

# Outline of Low Carbon City Development



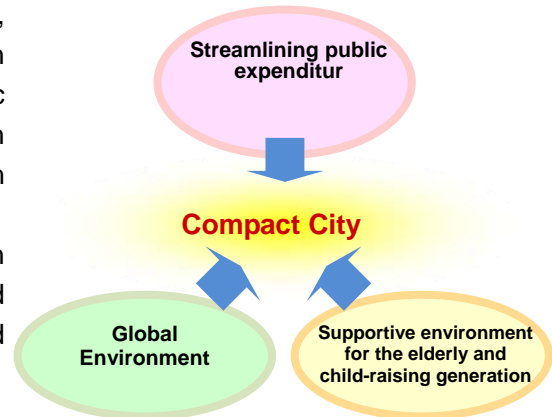
## 1. Background

### Social and Economic Constraints in Japan

As an aging society with declining birthrate, it is imperative to promote reforming city structure so that the elderly as well as child-raising generations can enjoy safe, secure and comfortable life style.

While fiscal deterioration is expected in the long run, maintenance and renewal cost of over-grown infrastructure stock, and recurring cost for public service, such as social welfare and sanitation, weigh heavily. It is an urgent task for cities to cut down such costs and make investments for future.

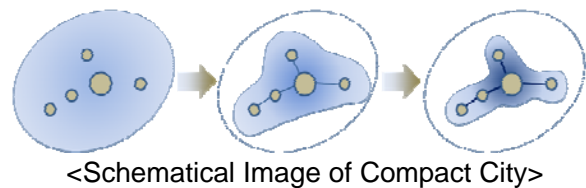
Also considering the impact of urban activities on global warming, now is the time to reform cities and regions, and make cities and regions sustainable and livable.



### Direction for Urban Development

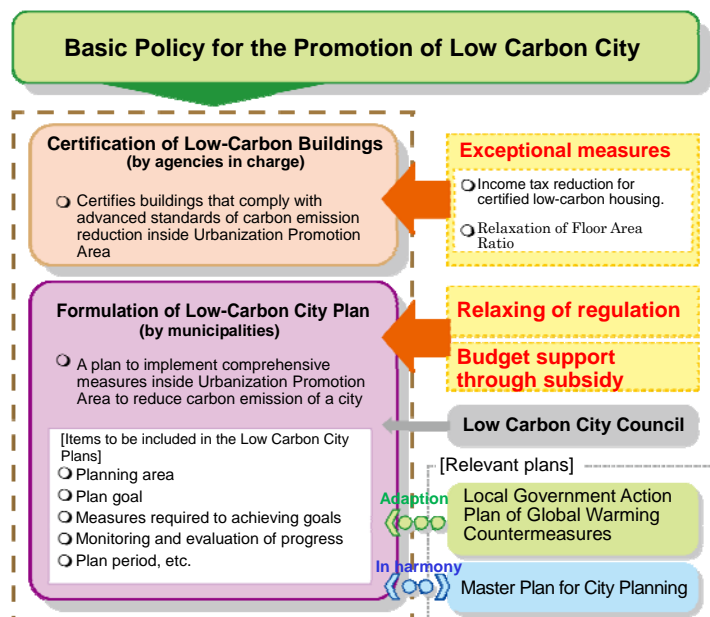
Responding to those constraints in above, we need to start making cities compact, by placing services for daily needs close to where people live, so that residents do not have to rely too much on personal vehicles, rather access them using public transport.

Existing city centers and areas where urban services are already concentrated will serve as city cores and sub-cores, and residential areas will be placed on the periphery. City cores and sub-cores will be connected via public transport.



## 2. Low Carbon City Act

Low Carbon City Act was enacted to help local governments tackle urban problems and realize the “Compact Cites”, in close cooperation with citizens and private sectors. The act introduces new perspectives to urban development, such as life styles friendly to global environment, and life styles adjusted to aging society.



Low Carbon City Plan is designed to show municipality's future vision along with specific measures towards achieving it. The plan will guide the efforts by local governments and citizens, while promoting private investments that contribute to the plan. As a first step towards realizing a Compact City, plans are tailored for each municipality, expected to be made of locally inspired ideas.

#### Features

- Low Carbon City Plan is a new initiative to make city planning and public transport policies in an integrated manner so that various measures can be carried out comprehensively.
- Low Carbon City Plan provides a new cooperative framework, where private sector and citizens play more active role, supported by municipalities.
- Low Carbon City Plan is flexibly adjustable to each city in different size and population.

#### Low Carbon City Council

As stakeholders shall work cooperatively and proactively, holding active and candid discussions within themselves, Low Carbon City Councils can be set up by municipality to facilitate discussion for planning and coordination for implementation. The council can utilize existing framework for similar purposes.



## 4. Formulation of Low Carbon City Plans

### <Concept of Low Carbon City Plans>

\* Incentive details in page 5.

#### Concentration of services for daily needs, e.g., hospitals, shops, and welfare facilities, close to residential areas

➤ Incentive (1)

- ◆ Development projects to integrate medical and welfare facilities with multi-family homes; Facilities to improve urban livelihood.

#### Creating walkable city

- ◆ Sidewalk, bicycle path, and barrier-free public spaces

#### Promoting public transport

➤ Incentive (3)

- ◆ Opening new LRT/railway lines and bus routes, and improving station
- ◆ Fare reduction, improving timetable, common tickets for multiple modes

#### Consolidating privately-owned parking

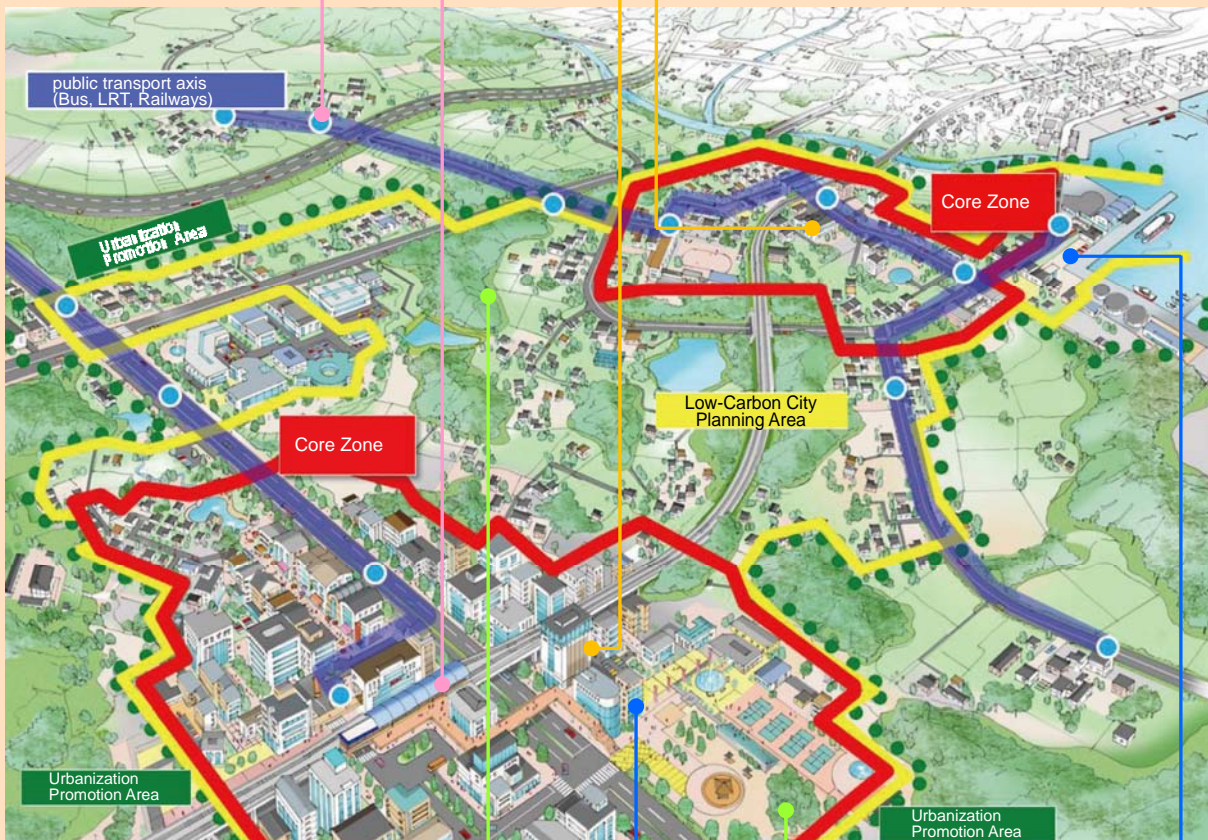
➤ Incentive (2)

- ◆ Construction of and facilitation towards consolidated parking.

#### Joint delivery and transportation of goods

➤ Incentive (3)

- ◆ Implementation of joint delivery and transportation
- ◆ Deploying low emission vehicle for goods transport
- ◆ Construction of off-street joint package sorting facilities



#### Greening by NPOs

➤ Incentive (4)

- ◆ Enhanced conservation and maintenance of green space by NPOs and Specified Organizations for Green Space Management
- ◆ Conservation of important trees and woodlands in urban area through agreement

#### Greening

- ◆ Development of parks
- ◆ Greening of privately-owned land

#### Area-wide energy network (e.g., District Heating system, Co-generation system)

➤ Incentive (5)

- ◆ Facilities to utilize wastewater heat
- ◆ Developing heat transfer pipe network

#### Installation of solar power system in public land

➤ Incentive (6)

- ◆ Installation of solar panels at park and port (Limited to those not interfering with the original functions of the facility)

#### Reducing CO2 emission from automobiles

- ◆ Promotion of green cars and support equipment such as quick charger

#### Promoting advanced low carbon building and housing

- ◆ Construction of low carbon buildings, energy saving renovation

#### \* "Low-Carbon City Planning Area"

Municipalities can designate Low-Carbon City Planning Area according to the necessity and measures begin considered. It can cover whole urbanized area or can be specific areas where projects will be implemented.

#### \* "Core Zone"

Core Zone for Consolidated Urban Services will be designated inside the Low-Carbon City Planning Area, where consolidation of urban services are planned.

### Planning Area (\*Required)

Low Carbon City Planning Area can be designated inside Urbanization Promotion Areas and Land Use Zones, where it is appropriate to implement comprehensive measures for making the city a low-carbon city.

### Plan Goals

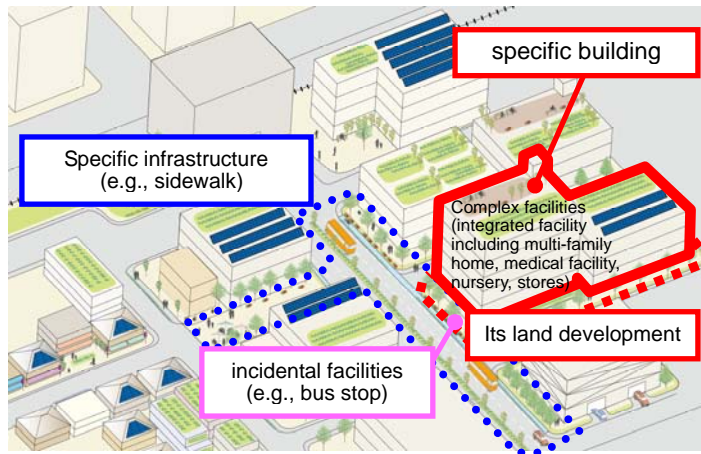
Plan goal provides future vision of the city, which the plan aims to achieve. It is encouraged to include quantitative indicator(s) so that overall progress towards the target can be properly monitored.

## 5. Schemes supporting Low Carbon City Plan

### Integrated Urban Development Project - (1)

Mayor can certify Integrated Urban Development Project in Low Carbon City Planning Area if it meets following requirements:

- (1) It develops building(s) or land for facilities serving many people, such as hospitals and multi-family homes.
- (2) It contributes to forming a core to consolidate urban services.

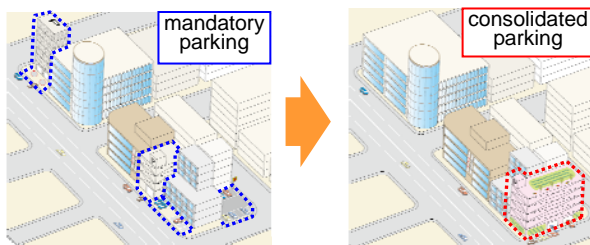


### Incentives for Low Carbon City Plans

#### Exceptions to the Parking Lot Act - (2)

Variations regarding mandatory parking regulation can be made in municipalities' ordinance in the following ways.

- (1) At consolidated parking
- (2) At each building site
- (3) (1) or (2)



#### Exceptional measures for conservation and promotion of green space - (4)

##### Designating local groups to maintain green spaces for public use

Mayors, instead of prefectural governors, can designate local groups as the "Organization for Green Space Management" for the Eco-City Planning Area.

##### Conservation and maintenance of the valuable trees and woodlands

Valuable trees and woodlands inside Low Carbon City Planning Area can be included in green management agreement

#### Exceptional measures for promoting public transport and the joint goods transport - (3)

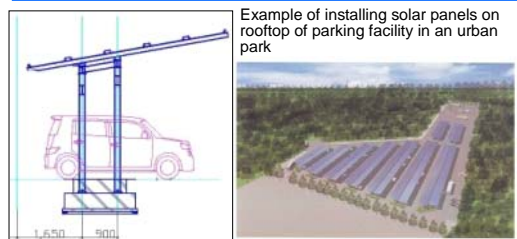
When the Minister in charge certifies an implementation plan for Low Carbon City Plan, it is deemed to necessary permissions are also granted for implementing agencies and companies.

#### Exception to the Sewage Act - (5)

Private businesses, after obtaining approval by sewage authority, can draw wastewater from sewage to utilize its thermal energy.

#### Exceptional measure regarding permission for occupancy in urban park and port - (6)

When an application for permission for occupancy is submitted within two years after the publication of the Low Carbon City Plan, municipality must grant it as long as it complies with the technical standards.

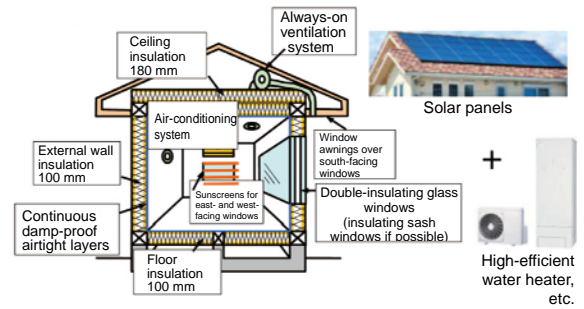


## Low carbon building certification

After a building is certified as a low carbon building by municipality, the building becomes eligible for incentives, including the reduction of income tax, and the exclusion from Floor Area Ratio for the floor areas pertaining to relevant equipment.

In order to be certified, the energy consumption of the building needs to be reduced by more than 10% of the energy saving standard, and it also needs to include certain measures to contribute to making low carbon city.

<Illustration of a detached house>



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