

# Chapter Three

## In Japan, and Then All over the World

### <Summary of Chapter Three>

In this Chapter, we look at a high-quality lifestyle that is made possible by properly integrating the “environmental techniques” we studied in Chapter One and the “environmental spirit” in Chapter Two. Diffusion of environmental techniques and the environmental spirit in Japan and dispatching them to the world will facilitate the creation of a virtuous circle for environment and economy in Japan and the world—a circle in which improving the environment can invigorate the economy and revitalizing the economy can improve the environment.

### Section 1: A Virtuous Circle for Environment and Economy Beginning with the *Environmental Revolution in Daily Life*

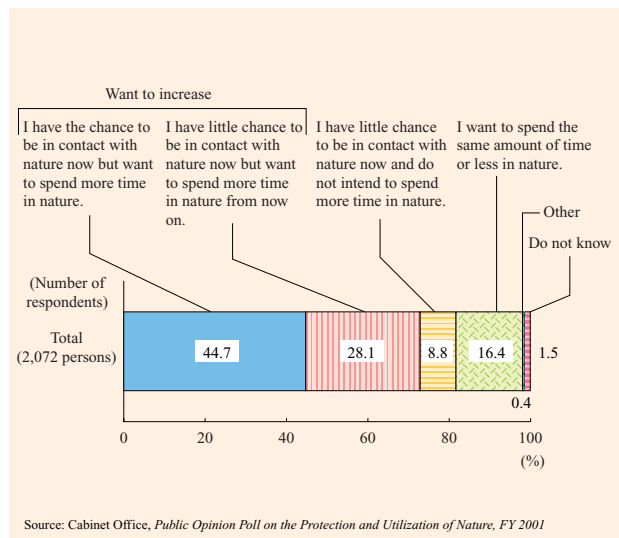
#### 1. Striving for the *Environmental Revolution in Daily Life*

In recent years, there are signs of people reexamining their lifestyles in search of spiritually rich, high quality living.

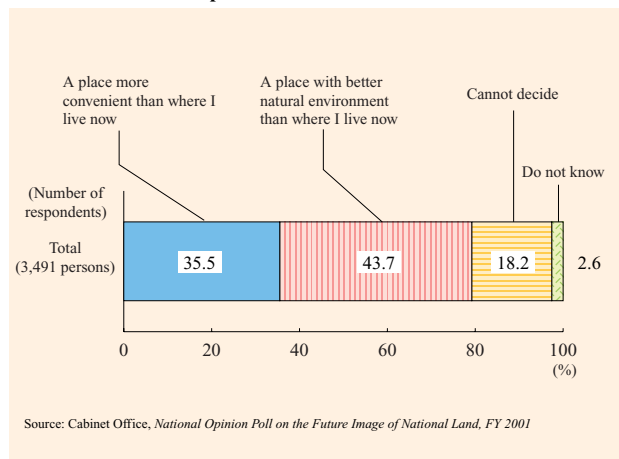
Today because many people are having a life surrounded by artificial things, they long for more opportunities to be in contact with nature. More people wish they could live in places blessed with more nature instead of more convenience. Another reason for protecting nature is that an increasing number of people believe “nature can give them peace of mind and make life interesting” and “it is important for a healthy upbringing for children and as a venue for learning about nature.” There may also be people who think that being surrounded by nature and enjoying the beautiful scenery, the fragrance from trees and flowers, the sounds from birds and the wind, and the quietness of the forests are far more attractive than the convenience of city life.

Combining “environmental techniques” with the “environmental spirit” can give birth to a new lifestyle that is expected to create a greater synergistic effect on environmental conservation. For example, notwithstanding any progress made in the “environmental techniques” of home electrical appliances, if the consumers do not utilize these techniques with the “environmental spirit,” there will not be any effect on environmental conservation. There is a system to promote the activities of environmental conservation by showing the environmental load from electricity consumed in the household. With this system alone, the environmental conservation effect has a tendency to fade away as time passes. Therefore, a system is developed to pursue both energy conservation and comfort by automatically controlling electricity supply according to the usual daily habits and to prevent forgetfulness in turning off the switch.

#### Do you want to increase contact with nature?



#### Do you want to live in a place that is convenient or in a place that is rich in nature?



## 2. “Environmental Businesses” and “Environment-induced Businesses”

In recent years, environment-related businesses have been on the rise. Among them, there are businesses in which environmentally conscious consumer behavior bring about the demand and market for environment-friendly equipment and services. The Ministry of the Environment named these businesses “environment-induced businesses” and predicted their market size and employment potential. They cover a greater range of businesses, including the “environmental businesses” classified by the Organisation for Economic Co-operation and Development (OECD).

According to the OECD classification, environmental businesses include waste treatment, development of equipment for preventing air pollution, and provision of education, training, and information services.

The Ministry estimated the potential market of the “environment-induced businesses,” that is the market for equipment and services arising from consumers’ environmentally conscious behavior. The forecast show that the

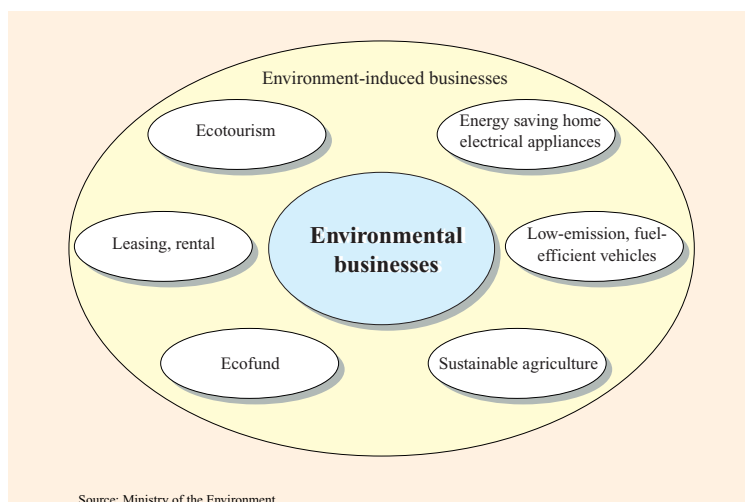
market size would increase from approximately 41 trillion yen in 2000 to 103 trillion yen in 2025 and the size of employment would increase from approximately 1.06 million people in 2000 to 2.22 million people in 2025. For instance, the development and sales of energy-saving home electrical appliances is a prime example of how the inclination for environmental conservation expands the need and market, with the purchase of energy-saving products superseding that of conventional home electrical appliances. As these markets expand with the support of consumers, businesses will increase their investment in promising environment-related businesses. It is hoped that this will stimulate development of environment-related businesses and further help improve the environment.

## 3. Reviewing the Relationship between the Environment and Economy

In April 2004, the “Expert Committee for a Virtuous Circle for Environment and Economy” under the General Policy Committee of the Central Environment Council put together a report entitled “Vision for a Virtuous Circle for Environment and Economy in Japan.” It proposed designating 2025 as one of the landmark years for gauging Japan’s progress in becoming a “Healthy, Rich and Beautiful Environmentally-Advanced Country.” In view of the importance of engaging businesses in actively undertaking voluntary environmental measures, the “Subcommittee for the Promotion of Environmentally Aware Business Activities” of the Central Environment Council compiled a report on “Measures for the Promotion of Environmentally Aware Business Activities.”

At the Ministry of Economy, Trade and Industry, the Industry and Environment Subcommittee under the Environment Division of the Industrial Structure Council is conducting in-depth discussions on how to achieve “a balance between the environment and economy” by reviewing the necessary policies and measures for promoting environmentally conscious business management through voluntary measures taken by private businesses.

Conceptual Diagram of Environment-induced Businesses



Estimates of the Current and Future Market Sizes and Employment Potential of Environment-induced Businesses

	Market size (trillion yen)		Workforce (10,000 persons)	
	2000	2025	2000	2025
Environment-induced businesses	41	103	106	222

Source: Ministry of the Environment

**Vision for a Virtuous Circle for Environment and Economy in Japan**  
**– Toward a Healthy, Rich and Beautiful Environmentally-Advanced Country –**  
 (April 2004 Report by the “Expert Committee for a Virtuous Circle for Environment and Economy”  
 under the General Policy Committee of the Central Environment Council)

**Groundwork for building a Virtuous Circle**

**Market that fully recognizes the value of the environment**

**Major actors who create a Virtuous Circle**

Consumers who set the value standard and create demands  
 Investors who provide funds  
 Businesses who provide goods and services, and educational institutions that develop human resources  
 Government agencies and civil groups that bring together members of the communities

**Issues to be tackled**

Technological development and incentive measures that bring about transition towards the environmental-conscious market  
 Enhancement of environmental information and development of human resources for a virtuous circle

**Immediate steps to build a Virtuous Circle**

Life enriching environmental techniques

Increase in consumption and investment with environmental considerations will further motivate businesses to innovate eco-friendly technologies

Resources yielded by “feeling sorry for wastefulness”

The mindset of “feeling sorry for wastefulness” and cooperation among residents, civil groups, businesses, and government agencies will encourage a sound material cycle.

Spirit and power fostered by nature

Increase in people being in touch with nature through ecotour and utilization of new energy such as natural energy

**Ideal image of 2025 when the Virtuous Circle is realized**

**Community and lifestyle**

Countryside with beautiful nature attracts many visitors

- Development of ecotourism and enhancement of the environmental image of the region can increase sales of farm produce and local products, and create more jobs
- Residents are passionate about conservation of local natural environment and the global environment as well

Towns where excellent manufacturing techniques help build a sound material cycle

- Manufacturing of environment-friendly products and recycling business generate local employment
- Residents are passionate about green purchasing and recycling waste

Cities regenerated by environmental spirit

- Japan’s big cities pioneer world trends as a market supplying cutting-edge environmental technologies
- Increase of buildings with photovoltaic power generation facilities, and more greenery found such as roadside trees

**Japan’s economy and society**

- Income and employment generated by environmental-conscious consumers and eco-friendly technologies
- A society that cycles resources and achieves high energy efficiency
- Service industry contributes to environment improvement
- Transportation friendly to people and the environment
- Environment-induced businesses

**The world**

- Japan’s environmental technology contributes to the conservation of the global environment
- Japan’s lifestyle also influences consumers in Asia
- Significant improvement in eco-efficiency and resource productivity found worldwide.

※ Expect to incorporate specific measures in the next Basic Environment Plan

(“Vision for a Virtuous Circle for Environment and Economy” website (in Japanese):  
<http://www.env.go.jp/policy/report/h16-01/index.html>)

## Section 2: Promoting Environmental Education: Spirit Nurtured by the Environment and the Environment Protected by the Spirit

The first step toward the *Environmental Revolution* in daily life is reforming the conscious mind. In other words, it is to deepen understanding and knowledge of the relationship between humans and the environment and to voluntarily lead an environmentally conscious lifestyle and exhibit responsible behavior. Being able to familiarize ourselves with nature and to feel the environment with our five senses plays an important role in cultivating environmental consciousness in children and bringing relief to adults. We need to understand that environmental problems are consequences of our daily lives and our society, and we need to make efforts to solve the problems with our own initiatives. It is important to bring up individuals who are receptive to the environment and who are knowledgeable about it. Environmental education is a means to that end.

A piece of legislation on environmental education, known as the “Law concerning the Enhancement of Willingness for Environmental Conservation and Promotion of Environmental Education,” was enacted in July 2003, with part of it established in October of the same year. To facilitate its complete enforcement in October 2004, the government must proceed with the formulation of basic policies and actively implement policies and measures based on this Law. To prepare for the “United Nations Decade of Education for Sustainable Development” scheduled to start in 2005, the public and private sectors are working together to consolidate educational concepts for sustainable development and to explore long-term implementation plans.

To promote environmental education, it is important to not only have knowledge about the environment but also to train experts to equip them with practical experience, leadership for solving problems, and the ability to work with different groups.

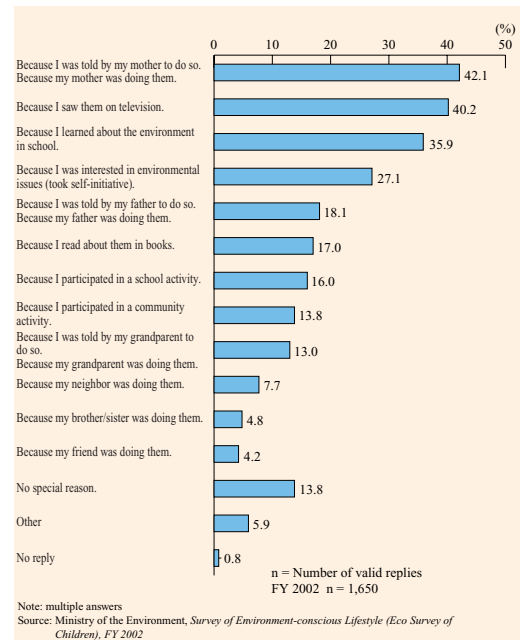
When children are asked what attracted them to environmental conservation, most of them replied that it was what their mothers said or did. This shows the important influence of family members on children. Furthermore, because primary and middle schools are readily available venues in every community, they are expected to become the centers of environmental education and training in various parts of the country

It has become necessary not only for children but also for adults to form environmentally conscious lifestyles through environmental education, including consumer education, offered by businesses or places of lifelong learning. We can also expect our seniors to do their job of passing on the traditional lifestyle of cherishing things, which gives testimony to their experiences and wisdom in life.

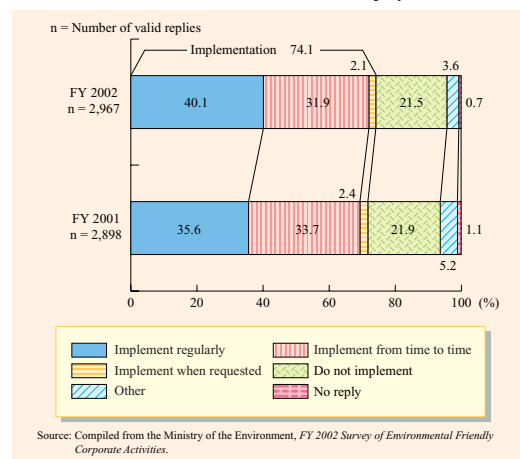
About three-quarters of all companies provide environmental education to employees. Some major companies in the community also cooperate with civil organizations in offering environmental education to children in the community. Such activities are expected to increase in the future.

Besides increasing support for environmental education in schools, businesses, and civil organizations in the areas of human resources, technology, and funding, the government needs to gather information on successful cases in Japan and overseas and conduct surveys to review the current state of environmental education. It is also important to build partnerships with concerned parties in various fields.

What inspire you to participate in environmental conservation activities?



Environmental Education for Employees



### Section 3: Japan as a Major Player in Formulating International Standards for the Environmental Techniques

To spread Japan's sophisticated "environmental techniques," Japan must actively participate and contribute to the formulation of international standards.

In response to organizations such as the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), Japan is carrying out international standardization activities in a wide range of fields. In the field of the environment especially, Japan is actively carrying out standardization activities such as creating test method for air purification performance of photocatalytic materials. For the international standardization of fuel cells, the "International Partnership for the Hydrogen Economy (IPHE)" was established to advance development, policies, rules and standards, and information exchange related to hydrogen and fuel cell technologies. In the IPHE Ministerial Meeting held in November 2003, Japan was appointed Vice Chair of the Steering Committee in charge of the overall planning and operations of IPHE. From now on, Japan must utilize its advanced fuel cell technologies to conduct strategic research and development through collaboration of the government, industries, and academics. At the same time, Japan must take an active role in the formulation of rules and standards for fuel cells.

Many of Japan's technologies in the environmental field are the most advanced in the world. The government, industries, and universities must cooperate to present Japan's recommendations for environmental standards and actively participate and contribute to the formation of international consensus. Strategically assigning human resources to forums where international standards are formulated is important for creating a world market with the virtuous circle for environment and economy pursued by Japan.

### Section 4: Diffusing the Environmental Techniques throughout the World: International Environmental Cooperation

Japan's sophisticated "environmental techniques" are spreading worldwide through its national and local governments, businesses, and NGOs, and contributing immensely to solving global environmental problems.

Official Development Assistance (ODA), Japan's contribution to the international community, has become the backbone of Japan's policies on providing aid to developing countries. The Official Development Assistance Charter, the basic statement of ODA, was revised in August 2003 in response to changes in the domestic and international conditions. It continues to place emphasis on environmental problems, which are global issues, and on seeking a balance between the environment and development when providing aid. The government is also cooperating with various organizations to utilize the experience, knowledge, and technologies that Japan has acquired in international environmental cooperation such as dispatching experts, receiving trainees, and providing equipment.

Local governments also engage in international environmental cooperation. Some work directly with local governments overseas through such means as sister city affiliation. Some take part in ODA projects implemented by the Japan International Cooperation Agency (JICA), which carries out ODA projects approved by the Japanese government in providing aids to foreign countries upon their request. 87% of the prefectures, 100% of the ordinance-designated cities, and 21% of the core cities are involved in international environmental cooperation. For example, Hyogo Prefecture provided assistance to afforestation in Mongolia by dispatching technical experts after a forest fire took place there. At the same time, the Prefecture is trying to boost participation of companies in Hyogo Prefecture in the afforestation project by working with pioneering private



**Tree-planting at China's Ocher Plateau**  
(Courtesy of "Green Earth Network (NPO)")

companies and organizations to explore the potential of implementing Clean Development Mechanism (CDM) projects in Mongolia.

Japanese companies are also engaging in international environmental cooperation in various other ways. For example, an automobile manufacturer has set up a system to fund activities for the improvement and conservation of the environment. It adopts “social investment for sustainable development” as its basic theme for supporting community-based projects that provide practical experience in the two areas of environmental technology and environmental learning. There are also examples showing that Japanese companies, which have high levels of environmental technology and awareness, have played an important role in the environmental conservation of developing countries through direct investment.

The well-organized, flexible efforts of civil organizations such as NGOs working in developing countries are playing an extremely important role in Japan’s international cooperation, including in the environmental field. The diverse nature of their activities, speediness of response, and community-oriented ideas have attracted attention. For example, the Green Earth Network (NPO) plants pine trees and bushes in China’s Loess Plateau to prevent soil erosion and improve water retention, and builds apricot and apple orchards for primary schools in poor villages so that they can use part of the profits made by the orchards for activities to improve the educational conditions.

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### **Conclusion: Protecting the Global Environment with the Environmental Techniques and the Environmental Spirit**

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The reform begins when we apply “environmental techniques” and the “environmental spirit” to our daily lives. Some of Japan’s environmental technologies are of the highest levels in the world, including the energy efficiency of home electrical appliances and fuel efficiency of automobiles. The dissemination of such “environmental techniques” throughout Japan and the world can certainly contribute to protect the global environment. The traditional Japanese mindset of respecting nature can give rise to a sustainable lifestyle that enables the continued enjoyment of a beautiful nature and a sound and affluent living. If we can present this to the Japanese people and people in other countries in an appealing way, we can contribute to the sustainable development of the world.

If every one of us does not apply environmental techniques and does not act with the environmental spirit, we cannot protect the environment. On the other hand, if only one individual takes action, perhaps a small part of the environment can be improved. For this reason, it is desirable for all individuals, businesses, NGOs, and the government to cooperate in undertaking activities at home, in the community, in the country, and with other countries to better the environment.

By linking and disseminating “environmental techniques” and the “environmental spirit,” we can make environmental conservation into a motive force for developing a new social economy. In other words, we can start the “*Environmental Revolution*.” Let us develop and spread Japan’s environmental techniques and the environmental spirit so that the world can achieve new development in the 21st century.