



# JICA's Perspective on Future Cities

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JICA, Infrastructure and Peacebuilding Department

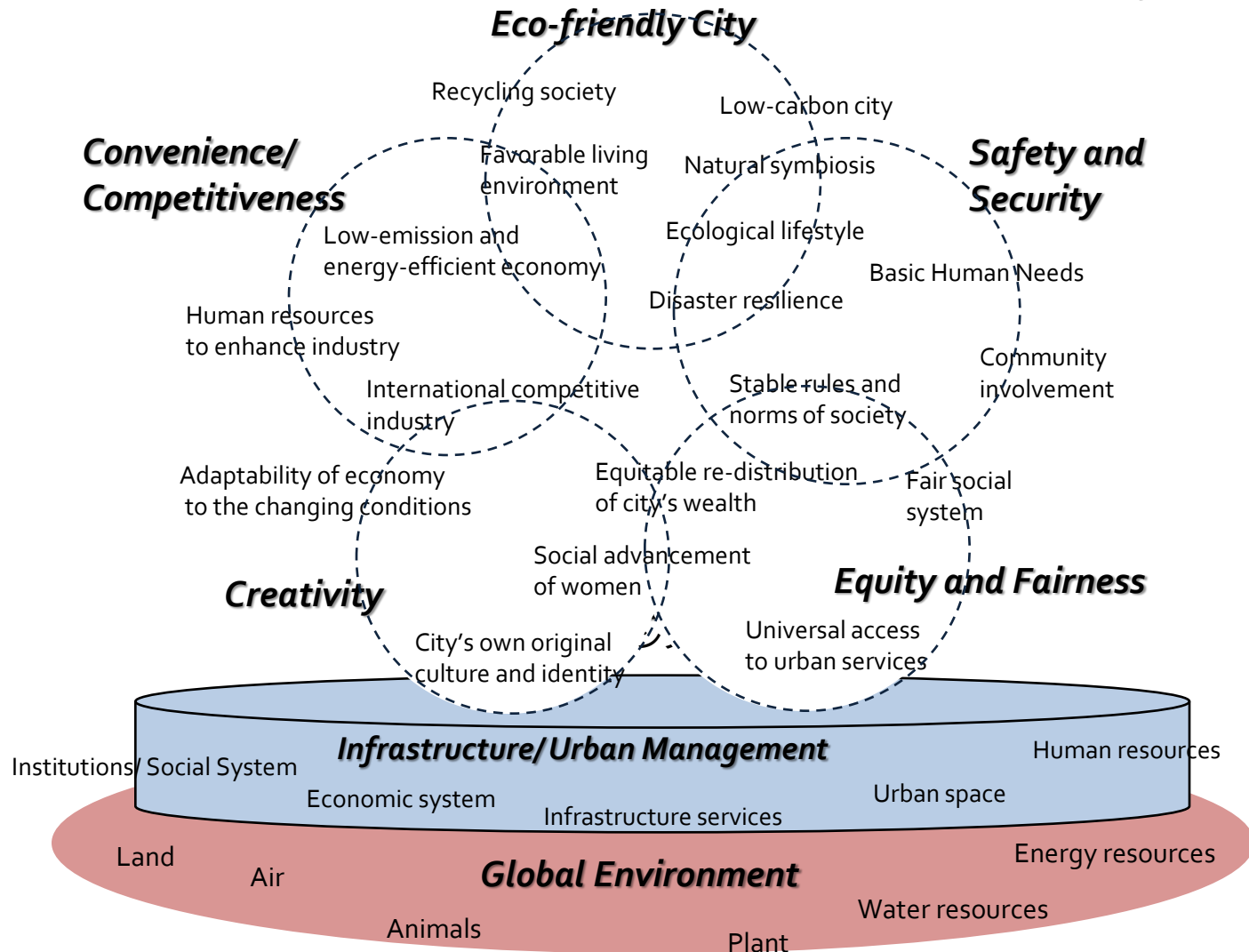
### 1. International Approach on Sustainable Development

- **Growing international concern on the global environmental** in the late 1980s.
- **“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 CBD on biodiversity.
- **Rio +20 in 2012 (UNCED)** “The Future We Want”, mainstreaming sustainable development at all levels, integrating economic, social, and environmental aspect.
- **SDGs:** being developed as measurable outcomes (coherent to the MDGs), which cover various aspects holistically.

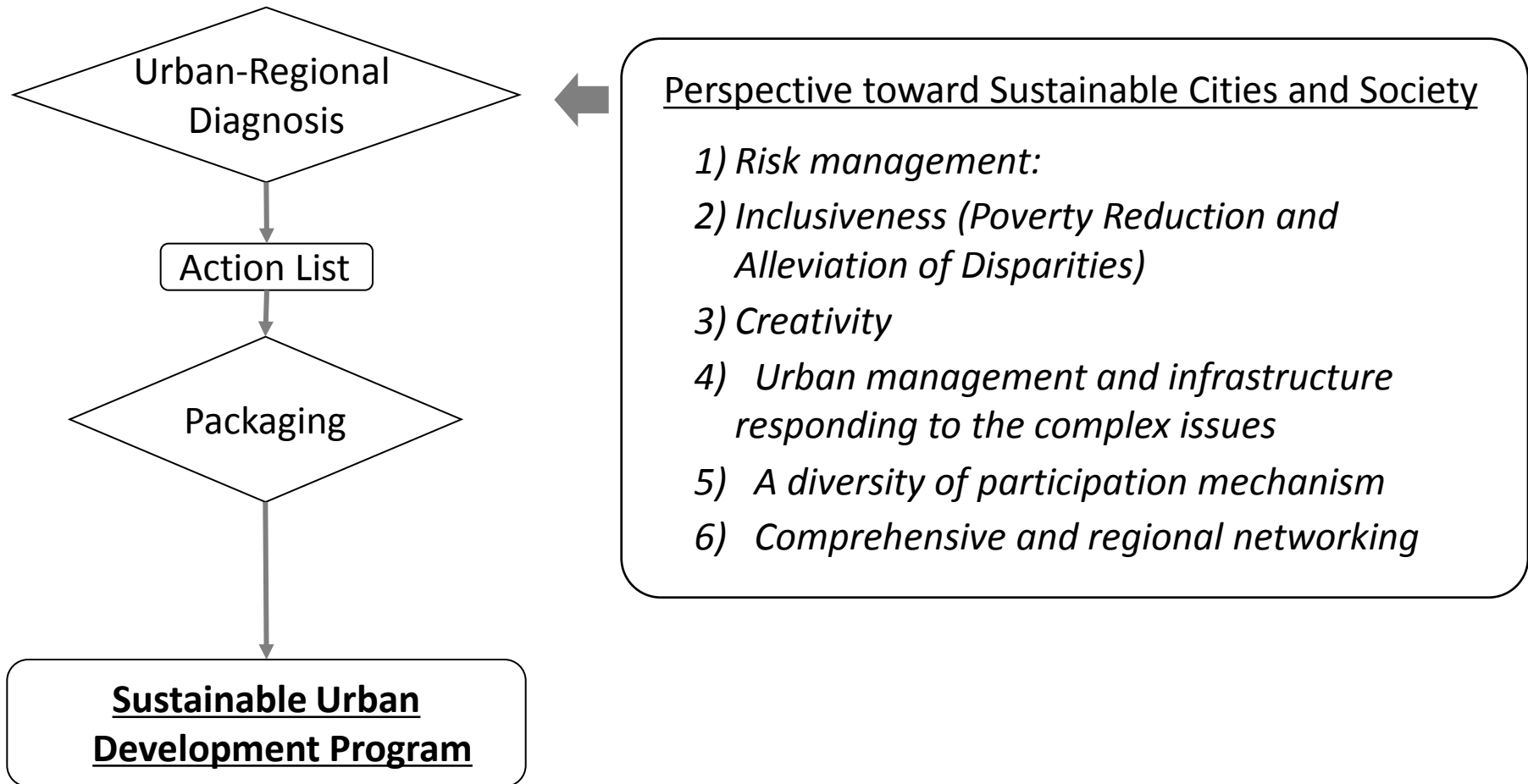
## 2. Reasons to promote Sustainable Cities

- 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 67% 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.

### 3. What is Sustainable Cities and Society



### 4. JICA's challenges toward sustainable urban development

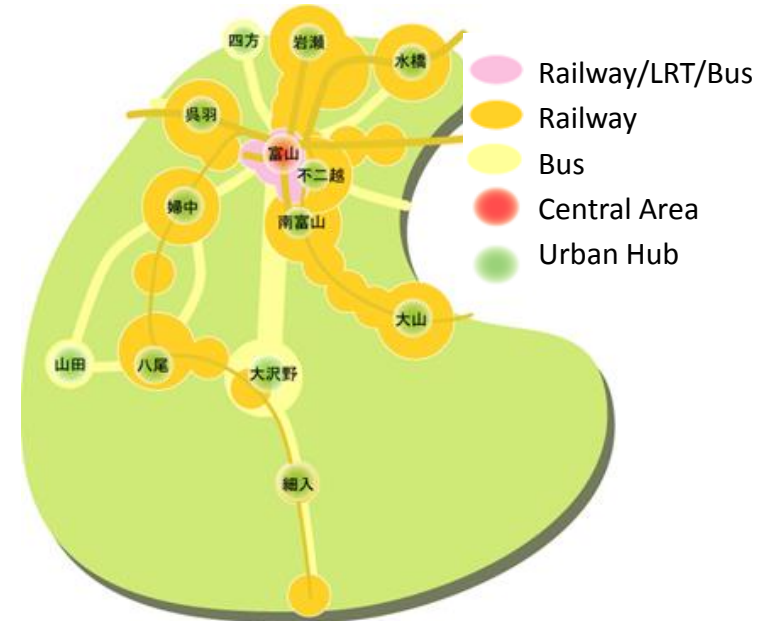


## A variety of City-based Sustainable Development Strategies

### (1) Compact City Development in Toyama City

(pop: 417,000, area: 1,242km<sup>2</sup>)

- TOD (Transit-oriented Development) with comprehensive public transport system and walkable urban centers at the station.
- Encouragement of housing and commercial facilities to areas along public transport network



Concept of Compact City  
(Dumplings on a stick)

### (2) Environmental-Economic Strategy in Toyooka City (bio-diversity)

(pop: 85,000, area: 698 km<sup>2</sup>)

- To Sympathize economic activity and environmental preservation where Oriental white Stork can survive
- Environmental-creating agriculture (disuse of agricultural chemicals and chemical fertilizer)

## (3) 3R Initiatives in Yokohama City

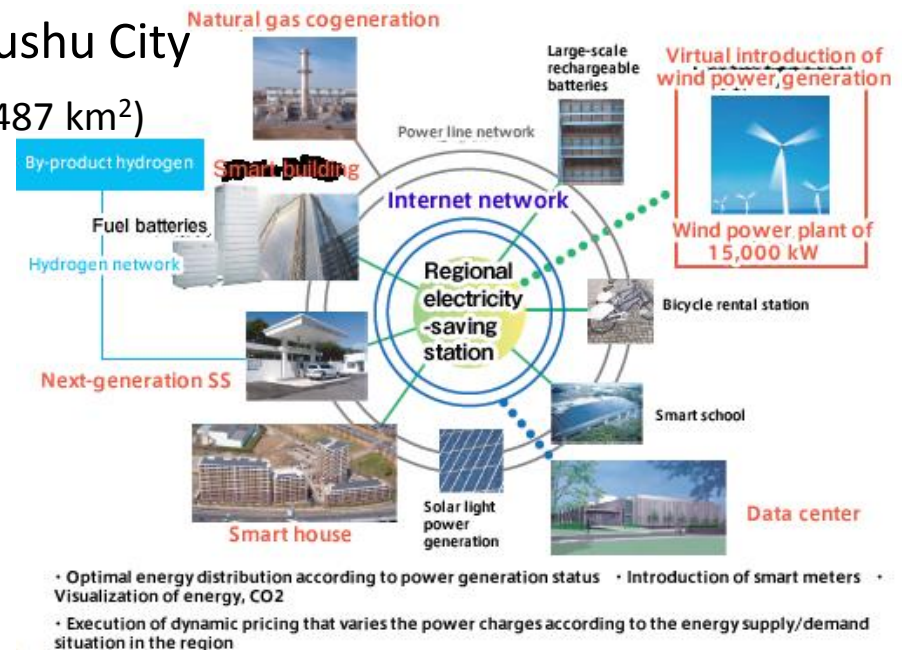
(pop: 3.69 million , area: 437km<sup>2</sup>)

- G30 program aiming to reduce the waste volume by 30%
- 3R activities through collaboration of citizens, businesses, and government.
- Community participation
- Total disposed waste volume decreased by 44% and reduced CO<sub>2</sub> emission

## (4) Low-carbon Center in Asia by Kitakyushu City

(pop: 970,000, area: 487 km<sup>2</sup>)

- Smart community pilot project with area energy management,
- CEMS, BEMS, HEMS, and renewable energy, etc.
- Dynamic pricing of electricity:



## (5) Forest Future City in Shimokawa Town

(pop: 3,532, area: 644 km<sup>2</sup>)

- Comprehensive forest industries integrating forestry, forest product industry, and forest biomass industry.
- Energy-sufficient independent and low-carbon society

