Urban policies for aging cities

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Based on the Act on Special Measures concerning Urban Reconstruction and Act on Revitalization and Rehabilitation of Local Public Transportation Systems amended in 2014, the local municipalities are expected to guide houses and community amenities into key areas and to develop a sustainable local public transportation network which connects these areas, while taking the entire city structure into account.

In order to encourage the municipalities to guide community amenities into designated districts, the Japanese Government provides incentives such as budgetary support for creating and implementing such plans.

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### Siting Optimization Plan (created by cities)

*Amended Act on Special Measures concerning Urban Reconstruction*  
(Enacted Aug 1 2014)

- **Community amenity advancement district**
  - Identify the areas where certain amenities are encouraged to be sited
  - Promote establishment of urban functions (such as welfare, healthcare, commerce.)
    - Provide tax and financial incentives to service-attracting facilities
    - Relax floor area ratio requirements, etc. for rebuilding welfare and healthcare-related facilities
    - Effective use of public real estate and unused/underused land
  - **Walkable city** Support development of pedestrian walkways

- **Residential advancement district**
  - Establish areas that attract residents and maintain population density
  - Improving living conditions within districts
    - Enable housing developers to make proposals on urban planning and landscape planning
  - Lenient control of residential developments outside the districts
    - Prior notification of a large residential development outside the district, followed by consultation with local municipalities.

### Local public transportation networking plan

*Amended Act on Revitalization and Rehabilitation of Local Public Transportation Systems*  
(Enacted Nov. 20 2014)

- Developed by local government lead
- Integrated with city development
- Takes the whole city structure into account to redevelop public transportation networks for the entire region

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### Integration

- Polycentric network-based Compact City
- Guide and concentrate community amenities to key areas
- Reinforce public transportation services
- Improve transit hubs

- Walkable/bike-friendly development
- Encourage more housing near public transportation

- Regional public transportation reorganization plan
  - (created by local government, with consent from the operators, etc.)
  - Circular transportation system
  - Feeder lines such as community buses
  - Demand-responsive bus (taxi)

- Approval by MLIT (Minister)

- Improve related laws and establish new incentives, such as budgetary support.
Re-examination of medical and care structure in the region
Aims to provide an integrated community care system that integrates medical, care, preventative, residential, and life support, by 2025
(Necessary services will be provided within a range of 30 minutes in spheres of everyday life)

Integrated community care system

Outline of integrated community care systems

Medical
- Hospital: Emergency/recovery/chronic
  - Regular treatment
  - Early doctor / clinic (with coordination for services)
- Residential care
  - Home care, care at center, small-sized care with multiple functions
- Short term residential care
- 24-hour home care
- Integrated services: small-sized care with multiple functions + home care
- Care preparedness support

Care
- Go to / stay at hospital
- Go to / stay at care center
- Residential support
  - Home care, care at center, small-sized care with multiple functions
  - Short term residential care
- 24-hour home care
- Integrated services: small-sized care with multiple functions + home care
- Care preparedness support

Life support & care prevention
- Regional inclusive care center
  - Care manager
- Coordination for services and advice support
- Integrated community care system supports necessary services for everyday living within a range of 30 minutes (specifically, middle school district-basis).

Coordination for services incl. advice support
- At home
- Residence for elderly
- Integrated community care system supports necessary services for everyday living within a range of 30 minutes (specifically, middle school district-basis).

Healthy Japan 21 (Phase 2) 2013-

Comprehensive promotion of improvement of citizens’ health
Through improved daily life habits and social environment, development of a society where citizens from all walks of life can support one another and live healthy.

Increase healthy life expectancy
Correction of health disparities

Low incident rate of cardiovascular disease and death rate
Reduction of low social functioning due to fall, fracture, or dementia

Increase 1,500 steps per day
A person doing exercise at least an hour per week increases by 10%

Increase in municipalities developing urban environment easy to do exercise

Advocating importance and joy of exercise
Supporting workplaces, regions, and businesses

Proof of some RCT and meta analysis
Proof of some positive cohort study
Validated by synchronic study

Validated by synchronic study

- Increase in daily walking amounts, in proportion of those who regularly exercise, etc.
- Increased number of local governments taking steps to develop a city environment where inhabitants easily exercise

Compact City development, where daily life services such as medical and care facilities are easily accessible, is critical.

In May 2013, MLIT established the "Health, medical, welfare, and urban development research group" consisting of academia, local governments, the Cabinet, and the Ministry of Health, Labor, and Welfare, and developed the "The guideline for promoting urban development integrated with Health, medical and welfare"
Guidelines to promote integrated urban renewal with health, medical and welfare services

“Guidelines to promote integrated urban renewal with health, medical and welfare services” was developed to promote an urban policy that reflects the health, medical and welfare perspectives in the future, including the integrated development of a regional comprehensive care system and urban renewal (August, 2014).

Outline of “Guidelines to promote integrated urban renewal with health, medical and welfare services” (August, 2014, The Ministry of Land, Infrastructure, Transport and Tourism city bureau)

Direction to aim for
- Urban renewal for most citizens to live more actively and independently while receiving community support when necessary
- Promote compact city policy to plan comprehensively to improve the public transportation network and pedestrian space, and ensure the necessary functions of daily life
- Shifting the direction towards necessary projects and policies from the health, medical and welfare fields’ point of view is important in urban policy development.

Promotion measures
- Cross-sectional development of organizational structure centered around a leader
- Cooperation among road management, traffic management, transportation service providers, NPOs, and new communities

Assessment index of integrated urban renewal with health, medical and welfare service (example)

<table>
<thead>
<tr>
<th>Index example</th>
<th>Assessment point</th>
<th>Index</th>
<th>Data</th>
<th>National average</th>
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<tbody>
<tr>
<td>Index to assess basic conditions of a city</td>
<td>Current conditions and geometry of urban area</td>
<td>Scale of downsizing of urban area</td>
<td>DID area ratio</td>
<td>3.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DID population ratio</td>
<td>67.3%</td>
</tr>
<tr>
<td></td>
<td>Life and health conditions of the elderly</td>
<td>Level of aging in an area</td>
<td>Proportion of the population aged 65 and over</td>
<td>22.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Healthy life expectancy</td>
<td>Healthy life expectancy</td>
<td></td>
</tr>
<tr>
<td>Index to assess measures taken</td>
<td>Health awareness among citizens, Exercise habit</td>
<td>Health awareness</td>
<td>Proportion of the population with healthy habits</td>
<td>39.4%</td>
</tr>
<tr>
<td></td>
<td>Pedestrian areas that encourage walking</td>
<td>Pedestrian area ratio</td>
<td>Proportion of roads with sidewalks</td>
<td>14.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Proportion of roads with greenery</td>
<td>9.7%</td>
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<tr>
<td></td>
<td>Public transportation environment</td>
<td>Public transportation service standards</td>
<td>Proportion of residential areas with convenient public transportation</td>
<td>67.0%</td>
</tr>
</tbody>
</table>

Necessary 5 actions
1. Raise health awareness of exercising regularly among citizens
2. Increase the number of participants to community activities to stimulate community activities that support the local community
3. Systematically install urban functions in urban and walking-distant areas
4. Install pedestrian areas that encourage walking
5. Improve the public transportation environment

Assess the effects of and improve the actions
- Check the status regularly and continuously to improve necessary actions taken in cooperation with citizen and local community

[Example of effective action]

(Reducing annual healthcare cost) = The number of residents whose walking distance increased
× Increase of the number of steps a day
× 0.061 yen/step
× 365 days
(Reference: Tsukuba University, Kuno Laboratory)
The more centralized a city is, and the shorter the distance from residential areas to the city center is, the more residents go out on foot or using public transportation to enjoy their lives.

Compact city policy is expected to increase the opportunities for the elderly to go out and for the residents to walk a longer distance; therefore, increase healthier citizens and reduce healthcare costs.

### Decentralized cities increase the dependency on cars.

Compact cities increase the opportunities to go out on foot and using public transportation.

### Comparison of the number of steps in large cities and small cities

- **Male**
  - Median: 5,929
  - Median: 7,000

People who have the habit of walking are seen both in large and small cities; however, cities other than Tokyo, Osaka and Nagoya have higher numbers of people who tend to walk less.

As a benchmark for urban renewal, “Guidelines for walking distance (number of steps) survey” was developed to understand the health improving effects. (Released on March 2017)

The intensity of effects on healthcare cost-saving by walking was calculated based on previous researches. (Healthcare cost-saving effects per step per day: 0.065-0.072 yen)
Compact city project in Komoro City

Komoro City’s issues

- **Decrease/Aging of population, Decrease of working population**
  - In 2000: approx. 46,000 pp. ⇒ In 2025: approx. 36,000 pp. (Estimate) (approx. 22% decrease)
  - Population in DID also keeps declining.

- **Decline of the city center**
  - O Nagano Shinkansen line opened. (1997) ⇒ Shin’etsu Main Line became a third sector company. Express train to Toyo was canceled. ⇒ Komoro station users declined by approx. 500K. [approx. 2.2 million (2000) ⇒ approx. 1.7 million (2012)]
  - O Commercial facilities (Shinshu Jusco, Komoro Tokyu, etc.) closed or moved to suburbs.
  - O Vacant stores increased.

- **Aging of General Hospital/City Hall**
  - O Komoro General Hospital has deteriorated and is planned to be merged into an advanced medical hospital in the neighboring city. ⇒ The residents want it to remain open as the healthcare base of the region.
  - O City Hall has deteriorated (Collapse under intensity 6 and higher) ⇒ Immediate need for maintenance of the buildings to be used as the disaster prevention base.

- **Declines in public transportation**
  - O Decrease in the number of community bus users [100K pp. (2009) ⇒ 84K pp. (2013)]
  - O Inefficient operation not suited to the user needs
  - O Increase of subsidy (to cover deficit) to the operating companies

**Build a new public transportation network in the region and compact city**

Centralizing urban functions in the city center

- General Hospital is relocated from the suburb to next to City Hall/Library in the city center, creating a base for the City. ⇒ Vitalize the city center and the community

- Sharing energy among other facilities

- General Hospital = 246 beds (general hospital)


- Completed in July 2015

- Elderly population +15.3%

- Production-age population +20.7%

- Young population +36.0%

- National Institute of Population and Social Security Research (Estimation as of March 2013) (Source) Komoro City

- Opening of Nagano Shinkansen line drastically decreased the number of users.

- Closing of Komoro Station front

- General Hospital is relocated from the suburb to next to City Hall/Library in the city center, creating a base for the City.

- Vitalize the city center and the community

- Sharing energy among other facilities

- General Hospital = 246 beds (general hospital)
Various issues stemming from the rapid decline and aging of the population have become visible.

To tackle these issues, Japan’s urban policies have been shifted drastically to the “Centralized Urban Structure” which ensures sustainability of cities by downsizing decentralized urban areas, and is centered around the regulatory measures imposed on development projects in suburbs.

Background behind the shift to the downsizing policy

- **1997.6 “How to develop future urban policies”**
  (Interim report by the Central City Planning Council, Basic Policy Subcommittee)
  - Shift from “urbanized society” to “urban life society”
  - Shift from “measures against urban expansion” to “urban reconstruction” focusing on city centers

- **2003.12 “Urban redevelopment vision”**
  (Report by the Panel on Infrastructure Development)
  - Shift from “decentralized urban structure” to “centralized/renovated urban life structure”
  - Improve the use density of old factory sites and other lands that were divided during the bubble years, and centralize urban functions to downsize urban areas

- **2006.2 “How to develop urban planning in a new era (1st report)”**
  (Report by the Panel on Infrastructure Development)
  - Decentralized urban functions and hollowing of city centers
    - Decrease service efficiency, increase car use, increase environmental impact, etc.
  - By creating “centralized urban life structure”, ensure sustainable development of cities

- **2007.7 “How to develop urban planning in a new era (2nd report)”**
  (Report by the Panel on Infrastructure Development)
  - Strategic actions towards centralized urban life structure
    - Comprehensive actions in cooperation with various bodies and policies
    - Coordinated actions with urban transportation policies and urban development projects
    - The importance of public transportation to realize centralized urban life structure

- **2012.9 “Future development of systems relating to urban planning”**
  (Interim report by the Urban Planning System Subcommittee)
  - Energy restriction, etc. to meet the change in energy demand and supply following the 2011 Tōhoku earthquake and tsunami
    - Important issue: Building low carbon/recycling society through “centralized urban life structure”

- **2013.7 Interim report by the Urban Renewal Strategy Review Panel**
  - Renovation of urban structures is necessary for comfortable life and energetic economic activities.
    - Local cities: Concentrate residential areas and Relocate urban functions that support life and economy
    - Metropolis: Provide efficient medical/welfare service; urban renewal which allows the elderly to live healthy lives

- **2014 “Centralized urban life structure”**
  - Energy restriction, etc. to meet the change in energy demand and supply following the 2011 Tōhoku earthquake and tsunami
    - Important issue: Building low carbon/recycling society through “centralized urban life structure”

- **3 regulations to be reviewed in urban renewal [2006]**
  - Location restrictions for commercial facilities attracting large number of users
  - Extending development permit to public/public interest facilities such as hospitals

- **2014 Act on Special Measures Concerning Urban Regeneration amended [2014]**
  - Support municipal government’s effort to decrease CO2 in city

- **The Act on Special Measures Concerning Urban Regeneration**
  - promote compact cities by creating the location optimization plan

- ** Regulations that promote low carbon city (Eco-machi regulation)**
  - Established [2012]
    - Support municipal government’s effort to decrease CO2 in city