rice fields. Further, the institute carried out a research and analysis of organism species in rice paddies and dikes under pesticide-free production, developed agricultural technology by utilizing its research and analysis results, publicly proposing it evaluation methods. It is spreading these research results to farmers, nature protection organizations and people related to environmental education.

(4) Cooperative efforts by companies and NGOs

The Asaza Fund, a specified nonprofit corporation, has revived Yatsuda, a reservoir for Kasumigaura Lake, and since 2008, has been producing Japanese sake using brewer's rice produced in revived Yatsuda with the cooperation of a local sake brewery. The Fund is hugely successful in selling its sake through the cooperation with local sake retailers and it is using part of sales for the revival of Yatsuda. Efforts to restore the Yatsuda reservoir are under way in a broad area around the lake in collaboration with other companies and volunteer groups.

In Toyooka City, Hyogo Prefecture, in order to secure biodiversity-rich rice fields where white storks that have returned to the wild feed, JA Tajima, White Stork Shicchi Net, the municipal government of Toyooka, the Toyooka Agricultural Improvement and Diffusion Center of Hyogo Prefecture and others are cooperating to promote "white stork-nurturing farming method" to produce safe and secure rice and nurture a variety of living organisms at the same time by reducing the use of agricultural chemicals or with no agricultural chemicals. They are also carrying out surveys on living organisms in rice paddies by developing a method of survey farming household can conduct on their own and by cooperating citizens and consumers. Part of proceeds from the sale of "white stork-nurturing rice" planted under the above-mentioned farming method is donated to the "Toyooka White Stork Fund" to be used to improve habitats for white storks, including feeding grounds. The price is about 50% higher than ordinary rice for rice produced with no agricultural chemicals used and about 20% higher for rice with reduced use of agricultural chemicals. Since sales have been robust despite high prices, however, farming households producing these types of rice are increasing year after year. Sales of the 2008 crop amounted to 520 tons (produced in about 200 hectares of rice paddies) for about ¥170 million.

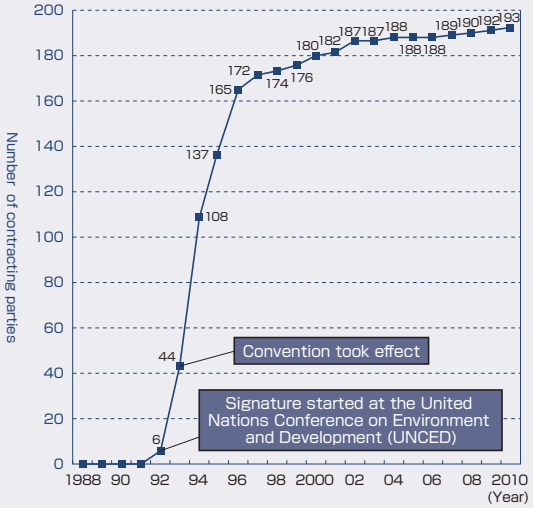
Section 4 10th Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10) That Determines the Direction of Life on the Earth

In order to maintain the sound foundation for existence of mankind, not only global warming countermeasures but also the conservation of biodiversity and its sustainable use are essential. Therefore, given the experience of failure to achieve the 2010 Biodiversity Target, the international community is getting into action to set a new target for years beyond 2010. Japan, as the host country of COP10, will make the meeting successful and promote efforts for sustainable exploitation of ecosystem services.

1 The international community at a major turning point

"The Economics of Ecosystems and Biodiversity (TEEB)" released at the high-level ministerial segment of COP9 in 2008 in its preface noted that "we are still learning the 'nature of value,' as we broaden our concept of 'capital' to encompass human capital, social capital

Figure3-4-1 Changes in Number of Contracting Parties to the Convention on Biological Diversity



Source: Prepared by Ministry of the Environment based on the website of the Secretariat of the Convention on Biological Diversity Secretariat

Figure3-4-2 Developments and Trends of International Efforts

1993	Convention on Biological Diversity entered into force (Three main objectives) ・The conservation of biological diversity ・The sustainable use of the components of biological diversity ・The fair and equitable sharing of the benefits arising out of the utilization of genetic resources
2002 (COP6)	Adoption of the Convention on Biological Diversity Strategic Plan 2010 Target: Achieve a significant reduction of the current rate of biodiversity loss by the year 2010
2006 (COP8)	Release of the second edition of Global Biodiversity Outlook (GBO2) Loss of biodiversity still continuing
2007	The G8 Environment Ministers Meeting held in Germany addressed biodiversity as a major agenda for the first time
2008 (COP9)	Decision to hold CBD COP10 in Nagoya City, Aichi Prefecture
2010 (COP10)	Release of the third edition of Global Biodiversity Outlook (GBO3) Failed to achieve the 2010 Target

Source: Ministry of the Environment

and natural capital. By recognizing and by seeking to grow or conserve these other 'capitals' we are working our way towards sustainability." Human capital is priced by payments of compensation for labor and social capital is priced by payments for services provided, but as for natural capital, most ecosystem services are used free of charge have not been priced, though only a small portion of ecosystem services are being traded with prices. The absence of pricing is believed to be one of the fundamental causes of the loss of biodiversity and degradation of ecosystems. TEEB points out that removal of this fundamental cause is necessary for sustainable use of ecosystem services.

Signing of the Convention on Biological Diversity began at the U.N. Conference on Environment and Development (Earth Summit) held in Rio de Janeiro, Brazil, in 1992, along with the Framework Convention on Climate Change. Thus, these two conventions are often called the twin conventions. At present, 192 countries and the European Union have acceded to the Convention on Biological Diversity and 191 countries and the European Union have acceded to the Framework Convention on Climate Change. This means almost all countries on the earth participate in the two conventions, demonstrating the extent of international interest in them. The contracting parties to the Convention on Biological Diversity are required to formulate national biodiversity strategies, and at present, a total of 170 countries have formulated their national strategies (Figure 3-4-1). As seen by these figures, countries sharing the sense of crisis about the loss of biodiversity are growing, and it is hoped that countermeasures taken by each country and coordinated international efforts will make further progress going forward.

Since the Convention on Biological Diversity took effect in 1993, efforts by the international community have made headway as summarized in Figure 3-4-2. COP6 of the Convention on Biological Diversity, held in The Hague, the Netherlands, in 2002 with the theme of "from dialogue to action," adopted the "Convention on Biological Diversity Strategic Plan," including the "2010 Target" to "to achieve by 2010 a significant reduction of the current rate of biodiversity loss" . The "third edition of Global Biodiversity Outlook (GBO3)" released by the Convention Secretariat in May 2010 in order to assess the achievement status of the 2010 Target showed that nine out of 15 indicators depicting the state of biodiversity has declined (Figure 1-5-2), and said the 2010 Target "has not been met" and the loss of biodiversity is continuing.

The sense of crisis is mounting that unless the degradation of biodiversity halts, we could face a serious situation with ecosystem services greatly damaged. On the other hand, the scientific capturing and assessment of biodiversity still remain insufficient, underscoring the need to globally push forward with the establishment of assessment methods and improvement of biodiversity monitoring systems.

2 2010 and Significance of CBD COP10

COP10 to be held in 2010 is set to assess the 2010 Target and discuss a new global target for biodiversity beyond 2010, or "Post-2010 Target" (Figure 3-4-3).

The U.N. General Assembly in 2006 decided to designate 2010 as the International Year of Biodiversity (IYB). The Secretariat of the Convention on Biological Diversity is to serve an organ responsible for the International Year of Biodiversity (IYB), and the Secretariat is urging contracting parties to increase the awareness of the three major objectives of the Convention on Biological Diversity ((1) the conservation of biological diversity; (2) the sustainable use of the components of biological diversity; (3) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources) and the 2010 Target achievement, and also hold ceremonies to mark the International Year of Biodiversity by setting up national commissions. Under the IYB logo (Figure 3-4-4) and the slogan, "Biodiversity is life. Biodiversity is our life.," decided by the Secretariat, a variety of activities are set to take place around the world in 2010. Furthermore, in September 2010, a summit-class high-level meeting on biodiversity is scheduled to take place at the U.N. General Assembly. In a year that is to become a major milestone globally, an international conference that will set the course of the future direction of global biodiversity will take place in Japan.

Also on the agenda of COP10 are important issues aside from the Post-2010 targets. One of them is an international regime for access and benefit-sharing of genetic resources (ABS), on which discussions are to be completed by COP10. The Convention on Biological Diversity acknowledges states' sovereign rights to exploit natural resources within their jurisdiction and the fair and equitable sharing of the benefits arising out of

Figure 3-4-3 Major Themes to Be Discussed at COP10

- Assessment of the 2010 Target and adoption of the next target beyond 2010 (the post-2010 target)
- Completion of an International Regime on Access and Benefit-sharing (ABS) of genetic resources.
- Sustainable use of biodiversity; protected areas; businesses and biodiversity; public relations, diffusion and edification; the International Year of Biodiversity (IYB), etc.

Source: Ministry of the Environment

Figure 3-4-4 International Year of Diversity Logo

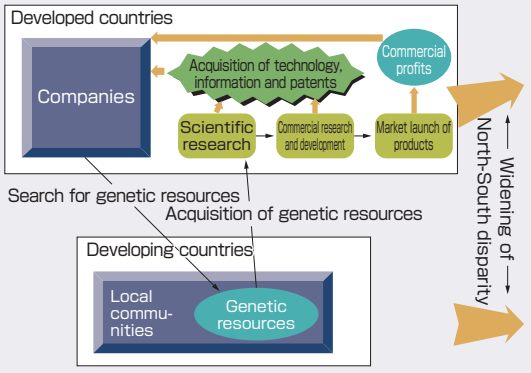
Source: Secretariat of the Convention on Biological Diversity

the utilization of genetic resources is designated as the third objective of the Convention. ABS is designed to develop a mechanism under which users of genetic resources have smooth access to genetic resources of provider countries and at the same time users distribute the benefits gained from genetic resources to provider countries in a fair and equitable manner that the benefits arising out of the utilization of genetic resources contribute to the conservation of biodiversity and its sustainable use.

It is important that an international regime for ABS will become a mechanism that ensures smooth access to genetic resources, contributes to human well-being through pharmaceutical products, etc. developed from genetic resources, and also contributes to global promotion of biodiversity conservation through the appropriate distribution of the benefits gained (Figure 3-4-5). Considerations by countries concerned are currently under way under the Convention on Biological Diversity, and Japan, as the host of COP10, is being called upon to take the initiative for progress in negotiations.

Other chief agenda include sustainable use of biodiversity; protected areas; businesses and biodiversity; public relations, diffusion and edification; and the International Year of Biodiversity (IYB), etc. COP10 will prove an important forum to set the course for an international framework and efforts corresponding to the three major objectives of the Convention on Biological Diversity.

Figure3-4-5 Relationship between Developed and Developing Countries Concerning Use of Genetic Resources before Adoption of the Convention on Biological Diversity



Source: Kiichiro Hayashi ed., "Basic Knowledge for. Biodiversity/Ecosystem and Economics"

3 Japan's responsibility as the COP10 host

(1) International contributions based on Japan's experiences

COP10 is a very important conference to discuss the direction of global biodiversity going forward. Japan, as its host, needs not only to make COP10 a successful event but also to produce fruitful results from the conference by, among others, making proposals based on its own experiences. In relation to the post-2010 targets, the agenda of paramount importance at COP10, it has

Figure3-4-6 Japanese Proposal Concerning Post-2010 Targets of the Convention on Biological Diversity

Mid/long-term target (2050)

Enhancing the harmony between human being and nature all around the world, to improve the state of diversity from the current level as well as to sustainably increase the benefits of ecosystem services human being receives.

Short-term targets (2020)

To have the following actions taken by 2020, so as to halt biodiversity loss:
①To conduct full observations and analyses on the state of biodiversity as global scale and on scientific justification. To make ecosystem services respected in every aspect of human society.
②To expand activities for biodiversity conservation, to promote practical methods for sustainable use of biodiversity extending to future generations and to establish mechanisms for reducing adverse effects of human activities on biodiversity.
③To mainstream biodiversity by ensuring the participation of various stakeholders and new steps to be taken by various stakeholders.

Sub-targets

(1) Sub-targets to address indirect and broad-based drivers for biodiversity loss
Sub-target 1: To invite the wider participation of various stakeholders in the conservation and sustainable use of biodiversity
Sub-target 2: To establish mechanism to ensure harmonized approaches between ecosystem conservation and other human activities such as development and poverty alleviation
(2) Sub-targets to address direct and specific drivers for biodiversity loss
Sub-target 3: To increase the ratio of production that is managed in sustainable manner in agriculture, forestry, fisheries and other activities which utilize biological resources
Sub-target 4: To take urgent measures against threats to biodiversity
(3) Sub-targets to improve status of biodiversity itself
Sub-target 5: To promote the activities to conserve biological species and expand the areas to conserve ecosystems
(4) Sub-targets to ensure the benefits of biodiversity for human being
Sub-target 6: To establish the mechanism to sustainably benefit from the ecosystem services and to ensure its contribution to human well-being
(5) Sub-targets to address the effective achievement of above mentioned sub-targets
Sub-target 7: To prepare systems to encourage more facilitated ABS (Access and Benefit Sharing) and protection of traditional knowledge
Sub-target 8: To conduct full observations and analyses on the state of biodiversity and ecosystems at global scale and scientific justification so that they are well perceived and understood by general public
Sub-target 9: To provide financial and human resources as well as increase scientific and technical capacity in order to achieve the conservation and sustainable use of biodiversity

Source: Ministry of the Environment

been pointed out about the 2010 Target that the target itself is abstract and lacks clarity and that since there are no methods available to make an objective and numerical evaluation, it was difficult to obtain the understanding for taking emergency measures with a sense of crisis to achieve the target. Given these circumstances, measures taken to cope with development, climate change, deforestation and overfishing that lead to biodiversity loss were not sufficient. The decision at COP9 in 2008 called for the post-2010 targets to "include ambitious but realistic, and measurable short term targets" by 2020 and medium- and long-term targets by 2050, and also to be "short, focused and action-oriented." Given these developments, Japan in January 2010 submitted "Post-2010 targets (Proposal by Japan)" to the CBD Secretariat (Figure 3-4-6). The Japanese proposal put forward the mid/long-term target for enhancing the harmony between human being and nature and improve the state of biodiversity from the current level by 2050 (Vision) and the short-term targets for actions taken by 2020 to halt biodiversity loss (Mission). Japan proposes nine sub-targets under the short-term targets, and presents a total of 34 specific means for achievement under them, with many concrete examples and numerical indicators where possible. The CBD Secretariat will draft post-2010 targets on the basis of proposals from Japan and other countries for final discussions at COP10. Based on the Japanese proposal, the government will contribute to the forthcoming discussions so as to help improve post-2010 targets.

As discussed later in this paper, in relation to "sustainable use of biodiversity," a topic to be addressed at COP10, Japan intends to propose the "Satoyama Initiative," carrying the name satoyama, or Japan's woodland near populated areas utilized in a sustainable manner for the promotion of sustainable utilization and management of natural resources.

(2) Reflection of international developments in and acceleration of domestic measures

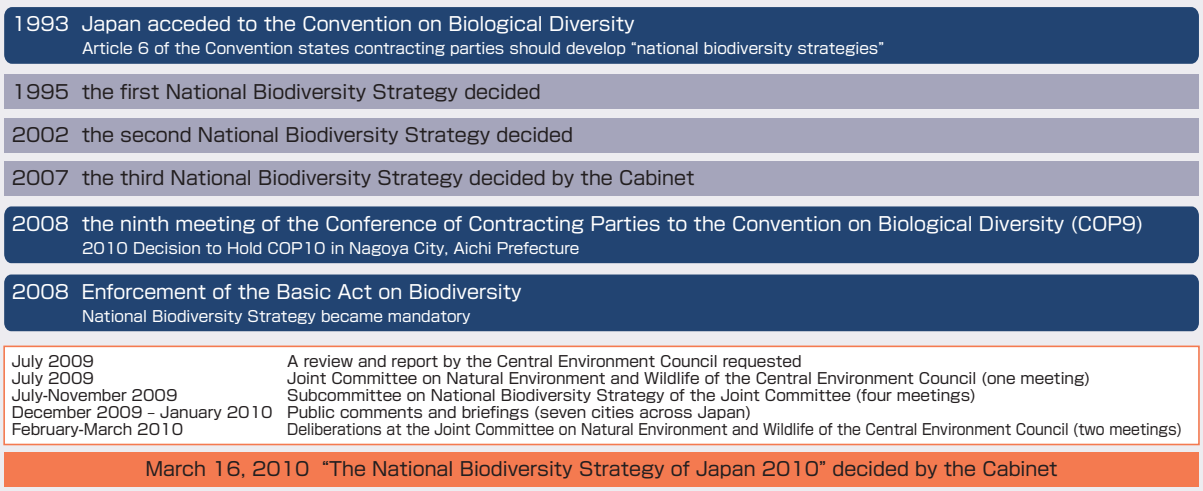
Based on the Convention on Biological Diversity, the Japanese government has so far formulated the three National Biodiversity Strategies in 1995, 2002 and 2007. Subsequently, the Basic Act on Biodiversity, domestic legislation enforced in June 2008, requires the government to formulate the national biodiversity strategy. Further in March 2010, the government formulated the National Biodiversity Strategy of Japan 2010, the first national strategy for biodiversity under the Basic Act on Biodiversity (Figures 3-4-7, 3-4-8).

This National Biodiversity Strategy of Japan 2010 added issues which should be achieved with government's view at COP10 including Japanese perspective of proposal for post-2010 targets to the Secretariat of the Convention on Biological Diversity in January 2010.

The National Biodiversity Strategy of Japan 2010 broadly consists of two parts. Part 1 may be called the core body of the strategy, which, after ascertaining the perception of the current situation such as what biodiversity is and its importance, covers the challenges of four crises affecting biodiversity in Japan and depicts four basic strategies that broadly set the direction for prioritized policy measures that should be taken by around FY 2012. In the Third National Biodiversity Strategy formulated in 2007, as the long-term perspective of time required for the recovery of natural ecosystems in implementing these four basic strategies, the grand-design was included as a common vision from the perspective of biodiversity looking ahead 100 years from now. With the Japanese proposal for post-2010 targets included, Part 1 of the latest National Biodiversity has set the course for pressing forward with biodiversity strategies broadly in phases and over the long term by FY 2012, 2020, 2050 and 2110 (Figure 3-4-9).

Part 2 lists a variety of measures systematically as specific action plans for realizing the strategy. The number of specific measures with the names of responsible government ministries and agencies increased from about 660 in the Third National Biodiversity Strategy to about 720, while the number of numerical indicators rose from 34 to 35. Japan will promote domestic and international measures toward COP10 by steadily implementing these policy measures incorporated in the National Biodiversity Strategy of Japan 2010.

Figure3-4-7 Formulation Process of the National Biodiversity Strategy



Source: Ministry of the Environment

Figure3-4-8 Outline of the National Biodiversity Strategy of Japan 2010

Decided by the Cabinet on March 16, 2010

Part 1: Strategy

What is biodiversity? - three kinds of biodiversity -

Ecosystems diversity
Tidal flats, coral reefs, forests, grassland, wetland, rivers, etc.

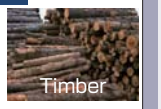
Species diversity (among species)
Estimated number of organism species on the earth 5 million to 30 million species

(Genetic) Diversity within species
Many different patterns for Japanese littleneck shells

【Importance】 Biodiversity supporting life and livelihood

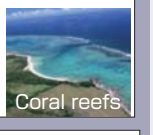
Basis for existence of all life on the earth
・Supply of oxygen
・Stable climate, etc.

Source of useful value
・Food, timber
・Genetic resources
・Biomimicry※, etc.
※ Imitating or taking cues from forms and functions of living organisms to develop technology, etc.



Source of enriching culture
・Local dishes
・Festivals, local folk songs, etc.

Basis for safety and security
・Prevention of natural disasters, etc.
Example) Coral reefs mitigate waves and erosion damage



【Challenges】 Crisis of biodiversity

First crisis
Ecosystem destruction by human activities
Reduction/extinction of species

Second crisis
Impact on satochi-satoyama due to inadequate management by humans

Third crisis
Ecosystem disturbances by invasive species

Crisis caused by global warming
Extinction of many species and ecosystem destruction
Example: IPPC Fourth Assessment Report
If the average global temperature rises by 1.5-2.5 degrees C…
20-30% of species of fauna and flora on the earth may see the risk of extinction increase

【Targets】

Mid/long-term target (by 2050)
・Enhance the harmony between human being and nature broadly at the national and regional level
・Improve the state of biodiversity from the current level
・Sustainably increase the benefits of ecosystem services

Short-term targets (by 2020)
Take the following actions by 2020 to halt biodiversity loss:
・Conduct full observations and analyses on the state of biodiversity and expand activities for biodiversity conservation
・Establish mechanisms for reducing adverse effect of human activities on biodiversity
・Promote practical methods in our daily life for sustainable use of biodiversity

【Long-term perspective】 Grand-design, targeting 100 years ahead
Present the national grand-design from the perspective of biodiversity as a "100-year plan" for recovery of ecosystems of national land over a period of 100 years
Deep-mountain natural areas; rural areas; urban areas; river/wetland areas; coastal areas; oceanic areas; and small island areas

【Four Basic Strategies】
I Mainstreaming biodiversity in our daily life
Mainstreaming biodiversity in our daily life; promoting and supporting the measures at local level, etc.
II Rebuilding sound relationship between human being and nature
Enriching the measures to conserve rare wild fauna and flora; promoting the integrated measures of natural symbiosis, material-recycling, and low-carbon society
III Securing linkages among forests, countryside, rivers and the sea
Ⅳ Success of CBD COP10; promotion of Satoyama Initiative; strengthening of scientific base; enhancing the science-policy interface; introduction of economic perspective; and assistance to developing countries, etc.

Part 2: Action Plan

・About 720 specific measures ・About 35 numerical indicators

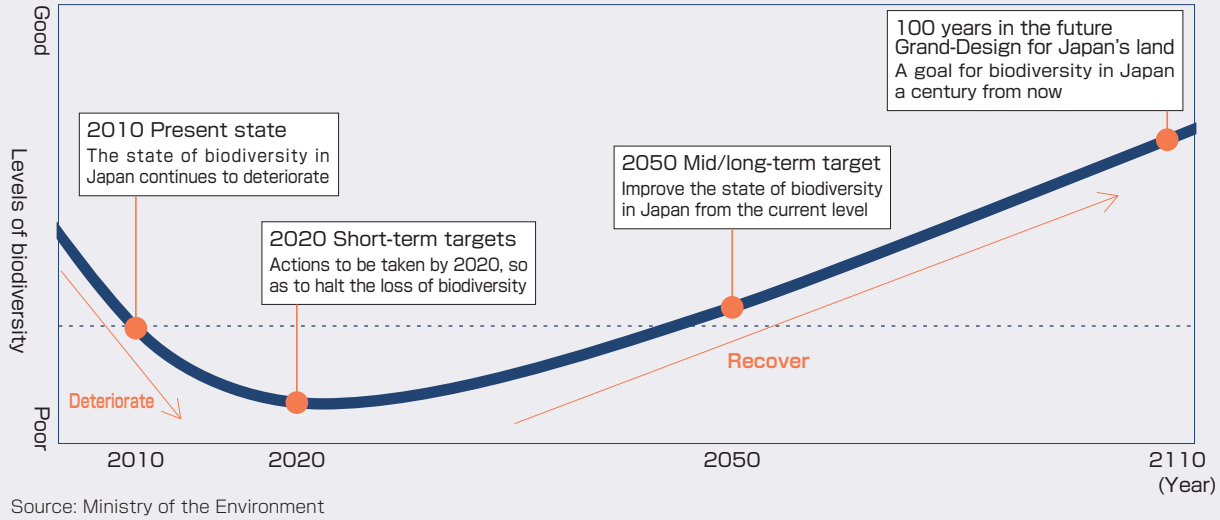
Source: Ministry of the Environment

After COP10, the government plans to review the National Biodiversity Strategy of Japan 2010 by reflecting discussions about post-2010 targets at COP10.

(3) Participation and cooperation of the national and local governments, private sector, citizens and all other stakeholders

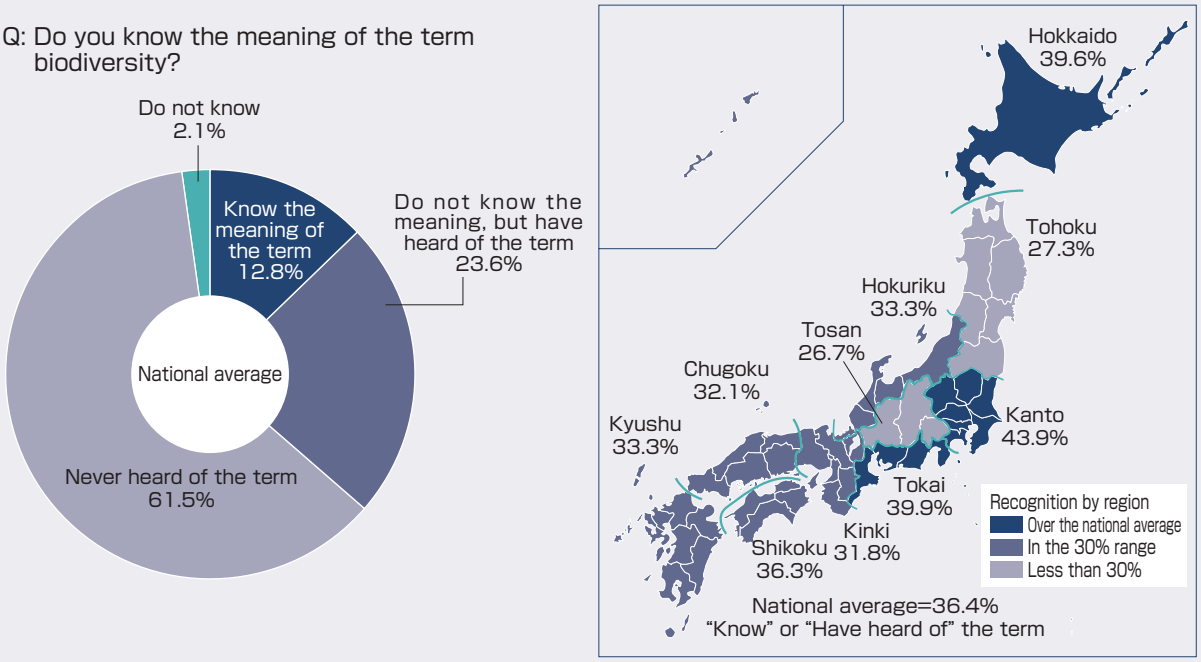
As stated in one of the four basic strategies of the National Biodiversity Strategy of Japan 2010, "Mainstreaming biodiversity in our daily life," in order to carry forward the rich national land with blessings bestowed by nature, it is necessary to consider and stay mindful of biodiversity not only in our daily life but also as society as a whole. To this end, it is necessary to call upon a variety of stakeholders to promote efforts commensurate with their respective positions to realize the "mainstreaming of biodiversity in society" where the importance of biodiversity conservation is shared by local

Figure3-4-9 How biodiversity should recover in Japan



Source: Ministry of the Environment

Figure3-4-10 Recognition of the Term "Biodiversity"



Source: Prepared by Ministry of the Environment based on the Cabinet Office, "Public Opinion Survey on Environment Issues"

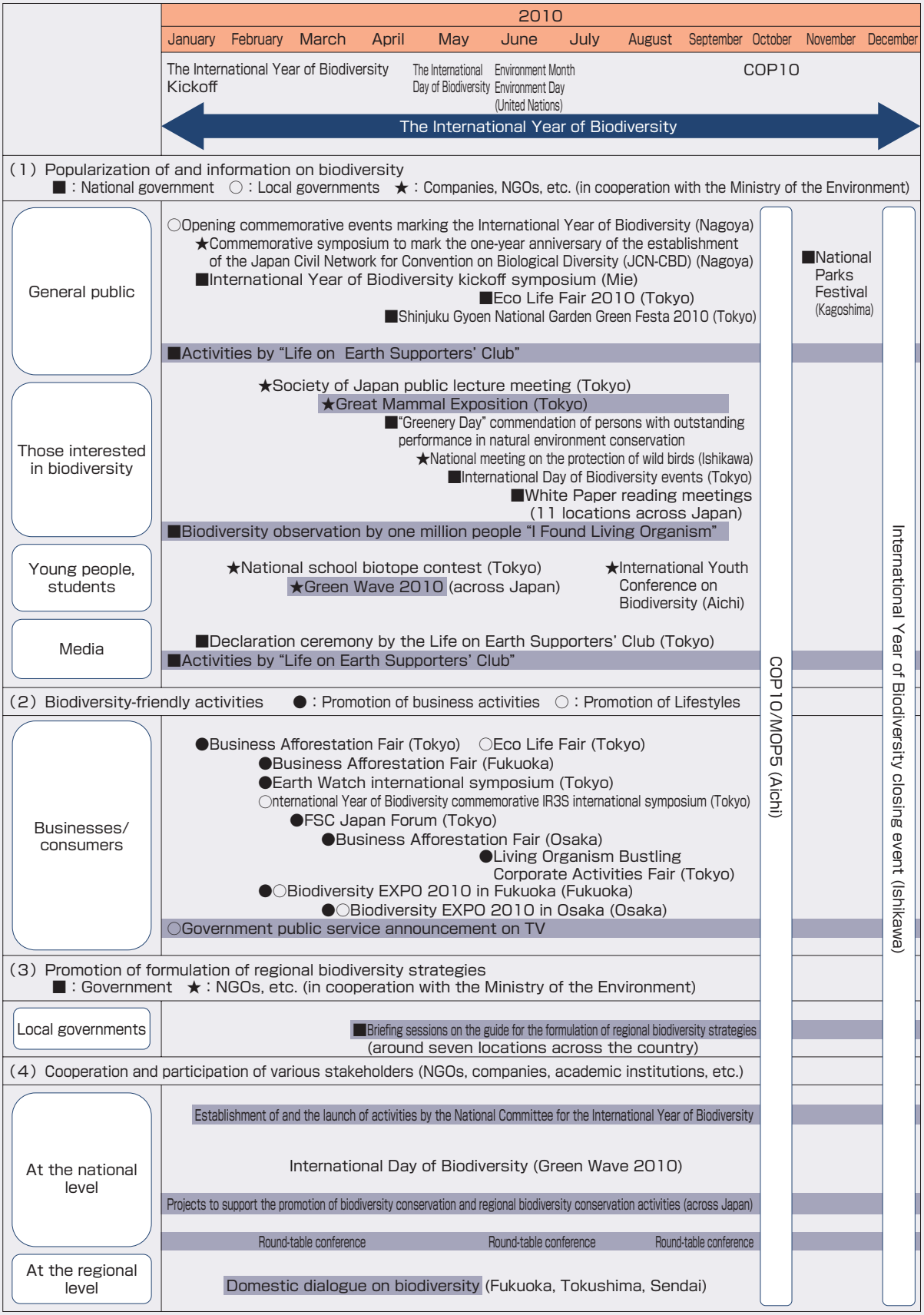
governments, businesses and individual citizens, etc. as the common sense and is reflected in behaviors of respective stakeholders. In Section 3, we introduced examples of forward-thinking efforts by a variety of stakeholders. In order to encourage the participation and cooperation of these various stakeholders and support their independent efforts, the government is undertaking various initiatives, including the publication of the guide to the formulation of regional biodiversity strategies, "Guidelines for Private Sector Engagement in Biodiversity" and projects to support regional biodiversity conservation activities.

(4) An opportunity to have biodiversity conservation take firm root in everyday life, not a transient fad

Biodiversity that brings a myriad of benefits is indispensable for human kind. On the other hand, most of social and economic activities by humans, including their daily life, are imposing heavy burdens on biodiversity. Reducing burdens on biodiversity require efforts in everyday life and social and economic activities, just as with the problem of global warming.

To that end, it is important that many people understand and recognize the term biodiversity and its meaning as well as the fact that their daily life and social and economic activities are imposing burdens on

Figure3-4-11 Mainstreaming Biodiversity in Our Daily Life



Note 1 Only major events to be undertaken by or through cooperation with the Ministry of the Environment are listed (as of February 2010)
Note 2 The shaded areas indicate the duration of events

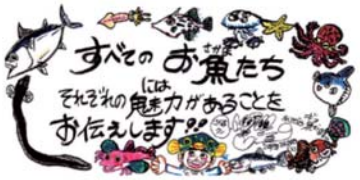
Source: Ministry of the Environment

Column For all the life on Earth –“Life on Earth Supporters’ Club”

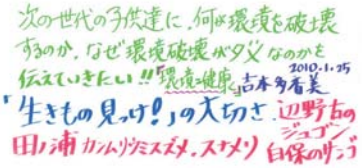
Our livelihood cannot go on without the blessings of biodiversity. But the term biodiversity remains as not widely recognized and we cannot say the understanding about biodiversity has made much progress. Under these circumstances, the Ministry of the Environment launched the “Life on Earth Supporters’ Club” consisting of prominent figures in November 2008, asking them to seize on a variety of occasions to send out messages regarding biodiversity to a broad array of Japanese people.

In this column, we introduce “My Action Declaration” of these members of the “Life on the Earth Supporters’ Club” speaking of their own intended actions for biodiversity conservation.

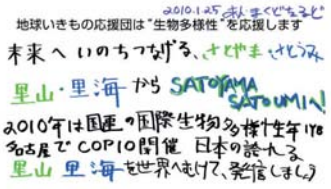
Sakana-kun, Visiting associate professor at Tokyo University of Marine Science and Technology/Fish life coordinator



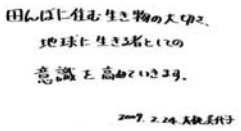
Takami Yoshimoto
Actress



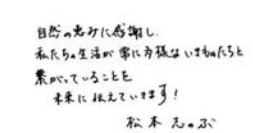
Anne McDonald
Essayist



Miyoko Oomomo
Talent/newscaster

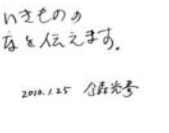


Shinobu Matsumoto
Freelance announcer

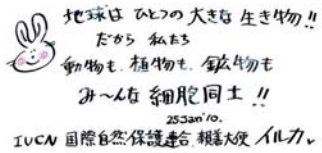


Tomoto Nakajima
Actress

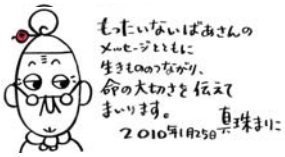
Mitsuhiko Imamori
Photographer



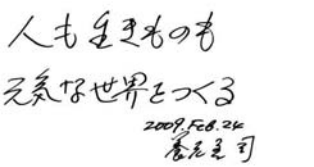
Iruka
Singer/song writer



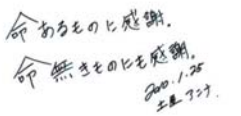
Mariko Shinju
Illustrator



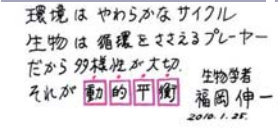
Takeshi Yoro
Biologist/University of Tokyo professor emeritus



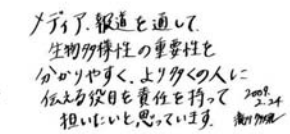
Anna Tsuchiya
Actress/model/singer



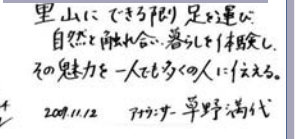
Shinichi Fukuoka
Biologist



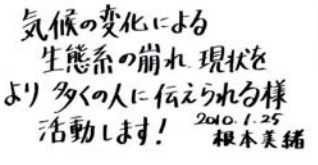
Christel Takigawa
Freelance newscaster



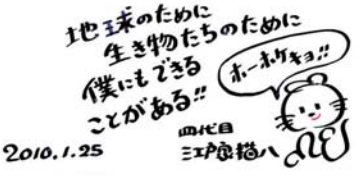
Mitsuyo Kusano
Freelance announcer



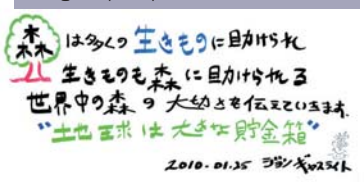
Mio Nemoto
Freelance announcer/certified weather forecaster



Nekohachi Edoya
Rakugo performer



John Gathright
Doctor of agriculture/talent/columnist/ecologist/space produce



(Random order, honorific titles dispensed with)

biodiversity and then act accordingly to mitigate burdens on biodiversity in their daily life. A public opinion survey conducted by the Cabinet Office in 2009 found that the recognition of the term biodiversity (the ratio of respondents who said they "have heard of it" or "know the meaning of it") was a relatively low 36.4%. The rate of recognition was a little higher than 30.2% in a similar survey conducted by the Ministry of the Environment five years ago in 2004, but we need to continue to strive to increase the recognition of the term (Figure 3-4-10).

COP10 will be the first massive-scale international conference on biodiversity to be held in Japan. Since the third conference of the contracting parties to the Framework Convention on Climate Change was held in Kyoto in 1997, the recognition and efforts to cope with global warming issues at home have made great strides. COP10 of the Convention on Biological Diversity will also provide a great opportunity to enhance the recognition of biodiversity and to promote the mainstreaming of biodiversity in our society.

The Ministry of the Environment established the National Committee for IYB in January 2010. The government will consider commemorative events and activities at the "Committee on Life on Earth," created under the National Committee and consisting of scholars, business leaders, media people, cultural figures and NGO representatives (Figure 3-4-11). Based on the Committee's deliberation, we will establish "individual project teams" for implementing a variety of individual projects such as commemorative events to mark the International Year of Biodiversity and the International Day of Biodiversity. In order to promote the mainstreaming of biodiversity more efficiently, we will also register organizations carrying out related projects voluntarily and organizations supporting and cooperating with related activities as "Life on Earth Supporters" to a create more broad-based campaign.

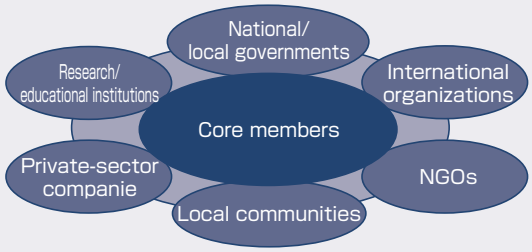
4 Wisdom and Spirit of Natural Symbiosis Spreading to the World

For the conservation of biodiversity, the role of secondary nature formed and maintained through human activities such as agriculture and forestry operations over long years is as important nature maintained in its protozoa (protist) shape. However, this secondary form of nature, together with ecosystem services that can be derived from it, is under threat to its sustainability or has already been lost in some areas, due to a string of events in recent years, including urbanization, industrial development, sharp changes in rural populations and the aging of society. These areas exist across the world. These areas, including muyong, uma and payoh in the Philippines, mauel in Korea, dehesa in Spain, terroirs in France, chitemene in Malawi and Zambia, and satochi-satoyama (community-based forest areas and the surrounding countryside) in Japan, have varied characteristics depending on regional climate, geological formation, cultures and socioeconomic and other conditions. In order to proceed with the conservation of biodiversity and its sustainable use, it is important to realize a society of natural symbiosis by taking measures corresponding to their respective regional characteristics while recognizing the value of secondary nature and sharing the importance of seeking to maintain and conserve it on a global scale.

More specifically, effective ways to do this include the global sharing and mutual analyses of methods of sustainable use and management of biological resources in respective regions, capacity-building of relevant parties through cooperation among local governments, international institutions and NGOs, and implementation of bilateral and multilateral official development assistance (ODA) projects, in accordance with the existing principles of the conservation of biodiversity and its sustainable use. Japan has proposed this approach as the Satoyama Initiative. Seizing the occasion to host COP10, Japan plans to promote this approach by calling for stronger international cooperation and increased efforts, including the launch of the partnership with the participation of various stakeholders (Figure 3-4-12).

At home, meanwhile, Japan is exerting the following efforts as part of projects to promote the Satoyama Initiative:

Figure3-4-12 Composition Image of International Satoyama Partnership(tentative name)



Source: Ministry of the Environment

Figure3-4-13 COP10 Logo

Life in harmony, into the future
COP10/MOP5 Aichi-Nagoya 2010

Source: Ministry of the Environment

(1) Investigations and analyses of and sending out information on satochi-satoyama that is making distinguishing efforts;
(2) Trials and social experiments on new measures to utilize satoyama for environmental education and eco-tourism as well as use of biomass;
(3) Building of rules and frameworks for a variety of stakeholders to sustainably mange and utilize satoyama as shared resources;
(4) Formulation of "action plans for satochi-satoyama conservation and utilization" to encourage people's understanding of and interest in satochi-satoyama and carry out conservation and utilization activities across Japan as national movements.

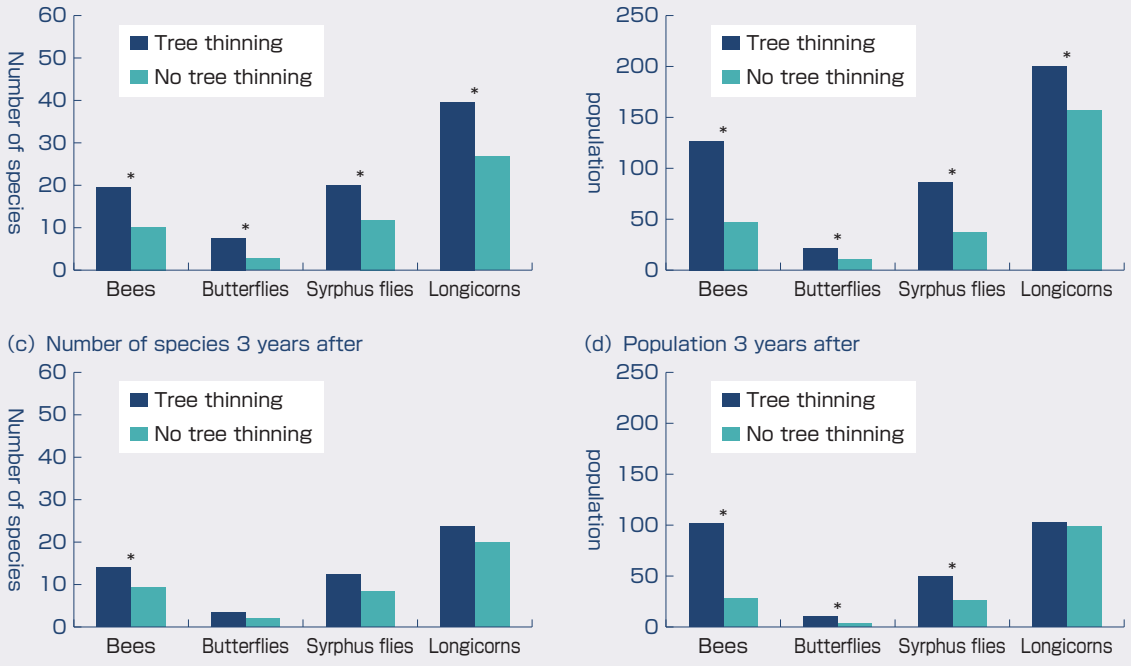
Historically, in Japan, people had the way of living to seek the coexistence with nature in a relatively limited livelihood sphere, as exemplified by the concept of "shiri-shiho" (several miles around you) for the procurement of food and other daily necessities. Today, in order to solve various issues confronting human being, including but not limited to biodiversity as well as climate change and 3Rs (reduce, reuse and recycle), the question we are faced with is how we should live in the closed world of the earth. One of possible solutions is the way of living in harmony with local nature, as exemplified in satochi-satoyama in Japan. However, it is not easy for Japanese people to alter today's convenient way of livelihood and we also need to have the global perspective to go beyond the bounds of Japan. One of approaches for realizing a sound material-cycle society is the "re-styling, or shift to lifestyles and business styles based on 3Rs. Realization of the natural symbiosis society requires the "re-styling" corresponding to today's social and economic conditions.

The COP10 logo was designed as an origami image (Figure 3-4-13). Origami symbolizes the wisdom and culture of Japan. By placing humans at the center, the logo symbolizes the coexistence of human being and a variety of living organisms. And the combination of the human adult and the child expresses the wish to carry forward rich biodiversity to future generations. In

Column Relationship of Management of Satoyama and Biodiversity

According to a study of the Forestry and Forest Products Research Institute looking into whether tree thinning, one of satoyama management methods, actually contribute to the conservation and enhancement of biodiversity, the comparison between Japanese cedar artificial forests thinned by about half in the number of trees and about one-third in wood cubic volume and forests with no tree thinning found that the number of species of bees, butterflies, syrphus flies and longicorns was larger in thinned forests than forests without thinning and the populations of insects were also larger in thinned forests for all species one year after tree thinning. While the differences between two forests tended to disappear three years after tree thinning, the study clearly shows that thinning of artificial forests, as a method of satoyama management, has altered the composition of plant species in forest floors and in the short run, increased the number of insect species and their populations, thus enhancing biodiversity of forests.

Species of Insects and Population Collected 1 Year and 3 Years after Tree Thinning



considering the global environment going forward, including biodiversity, the idea of enhancing the harmonious coexistence with nature around the world is important, as proposed by Japan as the mid/long-term target of post-2010 biodiversity targets. To that end, Japan will widely send out messages on the Satoyama Initiative at COP10 carrying this logo and use COP10 as a catalyst to redouble efforts in Japan.

Conclusion

Ahead of COP10 to be held in Japan in October, in Chapter 3, we discussed Japan's responsibility as the host country of COP10 and underscored the need for a shift to the socio-economy that is friendly to biodiversity. Biodiversity provides the wide-ranging benefits to human being on a scale far greater than we usually think. On the other hand, this precious biodiversity is disappearing rapidly on a global scale, making difficult for human being to sustainably receive those benefits from ecosystem services in the future. Further, it is becoming known now that the benefits to be obtained by conserving ecosystems are greater than costs required to restore once-lost ecosystems. It is important to proceed with development actions and utilization of natural resources after making an accurate cost-effect analysis.

Japan is giving a major impact on global biodiversity from its dependence on overseas for the bulk of natural resources, and thus it is necessary for Japan to take the initiative in making a shift to a biodiversity-friendly socio-economy, from corporate activities to our individual lifestyles, for the conservation and sustainable use of biodiversity, that is the basis for existence of human being. COP10, which is to consider global targets for biodiversity beyond 2010, is an important conference that can influence of the future of global biodiversity. As the host country of this conference, Japan needs to play a leadership role to realize the greater harmony between human being and nature on a global scale by globally spreading the Satoyama Initiative for sustainable use and management of natural resources.