

Chapter 2

Creating a Sustainable Society Compatible with a Declining Population

<Summary of Chapter 2>

Due to population decline, we need to intensify our innovative environmental conservation efforts, while retaining the flexibility to address social changes.

The era of declining populations will lead to different values and a richer living environment, providing a strong impetus for the creation of a sustainable society. Chapter 2 covers opportunities to create a more sustainable society in the era of declining populations and the actions of various actors, so that suggests outlining a sustainable society compatible with a dwindling population.

Section 1. Opportunities for Creating a Sustainable Society

1. Our Values Will Change

In this era of declining populations, we have different values from those we had in the past. These changes in values will have positive impacts on creating a sustainable society.

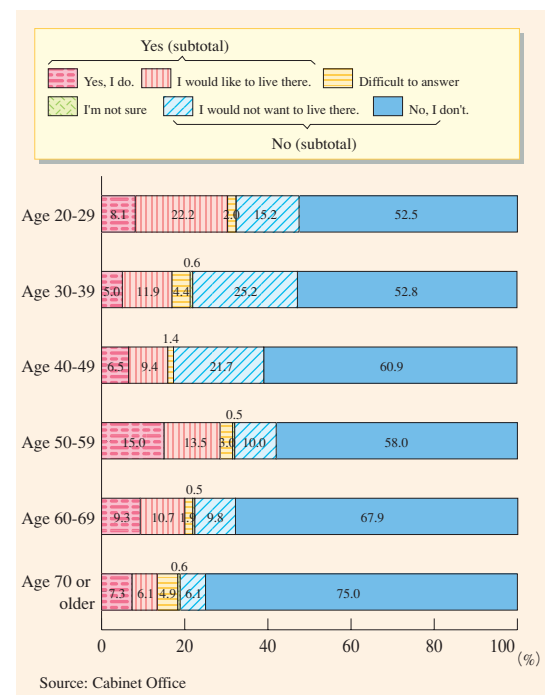
More and more people are putting a higher value on spiritual affluence rather than material wealth. They tend to seek a lifestyle providing spiritual affluence rather than material comfort. Because of peoples' different sense of values, the government launched the "COOL BIZ" campaign in the summer of 2005. (Considering high temperature and high humidity during summer in Japan, "COOL BIZ" encourages people to wear cool and stylish clothes without ties and jackets even in business occasion (even when the office temperature is 28°C)). A higher air-conditioning temperature has reduced the CO₂ emissions by approximately 460,000 tonnes, which is equivalent to the CO₂ emissions generated by about 1 million households in a month.



Buzzword of the Year "COOL BIZ"

Environmental-oriented reforms will have impacts on people's lifestyles, environment-related markets, and the financial markets that provide funds to these markets. People are becoming increasingly aware of environmental conservation. For this reason, in addition to financial indicators such as corporate profit or profitability, people are paying more attention to the socially responsible investment (SRI) indicator which evaluates corporate environmental conservation and other social activities in financial terms. Japan's SRI investment trust asset value

Do You Want to Live Permanently in Agricultural, Fishing, or Mountain Villages?



stood at approximately 260 billion yen as at the end of March 2006, and is estimated to grow further in the future.

As more and more people seek an “affluent life” in touch with nature, Japanese citizens have a stronger desire to settle in agricultural, fishing, and mountain villages. In particular, people in their 50s (baby boomers) tend to have such a desire, while younger people in their 20s might also wish to do so.

As baby boomers reach retirement age, more and more people are expected to return to live or stay in natural environments such as *satochi-satoyama* areas.

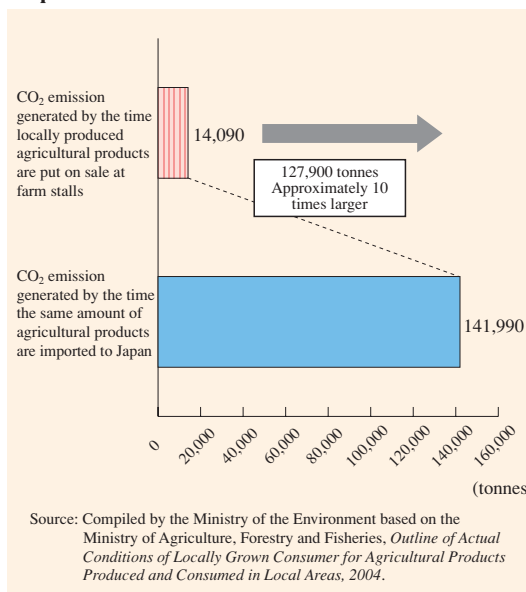
In addition, local policymakers are taking policy initiatives to encourage local production for local consumption. If farmers produce more food for local consumption, so-called “food mileage” will decrease, reducing environmental burdens, such as CO₂ emissions.

As of FY2003, 2,982 Farm Stalls provide locally produced agricultural products. Their total sales stand at 177.2 billion yen, which is 1.7% of the overall agricultural output (excluding stock farm products). According to our food mileage calculations, if we entirely replaced these

locally produced foodstuffs with imported agricultural products, CO₂ emissions would increase to almost 10 times the current level. This suggests that local food production for local consumption has a significant impact on the environment.

More and more people will have a different set of values, and at the same time efforts to address such changes will permeate society. These factors are expected to provide strong driving forces to create a sustainable society. In addition, attempts to create a new society where we enjoy lifestyles compatible with these new values will play an important role in achieving spiritual affluence.

CO₂ Emissions if Japan Replaces Locally Produced Agricultural Products (Sold at Farm Stalls) with Imported Products



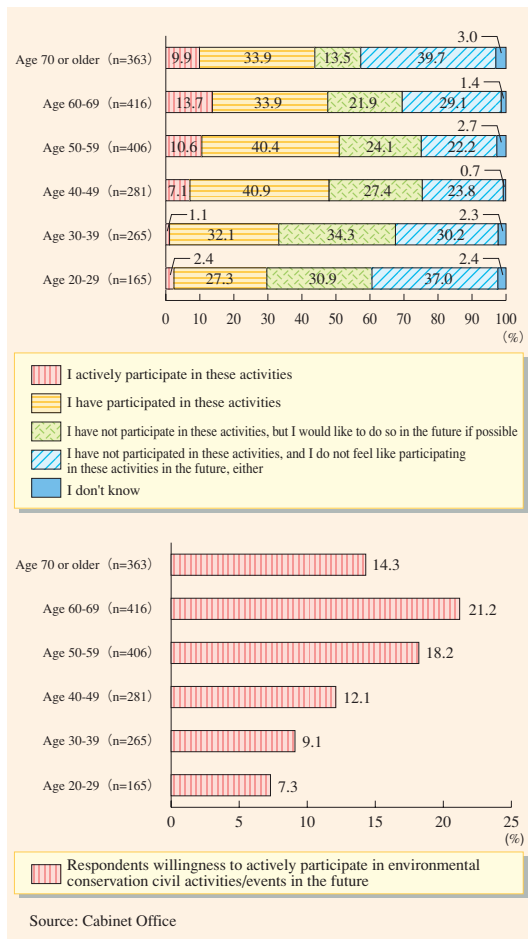
2. Taking Advantage of More Leisure Time

As working hours and household duty hours are generally getting shorter, Japanese citizens have a longer free time. As baby boomers retire from their professions, there will be a larger number of active seniors (energetic elderly people in their 50s and 60s) who have plenty of leisure time and are expected to participate in a range of activities.

According to the opinion survey on environmental conservation activities, respondents who have participated in environmental conservation activity make up 51% of overall respondents in their 50s, which is a higher percentage than in other age groups. In addition, respondents who are willing to participate in environmental conservation civil activities or events also register a higher percentage in the 50s and 60s age brackets. This suggests that elderly people are more active in environmental conservation activities than younger people.

An increase in active seniors with plenty of leisure time will be a turning point to lead to the progress of environmental conservation activities. In order to support these activities, it is important that local governments and the business community cooperate to provide environmental education programs, secure and properly provide opportunities for environmental conservation activities, and set up an appropriate framework that will provide the opportunity for many people of different ages to participate in environmental conservation activities. This will result in more effective activities.

Actual Experience or Willingness to Participation in Environmental Conservation Activities



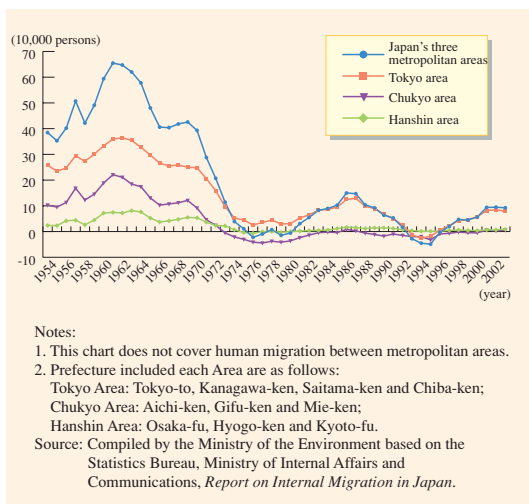
3. Toward Effective Use of National Territory Space

As the population declines in the future, urban areas in large cities or local cities will stop diffusing due to a weaker demand for new houses. Combined with a decreasing population density, this makes it possible to realize better living environment including improving housing/land problems in large cities.

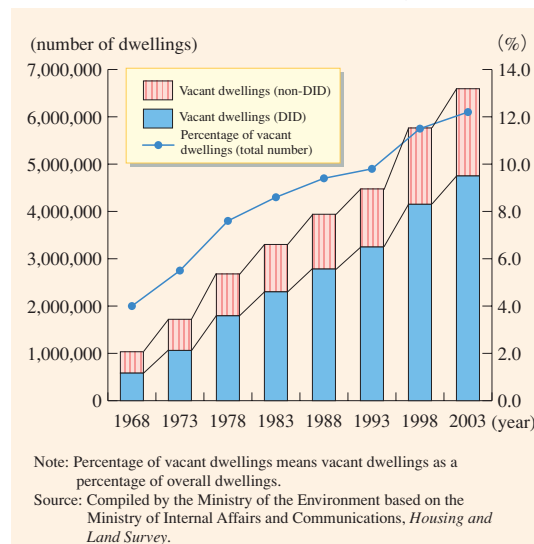
In addition, the number of unoccupied houses tend to increase. Further population decline in the future will accelerate this trend. Despite the declining population, the number of households will keep increasing up until 2015. However, the housing stock will be more effectively utilized due to the repair or refurbishment of the existing stock as well as the conversion of unoccupied houses for other purposes.

Since the existing stock, including houses and commercial buildings, usually consume a significant amount of energy, repair or refurbishment should effectively enhance the energy efficiency of the existing stock. Therefore, this strong demand for renewal, repair, and refurbishing, combined with the introduction of energy-saving equipment, should have a positive impact on energy saving.

Net-migration for Tokyo Area, Chukyo Area and Hanshin Area



Number of Vacant Dwellings



We have now entered a new era of population decline. By recognizing that the enormous replacement demand for housing or social infrastructure stocks in the near future will provide good opportunities, and by taking appropriate policy actions to achieve better and more environmentally friendly living conditions compatible with the era of declining population, it is necessary to seek new directions for creating a sustainable society.

Section 2. Initiatives Started for Creating a Sustainable Society

1. Creating Our Society in Cooperation with the Elderly People

In Tsuyama City, Okayama Prefecture, the forest owning municipal government is working with a volunteer group “*Kikori-no-kai*” (i.e., woodcutters’ association) mainly consisting of retired elderly people in order to revitalize rundown *satoyama* areas. Together with environmental education programs for local elementary school pupils and their parents, they also hold nature observation sessions, charcoal burning workshops using thinned wood, outdoor experience workshops for inoculating fungi, and tree-planting workshops.

As a result of these efforts, elderly people improve their health and have more meaningful lives. In addition, these efforts have had positive impacts on the environment including the return of orchid species and certain insects (such as dragonflies).



Charcoal burning workshop by “*Kikori-no-kai*”

2. Transferring Environment-related Skills

The SCE · Net (Senior Chemical Engineers Network), which mainly consists of retired technical staff, has set up a database of retired veteran engineers’ work experiences, and provides guidance and advice corporate clients on required subjects such as wastewater treatment and ISO14001 certification. They also give university extension lectures on their environment-related experiences and techniques (such as PRTR system) for audiences (mainly in their 30s or 40s), prepare teaching material from these lectures, and endeavor to transfer their valuable experiences and skills to the general public.

3. Environmental Conservation Efforts in *Satochi-satoyama*

In Higashiomi Area (Shiga Prefecture), wild boars, monkeys, deer, and some other wildlife threaten to cause serious damage. The Agricultural Extension Center coordinated a project team to systematically address this threat of damage by wildlife. Their efforts include traditional approaches, such as capturing animals or preventing their access, as well as more comprehensive countermeasures by the local community. These include systematic removal of pre-harvest farm crops which encourage wildlife onto agricultural land, the setting up buffer zones between humans and wildlife in order to prevent access to farmland, and pasturing farm animals. These efforts are yielding very positive results, and have significantly reduced damage by wildlife.



Fence to prevent intrusion by monkeys or wild boars
(Installing “*Oumi Enraku/Shishi Dome Kun*” fence)

4. Creating Sustainable and Pleasant Urban Space

European nations, which already have mature societies, started projects to create sustainable cities much earlier than Japan.

In Denmark, a nation with advanced social-welfare system, the capital Copenhagen has pushed ahead with policy initiatives based on the concept of normalization, and creates family-friendly local communities as well as has made it the most environmental city in Europe. To be more specific, the city regards the 5 suburban train lines (S-Bahn) as 5 human fingers, and intends to form its urban area along these S-Bahn routes, while intensifying restrictions on land use in other locations as well as provide large green areas and introduce district heat supply systems by creating compact local communities. This approach is called the “Finger Plan.” As a result, Copenhagen successfully keeps large green areas close to urban areas, which have a positive

influence on the environment and serve as places of recreation and relaxation for Copenhagen residents.

In Japan, it is becoming more conscious of creating sustainable cities. The public sector, local communities and many other actors are launching their urban policy programs.

Toyama City (in Toyama Prefecture) intends to revitalize its downtown district by creating pedestrian-friendly urban districts that do not excessively depend on automobile transportation. To achieve this, it provides grants and subsidies to increase the number of inner-city residents, redevelop its downtown district by, for example, utilizing vacant stores, and provide better public transportation, such as introducing an electric tramway called LRT (Light Rail Transit), which is more user friendly for elderly people and others who find traveling difficult. By doing this, the city is aiming to revive and revitalize its urban area. These policy initiatives will not only revitalize Toyama's downtown district, but will also reduce the environmental burdens because compact urban areas will save energy.

Since creating sustainable cities and sustainable societies is not simple, such ideas are still in the conceptual phase. Realizing such concepts will require reforming social structures and modifying lifestyles. However, if these various initiatives have successful synergistic effects, it might be able to take the necessary policy actions in the very near future. Government sectors and other actors will be expected to play greater roles in this.

In cooperation with the National Institute for Environmental Studies, the Ministry of the Environment has launched the “Low-Carbon Society Scenario toward 2050” which outlines the requirements for achieving a low carbon society in 2050 examines possible countermeasures based on a backcasting approach. In addition, the ministry has also started examining “Super Long-term Visions for Environmental Policies (provisional title),” which will describe super long-term outlooks (up until 2050), countermeasures which should be taken from now in the ultralong run, and appropriate lifestyles and social systems for the future.

To encourage various programs aimed at achieving a sustainable society and maximizing their impacts, it is important to push ahead with the aforementioned policy actions from a long-term perspective.



**Compact city that effectively uses natural energies
(Copenhagen)**



Barrier-free ultra low floor train

Conclusion

The era of declining population will have significant impacts on the economy, society, and the environment, but it will also provide good opportunities to achieve spiritual richness and affluent lifestyles that will contribute to a sustainable society.

On April 7, 2006, the Koizumi Cabinet approved “Third Basic Environment Plan - The Way to New Richness developed out of the Environment.” The Plan describes directions for future environmental policy development, calling for “Integrated Improvements of the Environment, Economy, and Society” by taking into account economic and societal trends, as well as “Formation of sustainable national land and nature” considering the relationship between the national land and nature in the context of a declining population. In line with this basic plan, the government ministries will work together to achieve a “healthy, rich, and beautiful environmentally advanced country” (HERB) in cooperation with various actors.

If these efforts successfully provide hope for people (including people in their child-raising years) that they will happily live their lives, without anxiety, in a healthy and beautiful environment, Japan may be able to put a brake on the declining birth rate.

Japan started seeing a population decline at the start of the 21st Century called the “Environmental Century.” Overcoming a declining population and creating a sustainable society are not easy tasks from either an economic, societal or environmental perspective. Japan’s population is decreasing at much quicker rate than any other nation in the world. If Japan successfully creates a sustainable society, we will be able to play a significant role by demonstrating best practice to the world, and serving as a leader in the international community.

A Example of a Sustainable City

