Responses to Questionnaire in the Annex to Decision 4 /CP.4

May. 1999

Government of Japan

This paper presents responses by the Government of Japan to questionnaire, in the annex to Decision 4 /CP.4, regarding the development and transfer of technologies. For more details on the various technical cooperation projects Japan is carrying out, refer to Japan's paper on technology transfer projects separately submitted.

## 1. Practical steps to promote, facilitate and finance, as appropriate, transfer of, and access to, environmentally sound technologies and know-how.

● How should Parties promote the removal of barriers to technology transfer? Which barriers are a priority and what practical steps should be taken?

○ Response:

-- Reduction of high costs, completion of incomplete infrastructure facilities
-- Rectification of gaps in basic technology
-- Increased transparency and efficiency of government administration (including regulations, licensing)
-- Liberalization of investment, opening of economy
-- Application of tax incentive
-- Expanding of demand for technology through introduction of environmental regulations
-- Development of human resources
-- Improvement of access capabilities to information

Since technology transfers from newly industrialized and middle-developed countries to LDCs and LLDCs make it possible to introduce suitable technology at lower expense from these countries, thus to solve problems of high costs and gaps in levels of technology at the same time, such technology transfers should also be of benefit, in addition to those from advanced countries.

● What publicly owned technologies are available? How should Annex Ⅱ Parties report on them? How should Annex Ⅱ Parties promote the transfer of publicly owned technologies?

○ Response:

White Papers and reports of findings by government-affiliated research institutes are available on the Internet. Some examples are:

-- Environmental management technology (environmental regulations, monitoring technology)
-- Energy-conserving and new energy technologies
-- Forestry technology
-- Meteorological observation
-- Waste disposal and management

As ways to promote the transfer of these kinds of technologies, trainings and studies at government-related organs and the dispatch of government specialists are suggested.

● What additional bilateral and multilateral efforts to promote technology cooperation to facilitate technology transfer should be initiated? What should be the priority?

○ Response:

Support for the capacity-building efforts by governments in the areas mentioned above is essential. The primary prioritization should be made by the recipient country, and therefore, it is important for each developing country to provide relevant information through its own national communication. In addition, it is vital that developing countries prepare systems that enable technology transfers to proceed smoothly. For that purpose, administrative dialogues on effective measures (e.g., liberalization) including coordination with discussions in the process of negotiations on economic matters, are beneficial.

The three pillars of the Kyoto Initiative, which Japan has previously announced, are as follows:

1) Cooperation for human resources development

For a five-year period from 1998, Japan is providing training in developing countries for 3,000 technicians, researchers, and administrators.

2) Provision of yen loans with the most concessional terms

Japan is providing ODA loans with the most concessional terms of 0.75% annual interest and a 40-year repayment period to promote activities in the fields of energy conservation, development of new and renewable energy sources, and forest conservation and afforestation.

3) Transfer and utilization of Japanese technology and know-how

To promote technology transfers, Japan has been dispatching teams of technical specialists, building information networks, holding workshops, and so forth.

Moreover, Japan has been carrying out various activities under the framework of the Green Aid Plan (see project outline paper). The Environment Agency of Japan, in cooperation with local governments, has also been organizing the Environmental Conference Asia and the Pacific Region (Eco Asia) to offer a forum for a free exchange of views at the ministerial level in order to promote cooperation in the environmental sector in the Asia-Pacific region. The conference has been held seven times since 1991, and the next conference is scheduled to be held in Sapporo, Japan in September 1999.

Moreover, to promote exchanges of information on experiences with countermeasures against global warming as well as personnel exchanges, Japan has held since 1991 eight sessions of the Asia-Pacific Seminar on Global Warming. Japan has also been supporting the setting up networks throughout the Asia-Pacific region to advance exchanges of technical information about climate change. The ninth session of the seminar is scheduled to be held in July 1999 in Hikone, Japan.

On a bilateral level, Japan is holding discussions on the environment based on policy dialogues and environmental cooperation treaties with developing countries and assisting them in their efforts in this area. For example, with China, Japan has held the Japan-China Comprehensive Forum on the Environment Cooperation, the Japan-China Environmental Cooperation Model Citiy Plan. In addition, within the framework of

Japan's ODA, Japan has been carrying out technology transfers in various developing countries, establishing environment centers in those countries and, with those centers as focal points, helping to diffuse technologies in those countries.

● Are existing multilateral mechanisms sufficient? Are new mechanisms needed for technology transfer? If so, what are appropriate mechanisms for the transfer of technologies among Parties in pursuance of Article 4.5 of the UNFCCC?

○ Response:

In developed countries, the implementation of projects and the development of technology have been realized through the steady efforts of private and public sector researchers to utilize limited funds and human resources. The present technology transfer schemes have been established by making use of the lessons obtained through these efforts. Though Japan does not gratuitously reject the search for new systems, what problems there may be in existing schemes should be specifically verified to avoid duplication of present mechanisms.

Japan is playing a major role in the CTI, an OECD mechanism for international cooperation that is bolstering international efforts for achieving the goals of the FCCC.

● What additional guidance should be given to the interim financial mechanism?

○ Response:

Additional guidance for the GEF was decided at COP 4. With experience currently being accumulated in the provision of financial assistance based on that guidance, the guidance should be evaluate in the GEF reviews to be held every four years.

● What sort of information is needed and what are the best methods for access?

○ Response:

High priority needs based on the varied conditions in developing countries should be identified and selected in those fields in which it is most crucial to develop measures against global warming, i.e., energy conservation, disposal of waste materials,

forest conservation and afforestation, and ways should be established so that developed countries can provide needed information that responds to those needs.

As information tools like the Internet are becoming increasingly effective means for accessing information, developed countries are developing information systems so that these access tools can be efficiently used by developing countries.

● How could access to emerging technologies be facilitated?

○ Response:

Information on emerging technology should be added in due course to that on existing technology, and existing channels and systems for providing information should be improved. In addition, as for the introduction of such emerging technology, investment by private enterprises will be encouraged by guarantees of intellectual property rights.

● What role is the private sector playing in technology transfer? What additional role can the private sector play? What barriers prevent the greater participation of the private sector?

○ Response:

With the private sector possessing almost all the technology in the energy related and other fields, its role in technology transfer is extremely large. Foreign private companies operate commercially-based undertakings in developing countries, and host countries themselves should endeavor to accumulate know-how through these projects.

ODA and other official financing schemes can provide vital impetus for bringing projects to countries in which it may be difficult for private companies to establish undertakings by their own resources. In Japan private sector projects receiving ODA subsidies through AOTS, JODC, and other schemes are providing opportunities for spontaneous transfers of technology and achieving significant results (see section 2).

## 2. Support for the development and enhancement of endogenous capacities and technologies of developing country Parties

● What technical advice on technology transfer is needed? How should such advice be provided?

○ Response:

The demand for technologies for the prevention of pollution, cleaner production, etc. is growing because of the improvement of environmental management capabilities (monitoring, regulatory capabilities, etc.), and technology transfers are being promoted.

In the public sector, Japan is continuing its efforts for the transfer of environmental management technologies through its positive and comprehensive assistance under its ODA and other schemes, which includes the training of personnel, the dispatch of specialists, and the provision of equipment. Similarly, in the private sector, numerous projects are being carried out that are contributing to technology transfers.

● What areas should be the focus of capacity-building and how should it be undertaken, e.g., what kinds of activities, programs and institutional arrangements?

○ Response:

Areas: Environmental policies, prevention of pollution, waste materials, forest conservation and afforestation, energy conservation, new energy sources, manufacturing technology, operational management.

Methodology: Preparation of comprehensive programs for cooperation that combine the training of personnel from administrative agencies in developing countries, the dispatch of specialists for enhancing the capabilities of large numbers of host country counterparts, and the provision of equipment.

Institutions: The Japan International Cooperation Agency (JICA), the Association for Overseas Technical Scholarship (AOTS), and the Japan Overseas Development Corporation (JODC) etc. are engaged in various technology transfer activities. (For details on these organizations and their activities, refer to the projects outline paper.)

In accordance with one of the three pillars of the Kyoto Initiative announced by

the Japanese government at the Kyoto Conference, Japan has been implementing its plan for the training of 3,000 people in developing countries involved in addressing global warming, and many of the trainees are already playing active roles in this area.

It has been made clear that exchanges between research institutes and joint research are effective for discovering and developing the most appropriate technologies through the cooperation between Japan and several other Asian countries. And these exchanges among research organs and specialists are continuing to be advanced.

For the transfer of technologies that can contribute to tackling global warming, efforts being made by the private sector, which is the core base for the actual application of those technologies, play an extremely important role. In Japan, AOTS and JODC are moving ahead with their efforts for the acceptance of trainees by private companies and the dispatch of specialists, and they are positively contributing to the effective transfer of technology for the improvement of manufacturing efficiency, energy conservation, and other measures to stem global warming.

There are numerous public and private sector organizations in Japan involved in technical cooperation; below are the major organizations.

-- Global Environment Department, Environment Agency

Tel. + 81-3-3580-1384 Fax. + 81-3-3581-3348

-- Japan International Cooperation Agency (has a wide network throughout the world)

Tel. + 81-3-5352-5311

URL:http://www jica go.jp E-mail:www@jica go.jp

-- Japan External Trade Organization (17 overseas offices in Asia, 9 in Latin America, 12 in the Middle East and Africa) Tel. + 81-3-3582-5170

URL:http://www.jetro.go.jp E-mail:webmaster@jetro.go.jp

-- Association for Overseas Technical Scholarship (7 overseas offices in Asia)

Tel. + 81-3-3888-8241 Fax. + 81-3-3888-8428

URL:http://www.aots.or.jp E-mail:aots@gol.com

-- Japan Overseas Development Corporation (3 offices in Asia)

Tel. + 81-3-5473-0980 Fax. + 81-3-5473-0987

URL: http://www2.odn.ne.jp/jodc E-mail:jodc-1@pop02.odn.ne.jp

-- New Energy and Industrial Technology Development Organization

Tel. ＋ 81-3-3987-9311 Fax. ＋ 81-3-3981-0742,

URL: http://www.nedo.go.jp E-mail:qinf@nedo.go.jp

● How, to whom, and in what format should developing country Parties make their request for assistance to access required technologies?

○ Response:

Information overseas can of course be accessed by utilizing available information equipment and tools. Information can also be accessed by contacting the local embassies of the Annex Ⅱ Party countries, offices of organizations engaged in international cooperation (for Japan, JICA, JETRO, etc.), or representative organizations.

Many environment-related organizations have been set up in numerous countries around the world, and they are offering a variety of consulting services. Should these services be thoroughly used but there be further requests from developing countries, Japan is prepared to study ways to strengthen these services.

● What technical, legal, and economic information is needed? What practical steps should be taken to promote and enhance access to such information by national and regional centers?

○ Response:

1) Strengthening of the information management capacities of existing national and regional centers.

2) Preparation of tools for sending information (Internet home pages, news letters, etc.).

At present there is a wealth of information available, but if feedback of requests for improvements can be received made after actual utilization of existing equipment and facilities , further improvements will become possible.

● What measures, programs, and activities can best help to promote private sector investment?

○ Response:

In order to promote private sector investment, efforts must be made by developed countries to carry out investigations to identify economic needs and to make developing countries aware of the technologies they possess.

Developing countries should place emphasis on preparing conditions conducive for persuading companies to decide to invest, such as the arrangement of law in line with international investment rules and the preparation of statistics necessary for investment from overseas.

Private sector companies will not invest in areas with high risk or where the conditions for investment are severe. To attract projects to countries where investment cannot be introduces by the efforts of the private sector alone, the impetus provided by official funding by ODA and other schemes is effective.

## 3. Assistance in facilitating the transfer of environmentally sound technologies and know-how

● How should the Convention oversee the exchange of information among Parties and other interested organizations on innovative technology cooperation approaches, and the assessment and synthesis of such information?

○ Response:

The Convention can oversee information exchanges at SBI and SBSTA through consideration of the National Communications from each country and the information presented by organizations cooperating for the achievement of the goals of FCCC.

● How should information be compiled and synthesized on innovative technology cooperation approaches? When should recommendations on such approaches be forwarded to the Conference of the Parties?

○ Response:

SBSTA is gathering information on the relevant activities, and it should report

and make public its findings and evaluation at COP and other forums.

● How and when should information on projects and programs of technology cooperation which Parties believe can serve as models for improving the diffusion and implementation of clean technologies internationally under the Convention be provided to the secretariat? How could information on such model programs be evaluated?

○ Response:

It is understood that, based on Decision 4/CP.4, such information is to be presented by the Parties and concerned NGOs and to be considered by the SBSTA 10. Japan intends to make such information on model projects more widely known by utilizing opportunities at COP, SB and other forums.

4. Other questions

● Can specific technology transfer goals be set?

○ Response:

What an appropriate transfer of technology is depends on the recipient entity. The goal should be for each transfer of technology to respond to the conditions prevalent and to make the maximum possible contribution.

**往電国地６５０号に関し、**

**冒頭往電１．（２）で述べた「技術移転に関する質問状への回答」を別ＦＡＸ公信にて送付するところ、貴地気候変動枠組条約事務局に至急手交ありたい。**

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