Toyama: a Future City for Today

Mayor Masashi Mori
Outline of Toyama City

- Population: 422,000 people (40% of Toyama Prefecture)
- Area: 1,242 square km (30% of Toyama Prefecture)
- Topographical diversity: 34 km from sea level at Toyama Bay to 2,986m at Mt. Suisho; 70% forested land.
Challenges facing cities: decreasing populations, rapidly aging societies, severe financial stresses, increasing administrative costs, increasing infrastructure maintenance costs, environmental degradation, and increasing CO2 emissions.

Toyama’s Vision for the Compact City of the Future

1. Establish a compact city based on efficient public transportation
   - Revitalize public transportation
   - Concentrate city functions in the center of the city and along the public transportation lines

2. Increase the quality and range of civic life amenities
   - Reduce automobile dependency
   - Create more opportunity for the elderly to go out

3. Take full advantage of the city’s strengths
   - Nurture local industry – e.g. pharmaceutical industry; agriculture
   - Increase the use of renewable energy
   - Attract new businesses & create new industries
Our goal, first announced in 2007, is to create a sustainable, compact future city which addresses the needs of our decreasing and aging society.

Three Pillars of Toyama’s Compact City Strategy

1. Revitalizing public transport

2. Encouraging residents and business to relocate to zones along public transport lines and building city cultural facilities along these lines.

3. Revitalizing the city center
We are modifying the current life style of over-dependence on automobiles to create a town with every city amenity within walking distance.
Connecting the Bullet Train with North & South Tram Lines

The new shinkansen “bullet train” station was elevated so tram lines can connect below the trains.

Shinkansen “bullet trains” enter the station at the top

Trams pass under the station and exit at ground level

North-South Tram Line Connection at JR Station

Loop Line Project
City Center and Public Transportation Residence Zones

- City Center Zone
  - 436 hectares in the urban core of the city

- Public Transportation Line Zones
  - 3,357 hectares
  - Rail and tram line zones are within a 500 meter radius of rail and tram lines
  - Bus stop zones are within a 300 meter radius of bus stops

In 2015, 32% of the population is living in the residence encouragement zones, a 4% increase over 2005.
Shifting Population through Compact City Policies

#1 Population shift back into the city center

#2 Population shift to transportation corridors

#3 Projected population shift totals
- Green = Total city population
- Red = % of population in city center and along transportation corridors

2005
- Total Population 421,239

2015
- Total Population 419,952
- 117,560 in city center -28%
- 135,187 in city center -32%

2025
- Total Population 389,510
- 162,180 in city center -42%
### Demographic Changes in Toyama City Residents January 1, 2014 to January 1, 2015

<table>
<thead>
<tr>
<th>Births</th>
<th>Deaths</th>
<th>Number of people moving in</th>
<th>Number of people moving out</th>
<th>Population Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,265</td>
<td>4,500</td>
<td>11,342</td>
<td>10,692</td>
<td>- 585</td>
</tr>
</tbody>
</table>

- **Birth/death decrease = 1,235**
- **Population shift increase = 650**
Designed by Japan’s famed architect Kengo Kuma, Toyama’s multiplex Glass Art Museum, Municipal Library, and private Bank opened in August, 2015. The largest glass art museum in Japan, the Museum houses a monumental installation by the renowned American glass artist Dale Chihuly.
“Toyama Millefiori” by Dale Chihuly - 2015  H 280 cm (110 in) W 940 cm (370 in) D 580 cm (228 in)
Dale Chihuly Glass Installation #2

“Toyama Float Boat” - 2015
L 917 cm (360 in) D657 (260 in)

“Toyama Persian Glass Ceiling”
- 2015
1. Toyama facilitates re-cultivating abandoned farm land within the city limits for large scale farming of egoma perilla.

2. A Toyama company is developing a factory to produce 92 million egoma soft capsules annually designed to prevent oxidization of the fragile oil.

Because egoma perilla, a member of mint family used in traditional Chinese and Japanese medicine, is rich in omega-3 fatty acids, it is sometimes called the “fish of the fields”.

The National Economic Revitalization plan includes policies for developing agriculture as a ‘sixth industry’ where farmers increase the value of agricultural products by also processing and marketing them and engaging in agri-tourism.
Joint International R&D Project Between Japan and Italy

In 2015 Toyama City concluded an agreement with the University of Gastronomic Sciences of Italy in Bra, Piedmont, to develop a new healthy oil combining olive oil and egoma. Working with the INNOVHUB Institute for cooking oils in Milan, this Environmental Future City Project will promote a 6th industry for egoma.

Mayor Mori (left) and Silvio Barbero, Vice President University of Gastronomic Sciences and Director of the Slow Food Association.

Univ. of Gastronomic Sciences
University of Toyama

= quality olive oil with health benefits
We are developing a self-supporting farming village model which utilizes small scale hydroelectric installations along agricultural water canals. The electricity which is generated will power agricultural EVs, and the surplus power sold for income.

**Promoting Local Industries #2: Micro Hydroelectric Power for Agriculture**

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<th>Problems</th>
<th>Technological Solutions</th>
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<td>Abundant water</td>
<td>Access to electricity</td>
<td>Micro hydroelectric facilities along agricultural canals</td>
</tr>
<tr>
<td>Network of canals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice centered agriculture</td>
<td>Declining agriculture</td>
<td>Advanced farming technologies</td>
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Bali Island Rice Fields in the Tabanan Region

Mayor Mori signing a micro hydroelectric agreement in 2014 with the Tabanan region of Bali
International Recognition

**2012** OECD recognizes Toyama as one of five cities, (along with Melbourne, Vancouver, Paris and Portland) with advanced “Compact City” policies.

**September 2014** Toyama is the only Japanese city selected for the UN initiative SE4All (Sustainable Energy for All).

**December 2014** Toyama is the only Japanese city chosen for the Rockefeller 100 Resilient Cities initiative.
Toyama has been selected as the host city for the G7 Environmental Ministers meetings of the 2016 G7 Summit in Japan. Environmental Ministers from Britain, France, Germany, Italy, Canada, the United States and the European Union will discuss crucial environmental issues such as climate change and biodiversity.