III. Strategies for Japan’s future environmental ODA

Environmental problems have become serious in many developed and developing countries. The problems are particularly severe in developing countries where the population has been growing rapidly. Diverse and serious environmental problems have been adversely affecting the living conditions of people in these countries. Environmental problems have arisen all over the world, threatening the quality of the environment of the earth.

The national governments should deal with national environmental problems by themselves, and with regard to global environmental problems, all countries concerned should deal with them together. The problems, however, have already become too serious for developing countries to solve by themselves. Development banks, UN agencies, other international organizations, developed donor countries, and NGOs in developed countries have provided development assistance over the 30 years since UNCHE, held in Stockholm in 1972. Despite this assistance, environmental problems have become more serious in developing countries. To tackle this situation, the efforts of the developing countries themselves have been required, and since UNCED in 1992 new institutional frameworks have been established so that donors can cooperate more efficiently. To tackle global problems that are expected to become more serious, it is necessary to ensure the efficiency of assistance through linkages between relevant organizations. For example, the problem of water supplies requires more effective cooperative assistance, including assistance to deal with water contamination in rivers that flow across national borders and in lakes and marshes that lie across borders, as well as water shortages and water management problems.

Japan has been contributing to efforts in the environmental field through the expansion of ODA covering grant aid, loan aid, technical cooperation, and donations to international organizations. In recent years, the Ministries and Agencies of Japan’s central government have actively allotted ODA-related budgets to the environmental field. In addition, local governments have invited administrative staff members of developing countries to participate in training courses and dispatched Japanese staff members to the developing countries in return. Japanese private organizations have also assisted other private organizations in developing countries to improve living conditions in their local communities.

In this chapter, the study committee presents the strategies for Japan’s environmental ODA and related agencies to respond to the keen expectations of people who are suffering from environmental problems in developing countries.
1. Efforts to deal with complex global environmental problems

It has become necessary for developing countries to change their understanding of global environmental problems. It has also become necessary for donor countries to change their assistance approaches so that they are better at responding to the needs of developing countries. While donors have discussed the means to implement assistance more efficiently, the recipients feel a sense of crisis in that they cannot solve the increasingly serious problems themselves, although the public in these countries is urgently demanding solutions.

On the one hand, the focus of environmental problems is towards their global aspects, including global warming and desertification. On the other hand, the focus is on their local aspects, including the impacts of water contamination, air pollution, deforestation, soil degradation, automobile exhaust gas emissions, and hazardous wastes. These local problems have a direct adverse impact on the living conditions of local inhabitants, thus aggravating poverty. Consequently, as a matter of priority, Japan’s environmental cooperation must be considered in terms of its contribution to local communities through the provision of benefits to the local inhabitants who are suffering from the ongoing degradation of the environment. This is discussed below in 1) Maximizing the social welfare of local communities and reducing vulnerability at the local level.

With respect to global problems, some developing countries have concluded multilateral treaties to contribute to the solutions. The roles of the UN and multilateral development banks have come under review. Supporting developing countries that are the parties to the treaties and promoting such reviews are, therefore, regarded as part of the strategies to deal with diverse global problems. These are discussed in 2) Providing active support for the international environmental legal framework.

In order to satisfy the needs of developing countries in dealing with diverse environmental problems, a broad and comprehensive framework for assistance is required. This is discussed in 3) Environmental assistance under a broad and comprehensive institutional framework.

1) Maximizing the social welfare of local communities and reducing vulnerability at the local level

The purpose of environmental ODA is to assist the governments of developing countries that have been striving to solve environmental problems which they cannot solve alone due to the complicated nature of the causes. This assistance should be designed to benefit the maximum number of inhabitants. Specifically, this deterioration in living conditions includes a lack of safe drinking water, shortages of household fuel due to excessive wood gathering, resulting in the use of dried livestock dung, making fish supplies inedible due to contamination from industrial wastewater, and
suffering from bronchial asthma due to automobile exhaust gas emissions. Such problems cause deterioration in the living conditions of local community members, and sometimes even force them to leave the area.

With regard to the sustainable management of natural resources, with forest resources, for example, management by the communities themselves is the best solution, since the laws and regulations prepared by their governments are hardly enforced. The inhabitants of these communities have no alternative but to depend on the remaining minimal resources to live. In order to establish sustainable management, therefore, alternative means of livelihood must be developed. The role of ODA is to help establish sustainable management in parallel with the preparation of alternative means of livelihood. In addition, assistance should be designed so that the benefits from sustainable management are received directly by the communities.

Measures to alleviate poverty in urban communities, such as in slums, are also difficult to formulate. The activities of ODA should be linked with those of local NGOs as well as Japan’s NGOs to contribute to the improvement of living conditions in urban communities.

The relationship between the environment and poverty has become a major issue of concern to many donors. *Shaping the 21st century: The Contribution of Development Co-operation* (commonly referred to as the DAC’s New Development Strategy) was adopted by the OECD DAC Member Development Ministers and Heads of Aid Agencies at their high-level meeting in May 1996. Since then, the development banks, UN agencies and many other donors have begun to focus on poverty reduction and social development, sustainable use of natural resources, and the regeneration of degraded resources. The Development Assistance Committee (DAC) of the OECD has also formulated the *DAC Guidelines on Poverty Reduction*.

The International Monetary Fund (IMF) and the World Bank held a joint meeting in September 1999, and decided to request the governments of heavily indebted countries and 72 countries financed by the International Development Association (IDA) to prepare a Poverty Reduction Strategy Paper (PRSP), which is an economic and social development plan that focuses on poverty reduction. If the developing countries formulate a PRSP and establish a system to carry out the PRSP, they will be exempted from the repayment of multilateral debt.

The World Bank compiled its *World Development Report 2000/2001* with the theme of poverty problems. It has also publicized the drafts of its environmental strategies, including strategies for the improvement of health, the improvement of the living situation of poor people who directly depend on natural resources, and the reduction of vulnerability to natural disasters. These strategies
emphasized the close relationship between environmental conservation and poverty reduction.

Governance is another major issue of discussion among donors. However, there are various interpretations of the concept of governance. In “Japan’s ODA White Paper 1999”, it is defined as a concept encompassing national politics, economics and social management. The paper expressed the view that consideration should be given as to whether the government strives to promote development in parallel with improving national welfare, whether it functions effectively and efficiently, whether it exercises power properly, whether it is legitimate, and whether it upholds human rights.

The World Bank focuses on strengthening governance by strengthening the management of the public sector, ensuring accountability, a legal framework, and transparency, which are prerequisites for proper economic management. In recent years, the World Bank has also focused on public participation, military expenditures, and human rights. The United Nations Development Programme (UNDP) counts community participation, the rule of law, transparency, and equality as factors of governance.

Solutions to environmental problems require the building of basic national institutional frameworks and legislative frameworks, information disclosure, transparency in decision-making related to policies, and community participation in the developing countries. When a broad spectrum of environmental assistance is carried out based on these principles, this assistance will lead to a reinforcement of governance as well as capacity development in environment in the developing countries.

Environmental cooperation through Japan’s ODA is expected to contribute to the developing countries based on the discussions on the philosophy of worldwide development assistance and its methods of implementation. Environmental problems are closely related to agriculture, industry, and the establishment of infrastructure. When project plans are formulated in various sectors, environmental consideration should be given to the integration of sustainable development and poverty reduction, ensuring the independence of communities, the improvement of people’s living conditions, and with the benefits to be distributed among the maximum number of people. Japan’s agencies related to the environmental cooperation need to understand this worldwide trend and promote Japan’s environmental ODA with a clear identification of the beneficiary groups.

2) Providing active support for the international environmental legal framework

The World Summit on Sustainable Development, commonly referred to as Rio plus Ten, is to be
held ten years after UNCED to follow up this epoch-making conference. At UNCED in 1992, Agenda 21 was adopted and it also led to the ratification of the Framework Convention on Climate Change and other multilateral treaties on the environment. International organizations and research institutes related to the environment, environmental NGOs, and other organizations in various sectors are preparing for the coming World Summit. Japan needs to actively develop policy proposals as well as cooperate in the preparations so that Rio plus Ten will be successful.

Japan needs to play a leading role in improving the serious state of the global environment through promotion of the enforcement of multilateral environmental treaties. These multilateral treaties have been adopted on the basis that every country must strive to improve the global environment. It is necessary for every country to abide by the articles of treaties promoting environmental conservation, through which global environmental problems can be alleviated.

Multilateral treaties have become more important as a means of dealing with global environmental problems. As more countries ratify multilateral treaties, and abide by them, this will expedite solutions to environmental problems.

Under each treaty a conference of the parties is held periodically, to which Japan sends its delegation. It is widely expected that Japan’s delegations will play an active role in the decision-making necessary to achieve the objectives of the treaties, and contribute to the success of these conferences and the promotion of environmental conservation.

Some developing countries, even though they have ratified these treaties, cannot abide by them due to a lack of knowledge, technology or experience. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), for example, restricts the import and export of endangered species of wild fauna and flora in order to protect wildlife populations, and through these trade restrictions poaching in countries where the wildlife originate can be controlled. The convention is also designed to close markets for furs and other wildlife products by regulating their import and export. If valuable furs or other wildlife products are traded for high prices in the markets of developed countries, poaching in the originating country will significantly increase as a means to obtain money. To establish effective restrictions in the developing countries, agencies that approve exports and customs officers who monitor exports are required to be well informed of the list of species specified in the annexes to this convention, the presence and status of the species in their country, the countries that the species might be exported to, and the methods employed to evade the regulations.

In the case of the Basel Convention, which regulates the transboundary movement of hazardous
wastes and their disposal, the staff members of relevant agencies are required to master techniques to distinguish the various types of waste industrial materials from other imported and exported materials, and to identify the difference between hazardous and non-hazardous wastes. In actuality, some developing countries have difficulty in enforcing the convention due to the lack of broad knowledge, experience, and techniques as well as the high level of technology for the analyses that are necessary to abide by this convention.

The developed countries and convention secretariats are in a position to assist developing countries that cannot directly contribute to enforcement for various reasons. The measures by which these developing countries can be assisted have been discussed at the conferences of parties to these treaties. Japan ought to play a pivotal role in these conferences since Japan has accumulated considerable experience through the implementation of wide-ranging economic and technical cooperation with developing countries.

Many UN agencies have been promoting various projects for environmental conservation, including UNDP, UNEP, the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), and the United Nations Industrial Development Organization (UNIDO). These agencies hold general assemblies, executive council meetings, or other similar meetings every year to approve their annual programme based on the opinions of member countries. Members of Japan’s delegation are dispatched from the Ministries and Agencies responsible for the sectors related to these UN agencies because of the technical aspects, and participate in discussions on the priorities for carrying out activities and programmes. Japan’s delegations should play a pivotal role in these meetings for formulating effective environmental programs. Japan’s delegations are also expected to lead future-oriented discussions that will create prospects and ideas for future programmes concerning long-term global issues related to the environment, such as energy saving, renewable energy development, the recycling of waste, and water resources conservation.

The World Bank, Asian Development Bank (ADB) and other development banks give priority to assistance for environmental conservation. In addition, the World Bank, UNDP and UNEP have jointly established the Global Environment Facility (GEF), which is a new institutional arrangement for international environmental cooperation, to help developing countries finance the incremental costs of new environmental investments with global benefits. Specifically, GEF helps developing countries in four areas: climate change, preservation of biodiversity, protection of international waters, and protection of the ozone layer. Japan contributes about 20% of the total multilateral assistance provided by these banks and agencies. However, Japan’s cooperation should not be limited to such financial assistance. Many relevant agencies in Japan are expected to play an active role, including a technical role, when the development banks and UN agencies formulate effective
assistance policies and programmes and establish appropriate measures to implement them in developing countries.

To improve the effectiveness of the operations of international organizations, it is important to utilize Japan's experience in formulating the programmes of the development banks and UN agencies, since Japan has also accumulated considerable experience in its assistance to developing countries through JBIC and JICA and other organizations. In addition to playing an active role in such cooperation, Japan needs to enhance the environmental cooperation to which Japan gives first priority, and at the same time improve the quality of this environmental cooperation.

It should be recognized that UN agencies, the development banks, and other organizations and multilateral environmental agreements alone cannot solve all the environmental problems in developing countries. Therefore, Japan’s cooperation such as loan aid, grant aid and technical cooperation is essential to solving environmental problems.

3) Environmental assistance under a broad and comprehensive institutional framework

Environmental conditions in developing countries cannot be improved only through assistance to specific governmental agencies or through short-term assistance. The reason for this is that environmental problems have arisen from complex and diverse political, economic and social causes. In addition, unless the recipient countries formulate and implement their own national policies to solve their environmental problems, there will be no improvement despite the provision of financial and technical assistance by donors.

Projects that target a specific objective will hardly be successful. The problems have resulted from the social background, such as poverty, the collapse of communities, distrust of administrations, weak administrative systems, and weak property registration systems.

Consequently, a broad and comprehensive framework for environmental assistance is needed. The following provides an outline of such a framework.

- Analysis should be carried out for appropriate assistance from a long-term perspective according to the seriousness of the environmental problems, the condition of the damage to local communities, and the level of establishment of environmental management systems. In order to establish environmental management systems, the conditions in each country should be properly assessed. Individual consideration is necessary to determine which actual aid programs should be selected or combined and in what sequence they should be implemented in the
relevant developing country in accordance with its initial economic, social, and political conditions and the stage of people’s participation in its development.

Given the diversity of developing countries, it would be impossible for every conceivable type of aid to be fully covered by a single program. In some cases, different projects of aid need to be integrated simultaneously. Therefore, the dispatch of JICA experts, development studies, project-type technical cooperation, various forms of training, and assistance to communities by Japan Overseas Cooperation Volunteers should be combined more systematically when necessary.

In addition, Japan’s ODA implementation methods should be designed to support the self-help efforts of local communities for participatory development with the target group at each stage of the development cycle.

Financial economic cooperation such as grant aid offered by JICA and loan aid, or ODA loans, offered by JBIC and technical cooperation by JICA should be effectively combined together.

Environmental assistance activities should be closely linked with assistance activities in the agricultural, forestry, industrial and other sectors.

Japan’s assistance activities should be promoted in coordination with UN agencies, the development banks, and other donor organizations of developed countries, when appropriate.

In the formulation of long-term assistance plans, the following actions are required: studies on the targeted environmental problems from various perspectives, the selection of target groups for capacity development, the establishment of an assistance framework based on specific social analysis of the level of the available environmental management, and consideration of the current and future plans of other donors, paying attention not only to Japan’s ODA schemes but also to cooperation by the relevant Ministries and Agencies, local governments, and NGOs. In this process, studies need to be made on ways of securing human resources dedicated to providing assistance to developing countries by implementing projects formulated in Japan.

The following figures show examples of such a broad and comprehensive framework. Figure 2 shows an approach utilizing a close relationship between individual projects, such as projects for household sewage, industrial wastewater, municipal waste, and industrial waste. The individual projects are not necessarily carried out synchronously. They may be carried out consecutively. The approach shown in Figure 3 is designed so that the overall project maximizes the effects of the
individual projects through cooperation by different donors in a specific region. The approach shown in Figure 4 is carried out over a long time frame. The projects are carried out successively, expanding their target areas to achieve a specified objective. Figure 5 shows an approach where small projects, including NGO activities for local communities and the training of human resources, have a greater impact through linkages between them.

Approaches employed should promote multilevel, continuous and cooperative assistance, and contribute to solving environmental problems while producing the maximum impact on target countries and regions. The candidates of the target regions include those with severe poverty due to a rapid decline of natural resources, cities and towns where environmental problems are serious due to rapid population growth, and regions where industrial pollution is critical due to the agglomeration of factories. The priority objectives of the projects should be the improvement of the living conditions of local communities and local people. Experts who are dispatched to implement projects should not only dedicate themselves to their own projects but also pay attention to related projects and cooperate to reinforce these projects. In other words, they should play a catalytic role.

In order to implement broad and comprehensive assistance, it is necessary to have a thorough understanding of the economic, social and, if necessary, political background to the target sectors and areas. Research on the social analysis of target communities is also required. The survey team should allot sufficient time for discussions with the recipient countries and other donors in preparing their projects. The survey team should consist of members who have superior knowledge, experience and technical skills, since the teams will discuss with high-ranking governmental officials as well as leading technicians of the recipient countries when assistance is related to the recipient country’s policies.

It is difficult to design such broad and comprehensive assistance involving many factors when the projects and programs are fully designed before implementation. It is, therefore, recommended that, when necessary, sub-projects be added to ensure implementation in a flexible way during the course of carrying out the project in order to achieve the targets.

Japan is expected to act as one of the world’s leading donors. Agencies concerned with Japan’s ODA should understand the need for broad and comprehensive assistance and provide assistance through the perspectives described above.
Overall projects focusing on comprehensiveness

Approach of forming linkages between projects

A single small project

Figure 5  A gradual and comprehensive approach focusing on the linkages between small projects, including NGO projects

Figure 4  Continuous assistance to environmental projects in specified areas or fields

A single project at an early stage

Approach expanding the target areas

Overall project focusing on comprehensiveness

Institutional framework for the incorporation of projects

A single project

Figure 2  Cooperation between related projects and a comprehensive approach

Institutional frameworks for donor coordination

A single project implemented by Japan

A program including projects formulated through donor coordination

Figure 3  Cooperation between projects carried out by different donors and the introduction of a comprehensive approach
2. **Assistance focused on outcomes**

Ten years have passed since Japan established a full-fledged programme of assistance in the environmental field. During this period, a large amount of contributions have been disbursed to many sub-sectors in the environmental field. For more effective and efficient environmental cooperation, assistance should be implemented with the focus on results and with specified targets set by both Japan and the recipient countries in formulating and implementing projects. To achieve assistance focused on results, five strategies have been devised: 1) Assistance that directly leads to the solution; 2) Region-specific and country-specific assistance based on their characteristics and economic levels; 3) Assistance concerned with achieving most favorable environmental policy and technology; 4) Specifying the detailed activities and outcome of projects; and 5) Mobilizing excellent human resources effectively.

1) **Assistance that directly leads to solutions**

Research alone cannot solve environmental problems, however much research is compiled specifically on the pollution of water in rivers, the edibility of fish in rivers, air pollutants, the extent of air pollution, and the extent of pollution damage to human beings. Planning themselves cannot improve the environment without implementing them as planned, even though relevant agencies monitor the environment, survey pollutants, and formulate programmes to improve the environment throughout the area.

In the technical cooperation field, projects have been carried out with the aim of transferring the technology necessary for monitoring the environment to technical personnel in the developing countries. Specifically, this monitoring was designed to assess the extent of environmental pollution, the causes of the pollution, and the sources of pollution. Projects have also been carried out with the aim of formulating programmes to present methods of improving the urban environment conditions. The critical factor, however, in ensuring the visible outcome of donor assistance depends on the ability of the recipients to facilitate development of the infrastructure and implement environmental management programmes. Without these abilities on the part of the recipients, feasibility studies required for preparing the infrastructure for specified environmental improvements and the formulation of environmental management programmes will have no effect on the improvement of conditions of environmental degradation in developing countries.

When donors execute a feasibility study or formulate a master plan, the donors should train high-ranking governmental officials and technical personnel, including providing them with training on the policy measures required for the implementation of the development programme, the reinforcement of the organization, the establishment of the system, and other related policies and
technologies during the project implementation period. By providing this education and training, the recipient country personnel can start the programme as soon as the feasibility study is completed or when the master plan has been formulated.

Comprehensive institutional frameworks are essential for projects that directly target the beneficiaries. The comprehensive approach includes i) dividing the project into several phases from a long-term perspective, ii) systematically developing a wide range of activities: for example, combining JICA’s dispatch of experts, development studies, project-type technical cooperation, and training courses, iii) combining technical cooperation through JICA with financial aid from JBIC, that is, loan aid or ODA loans, iv) implementing projects and programs in coordination with the other projects and programs carried out by Ministries, Agencies and NGOs, if necessary, v) implementing projects in cooperation not only with Japan’s agencies and organizations but also UN agencies, development banks, and the donor agencies of developed countries, and assistance to the developing countries at the international level.

Enhancing the capacity of recipients to deal with problems of the environment is referred to as “Capacity Development in Environment.” Capacity development in environment is targeted at a wide spectrum of groups such as government departments responsible for environmental management, relevant ministries and agencies, local offices responsible for the implementation of projects, local governments, private companies, target communities, and local NGOs. In assistance to the government departments and their local offices, for example, a wide range of activities are required, including i) assistance for the formulation of legislative frameworks, regulations, and standards, ii) assistance for the formulation and implementation of government action plans, iii) reinforcement of local offices and local governments responsible for project implementation, iv) the transfer of technology necessary for project implementation, v) assistance in designing and implementing training projects targeted at relevant groups, NGOs, etc. vi) assistance for securing facilities, equipment and materials, and vii) activities for raising public awareness.

In the environmental field, particularly in the management of renewable natural resources, assistance is aimed at management by the communities themselves to ensure ownership of the process by the developing countries as well as defining the responsibilities of the governmental agencies of the developing countries.

In order that people in the local communities can participate in designing and implementing projects in their society, consideration should be given to the social structure and the cultural background of the recipient communities and countries. Assistance for the development of communities, in particular, needs to include measures for economic self-reliance, elementary education and adult
literacy programs, primary health care, the empowerment of women, and other activities to improve the living conditions of the community members as well as the environmental conditions.

When pilot projects and demonstration projects are implemented nationwide, development banks and donor agencies specializing in technical fields should cooperate from a variety of perspectives and contribute to environmental improvement and the sustainable use and management of renewable natural resources of the recipient countries. Also, assistance for the solution of complicated urban environmental problems, which requires cooperation between many government agencies, should be implemented targeting at a group of government agencies rather than at a specific agency.

Japan’s ODA needs to directly contribute to the solution of problems caused by complex and diverse factors through assistance to the government agencies and private organizations in developing countries.

2) Region specific and country specific assistance based on their characteristics

The Ministry of Foreign Affairs, JICA and JBIC have established a system in which region-specific assistance guidelines are formulated based on the conditions of the regions, and country-specific assistance designs are then formulated for more appropriate assistance to respond to the needs of the regions and countries concerned.

Before formulating and carrying out projects, it is important to clearly assess whether the recipient countries are sufficiently prepared to accept the assistance projects. The situation of developing countries varies in terms of capacity to deal with environmental problems. There are: i) countries that have developed environmental management to some extent and have a high level of capacity to accept assistance, ii) countries that have established laws concerning environmental management but have been unable to promote environmental management due to weak organizations, iii) countries that have insufficient facilities, machinery, materials, and engineers and the technicians required for environmental monitoring and on-site inspection at factories due to poor finances, and iv) countries where the government has committed to promoting environmental conservation but has been unable to perform.

Based on the conditions in the recipient countries, the short-term dispatch of experts is recommended for some countries to participate in discussions on the basic national policies for promoting environmental management; and the long-term dispatch of experts is recommended for other countries to transfer technology for environmental management to the staff members of recipient organizations. For countries where the government has committed to promoting environmental conservation but
has been unable to perform, assistance is needed to strengthen the basis of environmental management based on development studies, including comprehensive and simultaneous establishment of legal systems, organizations, project implementation systems, environmental monitoring systems, and information gathering systems. In this case, emphasis should be placed on the training of human resources by transferring technology rather than formulating plans. In subsequent phases, it is recommended that this should be followed up through the dispatch of two or three experts, project-type technical cooperation on a larger scale, and/or simultaneous implementation of various different types of ODA schemes.

It is inefficient to try to respond to all the needs of developing countries, even though the requests are pressing. To implement assistance projects through a comprehensive framework, it is necessary to dispatch more experts and provide more equipment and materials, training, and technology, not only in terms of the quantity, but also the quality of which should be increased. In addition, the experts and consultants involved have to be highly qualified. On the other hand, the recipient countries should possess the capacity to receive these projects. The capacity required of recipient countries includes sufficient engineers and technicians, a specified level of technology, equipment and materials, and sufficient budget allocations to implement the projects.

The developing countries themselves have to work to solve environmental problems, since they are ultimately responsible for dealing with them. Assistance from development banks, UN agencies and donor countries alone cannot solve the problems, however carefully it is designed and implemented. The extent to which countries can deal with their national environmental problems depends on their national income and their economic and social conditions.

Most countries of the Association of Southeast Asian Nations (ASEAN) and Newly Industrializing Economies (NIEs), other moderately developed countries, and countries that are in transition to a market economy in Eastern Europe have legal and institutional frameworks for environmental management, and the frameworks are enforced.

In most other developing countries, on the other hand, the main obstacle to successful environmental management is that the enforcement of the environmental management frameworks is not sufficient. In this case, assistance should be aimed at preparing systems necessary for implementing environmental management rather than reinforcing the management. At the same time, assistance projects should be aimed at enhancing ownership by the recipient countries.

In most African countries and other countries with low-income economies, the governments are plagued with severely limited financial resources to improve the living conditions of the people,
since a large proportion of their revenue is allotted to the repayment of multiple debts. Donors had disregarded these circumstances, so that their assistance in providing facilities, equipment and materials has not provided sufficient benefits due to the limited financial resources for their management and maintenance on the recipient’s side. In dealing with urban environmental problems and industrial pollution, in particular, the available financial resources should be properly examined to avoid putting an excessive burden on the recipient countries, agencies, targeted private companies, and state-owned enterprises.

3) Assistance concerned with achieving the most favorable environmental policies and technology

Developing countries differ in their assistance needs in the environmental field. Measures to respond to the needs are formulated from a variety of perspectives, such as i) the amount of investable financial resources, which is often proportionate to the level of economic development of the recipient country, ii) the establishment of environmental policies, iii) the institutions and organizations for environmental management, iv) the actual status of the implementation of environmental policies, v) facilities, equipment and materials necessary for the implementation of environmental policies and the quality of engineers and technicians, vi) the extent of poverty in agricultural and mountain villages, and vii) the soundness of the management base of private companies.

“The most favorable environmental policies and technology” means those policies and the technology that the recipient countries truly need and can utilize. The developing countries are required to develop the capacity to receive financial assistance and technical cooperation. However, in technical cooperation, for example, recipient organizations cannot acquire all the technology at the beginning, since they have no experience in utilizing the technology. It normally takes a decade to realize the benefits of technical cooperation in environmental management, since the problems cover a broad range of issues and there are many interrelated factors, including varying levels of technology as well as political and economic development. Consequently, for assistance to be effective, donors need to properly evaluate the situation and the environmental management system of the recipient, and then formulate plans for technical cooperation according to the phases and levels of the situation and systems. This is to ensure the optimum input of policies and technology.

Japan has overcome serious pollution through cooperation between the central and local governments, private companies, the mass media and the nation over the last thirty years. It is appropriate to argue that Japan’s technology, which was developed in the course of dealing with this pollution, should now be utilized to assist developing countries. Japan’s success, however, is also attributable to political, economic and social conditions that are the advantages of Japan.
Japan’s traditional communities of agricultural, mountain, and fishing villages have acquired wisdom over their long history in the sustainable use of limited resources and in securing forest resources to prevent natural disasters due to flooding as a result of typhoons and heavy rain, as well as landslides and droughts. With regard to health damage caused by pollution, local doctors and researchers have identified the causes, citizens have demanded that the polluters take action, local governments have played critical roles in motivating private companies, and private companies have made huge investments in pollution control. Major investments have also been made in the environmental infrastructure, including environmental monitoring, the construction of sewerage systems, and the construction of disposal sites for general wastes. The automobile industry has promoted the reduction of exhaust gases through the investment of considerable funds in technological innovations to meet the standards for exhaust gas emissions that have been formulated to become successively stricter.

It is inappropriate to transfer to developing countries Japan’s environmental laws, its policies and mechanisms for coordinating the relevant Ministries and Agencies, active environmental management by local governments, or the establishment of environmental infrastructure through public investment, since the political, economic and social background of developing countries is different from that of Japan. Donors are required to formulate measures suited to the various conditions of the recipient countries as well as undertake measures to reinforce environmental management in the recipient countries. With regard to the management of renewable natural resources, donors, together with the recipient local governments, need to continuously work with the local communities concerned to undertake this management. With regard to measures to control industrial pollution, assistance should be limited to the preparations for the introduction of technology that is referred to as cleaner production, as well as end-of-pipe technology solutions, until the recipient agencies improve their leadership to enable private companies and local private enterprises to grow sufficiently so that they can invest in environmental conservation.

Before extending ODA loans, Japan should evaluate the capacity of the recipient agencies to properly establish the infrastructure, their capacity to utilize the transferred technology for environmental management and conservation, and the availability of human resources, technical skills, and financial resources. In addition, when a ODA loan project is formulated, consideration should be given as to whether it could be provided together with technical cooperation as necessity.

It is particularly important that, when JICA implements a feasibility study for a project, JICA should design the feasibility study i) to establish the institutional framework for the project that is the subject of the feasibility study and ii) to build the capacity that will enable the recipient country staff members to implement the project that is the subject of the feasibility study while the feasibility study itself is being carried out.
The major difference between Japan and developing countries lies in the systems to implement environmental policy. In Japan, the central government determines environmental policies and notifies local governments of the need to implement them. In some cases, to prepare for this implementation, local governments inform their technical personnel of the contents of the policies even before they are officially adopted. In contrast, developing countries do not necessarily have such a close relationship between the central government and local governments, nor do they have an effective means of communication between the relevant Ministries and Agencies or coordination mechanisms within the local governments. In such cases, the Japanese system, therefore, cannot be directly applied to the implementation of environmental policies in developing countries. In addition, when environmental policies are formulated in developing countries, the policies should be feasible for the conditions in these countries. It is necessary to develop the most favorable measures and provide technology that is suited to each developing country. However, it is not so easy to realize such measures. In these cases, “South-South cooperation” is one of the effective methods of implementation. Solutions to environmental problems can be promoted through the application of successful examples from other developing countries.

4) Specifying the detailed activities and outcomes of projects

In most cases of implementing assistance projects in the environmental field, the projects are designed by staff members who are responsible for technical cooperation and loan aid while they study the environmental conditions and identify the requirements in the recipient country. With regard to technical cooperation in the implementation of the projects, dispatched experts and private environmental consultants provide cooperation under the supervision of the agency responsible for the cooperation.

Detailed working plans ensure appropriate management of the projects, specifying the activities of the projects, the expected outcomes of the activities, and the dates of the start and end of activities for appropriate implementation. In addition, if the recipient organizations understand the plans, and the plans include the activities to be carried out by the recipient organizations in each phase, this will ensure more appropriate management of the projects.

Environmental science is too broad for aid agencies and their staff members to be able to cover all technology in their field, so it is hard for them to be environmental experts. In order to provide advice from the technical viewpoint, agencies of the central government, Domestic Assistance Committees, Work Supervising Committees support the formulation of the projects. On the other hand, experts in specific technical fields are not necessarily the ones who are most suited to being involved in cooperation with the recipient organizations. JICA staff members who understand the needs of the
recipient countries and experts with experience in technical cooperation are the right persons to i) assess the needs based on the characteristics of the recipient countries, ii) transfer the technology efficiently and assist in the diffusion of the transferred technology, iii) help reinforce legal frameworks and organizations, iv) study measures to maximize the results in the recipient countries, and v) incorporate technical assistance into the projects.

When private consultants are assigned to implement projects, they should prepare documents with the precise design of the projects, specifying the activities and expected results of the projects. Without this documentation, proper supervision of a consultant’s activities cannot be achieved, nor will the projects be successful.

The detailed designing of projects requires careful preparation and close communication with the recipient agencies. Discussions should be promoted based on project documents in English in order that the recipients can fully understand the objectives and the process of the projects and confirm the preparations that they need to make.

Specialized staff members other than those who are involved in preparing the documents should assess the projects before implementation through analysis of the feasibility of the expected results and objectives of the projects. This assessment is also referred to as “project appraisal.” JICA has so far been practicing this form of assessment within the department responsible for the project.

If the project is considered to be inappropriate as a result of the preliminary assessment, the project needs to be reviewed, even if it has taken a long time to prepare. Changes in the situation in the recipient country might require modification of the plan, resulting in an increase or decrease in cooperation based on effectiveness. If necessary, the plan might also be changed or suspended during discussions with the recipient organizations.

Thorough assessments should be carried out during the project identification phase, the project design phase, the project implementation phase, and the monitoring and evaluation phase, based on precise project documents prepared through detailed project planning. The results of the monitoring and evaluation of the projects can be utilized for future environmental ODA project planning. In addition, the progress in the achievement of the environmental project can be made known to the relevant agencies and the public through an evaluation of the assessment.

5) Effective mobilization of excellent human resources

The education and training of human resources from a long-term perspective is essential in order to
raise the quality of experts who are engaged in technical cooperation in the environmental field. While education and training takes a long time, environmental problems often require urgent solutions. Therefore, a system of efficiently utilizing the high quality of expertise already available in Japan needs to be put in place to respond to this urgent demand.

Experts who are considered to have shown excellent performance and accumulated sound experience through past technical cooperation should be short-listed in order that they can be continuously engaged in technical cooperation. It is difficult to establish a system to assign these experts on a regular basis due to the actual circumstances in Japan. A system for involving these experts, therefore, should be aimed at supporting them to temporarily leave their jobs and continue technical cooperation in a new manner. It is expected, for example, that such experts will assume responsibility for the planning of group training and become lecturers for training both in Japan and overseas.

A system in which private consultants are employed was also established. They have experience in technology but do not have sufficient experience in i) improving laws and regulations, ii) assistance for policy formulation, iii) the reinforcement of organizations, iv) the reinforcement of enforcement systems, v) the reinforcement of comprehensive coordination functions between administrative agencies, and vi) the reinforcement of secretariat functions to support coordination mechanisms, all of which are key issues for capacity development in environment in developing countries. Consequently, workshops should be planned to provide effectively designed short-term intensive training so that these consultants can be quickly assigned to undertake cooperation activities.

3. Strengthening partnerships

Japan’s environmental cooperation, which is aimed at responding to a variety of needs in developing countries and focuses on the concrete outcomes of cooperation, should provide greater benefits and should be implemented in such a manner that it shows the presence of Japan. Such cooperation needs to be achieved through coordination with governmental agencies, Japan’s NGOs, local governments, and private companies. In order to strengthen partnerships between these organizations, the following needs were identified: 1) Efforts to carry out activities in concert with NGOs, the private sector, other Japanese government agencies and donors; 2) Strengthening partnerships between JICA and NGOs; 3) Ensuring that transparency and information dissemination are discussed as a specific strategy to promote public participation and environmental assessment.
1) Efforts to carry out activities in concert with NGOs, the private sector, other Japanese government agencies and donors

Various agencies and organizations are involved in ODA-related operations in the environmental field, including the Economic Cooperation Bureau and the Multilateral Cooperation Department of the Ministry of Foreign Affairs, JBIC, JICA, the Ministry of Economy, Trade and Industry, the Ministry of the Environment, the local offices and extra-governmental organizations of the central government, local governments, private companies, and NGOs. The network between these organizations needs reinforcing for a better exchange of information. The Basic Law Concerning Central Government Reform stipulates that the Ministry of Foreign Affairs is empowered to function as a coordinator of the relevant agencies and organizations.

To begin with, a network should be constructed to exchange various kinds of information and to coordinate different operations. The network needs managing properly, and information should be provided appropriately to the relevant agencies and organizations. The overseas representative offices of JBIC and overseas offices of JICA can provide valuable and practical information through this network, and to utilize such information, the system should be constructed to provide information covering a broad range of issues. Arranging various kinds of information and providing valuable information will improve the quality of the network.

On the other hand, there are various technical aspects to individual projects since environmental priorities differ among developing countries, and the assistance projects and technical aspects are required to respond to the needs of the recipient countries. It is therefore important to develop a network through which information on these technical aspects can be exchanged with other donors and agencies in the implementation of projects. In most cases, there are several donors providing environmental assistance in a recipient country, and the knowledge, experience and technologies of each donor are helpful to the other donors.

A system should be developed whereby Japanese Embassy, JICA overseas offices, and JBIC representative offices obtain information through a close partnership. JBIC representative offices can then analyze loan projects, and JICA overseas offices can analyze technical cooperation projects. Promoting coordination with UN agencies and other donors will make it possible for Japan to obtain useful information on projects, and could lead to the establishment of an efficient donor coordination system in the recipient country.

The information obtained through such a network should be reported to the Technical Cooperation Division, Economic Cooperation Bureau of the Ministry of Foreign Affairs and the Regional
Departments of JICA, and contribute to the formulation and implementation of future environmental projects. This is one example of strengthening partnerships.

So far, Central government agencies have played a more critical role in environmental cooperation than local governments, private companies or NGOs. In addition to these conventional way, voluntary cooperation implemented by individual organizations should be more highly appreciated and linked effectively with cooperation on a government-to-government (G-G) basis. This new method is expected to enhance the effectiveness and efficiency of cooperation. For example, environmental cooperation between Kitakyushu City in Japan and Dalian City in China, which involves long-term cooperation based on mutual trust established between the cities, is promoted by local governments and local private companies. Tie-ups involving ODA projects through this cooperation will have a greater and more effective impact.

Another form of ODA assistance should involve specific private companies that have pursued effective environmental management. Some private companies have introduced environmental management systems based on the standards of the International Organization for Standardization (ISO) into their Asian affiliated companies in order that their products can be made available in the international market, and other companies have introduced cleaner production technology and recycling technology to their overseas subsidiaries to reduce environmental management costs.

2) Strengthening partnerships between JICA and NGOs

There are many types of NGOs in the environmental field, including NGOs that are sponsored by royal families and NGOs whose members are mainly researchers. Among the many NGOs, those in developing countries have been actively working in the field of nature conservation and biodiversity protection, with the assistance of NGOs from developed countries and international NGOs. Their activities are, however, limited to specific areas and the number of members is not so large compared with NGOs in the developed countries.

NGOs played a leading role in strengthening the institutional framework for environmental management in developed countries, such as the US, Canada, Germany and Japan. The activities of NGOs are sometimes regarded as an indicator for evaluation of the extent of democratization.

Many donors have placed importance on supporting the activities of NGOs in developing countries, and have actively promoted projects that assist these NGOs. In the environmental field, in particular, donors are assisting NGOs in developing countries since the NGOs of developed countries have been highly regarded as leading players in the solution of environmental problems.
Japan’s NGOs have had difficulty in participating in Japan’s ODA, since it has been provided on a government-to-government (G-G) basis since it began. In the field of technical cooperation, however, the ODA-promoting agencies have begun to assist NGO activities by providing information to NGOs as well as the government staff of the recipient countries. One example involved an NGO that formulated an environmental management plan is that the ODA agencies provided the NGO with scientific data obtained through their field studies, and the NGO utilized the results of these scientific field studies in its community development work.

NGOs in Japan have begun to actively assist the NGOs of developing countries. In response to these activities, JICA has provided Japan’s NGOs with opportunities for a dialogue, and started the Development Partner Project, which is a scheme aimed at establishing links with NGOs. In future, JICA should introduce the NGOs of developing countries to Japan’s NGOs to promote cooperation between them, and thus promote cooperation with Japan’s NGOs.

3) Ensuring transparency and information dissemination

Ensuring transparency in decision-making and the dissemination of information are key issues throughout the world at the beginning of the 21st century. They are recognized as being essential for democratization to advance to a higher level in both developed and developing countries.

Since the Law Concerning Access to Information held by Administrative Organizations came into force, the Ministry of Foreign Affairs, which is responsible for formulating basic policy for ODA, JBIC and JICA, who are responsible for implementing ODA, are required to further disseminate information and ensure transparency. Through information disclosure and ensuring the transparency of ODA, the Ministry, JBIC and JICA will fulfill their responsibility for accountability to the taxpayers. At the same time, information disclosure and ensuring transparency will promote tie-ups with NGOs and other donors in implementing ODA projects.

One of the current key issues for environmental ODA is the participation of the public. Activities involving the public have already been developed in the training courses for foreign participants. In these activities, participation of the public is essential. To accelerate these activities, relevant Ministries and Agencies, local governments, JICA and JBIC, which are promoting environmental ODA, are required to publicize on websites a list of projects being implemented with their outlines, the results of the assessments from the project appraisal phase of projects, and the results of evaluations after project implementation. The system needs to improve public access to environmental information on the activities and achievements of each project, and to respond to questions from the public. Information dissemination will increase transparency in the decision-making process of the
relevant agencies and contribute to greater public support for ODA.

The ODA-related agencies and organizations have already disseminated various kinds of information about projects. In future, they should publicize the contribution of environmental assistance to poverty reduction in the recipient countries and to dealing with global environmental problems, including the process of policy decision-making for the assistance, information that was studied during the decision-making, the objectives of the assistance, and the activities of assistance projects and their results. This will contribute to forming and strengthening partnerships with NGOs and other donors.

In the developing countries, disclosing environmental information and information on development assistance will help the public to better understand environmental problems and the assistance projects designed to deal with them. Some countries have strict restrictions on information dissemination. JICA, however, has actively promoted information dissemination. One of its success stories is that in a certain country government agencies and research institutions had separately accumulated research results without disclosing them, and this information had never been exchanged among them either. JICA, in addition to its own research, gathered the information from all the relevant agencies and institutions in a JICA development study and provided the whole information on a website so that the results were made available to the public as well as the relevant agencies and institutions themselves.