Building communities in harmony with the environment

Japan’s demographical shift to an older population with fewer children means that increasing areas of forest and agricultural land gets short of people to tend them. Because of this situation, how best to manage the natural environment is an important issue for community building. In the Great East Japan Earthquake, interruption of energy supplies was the particular problem, so another challenge is how to incorporate locally-sourced renewable energy into plans for each community. At the same time, changes in the environment on a global scale need to be tackled at the local regional level as well as through international initiatives. To address and resolve these challenges, each regional society needs to make good use of its own distinctive culture, climate, and human resources in addition to its local natural resources, urban infrastructure, and an engagement of the private sectors.

Rate of population change in Japan (2005 - 2010)

Proportion of population over age 65, by prefecture (2035)

Examples of regional initiatives

Large city with substantial diversities from an urban center to suburban areas: Yokohama City

Yokohama City (Kanagawa prefecture) has urban-centered districts full of high-rise buildings, but in its suburbs, it has a quiet residential neighborhood, fields, rice paddies, satoyama areas and plenty of woodlands. Yokohama has launched the Yokohama Smart City Project (YSCP) that takes different approaches according to the characteristics of each area. In extensive areas of the city, the project uses renewable energy and unutilized energy, and is applying energy management to homes, buildings, and districts. It is also involved in constructing next generation transportation systems.

Yokohama Smart City Project

YSCP verification experiments

Source: Yokohama City
Collaboration between mountain villages and cities for forest resources: Nishiawakura Village

Nishiawakura Village in Okayama prefecture has forests covering 95% of the land. On their 100-Year Forest Project, the forests play a key role to revitalize the region’s economy and also to reduce global warming. In addition to using wood from thinning for lumber or for biomass, long term plans include opening the Forest School where visitors enjoy woodwork, and collaborating with cities that are the consumers of forest resources. Funding to support forest management has been procured by establishing a fund to bring in investment from city dwellers.

The 100-Year Forest Project

Environmentally reborn city, learning lessons from the past

Minamata City in Kumamoto prefecture once suffered badly by Minamata disease, a horrific mercury poisoning pollution-induced syndrome, ripping the area apart. Today, the whole city have come together to rebuild their community with a focus on the natural environment that reflects the lessons of history. The high level of environmental awareness by citizens has enabled 24-category separation of wastes. Other examples include the Nanohana Project, on which seniors work with elementary school children to cultivate nanohana (rapeseed) to produce the rape-seed oil. It is used in the kitchens for school meals service. Waste oil is made into candles lit in memory of the victims of Minamata disease. The villages in the hills above the city have also made an environment agreement to conduct environmental conservation and monitoring for illicit dumping.

In October 2013, Minamata City will host a diplomatic conference for the adoption and opening for signature of the Minamata Convention on Mercury, an international treaty designed to enforce appropriate handling of the pollutant behind Minamata disease. Under the Minamata Convention, imports and exports of products using mercury is to be banned from 2020, so this conference will declare prevention of recurrence of such damage to the human health and destruction of environment as was experienced in the past.

Top Eco-City Contest logo of Minamata

Nanohana project bringing community together