Forested “FutureCity” Shimokawa

– Good Cycle of Economy, Environment and Society for Sustainable Community –

26 July 2017

Shimokawa Town Mayor Kazuyuki Tani

1 Overview of Shimokawa Town, Hokkaido

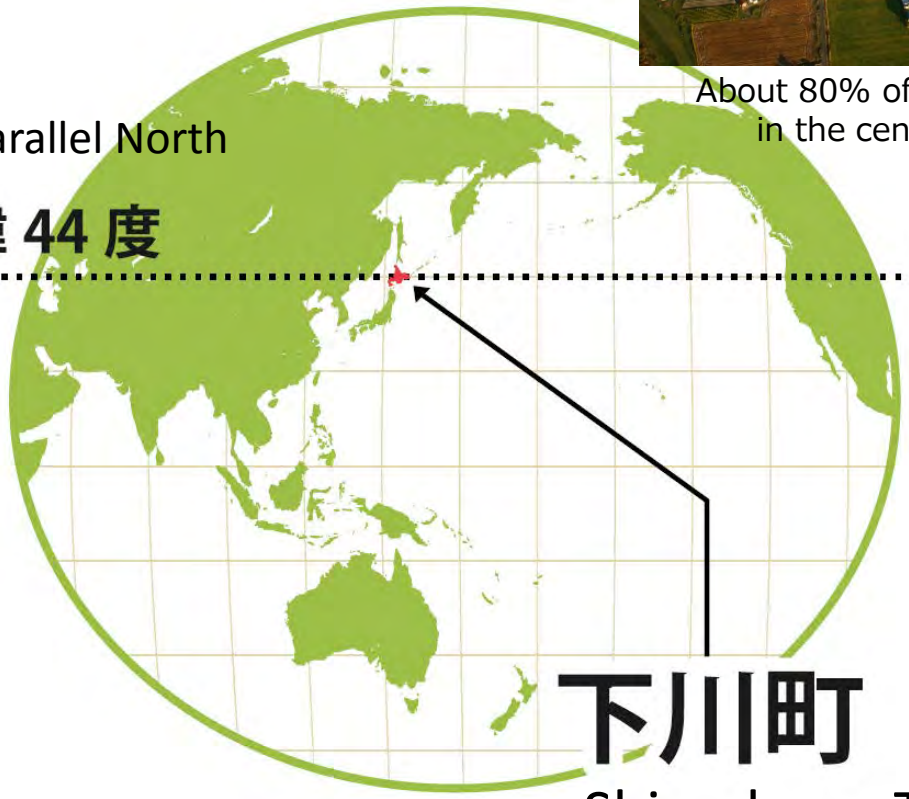
FutureCity Shimokawa

Population: 3,383 (1 April 2016)
Elderly: 1,440 (39.6%)
Area: 644.2 km² (equivalent to Tokyo metro area)
Forests: 569.8 km² (88% of total area)
Climate: summer over +30℃, winter under -30℃

About 80% of the population lives in the central part of town

44th Parallel North

» 北緯 44 度



下川町
Shimokawa Town

Noriaki Kasai,
Sochi Olympics Ski Jump
Silver medalist

2 Changing community extinction crisis into opportunity

FutureCity Shimokawa

1901 Settlers from Gifu Prefecture

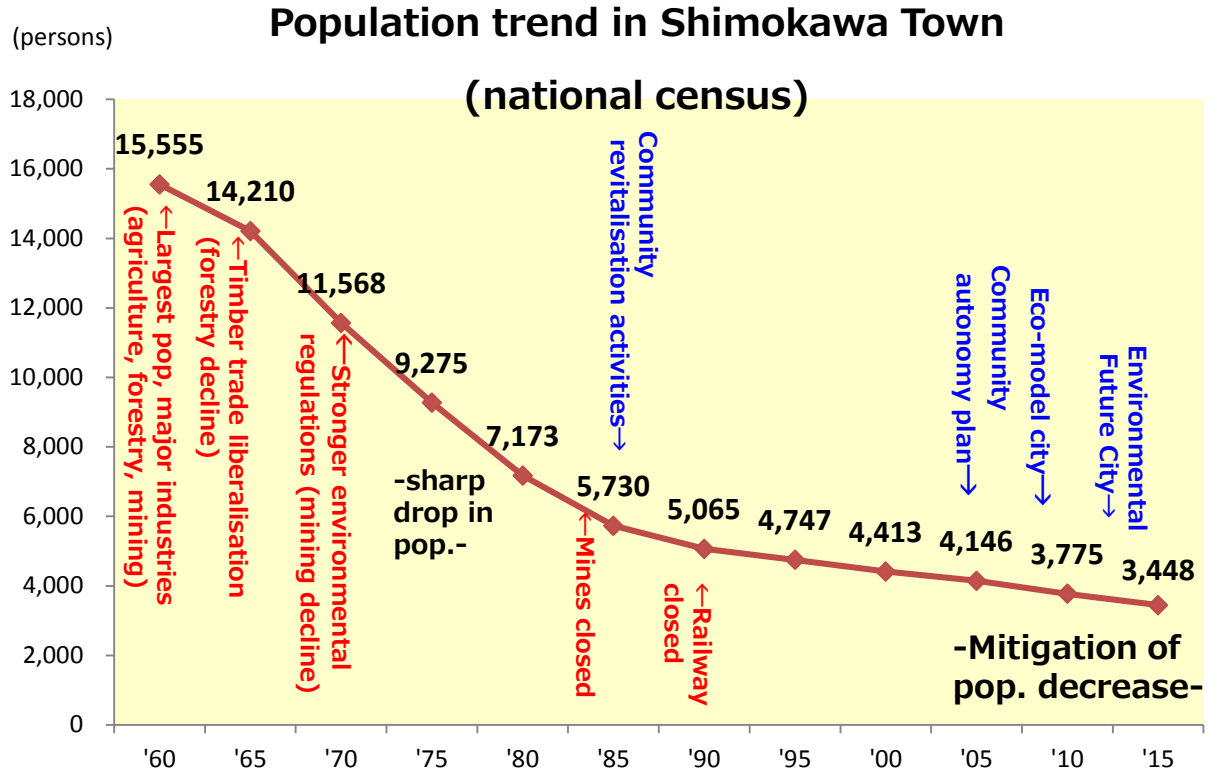
A great base for timber production

Production of mineral resources (gold, copper)

Transportation and distribution centre Railways

Great Wall (year 2000, 2,000 m)

Ice candles



3 Creating a sustainable society (Forest Future City)

☆**Maximised utilisation of community forest resources (Community co-existing with forests)**

☆2008 **Eco-model City (economy/environment)**

***Utilising multi-faceted functions of forests**

☆2011 **Environmental Future City (economy/environment/society)**

*Future City Initiative (Cabinet Office) ～ Yokohama, Kitakyushu, Toyama, Kashiwa, Shimokawa

To create worldwide unprecedented successful examples within social and economic systems to respond to environmental issues and rapidly aging societies, common challenges for humanity in the 21st century, aiming to realise sustainable socioeconomic development throughout Japan.

[Forest Future City concept]

■A town surrounded by forests, where people gain abundant income from forests, study, play and maintain health in forests, and lead spiritually rich lives.

①Economy→Integrated forest industries

Making the most of forest resources

■Forestry (production) x forestry (processing) x forestry biomass industry, etc. (demand) = Integrated forestry industries

■Creation of forest culture

✓15 years consistent forest environmental education, etc.

②Environment→Energy self-sufficiency

Forest biomass thermal-electric supply

■Present

✓Heat self-sufficiency rate: 45%

✓Public facility self-sufficiency rate: 60%

■Future

✓Thermal-electric self-sufficiency rate: 100%

③Society→Responding to rapidly aging society

Creation of revitalisation model for depopulated villages

■Revitalisation of Ichinohashi village

✓pop. About 100, 52.6% aging rate

■Revitalisation with economy/environment/society virtuous circle

✓New industries utilising community resources

✓Energy self-sufficiency, eco-friendly housing

✓Shift to communal living, autonomous community

Integrated Forestry Industries
Energy Self-sufficiency
～Economy and Environment～

☆Japan is a world-leader in forests (ranked 3rd worldwide among developed nations in forests). Two-thirds of national land area is forest.
☆Timber self-sufficiency rate 33.3% (2/3 is imported, resource base is there but not utilised)
☆No cycle of forestation→silviculture→lumbering→forestation, with risk of landslides and lowered CO2 absorption capacity

☆Japan's energy self-sufficiency rate is 6%, the second lowest level among 34 OECD member nations.
☆Dependent on import of fossil fuels from overseas as an energy source for electric power generation. This proportion rapidly increased following the Great East Japan Earthquake, creating a situation more dire than following the first oil shock.

4 Formation of integrated forest industries


Demand

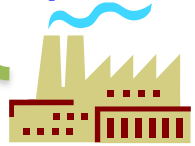
12 Responsible consumption and production

15 Life on land

Cyclical forest management

Log→Plant→Grow→Log→

Zero emissions timber processing



3 Good health and well-being
4 Quality education

Forest service industry

Forest environmental education (learning), forest self-care (health, therapy)

Production of FSC certified timber

Forest scraps, etc.

8 Decent work and economic growth

Forest biomass raw material manufacturing facility

9 Industry, innovation and infrastructure
11 Sustainable cities and communities

Energy self-sufficiency

Forest biomass thermal-electric supply facility

Compact town

Town areas (housing, offices, public facilities, etc.)
High performance healthy housing
・newly built, remodeled

7 Affordable and clean energy
13 Climate action

Integrity	**Economy → Industry revitalisation (Gross regional production (GRP) 21.5 billion JPY+2.8 billion JPY), job creation (+100 persons)** **Society → Sustainable town infrastructure, resilience, extended healthy life expectancy, community education** **Environment → Reduced CO2 emissions, increased absorption, natural capital (forest preservation, biodiversity)**

5 From an “Environmental Future City” to an “SDGs Future City”

☆”Environment Future City” development model becomes “SDGs Future City” (integrated responses to economy, society, environment)

2008 Eco-model City
2011 Future City concept
2013 Biomass industry city
2014 Community revitalisation model case

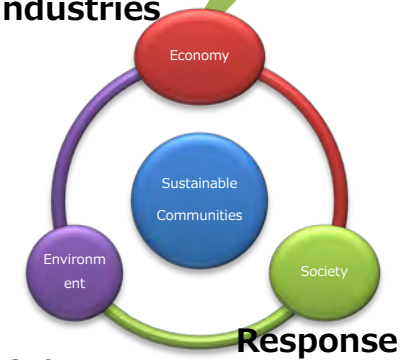
Domestic trends 2014 Comprehensive Strategy for Regional Revitalisation

Int’l Trends 2015 SDGs

2017 SDGs Future City

Sustainable Communities
- Everyone wants to live
- Everyone lives with vitality

Integrated forestry industries



Energy Self-sufficiency

Response to rapidly aging society

1. Environmental Future City plan (2012-2016)

■**Mitigation of population decrease.** Influenced by economic climate **Mitigation of decreasing social movement (moving in and moving out) (years with increase over recent 5 years)**

■**Community heat self-sufficiency to 45%** based on renewable energies
64.1% heat self-sufficiency for public facilities

■**2016 +16.1% in personal resident tax compared to 2010**

⇒**The seedling of a sustainable society in the sprouting stage**

2. SDGs Future City plan (from 2017) (Incorporated in Shin-Shimokawa town comprehensive plan)

①Principle⇒Future City concept
■At present at the midway point

②Domestic trends⇒Community revitalisation
■The Environmental Future City initiative, as a leading program for community revitalisation, becomes the **Community Revitalisation model**

③International trends⇒SDGs
■**Contributing to SDGs by realising ”sustainable communities” in pursuit of “Environmental Future Cities” (SDGs as a community revitalisation tool)**

Step up incorporation of SDGs