

# Japan Environment Quarterly

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*Ms. Kayoko Shimizu, Director-General of the Environment Agency and the Minister in Charge of Global Environmental Issues.*

## Message from Environment Minister Kayoko Shimizu

I am honored to have the opportunity to succeed as Director-General of the Environment Agency and Minister in Charge of Global Environmental Issues. I recognize environmental issues as important policy issues for the 21st century for Japan and the entire world. As the Minister responsible for the environment, I know that I must make my utmost effort to respond fully to the challenges, which lie ahead.

Among environmental problems, global environmental issues such as global warming have become an enormous problems, with conflicts of interest between developing and developed countries, and among developed countries such as

Japan, the United States, and the European Union. Recognizing global warming as one of the most pressing issues facing humanity today, the Government of Japan has shown leadership in addressing this problem, such as by hosting the Third Session of the Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC) in 1997, which resulted in the Kyoto Protocol.

At COP5, held recently in Bonn, Germany, I expressed my view to Chancellor Gerhard Schroeder of Germany, Secretary-General Kofi Annan of the United Nations, and others that the Kyoto Protocol should enter into force by 2002 at the latest. I also called directly upon Ministers of the countries represented there to create good conditions for progress in international negotiations. In the coming months, I will do my best to promote the international negotiations for developing the rules required to achieve the entry-into-force of the Kyoto Protocol by COP6.

Regarding Japan's domestic measures, I will strive to provide a good model of efforts addressing global environment problems in all areas, related to industry, transportation, and daily lifestyles, for example, with initiatives based on the Law Concerning the Promotion of Measures to Cope with Global Warming. This law entered into force last spring, putting Japan on the forefront of efforts to prevent global warming.

Moreover, I will promote initiatives to implement the Law Concerning Special Measures against Dioxins that was passed recently by the Diet in order to establish a society free from

*(cont'd pg. 7, Message)*

# Emergency National Survey on Dioxins

In order to study dioxin contamination in Japan, the Environment Agency's Environmental Health Department, Air Quality Bureau, and Water Quality Bureau conducted jointly an emergency national survey in FY 1998. The survey focused on environmental media including air, water, soil and bottom sediment, applying standardized methodology nationwide. The outline of the survey report is as follows.

## 1. Methodology

Dioxin concentrations were measured for air, settled dust and soot, water, groundwater, sediment in public waters, soil, and aquatic life at 400 sites including dioxin sources, major cities, medium-sized cities, and background

concentrations.

## 2. Results

Atmosphere, settled dust and soot: Dioxin concentrations were highest in the atmosphere near dioxin sources, second highest in major cities, and third highest in medium-sized cities, followed by background levels.

Groundwater: Overall, dioxin concentrations were low and no particular differences were detected in concentration levels among sites.

Coplanar PCBs: For almost all the environmental media, at more than 80% of the sites coplanar PCBs accounted for less than 10-30% of the overall Toxic Equivalent (TEQ) at the site. (TEQ is a measure of the total toxicity of the many types of dioxin at a site.)

However, for aquatic life, coplanar PCBs accounted for over 50% of the TEQ at over 70% of the sites.

## 3. Analysis

While some correlation was found in dioxin concentrations between the atmosphere and settled dust and soot, no significant correlation was found between other environmental media. More research is needed into the characteristics and behavior of dioxins in the environment.

The Environment Agency will continue to promote countermeasures for dioxins, taking account into these results and conducting further studies on dioxins and the effects of pollution. 

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## Dioxins in Agriculture

The Environment Agency recently announced the results of research conducted on dioxins in agricultural soil and crops in FY 1998, in collaboration with the Ministry of Agriculture, Forestry and Fisheries (MAFF).

The concentrations of dioxins in agricultural soil and crops were measured at 52 locations nationwide. The average

concentration of dioxins was 28 pg-TEQ/g for agricultural soil and 0.026 pg-TEQ/g-wet for six kinds of crops such as unmilled paddy rice, daikon radish, potato, cabbage, sweet potato, and grass. These results were regarded to be in the usual range.

The Environment Agency will analyze these results and conduct further research on dioxins in

agricultural soil and crops with MAFF in the future. Adding these outcomes of this study to their stock of information on dioxins, the Environment Agency will continue to address issues relating to dioxin exposure risk.

*\*Dioxins are defined in the survey report to include PCDDs, PCDFs, and coplanar PCBs.* 

# Japan Signs Rotterdam Convention on Trade in Dangerous Chemicals

The Government of Japan signed the Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention) on 31 August 1999 at the United Nations headquarters in New York. Adopted at a Conference of Plenipotentiaries in September 1998, the Rotterdam Convention's purpose is to reduce the environmental and health risks posed by hazardous chemicals and pesticides.

Jointly organized by the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO), the prior informed consent (PIC) procedure

was being implemented by countries on a voluntary basis. It would be undergone changes to bring it in line with the provisions of the Convention and would be implemented in the interim period until the Convention enters into force. The Convention requires that certain hazardous chemicals and pesticide formulations, which have been banned or severely restricted in at least two countries, be listed in an appendix that covers 27 chemicals and pesticides so far. Each Party shall implement appropriate legislative or administrative measures to ensure timely decisions with respect to the import of chemicals listed in the appendix. Each Party shall ensure adequate availability of

information on chemicals banned or severely restricted with regard to risks to human health or the environment.

Recognizing the importance of prevention of risk from harmful chemicals, the Government of Japan had been previously implementing the PIC procedure on a voluntary basis. However, as 66 states had already signed the Convention and public concern about hazardous chemicals is increasing, the Government decided to sign it in order to present a pro-active stance about dealing with hazardous chemicals. The Convention will enter into force once 50 states have ratified it. 

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## Japan-U.S. Shorebird Leg-flag Project

Japan and the United States are cooperating in an international project to attach colored leg flags to shorebirds in order to collect information on the status of shorebird populations and migrations, according to an agreement reached in February between the Environment Agency of Japan and the U.S. Fish and Wildlife Service, Department of the Interior. Dunlins (*Calidris alpina*) were marked with leg flags in Alaska in August 1999, and the Environment Agency has been publicizing leg flag activities to collect re-sighting information by distributing leaflets, which also boosts public interest in the protection of shorebirds and wetlands.

Many of the shorebird species breed around the Arctic Circle in summer and migrate over 10,000 kilometers to the south for the winter. Wetlands play an important role in migrations, since shorebirds stop at wetlands along the route for food and rest, including those in Japan. The dunlin's flyway is still not well known, although it is known that some subspecies breed along the western coast of the Pacific Ocean and then migrate south to wintering grounds.

In order to collect information on flyways, the leg flag project involves attaching a colored 7-millimeter flag to birds' legs to identify them. In Japan the birds are marked at Lake Komuke and

Lake Furen both in Hokkaido, and the Obitsu Estuary and Yatsu Tidal Flat both in Chiba. The advantage of the leg flag method is that birds and flags can be identified from a distance by telescope. People who saw leg-flagged shorebirds are asked to send information to the Yamashina Institute for Ornithology, Konoyama 115, Abiko City, Chiba, 270-1145, Japan, or fax to: +81-471-82-4342.

*\*An English version of the leaflet is available. For more information, please contact the Wildlife Protection Division, Nature Conservation Bureau, Environment Agency (Phone: +81-3-5521-8284).* 

# ECO ASIA '99 Results

The Eighth Environment Congress for Asia and the Pacific (ECO ASIA '99) was held in Sapporo, Japan on 4 and 5 September 1999, hosted by the Environment Agency, Hokkaido Prefecture and City of Sapporo. The congress was attended by 111 participants from 17 countries in the Asia-Pacific region including 8 Environment Ministers and 12 representatives from 11 international organizations. The major outcomes of the sessions are described below.

## **(1) Session Open to the Public: Realizing Sustainable Society in the Asia-Pacific Region in the 21st Century**

A keynote speech was given on the environmental situation in the Asia-Pacific region and the strategies for the comprehensive review of Agenda 21 to be held in the year 2002, known as the "Rio+10" conference. Reports were also given by Environment Ministers from Japan, Cambodia, Republic of Korea, and Nepal on the countermeasures against environmental problems taken in their respective countries. During

the discussion, the view was expressed that the "Rio+10" meeting should be held in the Asia-Pacific region given the importance of the region for sustainable development in the 21st century. It was also expressed that ECO ASIA should urge to strengthen cooperation with parliamentarians or parliamentarian groups. Some participants pointed out that more efforts are needed to promote biomass energy.

## **(2) Climate Change**

After presentations, participants pointed out that (a) the early entry-into-force of the Kyoto Protocol and the success of COP5 and COP6 of the United Nations Framework Convention on Climate Change (UNFCCC) should be achieved through strong political leadership, (b) the importance of "win-win" approaches should be emphasized to promote climate change countermeasures with a wider and more effective participation of both developing and developed countries and international organizations through regional cooperation, (c) the provisions of

the Kyoto Protocol and the Clean Development Mechanism (CDM) demand more extensive and broader-based discussions, regional cooperation, technology transfer and financial investment from developed countries to developing countries, and capacity building in developing countries.

## **(3) Regional Cooperation towards Sustainable Development**

In discussions it was pointed out that (a) regional cooperation towards sustainable development is important, involving technology transfer by the private sector, intergovernmental and scientific network, as observed by the progress of the Acid Deposition Monitoring Network in East Asia (EANET), (b) Asian and the Pacific countries' experience in regional cooperation is useful both inside and outside the region.

## **(4) Contribution to the Comprehensive Review of Agenda 21 in the Year 2002 ("Rio+10")**

Participants emphasized that (a) "Rio+10" should be joined by many stakeholders, especially from



*Panel of session open to the public.  
From the left, Dr. Kondo, Chair of the  
Central Environment Council of Japan,  
moderator, and four Environment Ministers,  
Dr. Mareth of Cambodia, Mr. Manabe of Japan,  
Dr. Kim of Korea, and Mr. Balayar of Nepal.*

developing countries, in order to establish global partnership, (b) ECO ASIA outcomes should play an important role in the Asian-Pacific contribution to “Rio+10”, (c) coordination of relevant international agreements and various international meetings should be sought in order to avoid too many meetings without adequate preparation, (d) effective preparation for “Rio+10”, reform of international organizations, input from the Asia-Pacific region, and the role of ECO ASIA are

important, and (e) the establishment of regional partnerships and networks. The importance of environmental education for sustainable development in this region was also pointed out.

ECO ASIA, an informal ministerial-level environmental forum for Asia and the Pacific region, was launched by the Environment Agency of Japan in 1991, in order to provide input from the Asia-Pacific region to the Earth Summit held the following

year, and is now regarded as a leading forum on environmental policy dialogue in the region. It is expected that ECO ASIA will play a role in bringing a message from this region to “Rio+10” in 2002. An important part of preparations to “Rio+10” includes the 4th Ministerial Conference on Environment and Development in Asia and the Pacific being organized by ESCAP, which will be held consecutively with ECO ASIA from 31 August to 5 September 2000 in Kitakyushu, Japan. 

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## Study Released on CFC Recovery

Chlorofluorocarbons (CFCs) used in electrical appliances such as refrigerators and car air-conditioning must be prevented from escaping into the atmosphere, in order to protect Earth’s ozone layer, which protects it from the sun’s ultraviolet light. Accordingly, used electrical appliances should be collected in order to allow recovery and decomposition of the CFCs they contain.

In response to a report released by the Council for Promoting the Protection of the Ozone Layer in September 1997, the Environment Agency has been encouraging local governments and manufacturers to deal with the collection, reuse, and destruction of CFCs.

The Environment Agency and the Ministry of International Trade and Industry (MITI) jointly investigated the status of CFC refrigerant recovery in FY 1998. The results are as follows.

- (1) Overall, the CFC recovery rate was low, at 29% (in terms of number of units) for household refrigerators, 12% (in terms of CFC volume) for car air-conditioning, and 56% (in terms of CFC volume) for commercial refrigerators respectively. The study reveals that the CFC recovery system has just commenced at the community level and in various business sectors, and that the CFC recovery rate varies areas and sectors.
- (2) The number of municipalities recovering CFCs from household refrigerators is steadily increasing, reaching 81% nationwide by the end of FY 1998 compared to 73% the year before. The recovery rate of CFCs from household refrigerators has also been steadily increasing since FY 1997 although the collection

- rate of number of units slightly decreased to 77% in FY 1998 compared to 78% in FY 1997.
- (3) A council for promoting CFC recovery for concerned parties was set up in all the prefectural governments and cities designated by ordinance in August 1999.
- (4) There were 33 CFC treatment facilities nationwide at the end of FY 1998. The amount of treated CFCs increased to 537 tons in FY 1999 from 148 tons in FY 1998 (3.8 times).

The Environment Agency plans to collaborate with MITI and other ministries concerned to take initiatives further promoting the recovery of CFCs, by following up CFC recovery work through the Council. 

# Environmental Activities Evaluation Program Revised

The Environment Agency conducted a comprehensive review of the “Environmental Activities Evaluation Program,” established by the Agency in September 1996, aiming to promote environmental activities by businesses, particularly small- and medium-sized enterprises. Environmental management systems are guided by the international standard ISO14001. This program, however, is coordinated with ISO14031, environmental performance evaluation guidelines, which are being prepared for companies which have not yet established ISO14001 systems. It describes how to conduct self-evaluations of environmental activities such as estimating CO<sub>2</sub> emission and chemical emissions, and includes checklists to review

environmental activities.

Companies seeking high environmental standards often seek to achieve the standards set by ISO14001 series for environmental management system (EMS). However, many small- and medium-sized businesses hesitate to begin efforts, because they lack information about environmental management. It is hoped that the simplified methods will encourage more businesses to embark on this path.

The major features of the revised program include:

- (1) The revised program is consistent with ISO14031 and can be used as a guide when a company applies the standards in practice.
- (2) Emissions of chemical

substances and CO<sub>2</sub> can be measured more easily and a company can assess its performance using a checklist.

- (3) Businesses are now given two options allowing easier participation to submit reports to the National Association for Promotion of Environmental Conservation with differing levels of information disclosure.
- (4) The Environment Agency will cooperate with the National Association for Promotion of Environmental Conservation, local governments, and non-governmental organizations to advance the program.
- (5) The program has become easier to understand and is better organized. 

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## Ninth Asia-Pacific Seminar on Climate Change

The Ninth Asia-Pacific Seminar on Climate Change was held in Hikone, Shiga, Japan from 12 to 15 July 1999. This Seminar was organized by the Environment Agency, Shiga Prefecture, City of Hikone, and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), in cooperation with the Ministry of Foreign Affairs, the Ministry of International Trade and Industry, and the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC). The Seminar was attended by experts from 23 countries in the Asia-Pacific region and representatives from 6 international organizations. The thrust of the Chair’s summary is described below.

- (1) In order to facilitate the entry-into-force of the Kyoto Protocol, participants reaffirmed the need for finalizing the rules governing the Kyoto Mechanisms at COP6.
- (2) Participants recognized that prioritizing work on the Clean Development Mechanism (CDM) would provide an opportunity to facilitate investments and technology transfer from developed to developing countries.
- (3) Participants appreciated the policy-relevant work by the Intergovernmental Panel on Climate Change (IPCC) through various special reports. The need to develop high resolution models for climate

change scenarios was highlighted.

- (4) Developing countries in this region have taken climate change considerations into account in their social economic and environmental policies.
- (5) Participants recognized that designing and implementing concrete actions or projects generally have various additional benefits, such as capacity building through the establishment of organizations or committees for intensive discussion on scientific analysis, technological needs and options.
- (6) Participants expressed their appreciation for the early establishment of the gateway

web site of the Asia-Pacific Network on Climate Change (APNET) by the Environment Agency. They also emphasized the need to establish national web sites on climate change, and to build capacity to generate, disseminate and update relevant information.

In order to facilitate the early entry-into-force of the Kyoto

Protocol, the parties should establish system described in the Kyoto Protocol through dialogue between developing countries and developed countries. At this seminar, the exchange of information and views was facilitated on CDM among participants. Participants reaffirmed that the COP6 must be successful and confirmed the need for designing and implementing

concrete actions or projects. This seminar took a significant step toward international cooperation on the prevention of global warming.

The major outcomes of the seminar were reported to the ECO ASIA '99 held in September in Sapporo, Japan.

*\*For more information about APNET, see the Internet web page at <http://www.ap-net.org/>* 

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(from pg.1, Message)

environmental hazards such as dioxins and endocrine disrupters.

The Environment Agency announced seven proposals in the draft budget for FY 2000 in order to establish the proper foundation for Japan's environmental policy in the 21st century, namely:

**1) The creation of frameworks to realize a society in harmony with the global environment, based on sound material cycles**

At the dawn of the 21st century, Japan's Basic Environment Plan will be reviewed and legislation will be considered to solve problems relating to waste management and recycling. The Environment Agency will also strive to establish social and economic systems which promote the use of environmentally-friendly products by providing assistance to enhance the potential of companies which develop and spread new environmental protection technologies. Moreover, in order to further promote the environmental activities of citizens, which play an important role in the realization of an environmentally-sound society, the Environment Agency will provide assistance for grass-roots activities and promote a strengthening of environmental education and study. Community-level approaches to coexist with the natural environment and

maintain a sound water cycle will also be promoted.

**2) Proactive and systematic efforts to deal with chemical substances such as dioxins**

As legislative frameworks have already been established, such as the Basic Guidelines to Promote Countermeasures to Dioxins, the Law Concerning Special Measures against Dioxins, and the Law Concerning Reporting, etc., of Releases to the Environment of Specified Chemical Substances and Promoting Improvements in Their Management, the Environment Agency will now prepare detailed measures to deal with chemical substances, including dioxins, and work aggressively to enforce them. Moreover, systematic efforts will be strengthened to promote measures to reduce environmental risks from chemical substances, so that future generations can live safely in the environment of the 21st century.

**3) Effective domestic and international initiatives to deal with global warming and other global environmental problems**

Regarding global warming, the Environment Agency will make its utmost effort to create conditions in the international community conducive to the signing and entry-into-force of the Kyoto Protocol.

Starting in FY2002, the Environment Agency will develop and implement proposals which will serve as components of Japan's efforts to achieve its GHG emissions reduction target of 6% as committed to under the Kyoto Protocol. Furthermore, in 2002, the tenth year after the UN Conference on Environment and Development (UNCED), the Environment Agency will encourage policy dialogue and facilitate regional cooperation in Asia and the Pacific by holding an international meeting at the ministerial level, in order to enable dramatic progress globally in environmental policy including developing countries.

**4) Strengthening of measures to address environmental problems relating to automobiles in large cities**

The Environment Agency will give priority to encouraging the development and use of low-emission vehicles as alternatives to large diesel vehicles, in order to achieve improvements in air pollution in large cities resulting from automobile traffic. New policies will also be considered to reduce the total amount of NOx emissions from automobiles, and improvements in measures to reduce road traffic noise will be promoted to comply with revised

environmental quality standards for noise. As for suspended particulate matter, in addition to considering comprehensive measures such as regulations, improvements in monitoring and assessment methods for particulate matter will be sought for the purpose of considering countermeasures.

### 5) Active conservation of diversity in nature which is appropriate to local conditions

The Environment Agency will implement strategic conservation plans to preserve diversity in nature in ways that are appropriate to different local conditions, such as in forests and wetlands. It will also actively promote scientific wildlife protection and management for the coexistence of humans and wildlife based on the revised Wildlife Protection and Hunting Law. Furthermore, in order to promote interaction with nature, the Environment Agency will encourage the improvement of facilities in natural parks with an emphasis on coexistence with the environment and learning about the natural environment, and strengthen programs to learn about and experience nature.

### 6) Pollution-related health damage compensation and prevention

The Environment Agency will ensure assistance for victims of pollution-related health damage and will strive to steadily promote the prevention of such health damage. As regards Minamata disease, it will continue to implement the measures included in the Cabinet consent of December 1995, including the Comprehensive Medical Care Program for Minamata Disease.

### 7) Institutional preparations for the conversion of the Environment Agency to the Environment Ministry, which can achieve appropriate environmental administration in the 21st century

As the Environment Agency will become a Ministry in January 2002, the environmental administration will be strengthened and reinforced institutionally with increased personnel. After the Agency becomes a Ministry, governmental administration relating to waste will be integrated and more responsibilities will come under our jurisdiction, such as measures for dealing with chemical substances. Initiatives to deal with global environmental problems will also be strengthened. In order to encourage the public to understand and participate in environmental policy-making and in order to realize a people-friendly Environment Ministry, efforts will be made to provide information about environmental research to the public in easy-to-understand ways.

Many tasks are ahead for the Environment Agency. We look forward to the cooperation of many people and organizations to achieve results as we approach these tasks. 

*For more information about events and articles in JEQ please contact the Global Environment Department.*

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## 1999

### December

9-11 International Symposium on Environmental Endocrine Disruptors'99 (Kobe, Japan)

## 2000

### February

14-15 G8 Environment Futures Forum

22-3 March

Ad Hoc Inter-  
sessional Working  
Groups of the UN  
Commission on  
Sustainable  
Development  
(New York)

### April

4-6 OECD/  
Environment Policy  
Committee (Paris)

7-9 G8 Environment  
Ministers' Meeting  
(Otsu, Japan)

24-5 May

The 8th Session of  
the Commission of  
Sustainable  
Development  
(New York)

### May

TBA International  
Symposium 2000  
on Groundwater,  
IAHR (Omiya,  
Japan)

### August

31-5 September

ESCAP/The 4th  
Ministerial  
Conference on  
Environment and  
Development in  
Asia and the  
Pacific (Kita-  
kyushu, Japan)

### September

3 Environment  
Congress for Asia  
and the Pacific  
(Eco Asia 2000)  
(Kitakyushu,  
Japan)

TBA = To Be Announced