries by 80% by 2050

# FutureCity Initiative promoted by the Japanese Government towards a low-carbon society

1. Certification and commendation of top-runner cities by the Central Government
  - ⇒ Dissemination of best practices achieved in FutureCity Initiative to other cities in Japan and overseas
  - ⇒ Global Partnership
2. Present a clear image of a sustainable society of the future to the public
  - ⇒ FutureCities as a target to be achieved
  - ⇒ Partnership between citizens and local governments
3. Establishment of a nationwide council for promotion of “FutureCity” Initiative
  - ⇒ Partnership between private/public sectors and local governments
4. Evaluation of activities of each city by the Central Government
  - ⇒ PDCA by local governments
  - ⇒ Facilitate improvement of the governance of mayors

## Framework of FutureCity Initiative



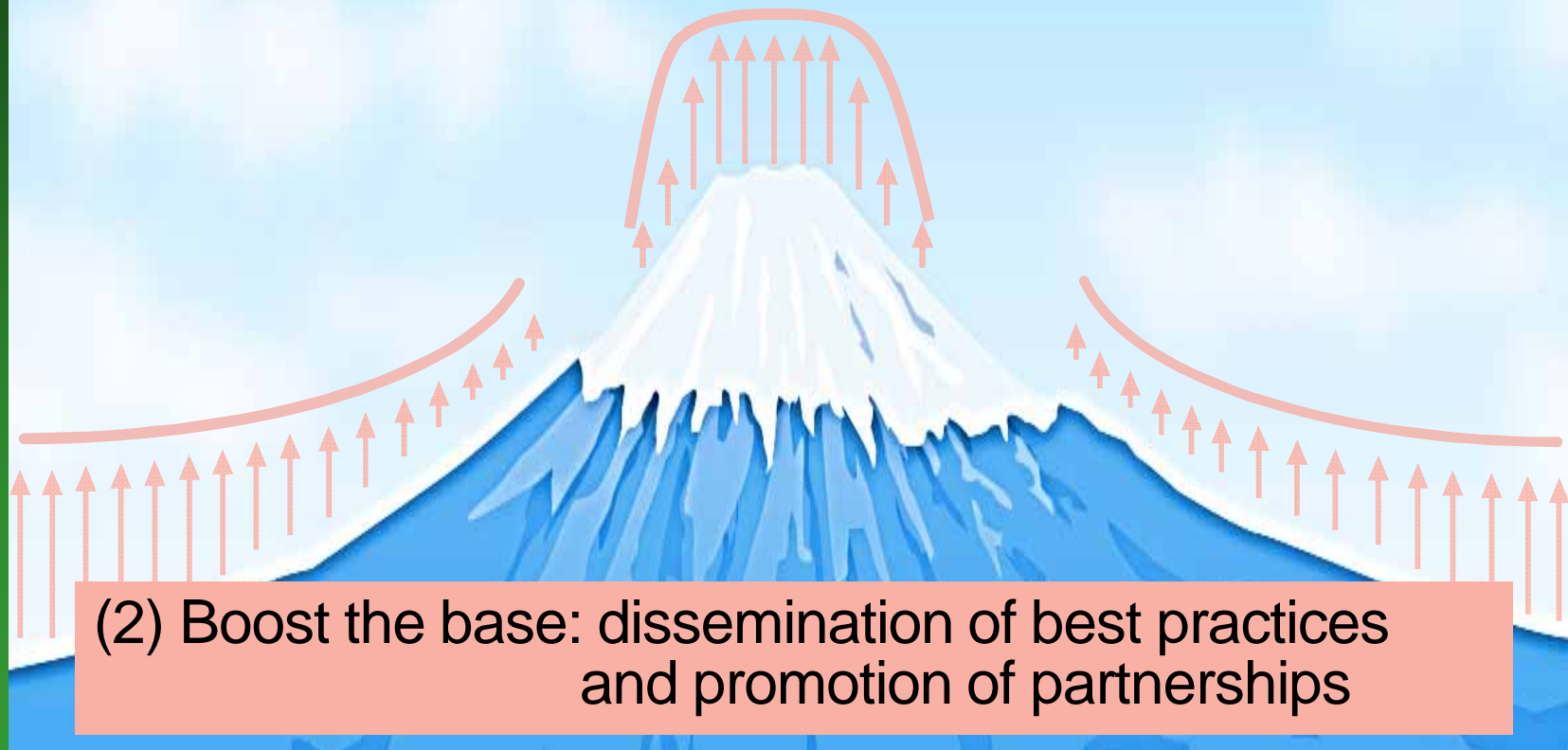
⇒ FutureCity initiative is a practice field for city management towards a sustainable society



# Aim of FutureCity Initiative:

(1) Raise the peak and (2) Boost the base

(1) Raise the peak: select and certify top-runner cities by Central Government





# Eco-Model Cities selected by the Government (23 cities: 2008 ~ 2013)

【Selected in 2008: 13cities】

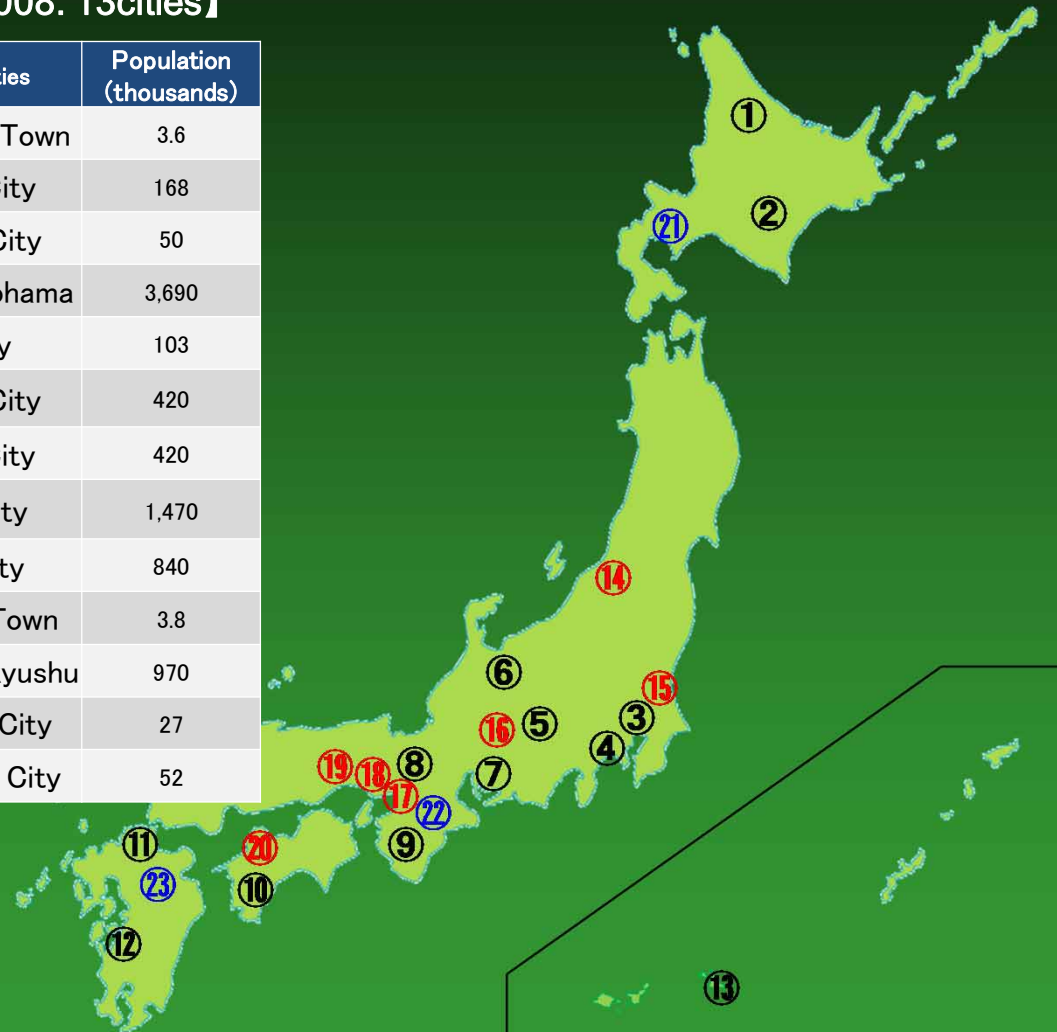
No.	Name of cities	Population (thousands)
①	Shimokawa Town	3.6
②	Obihiro City	168
③	Chiyoda City	50
④	City of Yokohama	3,690
⑤	Iida City	103
⑥	Toyama City	420
⑦	Toyota City	420
⑧	Kyoto City	1,470
⑨	Sakai City	840
⑩	Yusuhara Town	3.8
⑪	City of Kitakyushu	970
⑫	Minamata City	27
⑬	Miyakojima City	52

【Selected in 2012: 7cities】

No.	Name of cities	Population (thousands)
⑭	Niigata City	808
⑮	Tsukuba City	217
⑯	Mitake Town	19
⑰	Amagasaki City	451
⑱	Kobe City	1,542
⑲	Nishiwakura village	1.6
⑳	Matsuyama City	513

【Selected in 2013: 3cities】

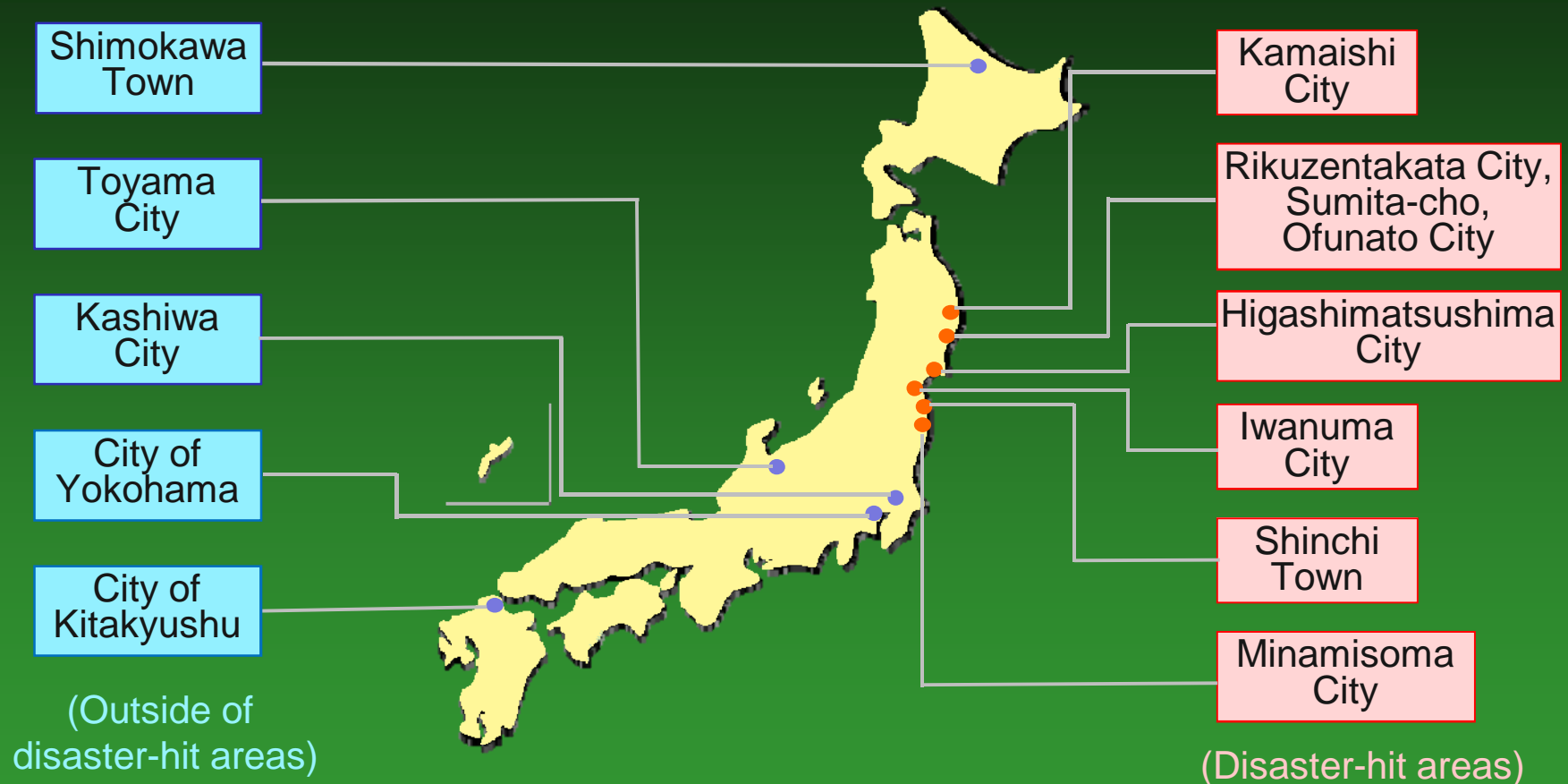
No.	Name of cities	Population (thousands)
㉑	Niseko Town	4.8
㉒	Ikoma City	121
㉓	Oguni Town	7.9



⇒ Many best practices achieved towards a low carbon society 10



# FutureCities selected by the Government (11 cities: 2011)



⇒ A variety of ambitious proposals towards a sustainable society



## International dissemination at the Rio+20 (2012)

Official side-event hosted by the Japanese Government:  
“Future Cities We Want”



Greeting by the Minister  
of Foreign Affairs



Shuzo Murakami (Chair of Promotion Council of  
FutureCity) :  
**Introduction of the FutureCity Initiative**



## Why has such great success been achieved with the FutureCity initiative ?

1. The Central government presents a clear image of a future sustainable society to citizens

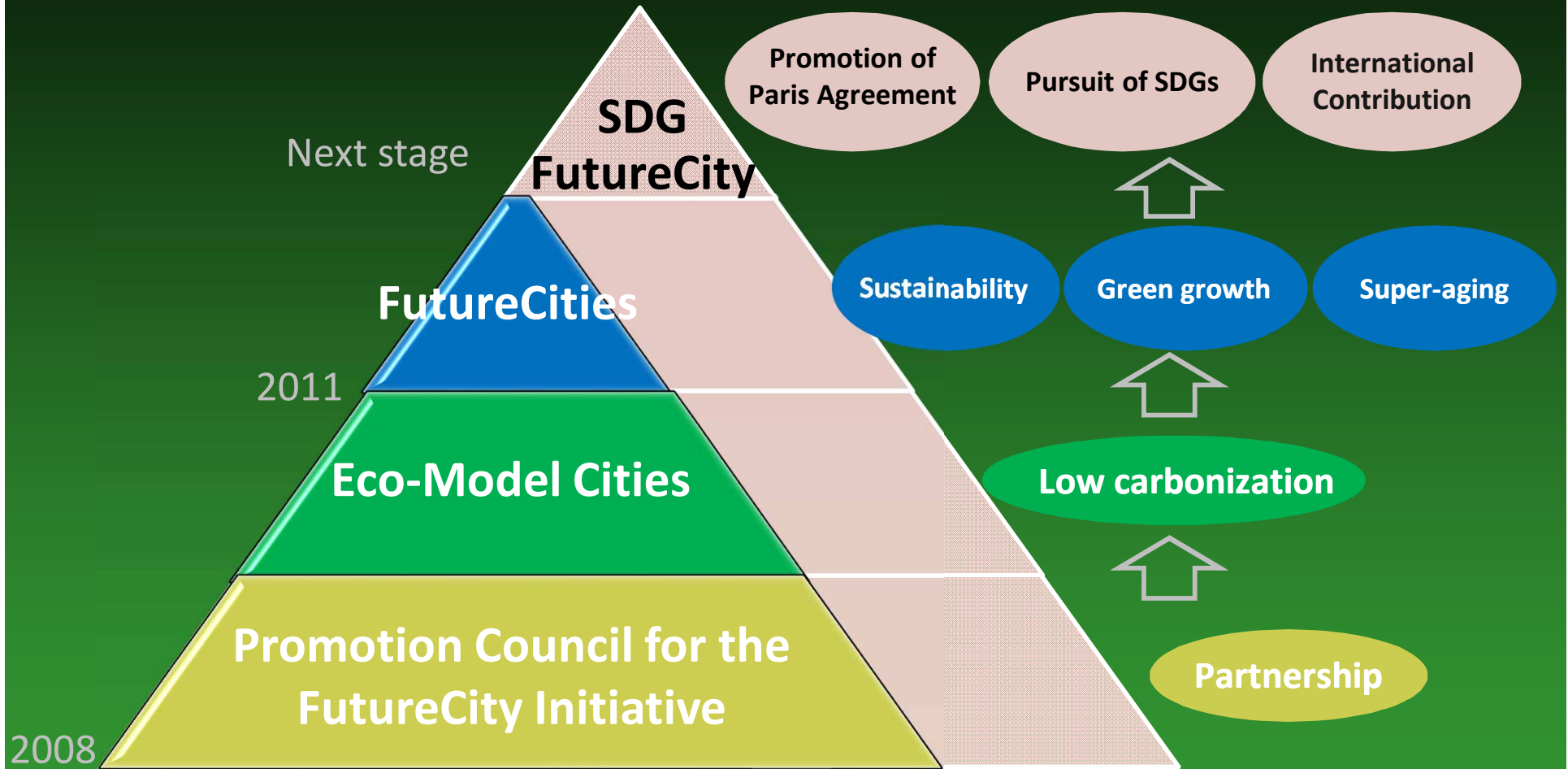
⇒ Local governments are motivated and incentivized by receiving the prestigious title of “FutureCity”

2. FutureCities promoted their action-plans on their own initiative

⇒ They created self-sustaining models for city management

3. Establishment of a global partnership among cities around the world

# Next Stage of FutureCity Initiative



◆ Achievement of FutureCity Initiative



◆ Further promotion of FutureCity Initiative



◆ Future direction: SDG FutureCity