

**The Direction of International
Environmental Cooperation
(Report)**

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Central Environmental Council

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List of Acronyms

3R	Reduce, Reuse, Recycle
ADB	Asian Development Bank
APFED	Asia-Pacific Forum for Environment and Development
APN	Asia-Pacific Network for Global Change Research
ASEAN	Association of Southeast Asian Nations
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EANET	Acid Deposition Monitoring Network in East Asia
EPA	Economic Partnership Agreement
ESCAP	Economic and Social Commission for Asia and the Pacific
EST	Environmentally Sustainable Transport
GEF	Global Environment Facility
GHG	Greenhouse Gas
IGES	Institute for Global Environmental Strategy
ISO	International Standard Organization
JBIC	Japan Bank for International Cooperation
JI	Joint Implementation
JICA	Japan International Cooperation Agency
MDGs	Millennium Development Goals
NEASPEC	Northeast Asian Subregional Program of Environmental Cooperation
NOWPAP	North-west Pacific Action Plan
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
POPs	Persistent Organic Pollutants
SRI	Socially Responsible Investment
TEMM	Tripartite Environment Ministers Meeting
UNCCD	United Nations Convention to Combat Desertification
UN-CSD	United Nations Commission on Sustainable Development

UNDES	United Nations Decade of Education for Sustainable Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-IETC	UNEP International Environmental Technology Centre
UNFCCC	United Nations Framework Convention on Climate Change
WEPA	Water Environment Partnership in Asia
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

Introduction – Context for this Study on International Environmental Cooperation Strategies

Thirteen years have already passed since the Central Council for Pollution Control and the Nature Conservation Council presented their May 1992 report *An approach to environmental cooperation* (referred to as the *Japan's current approach* below) to the Director-General of the Environment Agency of Japan. During this period, Japan's Basic Environment Law stipulated "International Cooperation for Global Environmental Conservation (Article 32)." Basic Environmental Plans based on this law formulated policies for international environmental cooperation, as a major issue that all over Japan should address. As a result, Japan's international environmental cooperation has made remarkable progress.

In its introduction, *Japan's current approach* stressed that the world's nations need to focus on global sustainable development, and that developed countries and developing countries need to work together to achieve this. The report goes on to state that "international environmental cooperation means global solidarity and cooperative action for achieving global sustainable development." The report argues that "cooperation does not mean one-way assistance from developed countries to developing countries but is based on mutual partnerships that ensure improvement in the quality of life of all people on the planet as global interdependence increases."

This perspective needs to be maintained going forward as well. However, since the formulation of *Japan's current approach*, focused mainly on international environmental cooperation through Official Development Assistance (ODA), circumstances have significantly changed over international environmental cooperation.

Increasingly higher levels of economic activity by developed countries, rapidly increasing poverty, population, and urbanization in developing countries, as well as accelerating globalization since the 1980s have caused emergence of global environmental problems, such as global warming, destruction of rain

forests. Environmental problems in developing countries have become more complicated and serious. Environmental damage caused by both industrialization and poverty has threatened the livelihoods of people who survive by exploiting natural resources

During the 1990s, development and environment was internationally discussed as a global issue. In June 1992, the United Nations Conference on Environment and Development (UNCED) held in Brazil adopted the “Agenda 21” action plan based on the concept of sustainable development. Furthermore, the UN Framework Convention on Climate Change (UNFCCC), the UN Convention on Biological Diversity (CBD), and the Declaration of Forest Principles were also adopted. Later on, several other global frameworks aimed at global environmental problems were adopted as international cooperation moved forward. These frameworks include the UN Convention to Combat Desertification (UNCCD), the Kyoto Protocol, and the Cartagena Convention on Biosafety.

Achieving sustainable development requires partnerships among various countries, along with environmental initiatives by developed countries and appropriate contributions by developing countries.

Nonetheless, the 1990s did not achieve tangible outcomes of sustainable development in developing countries, which led donors to rethink their traditional approach to developing country assistance. In light of this rethinking, the United Nations Millennium Summit held in 2000 focused on issues such as peace and safety, development and poverty, the environment, human rights, and good governance. The Summit established numerical targets for nations to achieve by 2015 (Millennium Development Goals, or MDGs), and an international agreement was reached on how to achieve MDGs.

In 2005, the advisory panel to the UN Secretary-General summarized the strategies to achieve these development objectives. In light of such facts as the breakdown in progress toward MDGs in sub-Saharan Africa, strategies for poverty reduction were formulated and specific actions setting time frame and regions were proposed to achieve them. “Environmental sustainability,” one of MDG objectives, was considered crucial for achieving other MDGs. In addition, ten key recommendations were put forward, including addressing air and water

pollution, mitigating the effects of global warming, and strengthening organizations and governance.

The United Nations World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa in September 2002, concluded that during the decade following UNCED developing countries had not benefited from globalization and progress of technology in information and telecommunications, and that the global environment had continued to deteriorate, as the gap between rich and poor grew wider. The Summit stressed the need for various related entities - governments, international organizations, corporations, NGOs, and so on – to cooperate. The Summit also reaffirmed the need for developing country ownership of sustainable development as well as partnerships with the international community to support such ownership. In addition to adopting the Johannesburg Plan of Implementation as a written agreement between governments, the participants collaborated on compiling a series of “commitments”¹ to be carried out independently.

The 11th session of the United Nations Commission on Sustainable Development (UN-CSD), which followed up on the Johannesburg Plan of Implementation, produced a Multi-Year Programme of Work and proposed an approach for region-oriented progress management.

Current issues for advancing sustainable development include: securing good governance² at national and local levels; strengthening partnerships between governments and between governments and other entities; expanding corporate social responsibility; as well as minimizing the adverse effects of globalization and narrowing the gap between rich and poor.

¹ A list of voluntary partnership initiatives by governments and the key participating groups, prepared independently to achieve the details outlined in the Johannesburg Summit Plan of Implementation and Johannesburg Declaration. They do not require intergovernmental discussion or agreement.

² “Good governance” refers to a concept that includes the factors of democratic political organizations (parliamentary democracy), rule of law, efficient government that achieves accountability, appropriate public disclosure of information by governments, prevention of corruption, and protection of human rights (2003 ODA White Paper). Good governance is essential for sustainable development, and at the domestic level includes, as specific factors forming the basis for sustainable development, sound environmental, social and economic policies, democratic institutions responsive to the needs of the people, the rule of law, anti-corruption measures, gender equality and an enabling environment for investment (Johannesburg Plan of Implementation).

These issues concern both developing countries and developed countries. That is, “the shift toward sustainable production and consumption” in developed countries can affect and contribute to not only issues for developed countries but also sustainable development of developing countries, through disseminating relevant technology and pursuing trade. Moreover, developing countries are diverse, ranging from semi-developed members of the Association of South East Asian Nations (ASEAN) that already have a significant stake in the global economy to the mostly undeveloped countries of the sub-Saharan region that still face many problems. Given this diversity, developed countries must discard their general notion of developing countries as essentially the same, and fine-tune their policies according to the characteristics of each region and country.

Moreover, sustainable development requires stronger governance at the national and local level, and development of human resources and organization, in particular. Considering inappropriate management of natural resources has aggravated tension among nations, poverty reduction and proper management of natural resources have become crucial in terms of conflict prevention and human security.

From a regional point of view, the Asia-Pacific region consists of half of the world’s population and East Asia in particular has made remarkable economic growth. This growth has increased environmental burden – including greenhouse gas (GHG) emissions, deforestation, water pollution, air pollution, and waste material disposal. It has also caused regional environmental problems, such as acid rain, yellow sand, and ocean pollution. Moreover, just as in other developing regions, this region suffers from environmental destruction originating from poverty. Consequently, environmental conservation in the Asia-Pacific region – particularly East Asia – has become an issue of global importance.

Japan’s ODA Charter was revised in 2003 based on the trends and new developments in the international community described above, and in light of fiscal restraints and strict expectations of the public on every level regarding the role of the ODA. The revised ODA Charter puts priority on Asia, and identifies poverty reduction, sustainable growth, addressing global issues, and

peace-building, as priority issues.

Although international environmental cooperation with ODA is still important to address global environmental problems and promote close interdependent relationships in the global economy and community, international environmental cooperation using funds other than ODA has also steadily increased. Corporate activities for global environmental conservation have also increased through businesses and establishment of funds. International environmental cooperation has been accomplished in many ways: not only by governments and government-affiliated institutions, but by a diversity of entities including local governments, environmental NGOs and NPOs³, corporations working directly with local governments, and through international organizations and local NGOs and NPOs.

As frameworks for cooperation, it has become necessary to build strategic and more effective cooperative relationships according to the characteristics of problem, not only by government-to-government bilateral cooperation but also by strategically focused cooperative relationships as networks within regions or sub-regions. Moreover, Japan is expected to take the lead in Asia, while international partnerships for environmental cooperation are required.

In light of the global and domestic trends described above, Japan is being urged to review its approach to international environmental cooperation, and to cooperate more strategically, effectively, and comprehensively. Additionally, the role of government needs to be reevaluated - particularly the role of the Ministry of the Environment, because multi-country, regional and sub-regional cooperation and multi-organizational international environmental cooperation have been beyond the existing scope of Japan's ODA.

Accordingly, in November 2004, the Minister of the Environment held consultations with the Central Environmental Council on the shape of future international environmental cooperation. The Council responded by

³ NGOs and NPOs are non-governmental organizations, which refers to organizations that provide non-profit activities carried out by citizens, including volunteer work, as independent social action programs.

establishing an International Environmental Cooperation Technical Committee under the Council's Global Environmental Committee. Since December 2004, the Technical Committee has thoroughly discussed Japan's strategy for moving international environmental cooperation forward. This report summarizes discussions held in the Environmental Committee based on the Technical Committee's report. The report first defines the concept, goal, and objectives, and basic policies of international environmental cooperation (Chapter I), and then discusses the current state of international environmental cooperation and related issues (Chapter II). It also proposes four future directions of international environmental cooperation: "Strategic Involvement in Creating a Global Framework"; "Japan's Initiatives for Creating Regional Frameworks for Environmental Cooperation"; "International Environmental Cooperation Provided by Diverse Organizations in Japan"; and "Strengthen the Implementation of the Framework of International Environmental Cooperation" (Chapter III).

I. Concept and Basic Policies of International Environmental Cooperation

1. Concept, Goal and Key Objectives

1-1 Concept

(Creating partnerships for global environmental conservation and sustainable development)

The earth belongs to all countries and peoples but the capacity of environment is limited. A common issue for all humankind is conserving this limited global environment so that all the people on earth can enjoy a healthy and culturally active life and to achieve sustainable development. The global environment is in effect a global public good, and its conservation has become a critical factor for resolving other common issues - building and maintaining peace, reducing poverty, maintaining and improving health. Since our economies and societies are globally managed through close, interdependent relationships, every country must conserve the global environment and achieve sustainable development under international partnership, and through these efforts contribute to solving other common problems for all human beings.

This is an issue that every country must address together - developed and developing country alike. Every country must first address this issue on their own, and then promote international environmental cooperation aimed at creating partnerships for global environmental conservation and sustainable development. "Creating partnerships" means that each country first addresses this issue by planning and implementing its own policies and then act to achieve this concept in cooperation with other countries.

1-2 Goal

(Improving environmental management mechanisms for global environmental conservation and sustainable development)

International environmental cooperation is obviously intended to conserve environment as a platform for survival of human-beings. It is, therefore, crucial that all the countries who share its environment and their various entities

should create and strengthen mechanisms for environmental management.

Sustainable development including achievement of MDGs is important for developing countries. Development depends on a healthy environment, and sustainable development requires conservation of local environment, including air, water, and soil. Satisfying basic needs - including eliminating hunger, providing primary education, and improving health - are also crucial to sustainable development. Local environmental conservation is a requirement for making progress in these areas. Furthermore, developing countries will need to address not only their local environmental conservation, but also global environmental problems including global warming and depletion of the ozone layer.

Based on the above viewpoints, "improving environmental management mechanisms for global environmental conservation and sustainable development" is set as the goal to be achieved over the next ten years.

In this report, "environmental management mechanisms" means the process of gathering and analyzing information and data on environmental conditions, understanding what activities will result in environmental problems and proposing measures to solve them, and formulating and implementing the necessary mechanisms and measures. In addition, it is also important to monitor the implementation of environmental measures and feed back the conclusions of such monitoring to planning and implementing follow-up measures. This requires understanding environmental risks and making policy decisions that minimize the risks in order to prevent environmental problems from occurring. "Improving environmental management mechanisms" means improving ability to gather and analyze such information and data, creating necessary mechanisms, and implementing effective environmental measures and environmental risk management.

1-3 Key Objectives

(1) Strategic and active involvement in international efforts

Although Japan's postwar economic growth has caused serious pollution problems, it has acquired substantial experience and expertise and has refined

its technological capabilities by dealing with these problems. By promoting energy conservation in response to the two oil crises and the yen's rapid appreciation, Japan created the world's most energy efficient society. By addressing the increasing amount of waste generated through economic growth, Japan has worked to build a sound material-cycle society by reducing garbage, repeatedly using valuable items, and recycling discarded waste. Given the country's past experience and leading political and economic position, Japan needs to actively contribute to global environmental conservation and sustainable development.

Japan should be actively involved in building and strengthening mechanisms for global and regional environmental conservation, focusing on the areas with high environmental needs and accumulated expertise of Japan, including global warming and the 3Rs (waste reduction, reuse and recycling). Furthermore, it should also emphasize collaborative mechanisms of various organizations including the government, local governments, private-sector firms and scientific research institutions, NGOs and NPOs and local communities, since this collaboration has contributed to Japan's efforts to overcome pollution and build a highly energy-efficient and sound material-cycle society.

(2) Improvement of environmental management mechanisms in East Asia

Japan should achieve the goal, focusing especially on East Asia⁴ which consists of Northeast Asia and Southeast Asia, and should play leading role by placing priority on improving environmental management mechanisms in East Asia from the standpoint of the anticipated effects of environmental conservation, the social, economic and geographic relationships with Japan, and mutual and supplementary international environmental cooperation from developed countries in Europe and North America.

⁴ For this report, East Asia consists of Japan, China, South Korea, Mongolia, and the ASEAN nations (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam). Depending on the efforts discussed, areas such as the Russian Far East are also included in the cooperation framework. Furthermore, from the standpoint of promoting efforts by the entire East Asia region, when necessary North Korean participation should be considered after considering factors such as the nature of the participation framework, the effort and its content, and political circumstances.

(Reason for placing priority on East Asia)

East Asia consists of roughly one-third of the world's population, and its vigorous economic activities produce approximately 20% of the world's total GDP. Its economic growth is expected to continue and generate even greater energy and resource demands. Along with this growth, the regional environmental load – which today already accounts for about 20% of the entire world's carbon-dioxide emissions – will increase. The anticipated continued economic growth of the region will have serious repercussions on the global environment if appropriate environmental conservation measures are not adopted to combat GHG emissions, heavy resource consumption, and generation of large amount of waste. Furthermore, every country in the region is in grave danger of suffering even more serious pollution, urban environmental problems, and destruction of the natural environment.

Moreover, the countries of East Asia including Japan have a close, inseparable economic relationship with one another through the market mechanism. This means that every country affects the environment in East Asia through its economic activities, and at the same time that it is affected by the region's deteriorating environment.

(Creating a framework for environmental cooperation in East Asia)

Japan has implemented environmental cooperation with other East Asian countries and has held environmental policy dialogues with other nations in Northeast Asia. Improving environmental management mechanisms in the East Asia region should be based on these past efforts.

East Asia consists of countries with various stages of development. Japan has provided ODA as grant aid, loan aid and technical cooperation, separately or in combination, according to the level of economic development in the recipient country. But in the future the role of each type of ODA is expected to change according to a country's economic growth. While ODA continues to be indispensable for some countries to meet basic demands including poverty reduction and to build social and economic infrastructure, some countries are expected to become ineligible for Japan's ODA grants. In fact, South Korea, Singapore, and Brunei are already no longer eligible for ODA. In these countries, private sectors have played larger roles in the economy and society. Considering

future international environmental cooperation with these countries, the central issue will probably be how to make the overall society centered on private sectors environmentally sustainable.

Given these circumstances and outlook, East Asia requires a regional environmental cooperation framework. This framework must consist of partnerships with related governments as well as businesses and various other organizations, and it needs to adequately take into account the economic and social changes expected to occur in these countries over the next ten years. In other words, Japan needs to focus on creating mechanisms that enable each country in East Asia to fulfill its role in the effort to achieve global environmental conservation and sustainable development.

(3) Make East Asia the starting point for promoting efforts in the Asia-Pacific region and around the world

The world, the Asia-Pacific region, and the East Asia region are sequentially linked and form a seamless structure of relationships and mutual influences. Activity in East Asia is linked to the Asia-Pacific region and the rest of the world, and global activity in turn affects East Asia. Because efforts in the region may strengthen global efforts, Japan's initiatives in the "East Asia region" will function as a catalyst for promoting efforts in the Asia-Pacific region and around the world.

In fact, in the Asia-Pacific areas other than East Asia, ties with Japan are nearly as strong as those with the East Asia. For the environmental conservation sector as well, policy dialogues and various cooperation activities such as the Environment Congress for Asia and the Pacific (ECO-ASIA) and the Economic and Social Commission for Asia and the Pacific (ESCAP) Environmental Ministers Meeting are being promoted. As seen in the field of global environmental research, Europe focuses on Africa, North America focuses on South America and Japan places priority on the Asia-Pacific region from a regional perspective.

Japan needs to commit itself to developing the cooperation in these areas into

addressing the global issues for environmental conservation which all countries cooperate for. Given Japan's position in the international community, this will also meet the expectations each country has towards Japan.

Japan also should take maximum advantage of its experience to build cooperation in the international community and promote strategically focused and active collaborations in other areas, given that some environmental problems demand international cooperation that reach beyond the Asia-Pacific and the East Asia regions and efforts to solve these problems have been energetically pursued by diverse organizations, including local governments, NGOs and NPOs, corporations and science research institutions.

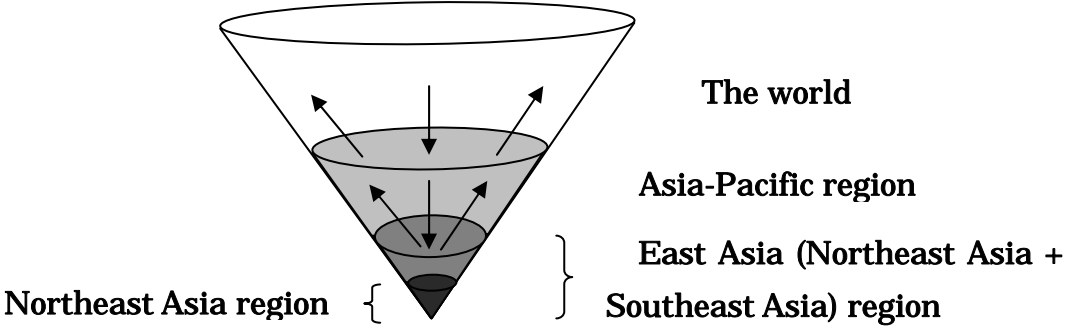


Figure Image of target regions

2. Basic Policies

2-1 Basic Policies for Future International Environmental Cooperation

(1) Active involvement in creating a global framework

Creating a global framework is vitally important for cooperative specific actions for global environmental conservation and sustainable development, which Japan must be actively involved in. Japan's active participation should be sought in the areas with experience and expertise, especially in global warming and the 3Rs for example. It will be important not only to negotiate a framework among several countries, but also to work constructively through bilateral policy dialogues with developed countries in other regions such as North America and the EU and with influential developing countries.

(2) Cooperation Based on Partnerships with East Asian Countries

(Partnerships based on creating of equal and cooperative relationships)

To achieve the goal in the East Asia region, each country in the region will need to view the regional environmental problems as their own concern and take responsibility for solving their problems and promoting cooperation with other countries as an equal partner. Using the various policy dialogue forums which have continuously promoted in recent years, Japan must create a shared awareness that partnership-based cooperation will benefit every country in the region, as well as the entire world.

In addition, it will be important for Japan to deepen its support and cooperation while considering the capacities of East Asian countries and appreciating the particular circumstances and positions of them.

Moreover, because other developed countries and international organizations are also actively promoting international environmental cooperation in East Asia, Japan must engage in sufficient dialogue and seek to collaborate with these concerned parties.

(Demonstrating Japan's leadership)

East Asia must conserve the global environment and achieve sustainable development in the anticipated future economic growth. This requires pursuing environmental conservation in every social and economic activity. Japanese

citizens have experienced widespread health injuries from environmental pollution, energy shortages from sharp jumps in oil prices, and waste management difficulties resulting from an explosive increase in the amount of waste produced. However, through anti-pollution measures, efforts to conserve energy, steps aimed at forming a sound material-cycle society that includes the 3Rs, Japan continues to move forward to integrate environment and economy, and to achieve a sustainable society. When pursuing environmental management in East Asia, Japan will need to vigorously share this experience and expertise with every country in the region, and also encourage every country to develop and implement measures and programs that fit their own circumstances. Moreover, Japan is expected to demonstrate its leadership to help East Asian countries proactively address the global issues like global warming.

(3) Promoting Efforts by Various Organizations and Strengthening Cooperation among them

(Cooperating with various organizations to achieve the goal)

The goal cannot be achieved by merely drafting and implementing laws and systems. After gaining the support of every segment of the public, it will be critical that the various organizations involved such as local governments, businesses, and NGOs and NPOs fulfill their responsibilities. Future international environmental cooperation must stress promoting collaboration and building partnerships with the various organizations among the countries involved.

Moreover, according to the circumstances of its counterparts, especially their environmental management capability and the size of the private sector's role in economic activity, Japan will need to appropriately combine ODA and other official support with other efforts, including introducing and disseminating environmental technology through corporate activities and programs by NGOs, NPOs and other groups. For semi-developed countries especially, technology transfers by private sectors to partner countries through the market are expected to play a major role in achieving sustainable development.

It will be especially important to promote environmental management across the entire regional community. Because increasing public awareness will be

indispensable for this purpose, it will be necessary to disclose environmental information and to promote community participation in the planning process of development projects.

(4) Creating the Necessary Domestic Organizations

(Building a base for broad cooperation that reaches beyond the ODA framework)

While strong domestic organizations have been considered important for promoting Japan's international environmental cooperation, it seems to be focused on enhancing ODA-related organizations. As the economies of East Asian countries have continuously become stronger, and the role of the private sector has grown increasingly bigger than that of the public sector, however, the field of international environmental cooperation has greatly expanded as a result. So considering that the private sector should play an extensive role in achieving sustainable development, emphasis must be placed on creating a broader base for cooperation that extends beyond the ODA framework to include training and utilizing human resources, providing information and capital, and creating opportunities for public participation at every level. Furthermore, in addition to close collaboration with related organizations, it will also be necessary to strengthen the institutional structure of the Ministry of the Environment, local governments, businesses, and NGOs and NPOs.

(5) Cooperation that Takes Priority Areas into Account

(Priority areas in planning and other aspects of sustainable development)

The Millennium Declaration adopted at the UN Millennium Summit in September 2000 established MDGs as a common framework to be achieved by 2015. Goal 7 established targets for ensuring environmental sustainability, and includes the specific environmental targets of access to safe drinking water, forest conservation, conservation of biodiversity, reducing GHGs and ozone depleting substances, and reducing energy consumption.

In the Phnom Penh Platform adopted at the High-level Regional Meeting for the WSSD in 2001, the priority areas noted were protecting and managing fresh water resources, cleaner production and sustainable energy, air pollution and climate change, land management and biodiversity conservation, and capacity

building. Implementing the Kitakyushu Initiative⁵ for urban environmental management was also reaffirmed.

At the WSSD in September 2002, water, energy (including renewable energy), health (reducing waste and eliminating the use of chemicals), agriculture, and biodiversity were advocated as priority areas for promoting sustainable development.

The report of the Asia-Pacific Forum for Environment and Development (APFED) (2005), which discussed sustainable development strategies in the Asia-Pacific region with the participation of high-level specialists, proposed recommendations on the future course of efforts for the priority areas of fresh water resources, marine and coastal resources, energy and clean air, land use management and chemical substances.

(Promoting cooperation based on international priority areas and Japan's comparative advantage)

Reviewing this series of initiatives indicates that international priorities focus especially on the areas such as fresh water resources, energy and climate change, land management and biodiversity, urban environment, controlling chemical substances, and education and capacity building. Therefore, Japan needs to reflect these priorities to its international environmental cooperation over the next ten years.

Furthermore, by solving the problems Japan has confronted during the process of its economic development and urbanization, it has had considerable experience, as well as knowledge and expertise regarding anti-pollution measures, environmental monitoring technology, and environmental education and capacity development. Japan should make maximum use of the comparative advantage it possesses in these areas.

(International environmental cooperation for poverty reduction, a new framework of trade, and dispute prevention)

It has also been observed that environmental problems are intimately linked

⁵ The mechanism adopted at the 4th ESCAP Ministerial Conference on Environment and Development in Asia and the Pacific (2000). It establishes the objective of achieving tangible improvements in the urban environment of major cities in the Asia and Pacific region, and includes analyzing successful cases and implementing pilot programs.

to the international community's objectives of reducing poverty, supporting new trade organizations, and preventing disputes. Deteriorating natural resources directly threatens the survival of people who depend upon natural resources for a part of their livelihood and exacerbates the poverty. Trade has not only the positive aspect of promoting the international diffusion of environmentally sustainable technology, services, and goods, but also the negative aspect of worsening environmental problems. Therefore, when promoting bi- or multilateral trade negotiations, it is important to balance trade with environmental conservation. Because improper natural resource management may also worsen disputes among nations, appropriate management is crucial to prevent such disputes. On the other hand, cooperative natural resource management that overcomes ideological differences and fosters a sense of solidarity might solve disputes. When promoting international environmental cooperation, it is necessary to remember both that environmental problems are closely linked to these problems and the cooperation can play a key role in addressing them.

2-2 Matters That Should be Considered When Promoting International Environmental Cooperation

(Emphasizing results and ensuring efficiency, ensuring fairness, support for diversity, and popular participation)

When promoting international environmental cooperation, the following points should be taken into account:

(1) For each international environmental cooperation effort, ensure the efficient use of invested human and financial capital and emphasize results; (2) ensure fairness, contradicting social injustice such as granting favorable treatment to specific concerned parties and violating basic human rights; (3) support cultural diversity in each country and region; and (4) encourage extensive participation by every sector of the public by providing adequate information and creating opportunities to exchange opinions and make proposals. Furthermore, efforts should be taken to ensure transparency and form a consensus based on dialogues with all concerned parties. In addition, when evaluating cooperation, the environmental conservation results and the efficiency of the resources invested for that purpose should be thoroughly

assessed, preferably by establishing evaluation indicators, gathering related information and data, and performing the evaluation in cooperation with the related country. On such occasions, it is noted that some efforts, such as capacity development of experts for international environmental cooperation, require a certain period of time to provide results, and that evaluations of environmental conservation activities involve efforts that may be difficult to measure quantitatively.

Although such considerations are requested especially for ODA and other public cooperation, they can be applied to other forms of cooperation as well.

II. Current State and Issues of International Environmental Cooperation

1. Current State and Issues of Creation of an International Framework

(1) Importance of a worldwide framework

The countries of the world must continue their cooperation and work based on the principle of global environmental conservation and sustainable development. To this end, efforts have been put toward an international framework (a means for decisions and discussions for undertaking specific actions) that prescribes the responsibilities and efforts of each country to achieve this principle. They have borne fruit in the form of 502 international environmental agreements (including 323 agreements at the regional level)⁶, the WSSD, and various action plans and initiatives. As environmental problems proliferate and become more serious, efforts to create such a framework can be expected to be intensified. Among the priority issues for international planning and other sustainable development measures, those for which a global framework has not yet been established – for example, conservation and sustainable management of forests - demand immediate action.

(2) Measures against global warming based on the Framework Convention on Climate Change

Japan recognizes the importance of measures to address global warming, and has been actively involved in putting the UNFCCC and the Kyoto Protocol into effect. The Kyoto Protocol finally went into effect in February 2005, marking a new stage in international efforts to address climate change.

For the Clean Development Mechanism (CDM)⁷ and Joint Implementation

⁶ UNEP. (2001). "Multilateral Environmental Agreements: A Summary." UNEP/IGM/1/INF/1 (UNEP: New York)

⁷ The system by which developed countries (investor countries) implement projects through financial and technical assistance or other means to lower GHG emissions in developing countries (host countries). When the projects achieve additional reductions in emissions compared with the level if the projects had not implemented, the CDM uses the necessary procedures to apply the credits earned toward reduction objectives in developed countries.

(JI)⁸ by which international cooperation addresses global warming under the Kyoto Protocol, international study of the technical rules continues. But the contribution of Japanese specialists has been limited up to this point. In the future, developing countries must assume responsibility for measures against global warming, and in the Conference of the Parties for the Framework Convention, it will be necessary to conduct studies concerning the future framework for measures on a global scale that includes developing countries. Furthermore, in regions such as small island states and countries with low-lying coastal areas, internationally supported projects to adapt the adverse effects from climate change on societies, economies, and the natural environment are still just getting under way.

(3) Trade and Environment

At the current WTO Round launched at the Fourth WTO Ministerial Conference (Doha) in November 2001, trade and environment became a negotiation issue. Topics discussed included trade restriction in multilateral environmental agreements, one-way trade restriction to address environmental problems outside a home country, and environmental labels as a non-tariff barrier.

Following the negotiations at the Fifth WTO Ministerial Conference held in Cancun in September 2003, which failed to reach a mutual agreement, each country continued its effort to restart the negotiations. As a result, a consensus called the framework agreements as the basis for future negotiations, was reached by the WTO General Council in July 2004. Following this agreement, negotiations are now being conducted prior to the Sixth WTO Ministerial Conference in Hong Kong, to be held in December 2005. In addition, through the activities aiming at an Economic Partnership Agreement (EPA) between Japan and several countries, cooperation in the environmental sector is also being discussed.

⁸ A system by which developed countries can implement GHG reduction projects in other developed countries and transfer the GHG reduction portion. Russia, Eastern and Central Europe and other regions having substantial room for improvement in energy efficiency are the focus of this system.

2. Current State and Issues of Environmental Management in the Asia-Pacific Region

2-1 Bilateral and Regional Policy Dialogues

(1) Bilateral policy dialogues

Japan has established environmental protection cooperation agreements with both China and South Korea⁹, and regularly conducts policy dialogues in which environmental policymakers discuss the full range of environmental problems that concern all three countries. It has been pointed out that so far they have been mere exchanges of policy information; they have reached an understanding on neither international environmental cooperation needs nor the direction of cooperation.

Some bilateral policy dialogues have been carried out on the specific problems.

For protecting migratory birds, Japan concluded migratory bird protection treaties and agreements with China, the United States, Australia and Russia. Japan implements joint surveys with each country concerning migratory bird species subject to the agreements, and exchanges information and opinions through periodic conferences and other means.

With regard to climate change, Japan and the U.S. have High-level Consultations on Climate Change, which holds discussions with the participation of the relevant ministries of both countries regarding overall climate change policy, policy measures utilizing market mechanisms, cooperation on science and technology, and participation of developing countries. Japan also conducts policy dialogues between relevant Chinese ministries on climate change problems¹⁰.

Policy dialogues concerning ODA are being held between Japan and the major granted countries. Cooperation concerning the environmental sector is a topic, and discussions would be expected about the medium- to long-term orientation

⁹ Japan has also concluded environmental protection cooperation agreements with the United States, Russia, and Germany.

¹⁰ Japan and China implemented the China-Japan Climate Change Dialogue in March 2004 and April 2005. Delegations from the relevant ministries of both countries attended the dialogues, and exchanged frank opinions about developing measures for controlling global warming in China and Japan, the role of technology in addressing global warming issues, and future efforts to address global warming.

of cooperation based on a general evaluation of the environmental management capacities of these countries. EPA negotiations have taken up the cooperation in the environmental sector.

(2) Policy dialogues in the Asia-Pacific region

In the Asia-Pacific region, policy dialogues have been frequently conducted at the sub-region level, including the Tripartite Environmental Ministers Meeting (TEMM) among Japan, China, and South Korea, the ASEAN Environmental Ministers Meeting, and the Environmental Ministers Meeting of the South Pacific Regional Environment Programme (SPREP). Specific cooperation partnerships have been formed based on these policy dialogues. Furthermore, more intensive policy dialogues are underway at other forums. They include the Ministerial Conference on Environment and Development in Asia and the Pacific (ESCAP Environmental Ministers Meeting) held once every 5 years, and the ASEAN+3 Environmental Ministers Meeting held at the ASEAN Environmental Ministers Meeting and attended by the Environment Ministers of Japan, China, and South Korea.

ECO-ASIA, which has been held nearly every year since 1991 under an initiative taken by Japan, plays an important role in policy dialogues in the region as a forum for the informal exchange of opinions among Asia-Pacific Environment Ministers. But given the increase in forums in recent years where they can make official exchanges of opinion, it has been observed that it is crucial that ECO-ASIA makes a shift in direction.

In addition, the Asia-Pacific Forum for Environment and Development (APFED) was established in 2001, in which dialogue among various organizations can move forward beyond the interests of their own countries. Its prominent characteristics is that it holds sessions at various locations around the Asia-Pacific region outside Japan and listens to local viewpoints. These forums have prepared and released over 100 declarations, and how to achieve these programs will be an issue going forward.

There are also sector oriented policy dialogues in progress. In the Asia-Pacific region, for example, the World Water Forum and the Asia Regional Forum on Environmentally Sustainable Transport (Regional EST Forum in Asia) are underway. One issue, however, is how to incorporate these discussions as part of

improvements to the regional mechanisms of environmental protection.

Finally, progress in the Asia-Pacific region of the “3R Initiative” - advocated by Prime Minister Koizumi for creating a sound material-cycle society and agreed upon at the G8 Sea Island Summit in June 2004 - and the future progress of the Japan led Acid Deposition Monitoring Network in East Asia (EANET) are being examined.

2-2 Information and Research Networks and Environmental Management Capabilities

(1) Information networks

(Monitoring networks)

In the past, Japan has cooperated with countries involved in constructing EANET and other monitoring networks for gathering information and data concerning regional environmental problems in the Asia-Pacific region.

Currently, 12 countries participate in EANET monitoring, training, and other activities using a common procedure. In coming years, the issue will be the expansion and improvement of the framework for topics, such as items to be monitored, regions covered, data reliability, uses of monitoring results, collaboration among monitoring networks, and the development of a regional agreement based on the current efforts.

On the other hand, the importance of development of a monitoring network in the northeast Asia region for yellow sand has already been internationally recognized in forums such as TEMM and the 2005 ESCAP Environmental Ministers Meeting. Japan, China, South Korea, and Mongolia are constructing the monitoring network, with support from international institutions including the Asia Development Bank (ADB), Global Environment Facility (GEF), and United Nations Environment Programme (UNEP).

Japan has taken a leading role in formulating an ocean environment monitoring programme under UNEP’s North-west Pacific Action Plan (NOWPAP).

In addition, efforts to monitor land-use and land-cover change (LUCC) are being made at the research level. Based on the UNCCD, and with Japan’s support, the program, “desertification monitoring and evaluation,” has been designated as a separate program theme for the Asian region. Nonetheless, the

countries involved have yet to create monitoring networks for these programs.

(Environmental information and data)

Regarding the environmental information and data, white papers and other reports on the state of the environment in the Asia-Pacific region have been prepared by international organizations such as UNEP, ESCAP, and the ADB with the ongoing cooperation of research laboratories such as the Institute for Global Environmental Strategies (IGES). Based on the Water Environment Partnership in Asia (WEPA), work is moving forward on creating a database for water environment conservation.

Moreover, for information networks, and under the initiative of the Ministry of the Environment, the Asia Pacific Network on Climate Change (AP-net) has worked as an information hub on global warming since 1998. Other efforts provide researcher training and organization capacity enhancement aimed at creating a biodiversity information network, and are among several efforts underway in the biodiversity conservation sector in which Japan has taken a leading role.

Despite these examples of actual efforts, much work is still needed on exchanging environment-related information among the countries of the Asia-Pacific region and consolidating statistical information and information sharing in the region. In addition, the problem is that existing information networks work independently of each other and cannot mutually exchange and compare data easily.

(2) Joint research

(Progress of joint research progress and its feedback to policy making)

Japan has cooperated with other countries in the region to establish The Asia-Pacific Network for Global Change Research (APN) (1996), Japan has also supported researcher and research institute networks on global change, as well as the establishment of international joint research related to global environment and global change by Asia-Pacific region research institutes and other organizations based on each APN Strategic Plan. Japan established IGES (1997) to implement strategic environmental research with a priority on the Asia-Pacific region. IGES has been implementing joint research in developed

and developing countries since April 1998. In addition, Japan has established the Eco-Frontier Fellowship, which invites overseas researchers to Japan and promotes joint research at university and national research institutes.

Besides these efforts, Asian research laboratories such as The Energy and Resources Institute (India), the Korea Energy Economics Institute (South Korea), and the National Institute for Environmental Studies (Japan) are pursuing joint research on global warming and other issues.

These various schemes provide support for joint research and help to create a network base for related organizations and researchers. Further enhancement of the base for future joint research aimed at solving environmental issues in the Asia-Pacific region is required. At the same time, it has been observed that coordinating joint research and policy making in each country needs improvement.

(Research networks, joint research funding, and publishing results)

Despite collaboration and exchange among researchers at research institutes, universities, and other organizations, participation by Japanese researchers is limited in international joint research on the environment in the Asia-Pacific region. Other than research initiated by international organizations, participation is limited to the frameworks of specific universities and research laboratories. One view is that while joint research needs have grown as researchers increasingly collaborate, funding problems hinder the progress of joint research. In addition, researcher information networks contributing to promoting collaboration among researchers, and forums for publication of joint research results, are extremely limited at present.

(3) Environmental management capability of each country in the region

(Current status of environmental management capability of each country in the region)

In many East Asian countries, general societal awareness of environmental conservation is still somewhat inadequate, and the human resources, infrastructure, and other resources of governments and other institutions are insufficient. On the other hand, Korea and some semi-developed ASEAN countries programs are increasing the support for capacity building of other

nations in the region. By supporting “South-South cooperation,” the cooperation activities among semi-developed countries and developing countries, Japan is also expected to raise awareness and contribute to a stronger capability for environmental conservation over the entire region.

(Capacity of local governments and local community for environmental management)

As decentralization is a growing trend in the Asia-Pacific region, improvement of the capacity of local governments is an important issue, and the Japanese government assists it as part of technical support.

Moreover, despite the indispensable need to improve the capacity for environmental management (including knowledge of natural resources management, technology, etc.) not only for local environmental authorities but for local communities as a whole, the heads of government institutions other than environment-related ministries and agencies as well as the general public lack sufficient awareness of the importance of environmental conservation. Environmental education and natural resource (forest) management at the local and community level is making progress due to the support developing country governments and NGOs receive from international organizations and bilateral assistance organizations, but expanding and strengthening these activities remains an issue.

(Capacity of business for environmental management)

Lots of multinational companies and businesses in foreign markets establish environmental management systems and adopt proactive environmental measures in developing countries, in order to comply with the strict requirements of their head offices and demands of their customers.

In contrast, businesses that supply products only to their domestic market tend not to be concerned about environmental management and have weak environmental controls. They often do not take the required measures even though they recognize the responsibility to comply with environmental regulations. Moreover, the domestic market is small for environmental services such as monitoring and analysis of air and water quality, industrial waste disposal, and consultation for environmental measures. Businesses have inadequate equipment and services for proper environmental management

because of weak environmental regulation enforcement.

(Japan's cooperation results and the Koizumi Initiative)

Japan is cooperating to improve the capacity of government staff for environmental management in developing countries through technical cooperation projects and group training of Japan International Cooperation Agency (JICA). In addition, EANET implements capacity development activities in developing countries related to monitoring acid rain substances through dispatch of specialists and other efforts.

In addition to providing environment-related capacity development for 5,000 individuals over five years from FY2002, the Koizumi Initiative (Concrete Actions of Japanese Government to be taken for Sustainable Development – Towards Global Sharing) announced at the Johannesburg Summit advocated a United Nations Decade of Education for Sustainable Development (UNDESD) as a way to improve the capacity of developing countries to address environmental problems.

However, regarding the implementation of these initiatives, it has not been adequately carried out to develop the programs and the environmental management mechanisms and to establish institutions in the Asia-Pacific and East Asia regions.

2-3 International Environmental Cooperation Provided by ODA and Other Government Agencies

For 50 years, Japan has contributed greatly to the economic and social development of many developing countries through its ODA.¹¹ –Economies in East Asia, the principal target region of Japan's ODA, especially have grown tremendously and real progress has been made toward reducing poverty. Many have pointed to Japan's ODA as a contributing factor in this progress. Environment is one of the most important challenges of ODA, where cooperation has been actively promoted based on the Environmental Conservation Initiative for Sustainable Development (EcoISD). In the future, it is believed that ODA will play more limited role than in the past in those East

¹¹ There are several types of ODA, including loan aid, grant aid, and technical cooperation. As of 2003, Japan has extended ODA to a total of 185 countries and regions, with a total value exceeding \$221 billion.

Asian countries where further economic growth is expected. Consequently, it will be increasingly necessary to strengthen environmental management by applying environmental ODA selectively and with a strategic focus on the East Asia region.

At the same time, for Least Developed Countries (LDCs) both in East Asia and outside the region, it is very important to achieve sustainable development and extend assistance effectively and strategically based on an accurate assessment of the needs for global environmental conservation.

(Diversifying global issues and ODA)

Issues requiring international cooperation belong not only to economic and social development, but also to much larger field including peace building and conflict prevention, which ODA as a form of international cooperation should deal with. From a global perspective, implementation of environmental ODA requires adequately meeting the needs of MDGs and other commitments. Considering expanding roles of private sectors in economies, it should be noted that ODA is expected to play a role in promoting and generating synergy of the international environmental cooperation provided by various organizations, as well as meet these basic needs.

(Track record of ODA for the environment and cooperation for policymaking)

In the past ten years, Japan has steadily strengthened its ODA for the environmental issues¹². It has achieved substantial results including the establishment of “Environment Center¹³” and technical assistance to improve the monitoring capability of developing countries, development surveys to make master plans of waste, air and water quality control, and the financial assistance to procure materiel and equipment and to build facilities.

Nonetheless, it has been observed that less emphasis is placed on capacity building, including support for planning, implementing, and evaluating policy, compared to support for technical transfers and infrastructure building in

¹² During the decade from 1994 to 2003, cumulatively, the environmental field accounted for 29.0% of Japan’s ODA as a whole.

¹³ This is the collective term for the centers Japan has established as bases for environmental cooperation. At these centers, Japan develops human resources and provides equipment and materials, thereby building up skills for coping with environmental issues in developing countries. At present, these centers are set up in six places, including Thailand and Indonesia.

specific environmental fields. Also, in some cases equipment and infrastructure for environmental conservation have been provided but not properly maintained, which is sometimes caused by budget shortfalls in the recipient country or lack of ownership. Moreover, it has been observed that there is a tendency to ignore the viewpoints that support measures should be acceptable in the developing countries.

(Mechanism for implementing environmental ODA)

Thus far ODA has been carried out according to the requests from developing countries. Regarding the environmental issues, however, ODA has been implemented on a project basis, without full consideration of the scenarios for environmental management mechanisms and capacity development. Consequently, major donor countries are gradually coming to implement their ODA by preparing aid programs on a country-by-country basis. On the other hand, the fact remains that the environment is still a low priority in the request from developing countries.

In the future, when preparing ODA plans aimed at improving the mechanism for environmental management in the Asia-Pacific region, it is expected that these plans incorporate a more strategic viewpoint. Also, since the environmental management framework and capacity of governments and society cannot be improved without linkage to other sectors, development scenarios should be established for each country and systematic support should be provided based on them.

While there is a strong need for subregional environmental projects through ODA in several countries of the Asia Pacific region, a mechanism for formulating and implementing such a project has yet to be created.

(Environmentally-friendly ODA, etc.)

Japan Bank for International Cooperation (JBIC), JICA, and the Ministry of Foreign Affairs have set new guidelines for environmentally-friendly ODA, and they now seek their rigorous enforcement. Also, country-specific ODA evaluation that includes environmental issues is currently underway.¹⁴

¹⁴ In FY2004, evaluation including environmental issues was conducted in Uzbekistan, Khuzestan, Ethiopia, Bangladesh, and Laos.

(International cooperation for conflict prevention and recovery response)

According to one report¹⁵, the number of conflicts in the developing world has increased since 1997, about 70 percent of which are over natural resources management issues. The issue of how to manage natural resources has become important from the point of view of conflict prevention. Post-conflict reconstruction of infrastructure and organization is also required.

2-4 Regional Framework for Environmental Management

(1) Development of Regional and Subregional Plans

(Shared and comprehensive plan in the Asia-Pacific region)

Several frameworks have been adopted in the region: The “Regional Implementation Plan for Sustainable Development 2006-2010” adopted at the 2005 ESCAP Ministerial Conference on the Environment and Development in Asia and the Pacific, the “Phnom Penh Regional Platform on Sustainable Development for Asia and the Pacific” adopted at the 2001 WSSD Preparatory Meeting. However, since the countries have not yet agreed on the policy and financial aspects of them, some may question their effectiveness.

(Shared and comprehensive plan in the subregion)

As the plans of subregion, the Regional Environmental Action Plan in Central Asia,¹⁶ the South Asia Co-operative Environmental Programme,¹⁷ and the ASEAN Environmental Strategic Plan¹⁸ were implemented. In the South Pacific, a review¹⁹ of existing regional environmental strategies is at the final stage. A program is also being implemented in an expanded Mekong region (Cambodia, Laos, Myanmar, Thailand, Vietnam, and Yunnan Province of China) based on a

¹⁵ Commission on Environmental Support Strategy towards Sustainable Development (2002), “Report of the Environmental Support Strategy Commission towards Sustainable Development,”

¹⁶ Governments of Central Asian countries prepared this plan with support from the Asia Development Bank (ADB), the United Nations Environmental Plan (UNEP), and the United Nations Development Program (UNDP) in 2003.

¹⁷ South Asia Co-operative Environmental Programme (SACEP) comprised of eight countries in South Asia (Bangladesh, India, Nepal, Sri Lanka, Afghanistan, Bhutan, Maldives, and Pakistan) prepared the plan in 1983, 1992, 1996, and 2000.

¹⁸ ASEAN nations prepared this plan in 2000.

¹⁹ Governments of South Pacific countries conducted the review with support from ESCAP and UNEP.

strategic environmental framework.²⁰ However, North East Asia does not have a shared and comprehensive plan for the environment on the subregional level. There is no support plan for enabling Cambodia, Vietnam, Laos, and Myanmar - countries that joined ASEAN later than other members - to catch up, nor is there any detailed environmental strategy for the Mekong region. In this region, tensions have come to the surface among the countries over the use of vast water resources. They have taken their cases to the Mekong River Commission for arbitration.

(Shared plan by issue)

Regarding the urban environmental management, the 2000 ESCAP Ministerial Conference on the Environment and Development in Asia and the Pacific adopted the “Kitakyushu Initiative for a Green Environment,” which created an inter-city network for environmental management, and measures have been taken to improve the urban environment. The 2005 ESCAP Preparatory Meeting decided to launch a new initiative, the “Seoul Initiative on Green Growth,” as an experiment in balancing economy and the environment in addition to supporting the action plan developed under the Kitakyushu Initiative.

Concerning other issues, “Asia-Pacific Migratory Waterbird Conservation Strategy,” “Action Plan for the Protection, Management and Development of the Marine and Coastal Environment” “Asia Forest Partnership” –were implemented, and EANET has come to establish a midterm action plan which takes a very broad perspective of future activities for dealing with acid rain in the East Asia region.

Meanwhile, no plan targeting the entire region has been established for sustainable management of natural resources and conserving biodiversity. The existing plans of other issues have not enough measures taken to prioritize efforts based on current progress and their results, and to expand and strengthen existing plans.

²⁰ ADB prepared the program in 1998.

(2) Framework for Environmental Management in East Asia

(Environmental management in East Asia)

Japan-ASEAN Tokyo Declaration (December, 2003) put forth an East Asian Community framework, and policy dialogues and preparatory meetings towards establishing an East Asian Community have started. However, global environmental conservation and sustainable development has not been taken up so far as a central issue at these meetings.

There are several regional cooperation frameworks in East Asia, including: ASEAN's comprehensive framework for international environmental cooperation²¹, bilateral environmental agreements with Northeast Asian countries and Japan, the Northeast Asian Conference on Environmental Cooperation (NEAC), the North-East Asian Subregional Programme of Environmental Cooperation (NEASPEC), and TEMM. These frameworks could serve as the base for environmental management of East Asia. However, many of them currently set up in the region often lack adequate mutual coordination and many are also on shaky financial ground. Also, these frameworks²² have been limited to policy dialogues and have yet to yield tangible results.

(Closeness of economic activities in the Asia-Pacific region)

The significant growth of the economy of the Asia-Pacific region and East Asia since the 1990s has already made the close socio-economic mutual dependency even greater among the countries in the region. According to the Japan-ASEAN Plan of Action (December 2003), trade and investment will be deregulated by 2012. It will be necessary in the future to take into consideration the

²¹ The ASEAN Senior Officials on the Environment (ASOEN) is an ASEAN environmental organization and based on the ASEAN Environment Program. Various kinds of projects are being implemented by limiting the scope of cooperation that ASEAN countries will be able to provide and prioritizing issues to be addressed.

²² The EU can be considered a forerunner of a regional framework. With a 25 country membership, the EU is a synthesis of the political and economic dimension. By formulating an environmental action program as a forum where EU environmental policies are given direction, policies are implemented through EU regulations, directives, basic environmental plans of member nations as well as local public organizations' Local Agenda 21. Among agencies and organizations that are involved in environmental management on a regional level are the European Commission Directorate-General that formulates and executes environmental policies, the European Environment Agency, which provides relevant scientific data and evaluations, and the Joint Research Center, which gives scientific advice. The ten new member nations that joined the EU in May 2004 strove to adapt their domestic environment-related regulations to the EU system of law, and thus gained the support of the existing member nations.

environmental perspective when reinforcing comprehensive economic collaboration and financial cooperation in order to secure a fair market system. But it is not yet clear what form of actions should be taken.

(Monitoring systems)

Environmental monitoring provides vital information to understand achievement rates of environmental standards and to evaluate and review the measures to improve them. In order to carry out uniform planning, inspection, and evaluation throughout the region, participating countries should develop a monitoring system according to their role in the region. However, since almost all developing countries still lack the physical and human resources indispensable for achieving such a system, lack of data has been a major problem. Also, systems have not been established to reflect the results of monitoring and analysis into policies.

(Dialogue on the environmental policy level)

In order to ensure the effectiveness of common regional and subregional plans, the countries concerned will be expected to clearly define their roles and work together to develop a mechanism that inspects and evaluates the state of implementation of each country's plan. There are examples of those mechanisms, including the review of implementation of the responsibilities established in the multilateral environmental agreements and of the essential policies, and the OECD environmental review for the member countries. However, in most cases, most of these reviews have been conducted in the developed countries and rarely in the developing countries of the Asia-Pacific region.

3. Present State and Issues in International Environmental Cooperation Provided by Various Entities in Japan

3-1 Cooperation among Entities

In order to achieve global environmental conservation and sustainable development through international environmental cooperation, diverse organizations that include not only the government and government agencies but also local governments, businesses, NGOs and NPOs, and academic organizations, are expected to coordinate and cooperate with recognizing each other's roles, and to utilize each other's strength synergetically. In fact, all these organizations have promoted a wide variety of international environmental cooperation projects. In some cases, cooperation between national governments and local authorities, or between corporations and NGOs or NPOs have contributed the specific activities and the regions. Examples of collaboration between the government and NGOs and NPOs are the regular NGO/NPO – Ministry of Foreign Affairs Periodic Consultative Meeting, the NGO-JICA Consultative Meeting, and the NGO-JBIC Regular Consultative Meeting, where the government and government agencies exchange views. However, there is no forum where all the different types of organizations engaged in international environmental cooperation can gather and share views. Also, information sharing and close contacts are not enough among organizations engaged in similar activities in the same country or region.

3-2 International Environmental Cooperation by Local Governments

(Outline of international environmental cooperation provided by local governments)

In Japan, 41 prefectures, 12 government ordinance designated cities, 6 core cities, and 15 other municipalities (including Tokyo 23 special wards) have international environmental cooperation experience.²³ Their cooperation activities include accepting technical trainees, followed by conducting survey research, holding international conferences and seminars expenses, and dispatching experts abroad. Some examples of networks for environmental

²³ The Overseas Environmental Cooperation Center (2003), "International Environmental Cooperation Information Packet."

cooperation among the local governments of Japan and developing countries are the Kitakyushu Initiative Network, The Regional Network of Local Authorities for the Management of Human Settlements (CITYNET), Conference of East Asian(Pan-Yellow Sea) Cities Environmental Cooperation Network of Asian Cities. The Association of North East Asia Regional Governments (NEAR) has also engaged in activities for environmental protection. Another important organization is ICLEI (International Council for Local Environmental Initiatives) - Local Governments for Sustainability,²⁴ which functions as a network of local governments for environmental protection. It has also raised awareness through its international campaigns and has spoken for local governments at various UN conferences. Moreover, some local governments have taken the lead in founding and operating international organizations for environmental cooperation, such as the International Lake Environment Committee, and the International EMECS Center (International Center for the Environmental Management of Enclosed Coastal Seas). These organizations have a wide range of functions, including environmental protection activities, human resource development, information dissemination, and survey research.

(Issues in international environmental cooperation provided by local governments)

Steps must be taken to develop the environmental management capacity, not only of the central government but also of the local authorities, in the process of improving the mechanism for environmental management in East Asia. Japan's local governments have played a leading role in efforts to combat pollution afflicting their communities, and some of them have acquired considerable experience and knowledge on enforcement of environment-related laws and on formation and implementation of their plans for environmental management. Thus expectations are high on their know-how and expertise that will contribute to significantly improving capacities for environmental management of local governments in East Asian countries. Moreover, Japan's local governments are expected to coordinate the international environmental cooperation provided by a wide variety of regional organizations, including

²⁴ This was established in 1990 on the recommendation of UNEP, the International Union of Local Authorities, and others. Over 460 local public organizations and their federations representing 67 countries from all over the world are members.

citizens, NGOs and NPOs, corporations, and universities, so that local societies of developing countries can develop the capacities for overall environmental management as Japan's societies has established,.

Unfortunately, the international environmental cooperation of local authorities is mainly limited to accepting technical trainees. Only a few of them have developed direct ties with local governments of developing countries. Consequently, the local governments capable of meeting the expectations are actually quite limited. Moreover, they exchange very little information on development of international environmental cooperation.

The Kitakyushu Initiative Network was established to address these problems, which was launched as a forum for strengthening inter-city cooperation, and consists of participants from sixty cities of 18 countries. Given the projections that two-thirds of the world's mega cities are expected to be in the Asia-Pacific region by the year 2015, it is crucial to continue to develop the Kitakyushu Initiative Network, in order for the cities in this region to work together to create a system for environmental management.

3-3 International Environmental Cooperation by NGOs/NPOs

(Outline of international environmental cooperation by NGOs and NPOs)

It is estimated that some 100 NGOs in Japan provide international environmental cooperation. A large part of their activities are hands-on activities like forestation, dissemination and enlightenment like environmental education, and research survey activities. The Japan NGO Center for International Cooperation (JANIC), as a network organization for NGOs engaged in international cooperation, performs PR activities informing the public of the importance of NGO activities and international cooperation, creates a mechanism for expanding support and fundraising, and provides liaison and coordination with the government and other organizations concerned.

JICA has developed some schemes for cooperation, such as Partnership Program(partner type)²⁵ and Partnership Program(support type)²⁶, which

²⁵ Projects through which JICA supports international cooperation activities for developing countries that NGOs and other similar organizations that have a certain amount of actual achievements propose based on the experience and skills they have accumulated through their activities thus far.

includes conservation of the natural environment like forests and mangrove trees, measures for environmental protection like drainage treatment systems built with local resident participation, and environmental education. Some NGOs and NPOs²⁷ also participate in international conferences on the environment and development and make policy recommendations.

(Issues in international environmental cooperation by NGOs/NPOs)

To improve the mechanisms of environmental management in East Asia, it is necessary to raise environmental awareness of local citizens and strengthen the community's environmental management capacity. The activities of Japan's NGOs that support such efforts are thus becoming increasingly important. It is also expected for them to develop activities that deepen the awareness of Japan's youth of the importance of international environmental cooperation and that encourage them to support and participate in international environmental cooperation. Contrary to expectation, however, the number of Japan's NGOs and NPOs that develop international activities mainly for environmental protection is still very small. For a number of reasons - lack of funding, busy schedules, lack of foreign language skills - Japanese NGOs and NPOs have limited coordination with their counterparts in Japan and abroad.

3-4 International Environmental Cooperation by Corporation

(Outline of international environmental cooperation by corporations)

Japanese corporations have contributed to environmental protection in developing countries through their own business activities. They have achieved excellent technologies especially for cleaner production, energy conservation, and 3Rs. It is highly expected that dissemination of these technologies through business activities will contribute significantly toward realizing a sustainable economic society in developing countries. Some corporations strive to contribute to environmental protection by participating in international frameworks for promoting socially responsible corporate behavior. In addition, corporations

²⁶ Projects through which JICA supports international cooperative activities that NGOs and other similar organizations that have track records of domestic activities but have limited actual achievements in extending support to developing countries.

²⁷ Not only NGOs and NPOs in the narrow sense of the terms, but also labor unions and the like are engaging in similar activities as stake holders.

engage in activities that contribute to society, including promoting afforestation in developing countries or making contributions toward establishing endowments, setting up foundations (corporate finance groups) to manage them, and helping finance the activities of environment-conscious NGOs.

Furthermore, some industries and business groups have begun making efforts to prepare common guidelines on environment considerations for businesses overseas and finances. Some corporations promote environmental friendliness in the banking business by participating in UNEP finance initiatives.²⁸ In terms of environmentally-friendly imports of raw materials and manufactured goods, it is promoted to use sustainable resources and purchase eco-friendly goods as part of the green purchase movement.

(Issues raised when international environmental cooperation is provided by corporations)

In the fields of technologies of pollution control and measuring instrument, Japanese companies contribute to improving the partner country's capacities for environmental management through localization of businesses using those technologies. It is expected that Japanese companies will apply the know-how and skills accumulated in their domestic businesses to the fields of cleaner production, 3Rs, and transfer them through the markets to foreign countries. To encourage this business-oriented trend, their partner countries' awareness, statutes and social systems for environmental protection are needed in addition to matureness of their economy and society.

(Standards and protection schemes for environmental technologies)

The standards developed countries have set for environment-related analysis methods and devices are now in the process of being integrated into the international industrial standards of the International Organization for Standardization (ISO). Japan Industrial Standards (JIS) has been also made consistent with international standards, and some ISO standards established in Japan are about to be brought into the system.

²⁸ Established in 1992 by UNEP. Signed and participated in by over 260 financial firms including banks, and insurance and security companies. Engages in activities such as conducting surveys, exchanging views, and the like on how business should be conducted so that financial operation and services are provided in an environmentally-friendly way, and how business can contribute to sustainable development.

Nonetheless, Japan does not have a scheme for certifying environment-related devices. As technology is brought in from Europe and the U.S., a growing number of countries are also using the products certified by the U.S. and Germany. Some insist that this is the reason they have difficulty bringing Japanese technology into foreign countries.

As seen in the field of offshore power generation, in some cases Japanese corporations cannot easily offer the advanced environmental technologies to developing countries that either do not have a system for protecting property of technology or, if any, do not enforce it. Consequently, it is hoped that the public sector will deal with this problem by establishing rules for intellectual property rights applied to these technologies.

3-5 International Environmental Cooperation by Academic Organizations

(Present state of international environmental cooperation provided by academic organizations)

Academic organizations including universities are fostering international environmental cooperation through: (1) promoting human resource development by accepting and training students, mainly from developing countries, and conducting collaborative studies with researchers from those countries; (2) building an intellectual foundation by conducting research; (3) implementing international environmental cooperation projects; and (4) dispatching experts to partner countries. Recently, cooperative relationship has been established by inviting researchers from Japan, developed countries, and developing countries to conduct collaborative studies, and giving interchangeable credits to exchange students.

(Issues in international environmental cooperation by academic organizations)

While a growing number of colleges and universities offer courses in the environmental field, only a limited number of them has accepted foreign students. Likewise, although mechanisms for inter-university cooperation are gradually established, collaborative research is undertaken mainly within the narrow scope of personal networks of individual researchers. It is hoped that cooperation for human resource development and collaborative research based on regional and subregional needs will expand on a much larger scale.

4. Present State and Issues in Institutions of International Environmental Cooperation

4-1 Domestic Base for International Environmental Cooperation

(1) Information on International Environmental Cooperation

(Information useful for international environmental cooperation and Japan's ability to disseminate environment-related information)

Implementation of international environmental cooperation requires collecting information on and coordinating with the cooperation activities of developed countries and international organizations, and the present situations of developing countries' environment. These sources of information, however, are not yet conducive to easy periodic upgrading and utilizing. Moreover, in order for Japan to exert its leadership in creating global and regional frameworks, such as the framework for environmental management in East Asia, it is essential to proactively disseminate the information that Japan possesses. However, due to the lack of English translations of environment-related information, information dissemination from Japan is quite limited at the present time.

(Providing information to ensure public participation and support for international environmental cooperation)

JICA has implemented a program, Japan Overseas Cooperation Volunteers, which encourages Japanese young people to participate in cooperative activities as residents and an integral part of the local community of developing countries and to contribute to social and economic development of the community. This kind of programs is undoubtedly important for broadening the range of actors who implement international environmental cooperation activities. However, at this stage, the young people as future main actors in international environmental cooperation cannot have received enough information to motivate them to participate in these activities.

Public understanding and support is also indispensable for environmental cooperation, since the financial resources are, ultimately provided by the general public and individual economic entities. ODA, for instance, has a private sectors' monitoring system, which gives ordinary people the opportunity

to visit the site of an ODA project. One of the challenges for international environmental cooperation is how to continue maintaining and widening public support by appropriately providing pertinent information, including information concerning such system.

(2) Development and utilization of human resources

(Human resource development to set Japan's initiative in motion)

It is required to develop human resources, in order to proactively create global and regional frameworks for environmental management and to implement the environmental management programs. However, Japan has never systematically trained experts capable of performing internationally. Human resource development programs have not been designed and conducted so far, while there are calls for strengthening collaboration with NGOs and NPOs, academic organizations, and industries for training experts and calls for increasing Japanese staff in international organizations. Consequently, there is an acute shortage of Japanese engaged in policy dialogues, shared plans, and Japan's initiatives at international organizations. .

Also, in order to work in developing countries as experts of environmental cooperation, not only skills and knowledge on the environmental field is necessary, but communication skills to accurately convey their expertise to their counterparts and cross-cultural skills to adapt to a completely different way of life are also required. Difficulty in combining all these skills and know-how has prevented any progress in fostering these sorts of human resources. Since few Japanese researchers can take the lead in international collaborative research in the environmental field, research institutes in Japan lag behind those in Europe and the United States in terms of internationalization.

(Utilizing personnel engaged in international environmental cooperation)

While many experts are registered in the data bank²⁹ for environmental cooperation experts, aftercare service leaves much to desire. The areas for these experts are limited only to bilateral technical cooperation. Not all local

²⁹ This is a database that registers Japanese experts who can help promote international cooperation in various fields related to environmental conservation, including serving as an instructor for trainees from developing countries or engaging in overseas service. The database is provided by the Ministry of the Environment.

government officials who have undergone specialist training offered by JICA are dispatched to developing countries, since they may have difficulty returning to their former jobs or their posts may be eliminated when he returns after a long-term dispatch. Even public university teachers may lose their posts or their budget may be reduced if they are out of the country too long. For this reason, the present system discourages sending university teachers abroad as experts³⁰. The problem is rooted in the fact that those who engage in international environmental cooperation are not valued.

In addition, retirees of universities, research institutes, private firms, and local governments who are qualified to work in the field of international environmental cooperation are not being adequately utilized.

(3) Securing and Using Finance

(National budget for international environmental cooperation)

Some of the budgets related to international environmental cooperation derives from the ODA budget and the Global Environment Research Fund. It has been pointed out that these budgets are reduced and insufficient to promote environmental management in the Asia-Pacific region and to create global and regional frameworks, and that they have not been strategically injected. Although the international cooperation undertaken by local governments and NGOs and NPOs have been supported by grants from the government, foundations, and funds and endowments, the total amount of these grants has not substantially increased over the past ten years, and has not meet the growing demand for environmental cooperation.

(Utilizing funds provided by international organizations)

Japan's ODA has made significant financial contributions to international organizations.³¹ However, some have criticized that Japan's views are not adequately reflected in the projects for environmental protection implemented

³⁰ State-run universities became state-run university corporations. As a result, when a university faculty member is dispatched abroad as a JICA expert, the merit of this appoint including some income accrues to the university as well, so the lack of after service is somewhat mitigated.

³¹ For instance, Japan contributed \$422.7 million to GEF's third source of revenue supplementation period (July 2002 to June 2006), or 17.6% of the total contributions made during the said supplementation period.

by international organizations, because of acute shortage of Japanese staff members in international organizations and too few Japanese experts, consultants, and NGOs and NPOs participating in the projects that make use of GEF and other funds

4-2 Implementation Framework for International Environmental Cooperation

(1) Dispatching Personnel to International Organizations

(Japanese staff working in international organizations)

Collaboration with international organizations and cooperation through international organizations is vital to the future of international environmental cooperation. As of January 2004, the number of Japanese actually working in UN-related organizations above the rank of specialist personnel is 610³² and it is on the increase.

However, the number of Japanese staff, relative to the amount of Japan's financial contribution, is very small, even smaller in the field of environment, especially for senior positions. This leads to a situation that: Japan's initiative is barely acknowledged in decision-making and policy-making; information on how international organizations use funds and implement the country's programs is not made available; Japan has little presence in the efforts made by international organizations.

(Why there are so few Japanese staffers in international organizations)

A fundamental reason for lack of Japanese staff in international organizations is attributed to their insufficient communication skills in foreign languages. Other reasons include: (1) the lack of labor flexibility due to the fact that employment practices in international organizations are quite different from those of Japanese companies (where lifetime employment is still the norm); (2) long-term overseas assignments are shunned due to obligations to educate one's children.³³ Another major reason may be anxiety about security and health management. Moreover, highly qualified people tend not to seek

³² Study on Human Resources Development in International Cooperation for peace (2004).
<http://www.mofa.go.jp/policy/un/pko/index.html>

³³ Round-Table Conference on Increasing the Number of International Civil Servants (1997)
"Report on Measures to Increase the Number of Japanese International Civil Servants"

assignment to international organizations, since they fear that such an assignment will delay advancement at their original workplace.

(2) Cooperation and Coordination among Organizations Concerned

(Interagency cooperation for international environmental cooperation)

Ministries and agencies involved in international environmental cooperation include: Foreign Ministry, Ministry of the Environment, Ministry of Economy, Trade and Industry, Ministry of Agriculture, Forestry and Fisheries, Ministry of Land, Infrastructure and Transport, and Ministry of Internal Affairs and Communications. When dealing with yellow sand and other wide-area environmental problems, and when concluding environmental conventions and treaties, the ministries concerned work to cooperate with each other.

(3) Acceptance of Trainees and Support System in Development Countries

(i) Acceptance of trainees

(Screening trainees, response to training needs, system of receiving organizations)

Many trainees have been accepted to the group-trainings on environmental administration and environmental monitoring, primarily conducted by JICA under the cooperation of the concerned ministries, local governments. It is pointed out, however, that: not all trainees cannot make use of what they gain from their training after returning home, because of inadequate screening of trainees at their home country; training does not sufficiently meet trainees' needs, because of its primary focus on Japanese technology, not global trends. Few programs have followed up trainees and made feedback to planning and operating the training programs, on how they apply the outcomes to their countries. Moreover, only a few organizations have accepted researchers, students, and government officials who study global environmental conservation and sustainable development.

(ii) Support system in developing countries for international environmental cooperation

(Japan's presence at the donors' conference)

In developing countries, various donor countries and international aid organizations have held conferences and discussions on environmental issues. In many cases, however, there are no Japanese participants and barely a Japanese presence. The fact that Japan does not necessarily keep a professional staff in the field is one reason for this lack of a presence at conferences. Another is that Japan does not have a clearly defined strategy for promoting international environmental cooperation.

(Utilizing human resources in developing countries)

In many cases, environmental experts dispatched to developing countries take some time to get accustomed to the new environment, and have difficulty in implementing activities because of the languages. Although the projects implemented by American and European aid organizations and international organizations have effectively used competent local staff, such as by linguistic support, the projects implemented by Japan have not, except for the projects of private sector consultants. At the same time, increasing number of people from developing countries have received thorough education and training in Japan. The challenge is how to make full use of these excellent human resources in Japan's ODA programs.

(4) Cooperative Framework of Local Government, NGOs and NPOs, and Corporations

(i) Local governments

(Implementation framework for international environmental cooperation provided by local governments)

Japan's local governments are expected to extend technical cooperation to their counterparts of developing countries and accept trainees from developing countries into administrative bodies. However, international cooperation is not an official duty, and it is very difficult to set up a budget to create a professional organization inside and assign personnel to it. As a way for government

agencies to support local governments' international environmental cooperation, JICA and JBIC have programs that support proposal type projects worked out by local governments. Since it is not easy for local governments to set up systems for international cooperation, only a few of them have used these programs.

(ii) NGOs and NPOs

(Japan's NGOs and NPOs involved in international policy proposals and environmental education in developing countries)

To improve environmental management systems, it is necessary to raise awareness of the local inhabitants and strengthen the community's environmental management capacity. This makes the activities of Japan's NGOs and NPOs that support these endeavors increasingly important. Nonetheless, although environmental education on the community level is important for improving health services and conserving the local environment, not enough NGOs and NPOs are experts in these fields.

The United Nations and its specialized agencies, as well as the World Bank, ADB, and other organizations, have come to emphasize coordinating with NGOs and NPOs in international cooperation activities. NGOs and NPOs are now expected to participate in international environmental conventions and environment-related international conferences as major stakeholders in the process. In specific fields such as marsh conservation, some of Japan's environmental NGOs and NPOs are capable of taking the initiative, moving into action, and making policy proposals on a global scale. However, since only a few Japan's NGOs and NPOs have this kind of capability, their presence in international conferences is still barely noticeable.

(Financial circumstances and workforce stability of NGOs and NPOs)

Various aid packages have gradually contributed to strengthening support for NGOs and NPOs which take international initiative in their activities and policy recommendation, and provide technical environmental cooperation in developing countries. However, since existing aid frameworks support only project activities (Grant Assistance for Japanese NGOs Projects and JICA Partnership Program excluded), they do not cover labor costs. As a result,

constant financial difficulties of NGOs and NPOs prevent adequate payment and stable employment of competent staff members. It is also pointed out that financial assistances for NGOs and NPOs lack continuity, since they usually terminates in about two years.

Since Japanese tend to avoid earning by their voluntary activities, it is difficult in Japan to undertake full-time NGO and NPO activities. The challenge is to secure finance and to strengthen their project management capacity, which some NGOs and NPOs have actively tried.

(iii) Corporations

(Implementation framework for providing international environmental cooperation in corporations)

Japanese corporations are expected to cooperate in improving the environmental management capacity of local corporations and government by applying the know-how and technology they have accumulated in their business. One way to do this is to conduct in-house training for engineers in charge of environmental management in the countries where they do business. Another would be to provide similar venues for governments and business owners in developing countries expressing a desire for such training

Japanese corporations integrate international environmental cooperation into their social responsibility policy. The Federation of Economic Organizations, for instance, has reviewed its business behavior charter from the perspective of corporate social responsibility to showcase providing a framework for achieving a sustainable society. Some corporations have even appointed executives in charge of their social responsibility policy to demonstrate their total commitment to the concept. Expanding such frameworks is strongly encouraged.

III. Future Approach to International Environmental Cooperation

Given the urgent need to globally address the issues targeted by MDGs - including environmental conservation - , Japan needs to vigorously promote international cooperation for global environmental conservation and sustainable development. Based on the environmental impact by international cooperation, and social, economical, and geographical relationships, Japan needs to take the leadership in focusing on the environmental management mechanism in East Asia, a region comprised of Northeast Asia and Southeast Asia. Strengthening international cooperation in the environmental domain is a highly effective way to build lasting relationships of mutual trust with other East Asian countries.

In order to promote this sort of international environmental cooperation described here, it is important to clarify the roles played by various related organizations such as the government, government agencies, local governments, NGOs and NPOs, corporations, and academic organizations, and to develop mechanisms for coordinating the activities of all these organizations. Moreover, it is essential that Japan provide information that forms the basis for international environmental cooperation and put in place a system for cultivating human resources, securing adequate financing, and addressing other needs.

1. Strategic Involvement in the Creation of a Global Framework

Japan needs to get actively involved in creating a global framework to promote the specific actions taken by various countries for global environmental conservation and sustainable development. Such a framework will not only help improve the global environment but will also greatly contribute to the efforts of various organizations in Japan actively involved in international projects. In building such a framework, Japan must not only dispatch manpower to international organizations, get involved proactively in their initiatives, and hold talks with the international organizations concerned, it must also actively support bilateral policy talks between the leading developing countries and developed countries like the EU and the U.S. It is also desirable that Japan's

NGOs and NPOs gain a greater voice and presence in multilateral discussions by getting more actively involved in creating a global framework.

(1) Creating a global framework in key areas

Based on the priority areas of international programs concerning sustainable development, Japan should participate actively in creating a global framework over the next ten years by:

- Create a global framework for “freshwater resources,” “energy and climate change,” “land management,” “urban environment,” “chemicals management,” and “education and capacity building.” (Japan should also get involved in creating a framework for “the shift toward sustainable production and consumption”³⁴, an issue that cuts across all of these areas).
- Play an active role in “conserving biodiversity” while taking advantage of the global framework that has already been put in place such as the CBD, the CITES, the Ramsar Convention, the Convention Concerning the Protection of the World Cultural and Natural Heritage, and the International Coral Reef Initiative as well as cooperating with domestic measures.
 - Proactively contribute to creating the framework, internationally-discussed by UN, of forest conservation and sustainable management of forests, including measures against illegal logging.

(2) Creating a framework for achieving the objectives of the UNFCCC

As a way to promote countermeasures for global warming based on the UNFCCC, Japan needs to take the following steps:

- Contribute to JI and CDM by actively setting up rules for utilizing JI and CDM and other measures that complement domestic measures.
- Promote policy talks with the countries concerned, especially those in the Asia-Pacific region, and take a leading role in building a framework for promoting countermeasures on a global scale that includes the developing countries. This will be in order to take part in implementing measures and share the responsibility for reducing GHGs in developing countries in the future.

³⁴ This is addressed as a cross sectional issue through the entire process of UN-CSD's Multi-Year Programme of Work.

- Support efforts to create a framework for implementing adaptive measures in the counties vulnerable to the effects of global warming, including Bangladesh, Maldives, Nepal, Bhutan, and Mongolia, as well as countries in the South Pacific.

(3) Creating a global framework for trade and environment

In creating a framework for trade and environment, Japan needs to make the following efforts as it consolidates its policy:

- Actively participate in the debate on how to be mutually supportive in trade and environment as trade agreements continue to internationalize.
- In concluding an EPA, pursue the possibility of environmental cooperation as well in a way that takes into consideration the condition of the other country or region.

2. Japan's Initiatives in Creating Regional Frameworks for Environmental Cooperation

To achieve the goal, "improving mechanisms for environmental management or global environmental conservation and sustainable development" focusing on East Asia, it is necessary to set common goals and plans, to develop systems for implementing and managing those plans, and to make programs for their joint implementation.

In order to advance shared regional efforts of this sort, it is important to initially carry out bilateral policy dialogues on direction of improvements in the mechanisms for environmental management of each country should take, and then direct the policy dialogues toward improving regional environmental management. Japan needs to effectively use its ODA to promote specific types and policy-support-type cooperation that strengthens its information and research network and ability to manage the environment. Moreover, Japan needs to build a foundation for managing regional frameworks through the process of making comprehensive/sectoral common plan for managing subregional frameworks. It is also important to create comprehensive frameworks for regional environmental cooperation when awareness of the countries involved is nourished.

2-1 Promotion of Bilateral and Regional Policy Dialogues

(1) Promoting bilateral policy dialogues

Based on the situation in each East Asian country, Japan needs to do the following activities to meet its own needs at the same time that it collaborates with other developed countries and international organizations. Even in countries and regions outside East Asia, bilateral policy dialogues as well as active collection and analysis of information and then comparison of the needs the countries concerned will be implemented. If it is concluded that a particular country's needs are urgent enough and Japan has strategic justification for dealing with the issue, Japan will actively promote international environmental cooperation.

- Through policy dialogues with each of the countries concerned, collect information that includes the country's environmental state, capacity to

manage the environment, state of information disclosure, state of its citizen's participation in policymaking, issues on environmental conservation, and needs for international cooperation.

- If the information concludes that ODA and other supports are necessary, consult with the country about how to solve the problems it faces, and determine the direction international cooperation should take for each issue. Present a road map that shows the steady development of the efforts being made to the extent that it is feasible.
- Since mature democracy is a prerequisite for environmental conservation, when it is deemed particularly necessary, encourage introducing a system for promoting democracy into the environmental field that, includes a process by which residents can take part in environmental assessment programs.
- Strive to cultivate awareness in the countries concerned towards creating a regional framework for environmental management.
- Based on the outcome of policy dialogues concerning the environment, proactively incorporate elements related to environmental conservation in policy dialogues in such areas as ODA, investment and trade.

(2) Promoting regional policy dialogues

(Promoting policy dialogues by issue)

To promote policy dialogues in various issues aimed at improving the regional framework for environmental management in East Asia, it will be necessary to take the following steps:

- Maintain and nurture existing regional forums such as “Eco Asia,” “World Water Forum” (in the issue of water), and “Regional EST Forum in Asia” (in the area of traffic and environment) with the aim of building a consensus on a government level regarding developing and implementing action plans that lead to solutions in individual issues.
- Given the important challenge of establishing suitable resource recycling centered in East Asia, set up a forum for exchanging views on the 3Rs and forming a sound material-cycle society. Also, promote creating a framework for air environmental management.

(i) Set up a forum for exchanging views on the 3Rs

Creating a sound material-cycle society is a challenge shared by many countries for a sustainable society. Based on the “3R Initiative” that Prime Minister Koizumi proposed at the June 2004 G-8 Summit, Japan will address this challenge with G-8 and Asian nations. Japan will also focus especially on East Asia – a region where it has deep economic ties - and make every effort to promote policy dialogues with the countries concerned to promote the shift towards a sound material-cycle society, including setting up a forum for exchanging views regarding the 3Rs.

(ii) Creating frameworks for air environmental management

Japan is leading efforts to create frameworks for air environmental management. These frameworks include networks for monitoring acid rain in East Asia, sustainable transport networks in Asia, the Kitakyushu Initiative Network, and the International Council for Local Environmental Initiatives. In the future, Japan will take a leading role in creating step-by-step international frameworks for air environmental management while cooperating with such organizations as the European Monitoring Evaluation Program (EMEP), which targets other areas in the northern hemisphere.

2-2 Strengthening of Information and Research Networks and Capacity for Environmental Control

(1) Developing effective information networks

The environment of East Asia and the Asia-Pacific region will possibly change drastically in a short period because of increasing global warming and rapid economic development. In order to detect signs of such environmental change at an early stage and take appropriate preventive and adaptive measures, it is extremely important to monitor the destruction of ecosystems and other effects of global warming, use various types of monitoring in a comprehensive manner, and quickly apply the data and information obtained.

(Developing monitoring systems and networks)

To develop regional monitoring networks and personnel and material systems

for environmental monitoring in various countries, it is important for Japan to:

- Support building and strengthening of monitoring networks compatible with the actual conditions of and the priorities in the countries concerned.
- Strengthen and enhance mutual cooperation of existing monitoring networks by strengthening EANET and promoting international joint monitoring of migratory birds through a network of key habitats.
- As early as possible, consider with the countries concerned the feasibility of creating a system for monitoring yellow sand and LUCC, and begin monitoring their effects systematically (including enhancing the value of monitoring by verifying and sharing data).
- Help assess the effectiveness of the Stockholm Convention on Persistent Organic Pollutants (POPs), implement “Environmental Monitoring and Governance in the East Asian Hydrosphere – Monitoring of POPS in the East Asian Region.”
- Further deal with desertification by considering monitoring and an early warning system.
- Use NOWPAP and other systems to reinforce and expand the monitoring of the marine environment including water quality and drift garbage .

(Providing environmental information and data)

Japan needs to make the following efforts jointly with the countries concerned:

- Provide necessary environmental information and data in cooperation with the parties concerned (including continuous support for developing information networks on biodiversity in various East Asian countries).
- Enable the mutual exchange and comparison of data by making adjustments between AP-net and WEPA and other information networks concerning waste, air, and water for both those already in existence and in the planning stage.

(2) Further promote collaborative research and research networks

To enrich scientific knowledge about the environment and use the benefits of those efforts as a basis for policymaking in the East Asian region, the following steps need to be taken:

- Based on the strategic planning formulated by the initiative of APN, promote

international collaborative research and develop the research networks of research organizations in the Asia-Pacific region related to global environmental conservation.

- Consider developing a mechanism that enables such research networks to contribute not only to research but also to implementation of specific projects for environmental conservation and disseminating the benefits of such projects.
- Promote the active participation and contribution of researchers in various countries of East Asia - including Japan and especially young researchers - in collaborative research undertaken on a global scale. In addition to utilizing existing university-based research networks, promote open collaborative research that goes beyond specific universities and research institutions.
- In addition to promoting cooperation between researchers and policymakers, use collaborative research as a form of environmental agreement reached among the countries concerned so that the benefits of research are reflected in the policies that are adopted.
- Based on the partnership with the countries concerned, strengthen financial support for developing collaborative international research in cooperation with UNEP, the United Nations University/Institute of Advanced Studies (UNU/IAS), and other international organization.
- In order to further promote research exchanges led mainly by Japan in the Asia-Pacific region, consider developing an information network for researchers and establishing a forum for researchers in the Asia-Pacific region to present their research findings in addition to continuing to implement the Eco-Fellowship Program sponsored by the Ministry of the Environment,
- In response to the launch of the 3R Initiatives, build a research network for promoting the 3Rs in the Asia-Pacific region, including East Asia, promote exchange of information and research cooperation, and expand the network into other subject areas.

(3) Improving developing country capacity for environmental management and developing and implementing ecological education programs

(Environmental management capacity and establishing a system for developing and implementing environmental education programs)

To improve the environmental management capacity of developing countries, it is essential to improve not only the environmental management capacity of the governments of the countries concerned but also of corporations and local communities. Japan has announced its intention to support human resource development related to the environment by training 5,000 personnel for that area over five years starting in FY2002. In addition, year 2005 marks the start of the UNDESD, which Japan originally proposed. Based on these efforts, the following should be promoted:

- Given the extreme importance of education that raises environmental awareness, promote developing programs by preparing joint action plans³⁵ related to implementing the UNDESD in addition to promoting exchanges among various countries involved in environmental education as a way to incorporate environmental education into the schools.
- Based on each country's present ability to manage the environment, promote highly focused support for developing capacity while also getting diverse organizations in Japan to participate in this endeavor.
- Expand the Partnership Program³⁶ for promoting south-south cooperation (under which Japan has agreements with Thailand, Singapore, the Philippines, and Indonesia) to create a system with the countries concerned for jointly extending assistance for supporting their environmental management capacity. Also, when creating such a system, make effective use of the existing environmental centers.
- Beyond national boundaries, encourage the effective use of research and

³⁵ Here, action plans refer to plans that include a wide range of concepts including environmental education, human rights, basic education, gender, peace education, and cross-cultural understanding.

³⁶ This is a framework under which countries that have reached a certain level of development, thanks to Japanese cooperation, extend technical cooperation to less developed neighboring countries or countries and areas that are similar in language, history, culture, and so on. As of December 2003, eleven countries – Singapore, Thailand, Egypt, Tunisia, Chile, Brazil, Argentina, the Philippines, Morocco, Mexico, and Indonesia – have ratified the action plan. (Source: Ministry of Foreign Affairs' "Japan's Official Development Assistance White Paper 2003.")

training and teaching resources - all of which are unevenly distributed in the Asia-Pacific region, through graduate and undergraduate credits transfer between universities, internet broadcasts, and other mechanisms.

2-3 Effective use of Japan's ODA and International Cooperation on Conflicts and Natural Disasters

(Promoting policy-support-type cooperation based on using ODA effectively)

Important steps for enhancing the environmental management capacity of developing countries include forming, implementing, monitoring, and evaluating the legal system in the environmental field, and national strategic planning and action plans. The following specific steps should be taken in these areas to enhance environmental management:

- Vigorously promote policy-support-type international environmental cooperation through dispatching and training experts providing equipment and developing infrastructure, in areas such as waste management, air and water conservation, management of toxic chemicals, and biodiversity conservation. Through this type of environmental cooperation for policymaking, find further needs for environmental cooperation and promote specific project formation, with a view to dissemination of the environmental technologies of Japanese corporations.
 - To enhance the sustainability of environmental ODA projects, place greater emphasis on improving the human and organizational capacity of those involved in environmental management, as well as introduce the measures and technologies acceptable to developing countries after fully confirming in advance the institution of ownership in the recipient countries, including their budget and framework for maintaining equipment and infrastructure.
- Emphasize environmental education and resident participation, particularly in ODA-funded environmental projects.

(Preparing Japan's country assistance programs and forming ODA-funded environmental projects based on those programs.)

To improve regional environmental management, the following efforts need to be made based on the needs of the target countries:

- When preparing Japan's country assistance programs initiated by the Ministry of Foreign Affairs, reflect outcomes of policy dialogues and incorporate strategic perspective on improvement of regional environmental management, with a view to utilization of environmental experts dispatched to the countries concerned.
 - By using these experts, formulate and implement MDG projects for regional development and improvement of living standards that incorporate elements of environmental conservation such as fisheries rejuvenation and reforestation, and environmental ODA projects for poverty reduction and for international frameworks related to environmental issues such as global warming.
 - Proactively accept to JICA training programs the government administrators of the countries to which JICA dispatched experts, and promote capacity building for policymaking of environmental management, in order to enhance the experts' activities.
- Formulate and implement ODA projects designed to serve as models for ODA recipient countries so that they themselves can spread countermeasures, skills, and know-how derived from the actual performance of Japan's ODA projects.
 - Formulate and implement ODA projects that lead to development of environmental skills applicable to developing countries.
- Consider creating frameworks for subregional environmental ODA projects.

(Thoroughly pursue environmental considerations in ODA)

International environmental cooperation by the government should include technical cooperation for developing countries to incorporate environment-friendly viewpoints to their requests for ODA, dissemination of environment-friendly and society-friendly guidelines for implementation of ODA projects, and participation of environmental experts to evaluation of them. It requires redoubling commitment to Japan-financed international organizations, including the World Bank and ADB, in order to enhance the environment-friendly and society-friendly policies of them.

(International cooperation in post-conflict reconstruction and conflict prevention)

Conflict termination arises urgent demands for disposing of the large volumes of waste caused by the destruction of buildings and other structures, restoring environmental infrastructure, creating environmental organizations, and human resource development. Along with cooperating with foreign governments, international organizations, and NGOs and NPOs, Japan should expeditiously provide international environmental cooperation for post-conflict reconstruction by planning cooperation programs and making cooperative systems, after clearly defining its role.

Since conflicts often result from disputes over control of natural resources, proper management of natural resources such as rivers, lakes, forests, and grasslands is crucial to conflict prevention. It is, therefore, important to place a high priority on cooperation for resource management. Considering that environmental conservation activities with participation of local residents, such as forestation, help resolve 21st century type conflicts caused by differences in cultural identity, it is important to push forward peace-building activities that incorporate proper natural resource management.

(International cooperation in times of disaster and for disaster prevention)

Aftermath of massive natural disaster, like post-conflict reconstruction, will also have urgent demands for disposing of large volumes of waste caused by the destruction of buildings and other structures, restoring environmental infrastructure, creating environmental organizations, and human resource development. When natural disaster strikes, Japan should expeditiously provide international environmental cooperation by planning cooperation programs and making cooperative systems, after clearly defining its role, along with cooperating with foreign governments, international organizations, NGOs and NPOs, and other organizations.

It should be also emphasized to promote international environmental cooperation for disaster prevention through natural environmental conservation.

ODA is not limited to creating a framework for environmental cooperation in East Asia. It is also a tool of international environmental cooperation for solving

environmental problems in other regions, especially Africa, where poverty is an urgent problem to solve. Nonetheless, ODA projects should be implemented consistent with other international environmental cooperation as a whole, including commitment to policy dialogues with various countries and frameworks for environmental cooperation.

2-4 Creation of Regional Frameworks for Environmental Management and Promotion of Environmental Management Based on These

(1) Formulating and implementing regional and subregional plan and strategy

(Comprehensive joint regional and subregional plan)

The steps below are required for promoting comprehensive environmental management in the Asia-Pacific region and its subregions. Since there are diverse technologies and means of financing, regional and subregional planning needs to strategically combine these diverse elements and prioritize issues within all issues. It should also be noted that formulating international programs related to environmental management is important for solving problems on natural resources and pollution which cannot be bilaterally solved.

- Actively participate in formulating strategic plans for environmental conservation in Northeast Asia, based on cooperative activities currently underway by issue.
- Build a consensus among the countries concerned on the policy and financial aspects of these plans so as to ensure their effectiveness.

(Producing substantial outcomes by issue)

In the future, comprehensive efforts will be made based on the East-Asia Environmental Management Plan, but for the time being, the following steps need to be taken for each issue:

- In areas such as “sustainable management of natural resources,” “biodiversity,” “adaptation to global warming,” “problems related to waste material” (proper treatment of toxic chemicals and a sound material-cycle society [3Rs]), “water problems,” “international marine resources,” “acid rain,” and “transportation and environment,” systematically deal with problems conducive to effective solution through multilateral cooperation on a local level.

- Expand and strengthen the plans and initiatives that have already been formulated and implemented, such as the “Asia-Pacific Migratory Waterbird Protection Strategy,” “NOWPAP,” and “Asia Forest Partnership,” and implement follow-up on The Third World Water Forum.

(2) Creating a framework for environmental management in the East-Asia region

(i) Creating a framework for environmental management

(Efforts aimed at creating a comprehensive framework for international environmental cooperation in East Asia)

In order for the countries concerned to share common goals and implement programs to improve environmental management in East Asia, it is necessary to create a framework of comprehensive international environmental cooperation and for systems to monitor their progress. For the time being, the steps given below should be taken through the policy dialogues in Northeast and East Asia. The important thing is to link these efforts to creating a framework for international cooperation in East Asia.

- Exchange views and consider an ASEAN-like framework of comprehensive environmental cooperation in Northeast Asia, considering that some Northeast Asian countries have exchanged views at the NEASPEC and the TEMM, and some of them have increased their mutual cooperation for regional environmental issues including yellow sand, acid rain, and POPs. (It is also important to keep in mind that a Northeast Asia free trade agreement will eventually be accepted.)
- Consider a framework for environmental management in East Asia in order to start preparing it at the appropriate time, based on the actions of the Japanese government, industrial organizations, NGOs and NPOs, and corporations toward establishment of an East-Asian Community as described in the Tokyo Declaration for the Dynamic and Enduring Japan-ASEAN Partnership in the New Millennium, and the North East frameworks mentioned above. In so doing, it is desirable to examine measures including economic incentives to promote environmental measures in countries with rapidly growing economies.

(Considering a set of common rules for the environment)

To promote creating a framework for environmental management in the entire region, it is necessary to actively consider what environmental goals to set in the area of water and air quality, and what rules to establish related to wide-area distribution. As economic activities involving trade and investment become more closely tied to each other, such considerations assume greater importance for ensuring market impartiality as well as for spreading environmental technologies on a global scale, including the energy conservation technology that many Japanese companies possess.

(ii) Formulating and implementing an environmental management plan

As a future basis of a framework for environmental cooperation in East Asia, it is advisable to formulate a step by step East-Asia environmental management plan in cooperation with UNEP, ESCAP, and other international organizations, starting in issues in which the countries concerned will be able to work jointly. This should be followed by clarifying common goals, the required actions, and the roles the parties concerned will play. The following efforts will be needed to implement the East Asia Environmental Management Plan:

- In order to implement a monitoring system that can determine the extent that goals of the East Asia Environmental Management Plan have been met, construct a mechanism (an early warning system) to design and implement preventive measures based on the monitoring results, in addition to selecting appropriate indicators for environmental monitoring and developing a system for reporting and analyzing the monitoring results.
- In order to ensure the effectiveness of the East Asia Environmental Management Plan, the regional and subregional environmental conservation plan, and plans by issue, consult with the countries responsible for implementing the plans and construct a review and evaluation mechanism for mutually verifying how these plans are being implemented. Experts in various East Asian countries would cooperate in reviewing and evaluating these environmental plans as the environmental policy reviews conducted by various OECD countries.

3. International Environmental Cooperation Provided by Various Entities in Japan

3-1 Collaboration among Various Entities

Achieving global environmental conservation and sustainable development requires collaboration among a wide range of organizations, including national government, government agencies, international organizations, local government, NGOs and NPOs, corporations, and academic organizations, by capitalizing on their respective attributes, experience, and knowledge. The following forums will be considered as places where these organizations can exchange views and information, explore methods of cooperation, expand opportunities for cooperation, and reproduce the results of their collaborative efforts:

- Expand the multi-stakeholder forums proposed at APFED and elsewhere, as forums for promoting cooperation among organizations in the Asia-Pacific region.
- Establish forums for dialogues and information-sharing among Japanese government agencies, local governments, NGOs and NPOs, corporations, and academic organizations, where they discuss mechanisms for thematic and country-by-country support.
- While keeping in mind the efforts each of the organizations mentioned below (3-2 through 3-5) are expected to make, strive to promote their collaborative efforts.

3-2 International Environmental Cooperation by Local Governments

(Building a relationship of cooperation with local authorities in various countries)

It is desirable that the following efforts be made by local authorities to build a cooperative relationship with their counterparts in various countries:

- Take advantage of the experience and know-how in enforcement of environment-related laws and development and implementation of environmental management plans to promote technical cooperation by accepting trainees from various countries and dispatching human resources to developing countries.

- While utilizing ODA and other forms of development assistance, promote cooperation projects among local governments as model cases and increase the interaction and cooperation among local governments in Japan and in East Asia interact and cooperate with each other.
- In addition to strengthening the Kitakyushu Initiative Network, build a global cooperation network among local governments and actively promote accepting trainees and implementing environmental projects.
- Take the initiative in coordinating international environmental cooperation with various local organizations including citizens, NGOs and NPOs, corporations, and universities.

3-3 International Environmental Cooperation by NGOs/NPOs

Japanese NGOs and NPOs are expected to make the following efforts:

(Implementing proactive policy proposals for creating global frameworks and regional environmental management mechanisms)

It is desirable that Japanese organizations enhance its voice and presence by actively participating in international environmental conventions and international conferences related to the environment. Among other things, they will acquire and demonstrate their ability to make proactive policy proposals for creating global frameworks and regional environmental management mechanisms, as well as demonstrate its ability to collaborate with the NGOs and NPOs of other countries.

(Raising each country's environmental consciousness and cooperating in environmental improvement activities)

When raising a country's environmental consciousness and cooperating in communities' environmental improvement activities, it is desirable that Japanese NGOs and NPOs make the following efforts while deepening the level of exchange with their counterparts at the site and gaining insight as to what kind of cooperation is needed most:

- Provide environmental education and implement environmental improvement projects that raise society's environmental consciousness and strengthen the capacity for environmental management.

- Build a cooperative relationship by deepening exchanges with NGOs and NPOs in various countries.
- Get actively involved in NGO and NPO network activities in the Asia-Pacific region.
- Deepen the understanding of Japanese youth in international environmental cooperation and implement programs that provide opportunities for them to participate in collaborative activities (e.g., holding study groups or study tours, and offering on-the-ground internships).

3-4 International Environmental Cooperation by Corporation

(Cooperation via business activities)

It is desirable that Japanese companies make the following efforts through their business activities:

- Disclose information concerning the company's environmental measures and environmental management policy.
- Actively promote exchange of views and other types of interaction on the environmental management of companies among industrial associations of Japan and partner countries.
- Actively register and participate in international efforts promoting corporate social responsibility.

(Conduct trade in an environmentally-friendly manner)

It is desirable that, Japanese companies make the following pro-environmental efforts through trade:

- Promote importing goods produced taking sustainability into consideration.
- In order to encourage importing primary commodities and manufactured goods made by sustainable methods, promote, for example, labels that inform consumers of being produced by sustainable methods.
- When importing manufactured goods and discarded products, always emphasize the efficient use of cyclical resources and proper waste disposal.

(Conduct finance in an environmentally-friendly manner)

Regarding investment and loans provided by Japanese banking establishment and firms, it is desirable that the following steps be taken to

ensure environmentally-friendliness from the perspective of Socially Responsible Investment (SRI):

- Disclose information concerning financing of overseas projects and introduce and evaluate the effectiveness of voluntary standards and screening for assessing the degree of social and environmental consciousness with which investments in foreign companies are made.
- Arouse awareness in SRI of individual and institutional investors by establishing an SRI fund.
- Create a mechanism for getting companies and individuals to invest in projects implemented in various countries to achieve sustainable development.

(Cooperate to increase environmental management capacity)

In conducting business operations both at home and abroad, it is desirable that Japanese companies directly or indirectly bear part of the responsibility for enhancing the environmental management capacity of the host country or region. Examples of such cooperation are provided below.

- Contribute to local corporations to improve their capacity to manage the environment through the supply-chain in the host country.
- Conduct business operations in the host country, import and export raw materials and manufactured goods, and invest in projects undertaken in developing countries – all in an environmentally-friendly manner.
- Lay the foundation for environmental management by disseminating the environmental technology and products that Japanese companies possess.
- Strive to develop the host country's environmental industry by outsourcing monitoring and waste treatment work.

(Conducting business operations in an environmentally-friendly manner)

In conducting their business operations abroad, Japanese companies are expected to demonstrate their environmental friendliness by making the following efforts:

- Adopt a regulation standard higher than required by the host country and take the lead in implementing countermeasures that meet the highest possible standard that technology will allow toward reducing the environmental pollution.

- Even if the host country does not require companies to assess the environmental impact of their operations, take the lead in implementing such assessments.

3-5 International Environmental Cooperation by Academic Institutions

To cultivate human resources and researchers in the developing countries, it is desirable that Japanese universities and research institutes dealing with international development and environment issues expeditiously accept foreign students and strengthen inter-university exchange and the interaction network among researchers. It is hoped that through the efforts as discussed in 2-2 (2) and (3), Japanese universities and research institutes will proactively deal with the issues such as human resource development and collaborative research based on the regional and subregional needs of environmental cooperation. It is reasonable to assume that the proposed exchange network may well expand beyond academic organizations and become a research and educational network that strengthens cooperation with a wide range of organizations such as local governments, NGOs and NPOs, and corporations and will be one that conducts collaborative research with these organizations. Collaboration with academic organizations in other developed countries is also very important to strengthen collaboration of this sort and networking joint research and education.

4. Strengthen Implementation System of International Environmental Cooperation

It is crucial for Japan to develop the domestic base for human resources and information as well as organizations and systems that effectively promote international environmental cooperation to improve environmental management mechanisms of East Asia for global environmental management and sustainable development, with the greatest emphasis on human resource development. To consolidate this domestic base as international environmental cooperation moves forward, Japan will need to accumulate and provide know-how and information, create a framework for promoting the effective use of available human resources, and secure the necessary financing for implementing international environmental cooperation. When consolidating the organizations and systems, Japan also needs to strategically dispatch Japanese experts to international organizations and strengthen its framework for implementing international environmental cooperation.

4-1 Strengthen the Domestic Base for Providing new International Environmental Cooperation

(1) Developing an information infrastructure for effective international environmental cooperation

Regarding information for effective international environmental cooperation, it is necessary to use Web sites related to international environmental cooperation to actively provide information about various organizations, and to develop the information base as below:

- Gather and provide in an accessible manner timely information useful to the organizations engaged in international environmental cooperation activities (in particular, provide basic information and statistics on the environment and environmental law and legislation).
- Make more environmental information available from Japan in English and other major languages.
- Provide information useful for encouraging the Japanese people to support and participate (especially young people) in international environmental cooperation.

- Gather and constructively use information from Japanese local governments, NGOs and NPOs, corporations, universities, and other research institutions (e.g., the experience and expertise Japanese medium and small companies gained while formulating and implementing environmental conservation measures is useful information).
- Codify lessons learned from experiences various organizations of international environmental cooperation.

(2) Strengthen the human resources crucial to new international environmental cooperation efforts

(i) Develop and use human resources for formulating policy dialogues and plans in the Asia-Pacific region

(Systematically develop human resources)

The following steps should be considered to systematically develop human resources capable of carrying out policy dialogues and planning as well as collaborating with international organizations toward creating a framework for environmental cooperation in the Asia-Pacific region, the following steps should be considered:

- To establish career paths through which individuals, especially young people, can advance starting from internships in international organizations and the Overseas Cooperation Volunteers, etc.
- To increase opportunities for college graduates and those in graduate school to gain on-the ground experience at international organizations and elsewhere, inform them about internship programs available at international organizations and introduce supplemental measures to promote their participation in such programs.
- Implement a human resource development program that makes use of the Associate Expert (AE)³⁷ and other types of dispatch services to disseminate

³⁷ AE is a program that provides young overseas Japanese nationals who harbor a desire to someday become an international civil servant an opportunity to deepen their expertise by working as a staff member at one of the international organizations for a certain fixed time (as a rule, 2 years) and learn first-hand about international development aid. Those who are dispatched under this program are referred to by the organization as AE (Associate Expert), JPO (Junior Professional Officer), APO (Associate Professional Officer), or simply as Trainee (usually, these titles are collectively designated as AE). The Ministry of Foreign Affairs runs the program.

environmental issues among AEs and to persuade them to work as experts in environmental cooperation.

- Dispatch young individuals at P2 or P3 level³⁸ to international organizations who have the potential to become top officials.
- Actively make use of the 21st Century COE (Center of Excellence) program³⁹ to develop human resources.

(Formulating and implementing a human resource development program)

To advance human resource development, establish a task force comprised of organizations engaged in international environmental cooperation, e.g. FASID (Foundation for Advanced Studies on International Development) as well as universities and other educational institutions, international organizations in Japan, local governments, corporations, and NGOs and NPOs. In addition, it is necessary to develop training programs. Toward this end, the following should be considered:

- Conduct short-term training courses with lecturers from international organizations in Japan on their way of executing their duties, and dispatch the participants to these organizations as in-service trainees afterwards.
- Dispatch undergraduate and graduate students as trainees to relevant ministries, research institutes, as well as international organizations in Japan and abroad. Arrange the participating universities and graduate schools to give these students credits for their experience.
- Encourage Japanese who complete their master or doctorate degrees to participate in the environmental courses offered by United Nations University.
- Create a system to help working people obtain their PhDs.
- Hold exchanges between Japanese staff members of international organizations and Japanese who seek employment in international organizations.

³⁸ P2 and P3 refer to the positions young staff members at the United Nations are assigned to. To qualify to apply for the P2 position, candidates have to have a bachelor's degree and be under 32 years of age; for the P3 position, candidates have to have a master's or higher degree and be under 39 years of age.

³⁹ Launched in 2002, this program aims to set up world-class research and education centers at Japanese universities to provide selective support to foster creative human resources capable of leading the world and raising the level of research and education at Japanese universities.

(ii) Cultivate human resources to engage in environmental cooperation projects in developing countries

The following support activities should be considered necessary to cultivate the human resources who will engage in the international environmental cooperation activities carried out by environment-related ODA, local governments, NGOs and NPOs, and corporations:

- Dispatch personnel with a strong desire to get involved in international environmental cooperation to international environmental conferences or field studies in developing countries.
- Enable young staff members of the Ministry of the Environment to gain systematic experience in developing countries.
- Enable people working for NGOs and NPOs and corporations to gain experience in environmental administration in governments or local public organizations.
- Support efforts of NGOs and NPOs to provide young people with on-site training as volunteers or eco-tours as part of environmental education.

(iii) Cultivate researchers

To cultivate researchers who majors in environmental management of developing countries and international environmental cooperation as their research area, it is necessary to encourage universities and other academic organizations to participate and contribute to international collaborative research.

(iv) Develop a mechanism to utilize human resources

In addition to developing human resources, it is important to develop a mechanism for utilizing them. It is necessary to specifically consider enhancing the operation of data banks of job opportunities for environmental cooperation experts, and introducing incentives to encourage environmental experts by increasing society's appreciation for their assignment abroad for international environmental cooperation. It is also necessary to specifically consider mechanisms of reeducation and coordination of post abroad for retirees who are

still able to work as environmental experts.⁴⁰

(3) Securing funds for promoting and effectively using new international environmental cooperation efforts

(Expansion of the relevant budget of the government, strategic fund infusion, and fund operation of international organizations, etc.)

The following efforts are needed to develop domestic infrastructure and enhance systems to facilitate international environmental cooperation:

- Enlarge the government's ODA and other relevant budgets, enhance various funds earmarked for international environmental cooperation, and work towards more strategic infusion of funds and more flexible fund operation.
- Provide information concerning procedures and conditions for financing projects of international organizations, in order for NGOs and NPOs, corporations, academic research organizations, and other organizations to adequately contribute to the projects through their international environmental cooperation activities, human resource development, and accumulation of know-how, and the development of basis for their activities (i.e., effectively use the existing ODA budget).

(Raise more funds for international environmental cooperation provided by various organizations)

To strengthen the funds for international environmental cooperation provided by various entities, it is necessary to increase donation to the funds by encouraging corporations and all levels of Japanese society and by making constructive use of tax breaks.

⁴⁰ Schemes such as Turn Around Management (TAM) Environmental Program, established in the European Bank of Reconstruction and Development by Japanese initiative are a model. The purpose of the scheme is to provide education specialized in environmental improvement by Japanese advisers with expertise who used to work for Japanese corporation with advanced technology of energy saving and resource saving and know-how of environmental management.

4-2 Strengthen Systems to Promote Advanced International Environmental Cooperation

(1) Strategically dispatch of personnel to international organizations

(Dispatch environment-related personnel to important international organizations and provide more working opportunities at those organizations)

In the future, in order to get proactively involved in the efforts to improve the mechanism of environmental management in the Asia-Pacific and East Asia region, Japan should dispatch personnel to important international organizations in the following manner:

- Dispatch, on a priority basis, government officials and private personnel to strategically important international organizations, such as UNEP, UNDP, the World Bank, and ADB.
- Encourage international organizations for employment of Japanese experts, especially those with expertise in environment-related fields (including consultants).
- Provide political and diplomatic support toward organizations concerned in order to enable top officials to work in suitable posts.

(Support for Japanese officials in international organizations)

The following efforts need to be made to support overseas Japanese officials in international organizations:

- In case of their homecoming to Japan, consider asking for their new posts in other domestic organizations, and providing on-site support in education, medicine, and safety.
- Provide suitable treatment, such as promotions in the organization they left temporarily during the term of assignment.

(2) Strengthen cooperation and reinforce the mechanism between government and organizations concerned

(Collaboration and adjustment of governmental organizations concerned and strengthening functions of the relevant organizations)

The following efforts need to be made to collaborate and coordinate with the governmental organizations concerned :

- Maintain close contact in formulating and undertaking global environmental activities and ODA projects among the ministries concerned, JICA, JBIC, and other organizations
- Increase collaboration among Japanese embassies, as a central institution, JICA and other organizations, focusing on designated areas and issues for special assistance.
- Strengthen organizations that accumulate know-how concerning sustainable international environmental cooperation, human resource development and recruitment, and pool and dispatch personnel (e.g., give such functions to JICA Institute for International Cooperation, Overseas Environmental Cooperation Center (OECC), IGES, and others).

(3) Strengthen training system in Japan and support system in developing countries

With respect to acceptance of trainees from developing countries, it is necessary to strengthen Japan's involvement in the screening of trainees, to improve the training provided through creating a curriculum based on trainees' needs, to improve the capacity of organizations that accept trainees, and to increase the number of such organizations. It is also necessary to strengthen the follow-up services for the trainees. Moreover, in the developing countries, efforts should be made to formulate a structure that supports Japan's international environmental cooperation activities utilizing local personnel to understand the local situation and to facilitate sharing of information on trends in other cooperating organizations.

(4) Support international environmental cooperation activities of local governments, NGOs and NPOs, and corporations

(Support promoting international environmental cooperation provided by local governments)

The following efforts are needed to encourage local governments to promote international environmental cooperation:

- Consider increasing the incentives given to local governments that are actively engaged in international environmental cooperation.
- Provide information about aid and support systems available to local

governments concerning international environmental cooperation, and support local governments so that they can make active use of such systems.

- Set up forums for discussion by local governments, JICA, JBIC and other organizations that are actively promoting international environmental cooperation. Then encourage Japanese local governments to develop projects and share experience and information through cooperative relations with local governments in developing countries.

(Strategic support for strengthening NGO and NPO activities)

The following supports should be expanded to strengthen the structure for promoting international environmental cooperation provided by NGOs and NPOs:

- For NGOs and NPOs that are expected to engage in specific activities in the field, such as providing environmental education on a community level, make efforts to provide useful information on examples of subsidy programs, environmental conservation activities, and environmental information on the countries concerned, and to dispatch experts to technically support NGOs and NPOs, and also to support project formations of JICA Partnership Program.
- For NGOs and NPOs expected to function as think tanks that provide policy recommendations, get a commission from government agencies to conduct surveys, provide information on issues taken up at international conferences and the background leading to those issues, promote exchanges with government agencies including exchange of views, and work on creating a network of NGOs and NPOs in the same field.

(Support for promoting international environmental cooperation provided by corporations)

ODA projects have very limited direct effect in disseminating Japanese environmental technology globally. For full-scale dissemination, companies that have environmental technology of their own should make a sustained effort to disseminate their technology. Consequently, the government needs to support the formulation of relevant systems and capacity-building of the partner country by properly utilizing ODA and policy conferences so that Japanese companies will be able to continuously implement the projects using their environmental technology. Specifically, it is important to implement the

following measures:

- Establish rules to protect the intellectual property rights of technologies and vigorously work on establishment of international environmental standards.
 - Use ODA to support for making policies and systems that introduces environmental technologies to developing countries, including the systems of green purchase standard and eco-label marking, and to develop human resources and systems that disseminate environmental technologies.
- In environmental policy dialogues and EPA talks held bilaterally or on a regional level, consider measures that contribute to disseminating environmental technologies (common rules concerning the environment, mutual recognition, etc.).
- Deepen understanding of the Kyoto Mechanism in developing countries through inter-government talks, seminars, and technical assistance, in order to promote private companies to use this mechanism. Support for creating domestic systems so that developing countries and others will be qualified for the Kyoto Mechanism. Facilitate smooth acquisition of carbon credits and promote private financial assistance so that companies can be motivated to finance the World Bank's Carbon Fund.

It is also important to raise awareness and introduce social incentives such as granting of awards to encourage companies to promote the efforts as described in "3-4 International Environmental Cooperation Provided by Corporation."

Conclusion – Toward a Concrete “International Environmental Cooperation Strategy”

This report summarizes the discussions on the direction of international environmental cooperation over the next ten years. Given that the world's economy, environment, and society is constantly changing, it is believed that in the next five years it will be necessary to take another look at the circumstances surrounding international environmental cooperation and reconsider the strategy. In the meantime, it is expected that the Ministry of the Environment and all other organizations concerned will assign staff in accordance with their duties and formulate budgets in order to bring the proposals in this paper to reality to the greatest extent possible.

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Background of Central Environmental Council Deliberations

2004

- Nov. 8 President of the Central Environmental Deliberation Council Received request from Minister of the Environment to report on “The Shape of Future International Environmental Cooperation”
- Nov. 9 “The Shape of Future International Environmental Cooperation” was submitted to Special Committee on Global Environmental. “Sub-Committee for International Environmental Cooperation” established in said special committee
- Dec. 10 1st Sub-Committee Meeting (Change in circumstances surrounding global environmental cooperation: Examination of items to be studied)

2005

- Jan. 27 2nd Sub-Committee Meeting (Examination of the present state and issues of international environmental cooperation: Study of philosophy and basic policy of future international environmental cooperation)
- Feb. 18 3rd Sub-Committee Meeting (Examination of direction of future efforts in international environmental cooperation)
- Mar. 11 4th Sub-Committee Meeting (Examination of direction of future efforts in international environmental cooperation, gist of Sub-Committee Meeting report (draft). Conduct hearing from organizations concerned)
- Apr. 5 5th Sub-Committee Meeting (Conduct hearing, presentation on environmental technology)
- Apr 21 6th Sub-Committee Meeting (Examination of Sub-Committee Meeting Report [draft report])
- May 18 Solicit public comments on Sub-Committee Meeting Report (draft)
- Jun. 6
- May. 26 In Osaka, Conduct explanation and exchange of view on Sub-Committee Meeting Report (draft)
- June 20 7th Sub-Committee Meeting (Examination of results of public comments, Sub-Committee Meeting Report [draft]. Summarize Sub-Committee Meeting Report)
- June 29 30th Global Environment Committee Meeting (Report on Sub-Committee Meeting, examination)