

# **Towards Sustainable Cities in Developing Countries**

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# Outline of Presentation

1. What is SATREPS?
2. Research Outcomes into Society
3. Why is the Project in Iskandar important?
4. JICA's Approach for Sustainable Cities
5. Conclusion

# What is SATREPS? - Global Issues-

Glacial Lake Outburst Floods



Energy



Natural resources



Infectious diseases



Major natural disasters



## SATREPS: Science and Technology Cooperation on Global Issues

The aims are...

### 1. International Cooperation

Enhancing international cooperation in science and technology between Japan and developing countries

### 2. Addressing Global Issues and Advancing Science

Acquiring new knowledge and technology that lead to the resolution of global issues and the advance of science and technology, and through this process, creating innovations

### 3. Capacity Development

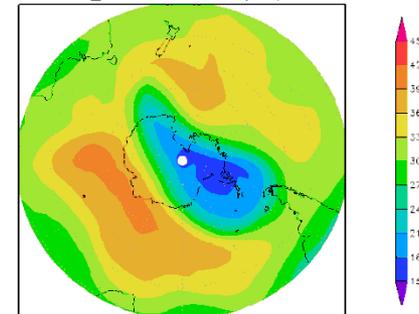
Boosting self-reliant research and development capacity in developing countries through international joint research, constructing sustainable research systems that can contribute to resolving issues, coordinating networking between researchers, and training future human resources in developing countries and in Japan.



Utilize Research Outcomes



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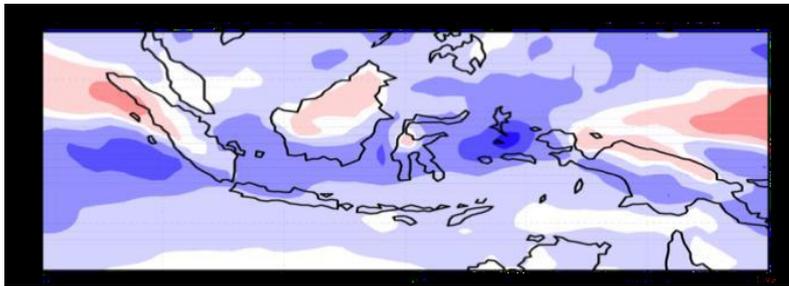


Model Simulation

# What is SATREPS? – Four main targets -

## Environment and Energy

“Low Carbon Society”  
 “Global-scale Environmental Issues”



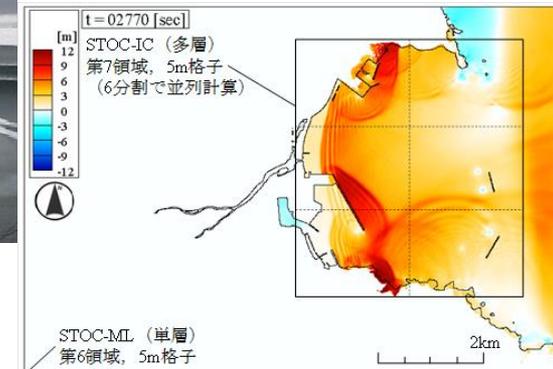
## Bioresources



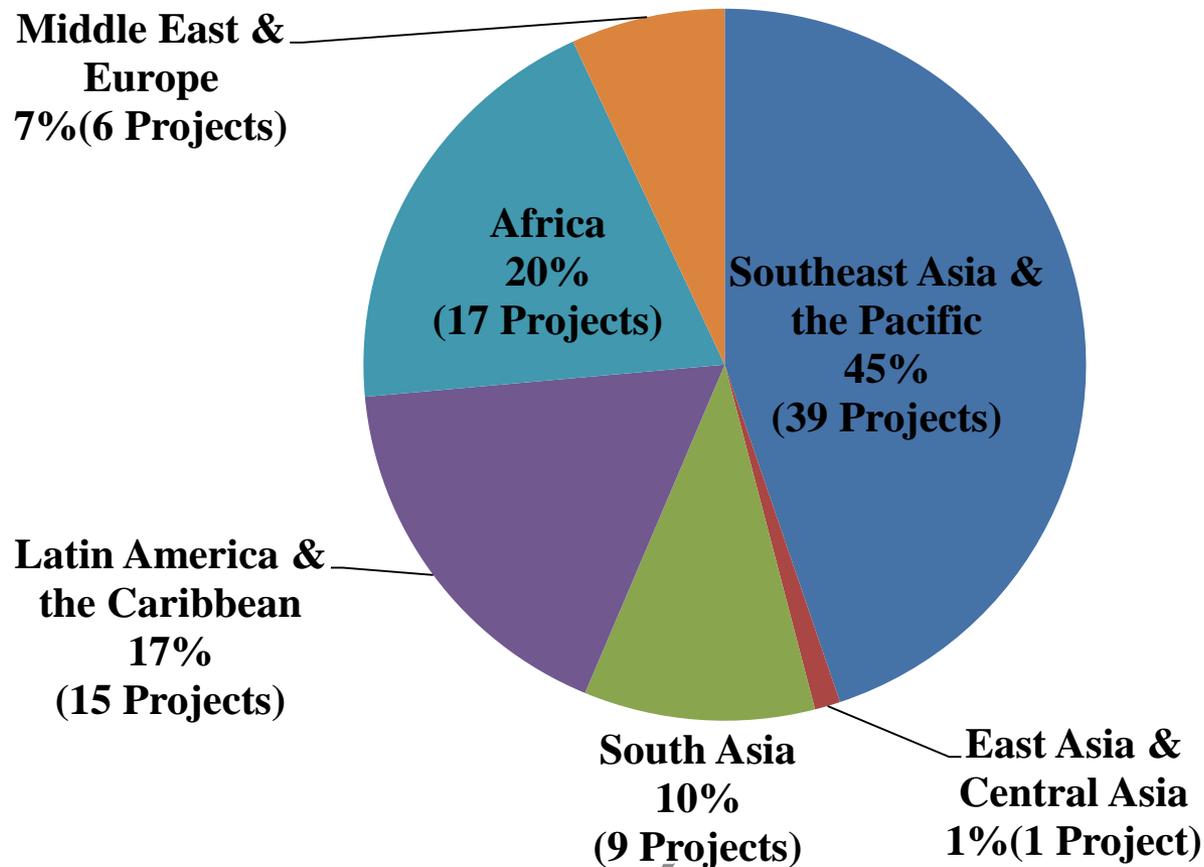
## Infectious Diseases Control



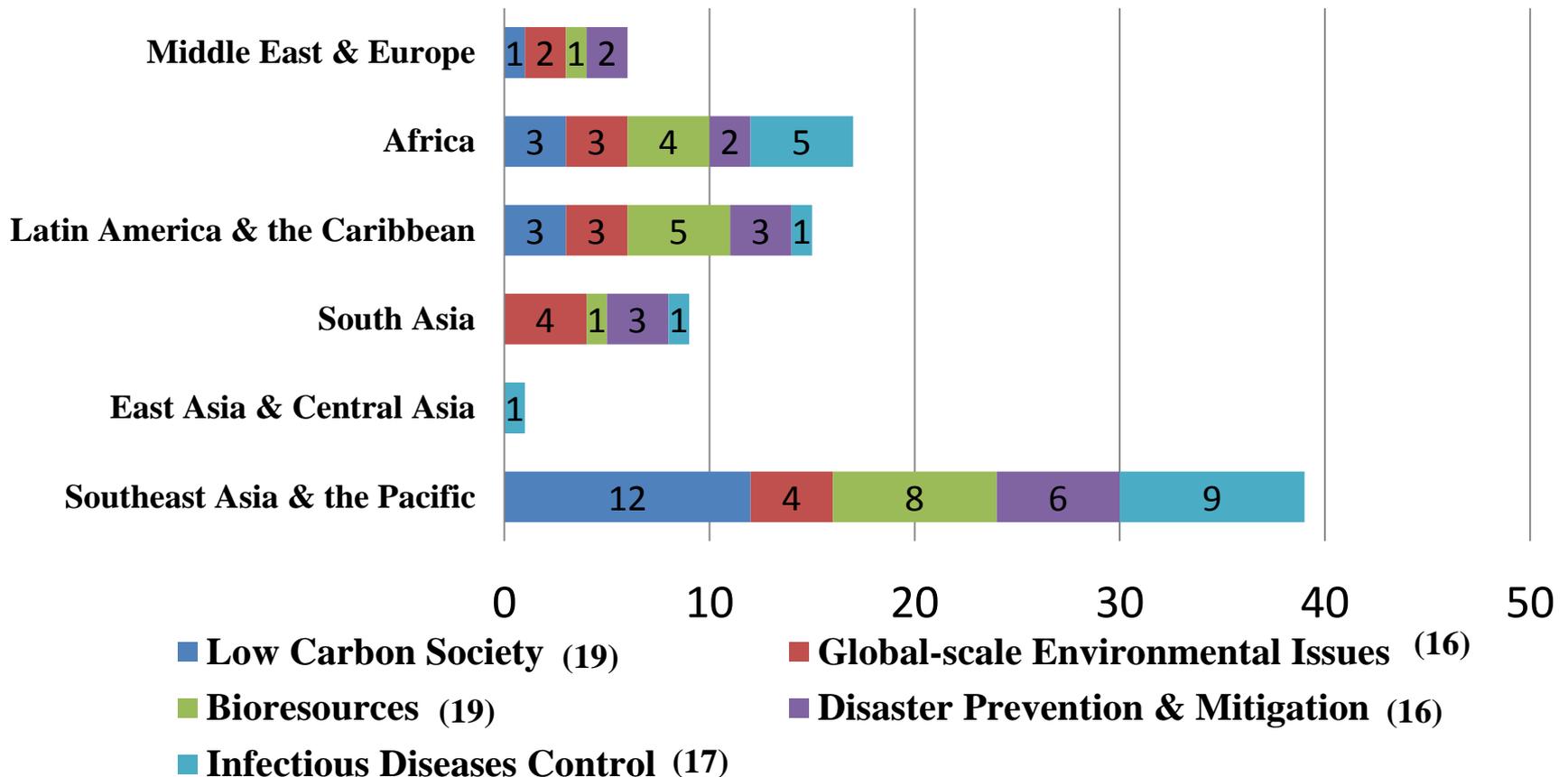
## Disaster Prevention and Mitigation



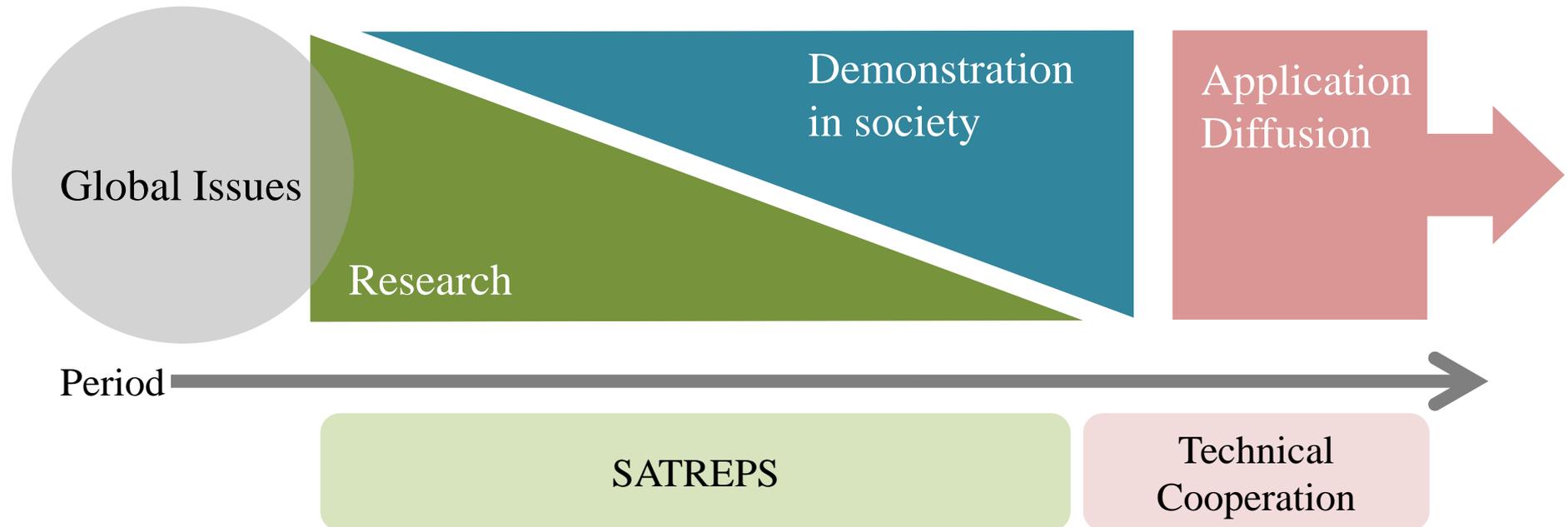
## Regional Proportion of SATREPS Projects (Total 87 Projects)



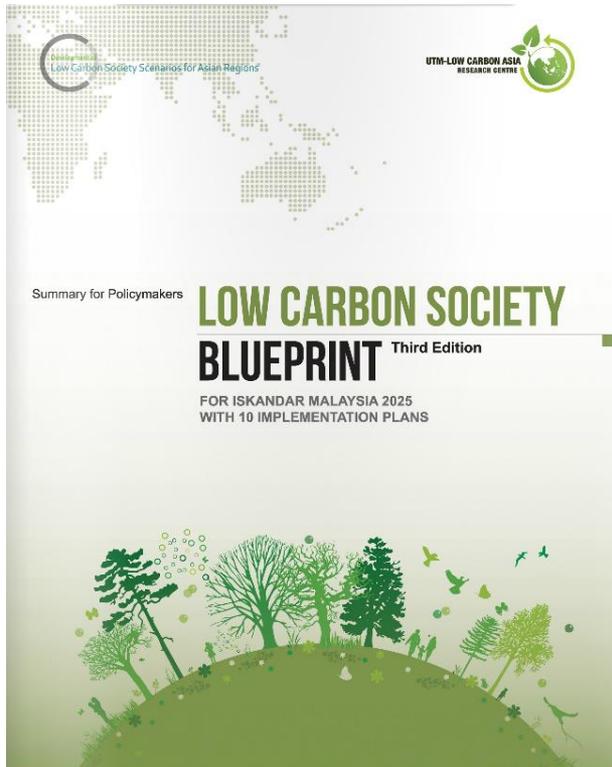
## Research Field/Region of SATREPS Projects (Total 87 Projects)



- Utilization and application of research outcomes in society is quite important.

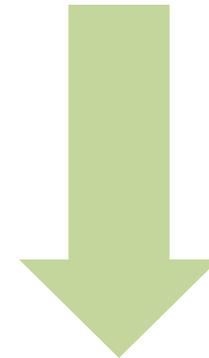


# Why is the Project in Iskandar important?



- Sharing common target among stakeholders
- Showing Roadmap (Low carbon scenario) for Sustainable Urban Development
- Showing concrete actions and their effects towards utilization of research outcomes into society

*SATREPS:  
Development of Low Carbon Society  
Scenarios for Asian Regions*



- Lessons for other developing countries on creating low carbon society
- Need to assess how to apply to existing cities



# JICA's Approach for Sustainable Cities

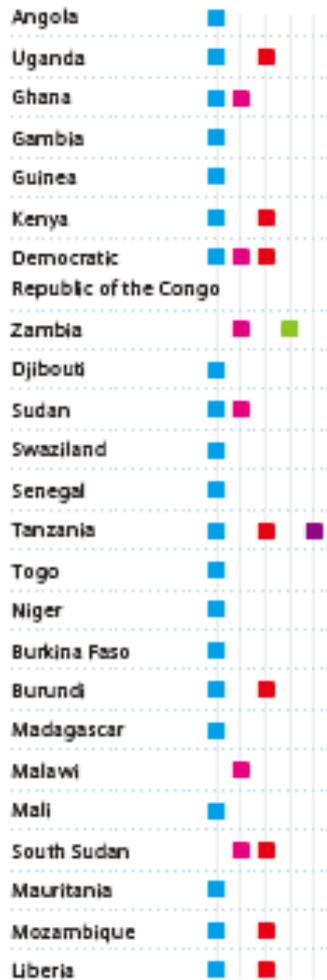
## - Projects in Urban Development -

■ Topographical map making (52)    
 ■ Integrated urban development master plan (22)    
 ■ Urban transportation master plan (38)

■ Urban planning/development systems (15)    
 ■ Housing (9)

**Total 136 projects as of 2013.3**

### Africa



### Asia



### Latin America and the Caribbean



### Middle East and Europe



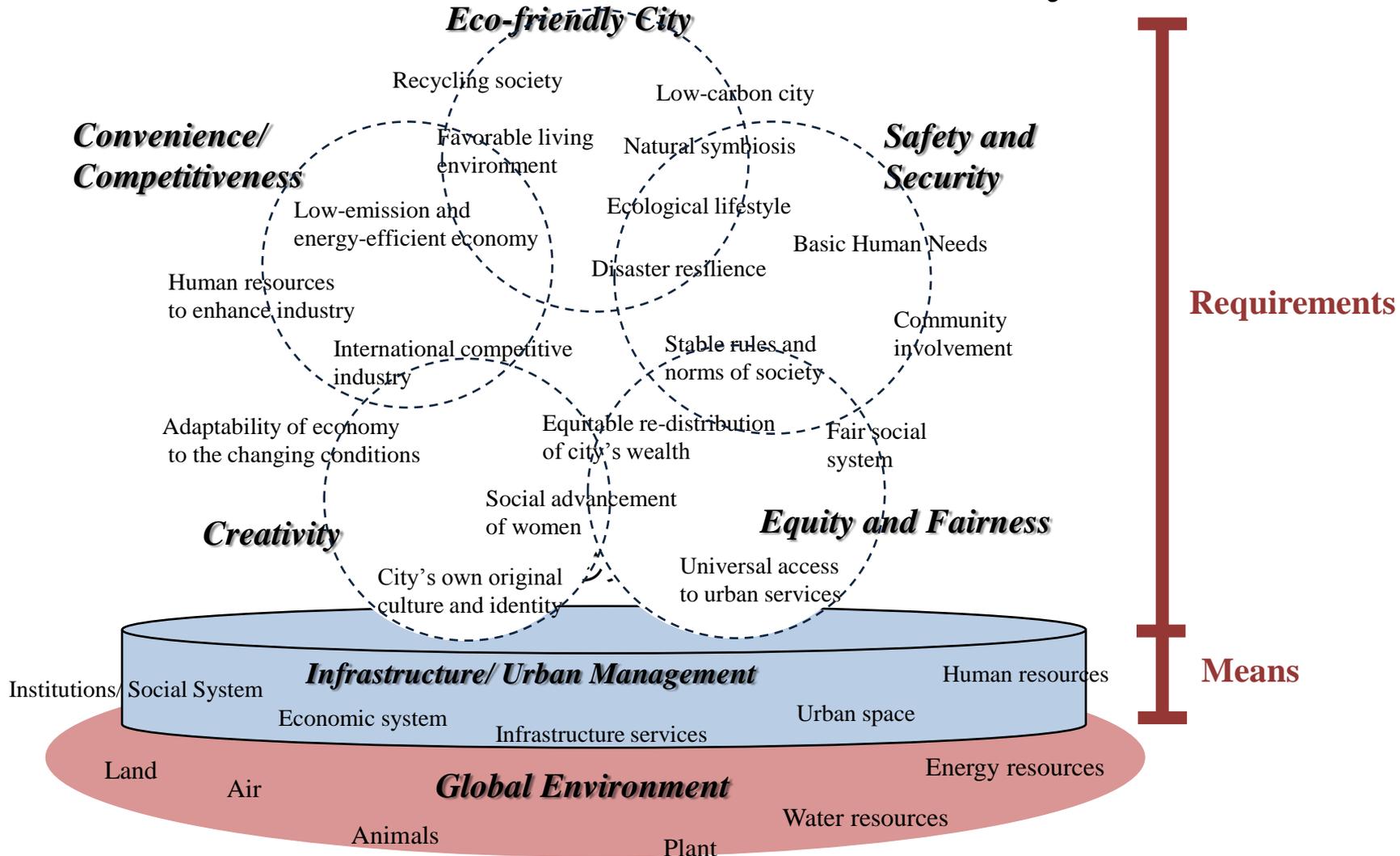
### ■ International Approach on Sustainable Development

- **Growing international concern on the global environment** in the 1970s
- **“Our Common Future” (WECD)** focusing on sustainability, “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”
- **Earth Summit in 1992 (UNCED)** adopted Agenda 21 toward sustainable development, followed by international framework on global environmental issues, UNFCCC on climate change and CBC on biodiversity
- **Rio +20 in 2012 (UNCED)** “The Future We Want”, mainstreaming sustainable development at all levels, integrating economic, social, and environmental aspects
- **SDGs:** being developed as measurable outcomes (coherent to the MDGs), which cover various aspects holistically

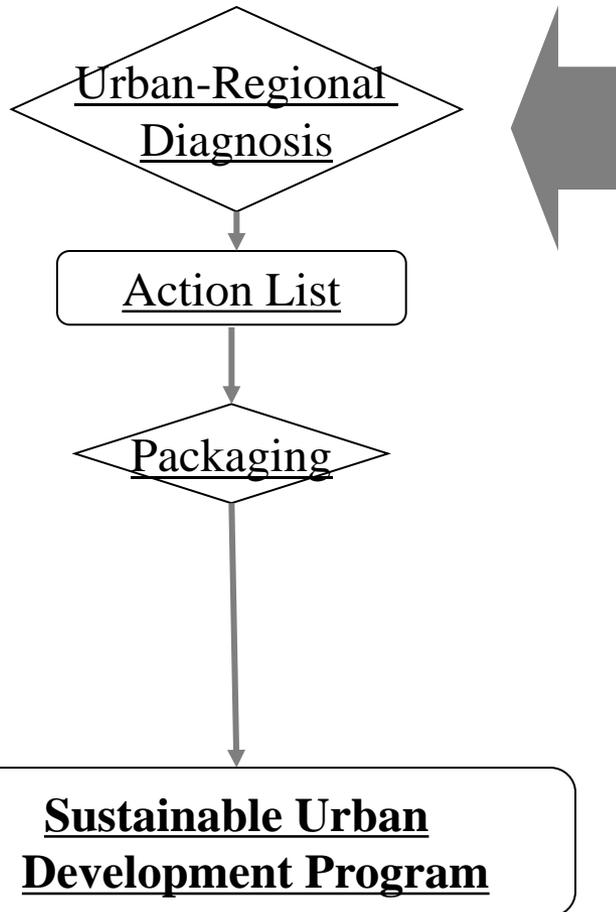
### ■ Reasons to promote Sustainable Cities

- Cities cover only 2% of total land area.
- About **half of world population (3.5 billion)** live in cities, which will increase to 60% by 2030 and 70% by 2050.
- Cities have been **an engine of economic growth.**
- **Significant environmental cost of cities**, consuming 60-80% of total energy consumption and contributing 75% of CO2 emission
- **Vulnerability to environmental change:** seriously affected by depletion of energy resources, by sea level rise and flooding due to the concentrated rain

## ■ What is Sustainable Cities and Society



## ■ JICA's challenges toward sustainable urban development



### Perspective toward Sustainable Cities and Society

- 1) *Risk management:*
- 2) *Inclusiveness (Poverty Reduction and Alleviation of Disparities)*
- 3) *Creativity*
- 4) *Urban management and infrastructure responding to the complex issues*
- 5) *A diversity of participation mechanism*
- 6) *Comprehensive and regional networking*

# Conclusion

- It is important how the cities should be in the future under rapid urbanization.
- Smooth utilization of research outcomes into society is essential.
- Integration of knowledge and experiences of various research fields is needed.
- Holistic approach is required to tackle diverse urban issues and seek sustainable cities.
- Participation of various stakeholders such as researchers, government, private sectors and citizens is indispensable.
- Sharing experience and learning each other among cities may bring new ideas and solutions appropriate to each city.

**Thank for your attention!**

