



GOVERNMENT OF JAPAN

Tokyo, June 1, 2007
Cabinet Meeting Decision

BECOMING A LEADING ENVIRONMENTAL NATION

IN THE 21ST CENTURY:

JAPAN'S STRATEGY FOR A SUSTAINABLE SOCIETY

(Tentative Translation)

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I. State of the Global Environment and Key Challenges

1. Increasingly Serious Global Environmental Issues

A sound environment abundant with natural blessings is the creation of the interactions, since time immemorial, among numerous habitats and natural systems on the earth. These blessings of the environment are for all generations, and thus should not be consumed solely by the present generation but should be managed in such a way as to preserve them for future generations as well.

However, the environmental impacts of human activities have increased to a point that exceeds the limits that the global environment can manage, and the global ecosystem is losing its intricate balance. Furthermore, in the context of the population growth and economic development in developing countries, there is the risk that environmental impacts will increase dramatically.

If this situation continues, ecosystems could be further degraded on a global scale. Various sustainable development issues that the world is facing, such as water shortages, food crises, and poverty, could become much more severe, while the sustainability of our society and the foundations for the existence of humanity could be threatened. Global environmental issues are closely intertwined with issues of human security and can be called the most difficult challenges facing humanity.

(1) The Threat of Climate Change

In view of the enormity and seriousness of the predicted impact of climate change, we can conclude that it is the most critical environmental issue, having the potential to undermine the very foundation of human existence. The Intergovernmental Panel on Climate Change (IPCC) reported that climate change is indisputable and that the increase in anthropogenic greenhouse gas emissions is almost certainly the cause of climate change .

The current emissions of greenhouse gases worldwide are more than double the volume that the nature can absorb. If we continue on our current course, greenhouse gas emissions are expected to increase continuously over the next several decades. A society that manages to balance environmental conservation and economic development on a global scale may see an increase of approximately 1.8°C (1.1 to 2.9°C) in the earth's average temperature at the end of the century as compared to the period 1980 to 1999. A society that relies mainly on fossil-fuel energy, on the other hand, is expected to see a rise of approximately 4.0°C (2.4 to 6.4°C) in temperature.

In addition to having an impact on ecological systems, climate change may not only lead to occurrences of abnormal weather conditions and drastic shifts in climatic systems, but may also have various compounding adverse effects on our social and economic activities, including further aggravating water shortages that affect millions, disrupting agriculture, increasing the occurrence of infectious diseases, and intensifying disasters. At present, climate change is already having an adverse effect on water resources and fragile ecosystems. With temperature increases in the future, adverse effects of even greater severity are expected to occur in all regions of the world.

(2) Threats Resulting from the Unsustainable Use of Natural Resources

Carbon dioxide is not the only substance that humankind emits into the environment in massive quantities. While the socio-economic activities of mass production, mass consumption, and mass disposal have given us great comfort and convenience, such activities have also wasted the earth's finite resources, disrupted its sound material cycle, and exerted a tremendous burden on the earth's environment.

Consequently, these activities raise concerns about the depletion of natural resources, resource constraints due to higher prices, environmental destruction from the stripping of natural resources, environmental pollution resulting from the improper treatment of hazardous wastes, and so on. In particular, the demand for resources and the waste problem are becoming even more acute in developing countries, including the Asian region, which is experiencing remarkable economic growth. A provisional calculation even indicates that the world's waste will more than double in weight by 2050 as compared to 2000.

If humankind continues its socio-economic activities in the same way in the future, we will eventually see a limit in the environment's capacity to provide resources and to accommodate waste. As a result, the sustainable development of our socio-economy will be hindered.

(3) Threats to the Ecosystems

Living organisms on the earth have evolved since their first appearance on earth by adapting to and interacting with various environments over a history of approximately 4 billion years. Each organism plays its own role in ecosystems such as forests, rivers, lakes, and coral reefs, exerts influence on other organisms, and helps to balance and shape the global environment over the years. Rich biological diversity means that such balance is maintained, and the natural environment is sound at

all ecosystem, species, and genetic levels. Biological diversity is the source of various kinds of benefits for humans, providing drinking water and food as well as mitigating the severe climate, for example. It is also the basis of existence for humankind and, indeed, all life on the earth.

Unfortunately, land alteration, environmental pollution, and other human activities have seriously degraded the habitats of living things. As a result, biodiversity has suffered tremendous losses and degradation of ecosystems is taking place at an unprecedented rate. According to IPCC reports, if climate change continues, a rise in temperature of over 1.5°C is highly likely to increase the risk of extinction of approximately 30% of the earth's species. The situation in Japan now is also critical, with problems including the degradation of the habitats of wildlife, possible extinction of various species, degradation of ecosystems due to insufficient care of *satochi-satoyama* (community-based semi-natural landscape managed through traditional and sustainable use of natural resources), and disruption of local ecosystems by alien species.

2. Measures for Building a Sustainable Society

(1) What is a sustainable society?

The above-mentioned crises are progressing in a multi-tiered, interrelated vicious cycle. We must tackle these crises directly and find ways to resolve them in order to secure growth and prosperity for our society. To this end, we must strive to maintain a sound and rich environment from the global to the local levels so that people in every country and region of the world can enjoy a happy life and we can pass on a sound society—that is, a sustainable society—to future generations.

The following points are important to transform socio-economic activities on a global scale into sustainable ones. During implementation, it is necessary to ensure that actions to reduce the consequences of the environmental load shall, based on the precautionary principle, not be delayed under the pretext of a lack of complete scientific evidence, while efforts are made to promote scientific studies and increase scientific knowledge.

--Keep the environmental load within the environment's carrying capacity at present and in the future, at a level that will not hinder environmental conservation.

--Minimize the collection of natural resources and minimize emissions/disposal into the natural environment, so that a sound material cycle will be ensured.

--Restore and maintain ecosystems in a sound state and seek co-existence between nature and humankind.

With technological and social innovation, we can minimize environmental load and alleviate environmental constraints. It is important that we keep a proactive attitude to challenge the so-called “limits to growth” theory and achieve “plus sum” growth while continuing to develop the socio-economy to match people’s energy and desire for betterment in the long term. To this end, it is necessary to fully utilize the unique qualities of our citizens and the energy of our society using three types of efforts, namely, developing and disseminating energy and environmental technologies, reforming our lifestyles, and reviewing our current socio-economic system, followed by the creation of appropriate incentives.

(2) Implementing comprehensive efforts for building a sustainable society

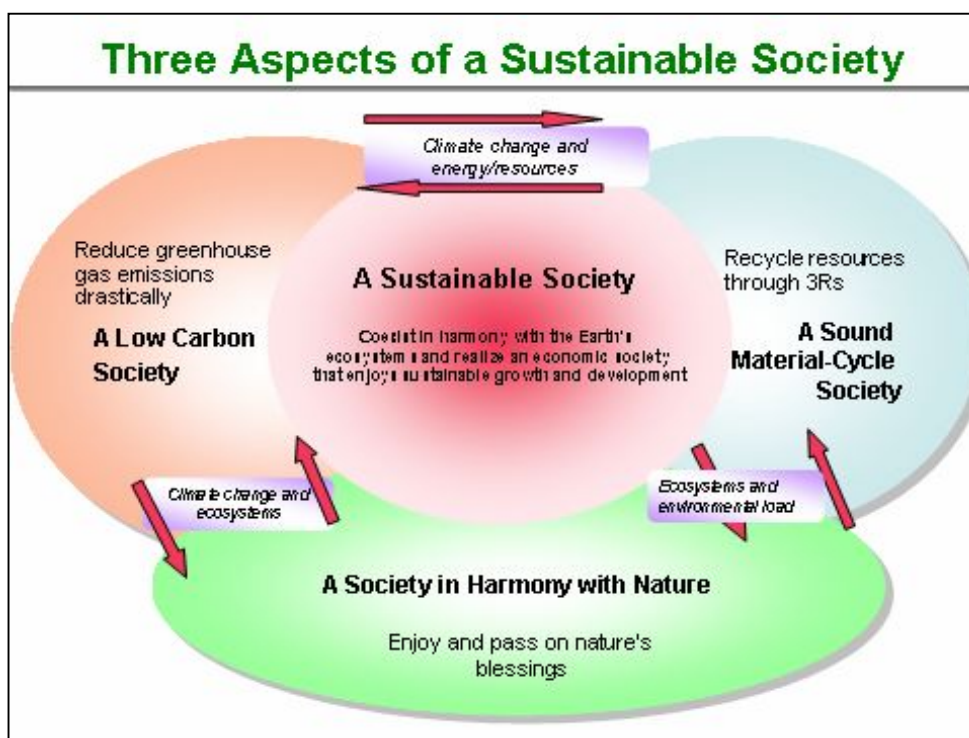
In the context of the three crises mentioned above, a sustainable society is envisioned as a “low carbon society,” a “sound-material cycle society,” and a “society in harmony with nature.”

If we focus attention on efforts to mitigate climate change and free ourselves from the constraints of fossil-fuel energy resources, what we will need is efforts to bring about a “**low carbon society.**” This calls for a drastic reduction of greenhouse gas emissions from fossil fuel consumption so that the greenhouse gas emissions of the world as a whole will be at levels that can be absorbed by nature. These measures will enable lifestyles of abundance while stabilizing the concentrations of greenhouse gases in the atmosphere at levels that will not adversely impact climate.

If we focus attention on the environmental load resulting from the collection and disposal of resources, we will need efforts to bring about a “**sound material-cycle society.**” This calls for reducing waste and recycling resources through all stages of our socio-economic activities, including the collection of resources, production, distribution, consumption, and disposal. This will minimize the extraction or collection of resources, thereby lessening the burden on the environment as much as possible.

Furthermore, if we focus attention on conserving ecosystems, which form the basis of human existence, we need to develop a “**society in harmony with nature**” so that we can enjoy the benefits of nature for the current generation and generations to come. This calls for properly conserving biodiversity, conducting socio-economic activities in harmony with nature, including agricultural, forestry, and fishery operations that follow natural cycles, and creating various opportunities and venues for us to experience and enjoy natural environments.

The sustainable society which we are aiming for has the above aspects. The multiple measures necessary to accomplish each aspect, however, tend to be implemented independently with insufficient coordination, despite the fact that the society we envision is a single one. We must take into consideration the interrelationship between these aspects and implement comprehensive measures with the understanding that humankind is an integral part of the earth's ecosystem and our existence is dependent on it. While striving to live in harmony with nature, we must pursue a sound cycle of materials, including carbon dioxide, in our society—a cycle that observes the greater cycle of nature and of the earth—so that we can realize a society having sustainable growth and development.



(3) Building a sustainable society with the participation and cooperation of all actors

Building a sustainable society is an objective not only for Japan but also for the world. Quite a number of years have passed since this issue was first brought to the attention of the international community. For example, it was in 1987 that the World Commission on Environment and Development (WCED) defined the concept of "sustainable development" in its report "Our Common Future" and appealed the cause to the world. Since that time, twenty years have passed.

Today, understanding the need to create a sustainable society is shared by many sectors of society both in Japan and overseas. Various countries and regions in the world, including Japan, have actively carried out a wide range of measures to work towards the realization of a sustainable society. However, despite all these measures, environmental problems are still advancing on a global scale, making it difficult to say that the measures undertaken so far have delivered adequate results. In view of the seriousness of problems such as climate change, we need to have a sense of urgency and advance the measures that are being implemented.

As human activities have increased in both quality and quantity and environmental problems have become more complex and diverse, the realization of a sustainable society is certainly not an easy task. What is needed now is to gain the participation and cooperation of all actors in various sectors in Japan and abroad, join forces under the common goal of protecting the environment, expand the circle of individual activities, and offer strong support so that, together, we can pass on a sound and abundant environment to future generations.

II. Becoming a Leading Environmental Nation for a Better World

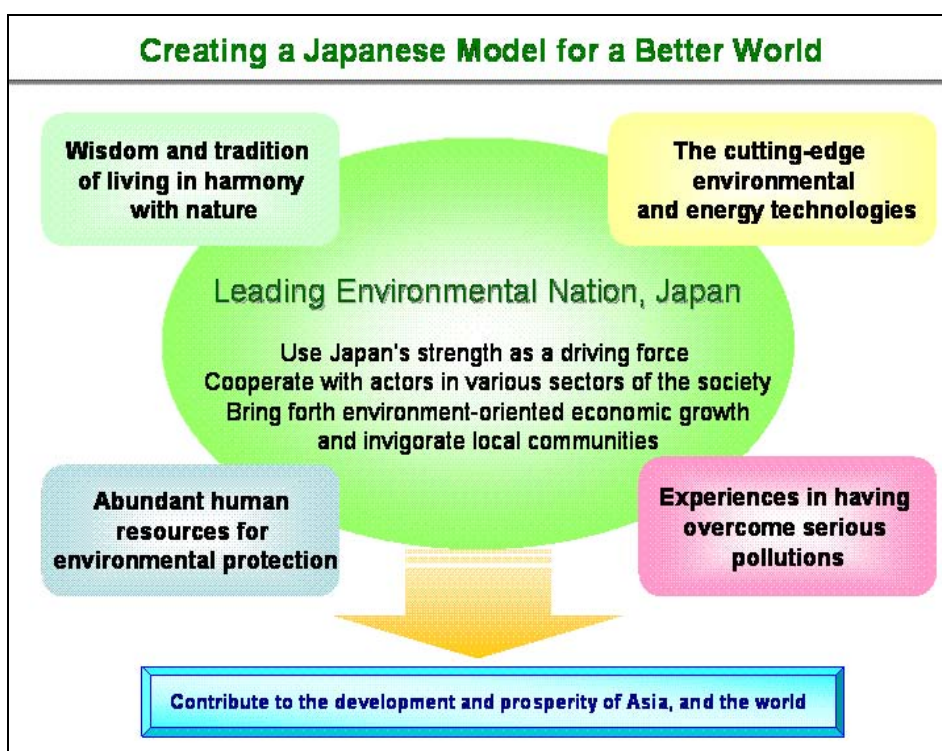
1. Creating a “Japanese Model” for a Sustainable Society

Although countries and regions around the world are pursuing policies and measures to achieve a sustainable society, every country and region in the world is still in a trial-and-error stage.

In this context, Japan is in an ideal position to create a working model of a sustainable society as a “miniature Earth,” in the sense that Japan has few natural resources as well as a population and industrial activities that are concentrated onto national land that is limited in size, and yet has strengths such as traditional wisdom from living in harmony with nature, environmental and energy-related technologies that have enabled socio-economic development, the experience of having overcome severe pollution, abundant human resources with great passion and capabilities. In addition, Japan boasts a culture and set of values in which efforts conducted through public-private partnerships incorporate the participation and cooperation of a broad array of stakeholders who work together as one, as evidenced in the contributions made to the nation’s steady economic growth.

We should take full advantage of these strengths to create a “leading environmental nation,” with a strategy of policies and measures for the development and spread of environmental and

energy-related technologies, reforms of social and economic systems and so on, in cooperation and partnership with other countries around the world. Through such efforts Japan will utilize in modern-day society its traditional wisdom for coexistence with the natural environment. Moreover, through the cooperation of a wide range of stakeholders acting in unison, Japan will use its world-leading environmental and energy-related technologies, its experience and wisdom in overcoming severe pollution, and its abundant supply of passionate and capable human resources to derive from the environment both economic growth and vitality in local societies, creating a “Japanese model” in which Japan, as a leading environmental nation, contributes to the development and the prosperity of the globe, to be shared with Asia and with the world.



2. Principles towards the “Leading Environmental Nation”

(1) Creation of a Beautiful Nation in which Tradition Wisdom for Coexistence with Nature is Applied to Modern Society

Since ancient times, Japanese people have had a view of nature in which every living thing is respected as part of nature. Japanese people have traditionally embraced a sense of respect for nature and have lived in harmony with nature. As exemplified by *satochi-satoyama* (our community-based

landscape which consists of forest areas and the surrounding countryside), Japanese people have possessed traditional wisdom for not just utilizing nature but also conserving and maintaining.

Although this traditional view of nature is becoming less noticeable in Japan, the traditional wisdom by which people take a humble attitude towards nature and work cooperatively for environmental conservation and management is an approach that holds great significance in the pursuit of a sustainable society, and is one that can be spread not only within Japan but also throughout Asia and beyond. By taking advantage of our strengths in environmental and energy-related technologies as well as utilizing here in the modern day our traditional wisdom of living in harmony with nature, we should aim to create a beautiful nation with abundant natural blessings.

(2) Environmental Protection and Economic Development/Revitalization of Local Communities: Moving Forward Like Two Axles of the Same Vehicle

Tackling environmental problems is the key to achieving economic growth and to continuing the development of society in Japan and the world. We will transform our measures for environmental issues into an engine for economic growth by improving our environmental and energy-related technologies, including technologies for energy efficiency, renewable energy, and nuclear energy, among others, by promoting innovative technological innovation, and by creating new business models to tackle environmental issues. In doing this, it is important to pursue environmental protection and economic development simultaneously, pursuing economic invigoration and a strengthening of international competitiveness while working to solve environmental problems both at home and abroad.

We will also make the best use of people with enthusiasm and skills for environmental protection and strongly promote local environmental activities all over Japan with a view to helping local communities become prosperous ones with their own strength and characteristics.

These measures can comprehensively improve the environmental, economic, and social aspects of our society. Through our response to the environment seen in socio-economic activities such as a company's business activities, an individual's lifestyle, and a community's activities, we will create new business opportunities and utilize the society's energy to pursue environmental protection, economic growth, and revitalization of local communities.

(3) A Japan that Develops Along with Asia and the World

Global environmental issues are closely linked to our environmental problems and socio-economy in Japan. Japan has particular concern regarding the Asian region, which has a close relationship with Japan both geographically and economically. As a result of its rapid economic growth, Asia has become vulnerable to serious environmental pollution resulting from air pollution, water contamination, and improper treatment and disposal of waste. Its large volume of carbon dioxide emissions also has huge impact on the global environment.

From the standpoint of the “Global Commons,” through which the earth is recognized as an asset held jointly by all humankind, we should join forces with various countries in the world, starting with Asia, to implement measures to create a sustainable society, so that these measures will become the engine for sustainable growth and prosperity not just for Japan but also for Asia and the rest of the world. In particular, we should promote mutually-beneficial (co-benefit) measures in developing countries, integrating measures to halt environmental pollution with measures to mitigate climate change. As advocated in the Principle 1 of the Rio Declaration on Environment and Development, people in the world “are entitled to a healthy and productive life in harmony with nature.” In particular, with a view to eradicating the vicious cycle between environmental problems and poverty in developing countries, we will continue to engage in international cooperation by making best use of our environmental and energy-related technologies as well as our experiences and know-how for halting environmental pollution.

III. Eight Strategies to Be Implemented as Priorities in the Next One to Two Years

(abridged translation)

In view of the seriousness of environmental problems such as climate change, it is critical that we take immediate and concrete measures. The following are eight strategies showing directions of environmental policies for tackling climate change and other issues. These strategies should be implemented with priority especially in the next one to two years.

Strategies 1 to 3 are designed specifically to tackle the crises of climate change, the wasteful use of resources, and threats to ecosystems. Strategies 4 to 8 are cross-sectional strategies that should be emphasized in our attempt to realize Japan as a “Leading Environmental Nation”

Rather than implementing these eight strategies individually, Japan will pursue them in an integrated way along the three directions mentioned above in order to create the “Leading Environmental Nation, Japan” as well as to transmit the concept to the world.

Strategy 1 International Leadership to Overcome the Climate Change Problem¹

Japan has presented the new proposal "Cool Earth 50" consisting of the followings; setting a long-term target of cutting global emissions by half from the current level by 2050 as a common goal for the entire world as well as a long-term vision for developing "innovative technologies" and building "a low carbon society" which centers on those technologies in order to achieve this target, proposing "the three principles" for establishing an international framework to address global warming beyond 2012 and launching of a national campaign for achieving Japan's Kyoto Protocol target. Based on this new proposal, Japan shall contribute to establishing a new international framework, and enhance domestic measures to achieve the Kyoto Protocol target.

(1) Directions for international measures

Enhancing awareness of the climate change problem

Issues involved in overcoming problems

Disseminating new proposals from Japan

(2) "Cool Earth 50"

Proposal 1: Long-term strategy for reducing global greenhouse gas emissions

Cut global emissions from the current level by half by 2050

Build innovative technologies

Create a low-carbon society

Offer a Japanese model to the world

Proposal 2: Mid-term strategy and its implementation

¹ The gist of "the Strategy 1" is the same as that of the Prime Minister Shinzo Abe's new proposal "Cool Earth 50" dated May 24, 2007.

Propose three principles for establishing an international framework to address global warming beyond 2012

Financial mechanisms

Energy-related measures

Consideration of other methods

Proposal 3: Measures to ensure Japan's achievement of its Kyoto Protocol target, including the launch of a national campaign

Revision of the Kyoto Protocol Target Achievement Plan, including the addition of new measures

Government taking the initiative and stepping up its national campaign

(3) Monitor/forecast of global warming, study of adaptation measures, steady promotion to achieve forest sink target

Strategy 2 Conservation of Biodiversity for the Sustainable Use of Nature's Blessings for the Current Generation and Generations to Come

<p>Japan will propose to the world a society in harmony with nature to be brought about by reviving and expanding the wisdom for living in harmony with the environment. Japan will also conduct a comprehensive evaluation of Japan's biodiversity, offer a vision of the future to the Japanese people, and bequeath to future generations a beautiful country full of nature's blessings.</p>
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(1) Revive and further development of the wisdom of living in harmony with nature

Proposing the Satoyama Initiative to the world —Building a society that is in harmony with nature

Promoting the "Beautiful Nature of Japan Campaign"

(2) Take leadership in setting upcoming global targets

Invite to Japan the Conference of the Parties to the Convention on Biological Diversity and set the next global target

Take the lead at the global level in conducting a country- wide comprehensive “Japan Biodiversity Outlook” and implement comprehensive ecosystem monitoring

Establish a global network for conservation of biodiversity

Launch the project “Our Life on Biodiversity”

(3) Japan’s biodiversity conservation a hundred years into the future

Set forth a grand design for Japan’s biodiversity

Promote an ecological network concept for linking sound natural environments

Continue the practice of satochi-satoyama by taking care of community-based sustainably managed semi-natural countryside areas

Formulate a comprehensive strategy for biodiversity conservation for agriculture, forestry, and fisheries

Strategy 3 Creation of Sustainable Material-Cycles through the 3Rs

Japan will introduce its 3R systems, technologies, and experiences internationally, undertaking efforts to make them increasingly sophisticated, while contributing to the mitigation of climate change and promoting the 3R Initiative within the G8.
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(1) Actions for creating a sound material-cycle society in Asia

Share Japan’s 3R systems, technologies, and experiences with the world

Establish an international knowledge hub and common standards for the 3Rs

Create a sound material-cycle in East Asia

(2) Upgrade Japan's 3R technologies and systems

Minimize the input of natural resources and the environmental load throughout a product's life cycle

Promote resource circulation that matches the substance types at the local, national and regional level

Create a socio-economic system that encourages the spirit of "mottainai"

(3) Contribute to mitigating climate change through the 3Rs

Ensure the recovery of energy from wastes

Utilize waste-based biomass

(4) Promote the 3R Initiative, advocated by Japan, in the G8 process

Contribute to resource productivity improvement led by the G8

Revise the Fundamental Plan for Establishing a Sound Material-Cycle Society and promote the 3Rs throughout the international community

Strategy 4 International Cooperation Utilizing the Experience and Knowledge Derived from Having Overcome Pollution

Japan will utilize both its experience and know-how from having overcome pollution and its environmental and energy-related technologies and engage in international environmental cooperation by launching the Clean Asia Initiative, aimed at low environmental, and entering into partnerships for protection of the aquatic environment with China and other countries.

(1) Disseminate environmental technology to Asia and the world

Launch the "Clean Asia Initiative" with minimum environmental pollution

Promote international environmental cooperation that incorporates consideration of human security issues

(2) International initiatives for resolving the world's water problem

Enter into an aquatic environment partnership with China and other countries

Undertake international cooperation for resolving water and sanitary problems, taking advantage of the International Year of Sanitation

Strategy 5 Economic Growth Centered on Environmental and Energy Technologies

Japan will create a new engine for economic growth by responding to environmental issues, developing creative technological innovations, improving upon its environmental and energy-related technology, including technology for energy conservation, renewable energy, and nuclear energy, and creating new green businesses.

(1) Develop environmental technology and green businesses

Develop and disseminate environmental technology strategically and promote “eco-innovation”

Support green businesses by disclosing the environmental load from business activities

Strengthen measures on chemicals risk management in line with global trends

(2) Further improve energy efficiency

Disseminate Japan's superior cutting-edge energy-saving technology and further develop technology

(3) Promote the use of renewable energies such as biomass

Dramatically increase the use of renewable energies with a view to realizing a low-carbon society

Increase the production and use of bioethanol for fuel

(4) Use nuclear energy with the utmost emphasis on safety

Strategy 6 Creation of Vibrant Local Communities that Utilize the Blessings of Nature

Japan will take into consideration the particular characteristics of and interrelationships among countryside, urban, waterfront, and forest areas, utilizing the blessings of nature and creating vibrant and beautiful local communities through the participation and cooperation of people from a broad spectrum of society.

(1) Development and revitalization of rural villages with active people and sound nature

Revitalization of agriculture, forestry, and fisheries by promoting environment-friendly, sustainable farming practices and other productive patterns

Participation of all stakeholders in the development of lively rural communities

Promotion of association among urban and agricultural, mountainous, and fishing communities through sustainable use of services and goods provided by nature

(2) Create beautiful cities that give consideration to the environment

Make structural reforms by switching to sustainable cities such as “compact cities”

Create the world’s most advanced environmental model cities

Build cities free from environmental pollution in which people can live with peace of mind

(3) Create rich waterfront areas

Create bountiful satoumi (community-based inshores) and restore the rich river and lake environments

Restore a rich water cycle in urban areas

Restore water-related lifestyles and scenery

(4) Create beautiful forests to preserve national land as rich in greenery

Launch the “National Movement for Fostering Beautiful Forests in Japan”

Promote proper forest management by using domestic lumber

Train energetic staff and communities to support forests

Encourage participation of urban residents and businesses in forest creation

Strategy 7 Educating People to Feel for the Environment, Think for the Environment, and Act for the Environment

Japan will cultivate human resources so that people have the passion, knowledge, and energy to protect the environment, utilize those resources, and also expand local environmental activities nationwide, support these efforts strongly, and share these experiences with Asia.

(1) Create diverse opportunities for environmental education and learning

Launch the “21st Century Environmental Education Initiatives—to provide Environmental Education for Anyone, Anywhere, and at Any Time”

Launch initiatives to train International Environmental Leaders in Asia

(2) Promote citizen-led measures

Launch national citizens’ campaigns for promoting action by citizen such as switching to energy efficient products and bringing one’s own shopping bags.

Promote participation by various stakeholders in environmental policy making and implementation and promote consensus building among them, and strengthen local capacity for protecting the environment through collaboration among citizens

Strategy 8 Creating a System to Support a “Leading Environmental Nation”

Japan will optimize individuals’ proactive voluntary and creative ideas and efforts for building an

Environment Nation by promoting government-led initiatives and by establishing a system through which environmental efforts are properly evaluated via a market mechanism.

(1) Review the use of market mechanisms and promote environmental consideration in business activities

Review the use of market mechanisms

Establish a system to properly evaluate environmental efforts in the market-place

Promote proper environmental management by businesses

(2) Other national initiatives for promoting various measures

Initiatives to ensure the steady and effective implementation of measures and to incorporate environmental considerations

We will steadily monitor the implementation of these strategies for building a 21st Century “Leading Environmental Nation”, taking into consideration the situations in Japan and abroad.