ICETT NEWS

News & Events for ICETT Alumni

VOL. 2
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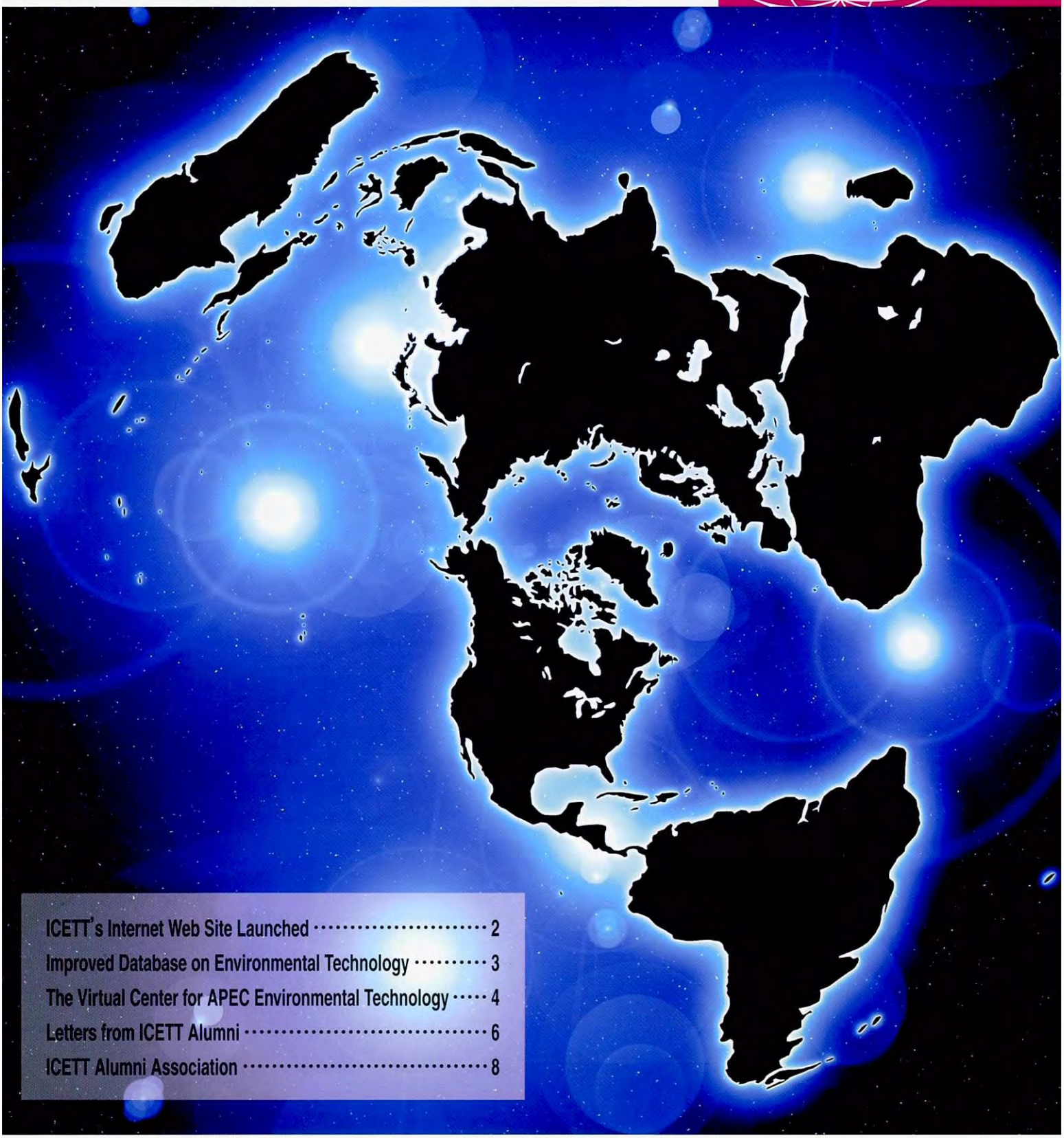

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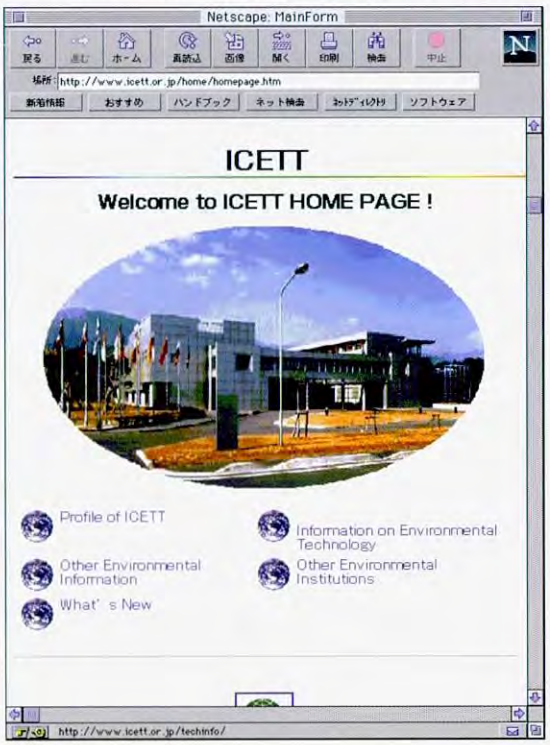
INTERNATIONAL CENTER FOR ENVIRONMENTAL TECHNOLOGY TRANSFER

ICETT's Internet Web Site Launched

ICETT aims to contribute to conservation of the global environment by working to help reduce or prevent environmental degradation around the world. In pursuing this goal, ICETT makes use of information on environmental conservation technologies and administrative approaches developed in Japan as we have combated our own industrial pollution problems. We are therefore pleased to inform you that, in November 1996, we launched English and Japanese versions of the ICETT Web site. This initiative is part of our series of efforts to expand availability of our information and provide information on ICETT's activities and environmental conservation technologies to people both in Japan and abroad. ICETT's Web address appears at the end of this article.

This Web site includes sections entitled "Profile of ICETT," "What's New," "Information on Environmental Technology," "Other Environmental Information," and "Other Environmental Institutions." The "Profile of ICETT" provides information on the history of ICETT and its organizational structure and "What's New"outlines past and current programs as well as plans for such areas as training programs; R&D programs; survey and information services; personnel exchanges and information dissemination programs; and news updates. "Information on Environmental Technology" introduces



Japan's environmental conservation technologies in the form of a database compiled from information obtained through ICETT surveys."Other Environment Institutions" provides links to the Web sites of other Japanese organizations involved in environmental conservation and sustainable development. These links enable viewers to access additional information on the environment and to obtain information on these organizations.

We plan to upgrade our Web site and expand the content to make it more attractive and useful to a greater number of people. We look forward to receiving your comments and requests by e-mail.

E-mail address: info@icett.or.jp

Web site address: http://www.icett.or.jp

Improved Database on Environmental Technology

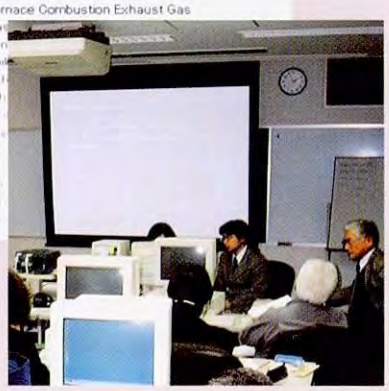
In order to provide easy access to information on Environmental Technology, ICETT has compiled a database that is accessible via the Internet.

We have focused on environmental technologies that are applicable to many countries. The information compiled in the database was obtained through surveys conducted in cooperation with many private companies in the Chubu region of Japan, where ICETT is located. These companies, with which ICETT has close relationships, are involved in the development of environmental technologies. The database contains only those technologies that have significantly contributed to environmental protection. To ensure the practical application of the technologies, we have provided information in the database on how and why each technology was adopted and what benefits have resulted from it.

LIST OF AIR POLLUTION CONTROL TECHNOLOGY

This data base introduces examples of the environmental control technologies, by technological and industrial classifications, that have already achieved satisfactory results at the companies located in the central part of Japan, compiled by the courtesy of these companies.

4 Reduction of SO2 and Offensive Odor from Process Exhaust Gas
6 Reduction of SOx and dust in Process Exhaust Gas
7 Reduction of NOx Discharge
12 Discontinuance of Use of 1-1-1 Trichloroethane
18 Treatment of Flue Gas (Reduction of NOx, SOx and Soot)
22 Removal of Exhaust NOx by Ammonia Catalytic Reduction Method
26 Dry Type Flue Gas Desulfurization - Denitration Technology
27 Reduction of SO2 Discharge by Wet Limestone Gypsum Flue Gas
28 Removal of NOx Discharge by Dry Ammonia Catalytic Reduction
29 Reduction of NOx Discharge by Improving Combustion Method
32 Improvement of Power Generating Efficiency
35 Reduction of SO2 in Boiler Exhaust Gas
36 Decrease of NOx in Boiler Exhaust Gas
37 Reduction of Smoke Dust in Boiler Exhaust Gas
38 Reduction of NOx in Furnace Combustion Exhaust Gas



The database comprises data sheets categorized by five target technologies: air pollution, water pollution, waste treatment, energy conservation, and cleaner technology. To facilitate understanding, each category contains one-page data sheets and a flow chart explaining each technology and its effectiveness. All data can easily be retrieved, and the database is searchable not only by the above categories but also by key word, such as specific technical terms or purposes. For example, searching terms such as *electroplating*, *dust collector*, and sludge will lead you to technologies related to these subjects.

We welcome any comments or suggestions you may have regarding improvement of the database.

The Virtual Center for APEC Environmental Technology

Preparations are under way to launch The Virtual Center for APEC Environmental Technology (Japan Center), a forum aiming to promote the exchange of information on environmental technology among APEC economies over the Internet. It is scheduled to begin operation on April 1, 1997, in Osaka. As mentioned elsewhere in this newsletter, ICETT's Web site (http://www.icett.or.jp) has been operating since November 1996 at a preliminary stage and is almost ready to begin full-fledged operation. The ICETT Web site is linked to the Virtual Center.

Conceived as a Japanese contribution to environmental conservation, this initiative was proposed during the APEC Symposium on Environmental Technology Cooperation held in Nagoya in October 1995. At the APEC Osaka Conference held in November 1995, this initiative was designated as a formal APEC joint program.

As part of this initiative, the International Symposium for the Promotion of APEC Environmental Technology Exchange and the Experts' Meeting for APEC Environmental Technology Exchange were held on November 11-19, 1996, in Osaka, Kyoto and Mie prefectures in Japan, in order to make the most of The Virtual Center and to encourage wide access. A summary of the symposium follows.

The International Symposium for the Promotion of APEC Environmental Technology Exchange

A total of 450 representatives participated in the symposium, including environmental policymakers from nine APEC economies, delegates from UNDP and UNEP, and members of local governments, the business community, research institutes, and consultants. The theme of the symposium was "Functions and Roles of The APEC Virtual Center." Discussion topics included the need for exchange of environmental technologies among APEC economies, the kinds of information to be offered by the Virtual Center, and future directions for exchanges of information and personnel.

The following reports were presented by the participating economies.

1. As the Asia-Pacific region currently enjoys the world's highest economic growth rate, sustainable development will be possible in the future through the effective introduction of environmentally sound technologies.
2. The scope and type of development in this area will have an important influence on the global environment.
3. Methods of exchanging environmental technologies are critical to ensuring sustainable development and global environmental conservation.
4. Current utilization of the Internet, the world's largest information and communications network, in various economies and the future challenges of Internet usage were examined.

From Japan, the following reports were presented.

1. An overview of The Virtual Center for APEC Environmental Technology Exchange
2. Demonstration of the prototype Web site (http://www.apec-vc.or.jp)
3. Proposals for content that could be provided by Kansai-based corporations and institutions.

Experts' Meeting for The Virtual Center for APEC Environmental Technology Exchange

From November 14 to 19, 25 representatives from 12 economies participated in the Experts' Meeting in order to expand the discussions held during the Symposium. The meeting included explanations and tours of the major organizations linked to The Virtual Center for APEC Environmental Technology Exchange, including the International Center for Environmental Technology Transfer (ICETT), the Global Environment Center (GEC), and the Research Institute of Innovative Technology for the Earth (RITE). The Web sites of each of these organizations and of the Virtual Center were introduced. In addition, participants exchanged views and presented reports on the following themes.

1. Current transmission of environmental information among APEC economies and future outlook
2. The Virtual Center
3. Environmental technology required by APEC economies
4. Encouraging participation in The Virtual Center

Participants agreed on the following points:

1. The Virtual Center shall be established and expanded broadly within the Asia-Pacific region.

a. Development of infrastructure and human resources should be investigated in order to establish a network in each economy.
b. Regular meetings and personnel exchange meetings should be held.
c. Information should not be limited to environmental technology and should include a broad range of fields.
d. Information should not be limited to the data provided by governments within the region; it should also include information from a broad spectrum of society, including corporations, local communities, and the public.

2. Major points regarding The Virtual Center for APEC Environmental Technology Exchange are to be promoted further by Japan

a. Efforts should be made to integrate a glossary search function in a database of environmental information systems. Information systems and search functions should be uniform within the region. Access should be possible in multiple languages and information for children will be included.
b. The information compiled should be innovative, reliable, and effective.
c. Efforts should be made to extend The Virtual Center throughout Japan.

All participants recognized the present problems and future tasks to be carried out by the various economies. It was also agreed that exchanges of views and information should be continued, especially via e-mail.

Letters from ICETT Alumni

We are very pleased to have received so many comments from ICETT alumni regarding the first edition of the ICETT Newsletter. We very much appreciate your support. Here, we present some of the comments we received. (Submissions have been edited for length.)

Blaga Todorova Ananieva (1995)

Chemical Engineer, R&D Department, CHIMCO EAD,
Bulgaria

Thank you for sending us *ICETT Newsletter* No. 1. We very much appreciate your consideration.

I am a chemical engineer at CHIMCO, a leading ammonia and urea manufacturer situated in the town of Vratza. Our company is responsible for nearly 3 percent of world urea production, and we export our products all over the world. At this moment, our domestic market is rather inactive because our nation is in a transitional period and agricultural demand is sluggish.

Despite these circumstances, our company is making efforts to increase profits, reduce energy consumption, and minimize air and water pollution. This year, we will introduce a new saturation unit for natural gas, the main raw material used in ammonia production. With this system, we will be able to reuse condensates generated from ammonia and urea production processes. This will enable us to eliminate carbon dioxide, ammonia, urea and other process water impurities, which are normally discharged and become a major source of water pollution. Together with this revamping of our ammonia production plant, we will introduce an energy-conserving system that uses an MDEA (Methyl-diethanolamine) solution as a replacement for the absorbent used to remove the carbon dioxide generated from the synthesis gas. Our expectations are for an energy saving of between 15 and 30 percent.

As discussed in our first lecture at ICETT, reducing energy will directly reduce air pollution.

Rashad Ahmed Mukhtar (1995)

Environmental Specialist, Royal Commission for Jabail & Yanbou,
Saudi Arabia

I propose conducting interviews with overseas participants about the *ICETT Newsletter.*

Maria Elgenir Silva Rocha (1995)

Head, Water Supply System Division, Piaui Water Official
Brazil

I would like to write about how I applied my ICETT training to my job in order to prevent environmental problems.

Maria do Socorro Rodrigues (1995)

Associate Professor, Department of Biology, Federal University of Maranhao
Brazil

I would like to obtain more information on host researchers studying environmental problems in developing countries.

Maria Cristina Vidal Buchele (1995)

Engineer, Industrial Pollution Investigation and Analysis Dept.,
São Paulo State Environmental Protection Bureau
Brazil

My report on my ICETT training was featured in the Brazilian newspaper *Registro.*

Wong Zhongping (1993)

Engineer, Henan Environmental Protection Laboratory,
China

Each country faces its own problems during its period of development. However, a nation cannot adopt some technologies, no matter how advanced they may be, if they are not appropriate to the level of the nation's economy, culture and scientific technology, as well as the state of its environmental degradation and economic capabilities.

If a pollution prevention technology intended to be transferred to a certain country is designed from the perspective of applicability and with consideration for the economic viability of the technology, and if it has the potential to develop further, it will be practical and effective.

For example, although China has many problems in common with Japan, the levels and effects of pollution differ from region to region. Air pollution is particularly serious in Lanzhou and other northeastern provinces, while in some southern regions, the air pollution problem has already become an acid rain problem.

Moreover, water contamination has become a serious issue in many regions. The water quality of the Huai He River, in particular, has deteriorated drastically and pollution has spread to the provinces of Henan, Anhui, Jiangsu and Shandong. On August 8, 1995, the Chinese State Council enacted a provisional law to prevent pollution of the Hwai Ho River. This is the first law in China dealing with regional pollution and will serve as a test case for a nationwide anti-pollution campaign. One important aspect of water pollution control is control of the total volume of pollutant discharge. China lacks experience in exercising wide-area control of pollutant volumes, and its system for monitoring the effect is inadequate. For example, China has neither a reasonable river cross-section monitoring system nor an accurate river flow-rate measuring system.

We would like ICETT to consider these points in order to optimize the effectiveness of technology transfer. We believe that deeper understanding of our situation and implementation of relevant programs will produce excellent results that will, in the end, contribute to solving environmental problems worldwide.

Ricardo L. P. de Barros (1995)

SESILab Coordinator
Brazil

In the future, I would like to suggest a special charter dedicated to creating a state-of-the-art clearinghouse for environmental technology.

Aboe Amar Joesoef (1994)

Professor, Faculty of Medicine, Airlangga University
Indonesia

We publish a newsletter to raise public awareness and to shape public opinion on the importance of the environment in ensuring a better quality of life.

Ionel Stelian Naicu (1994)

Inspector, Environmental Protection Agency
Romania

Thank you very much for sending us the *ICETT Newsletter*. We are looking forward to the next issue.

Artur Chachlowski (1993)

Chief Engineer, Environment Protection Department, Sendzimir Steel Works
Poland

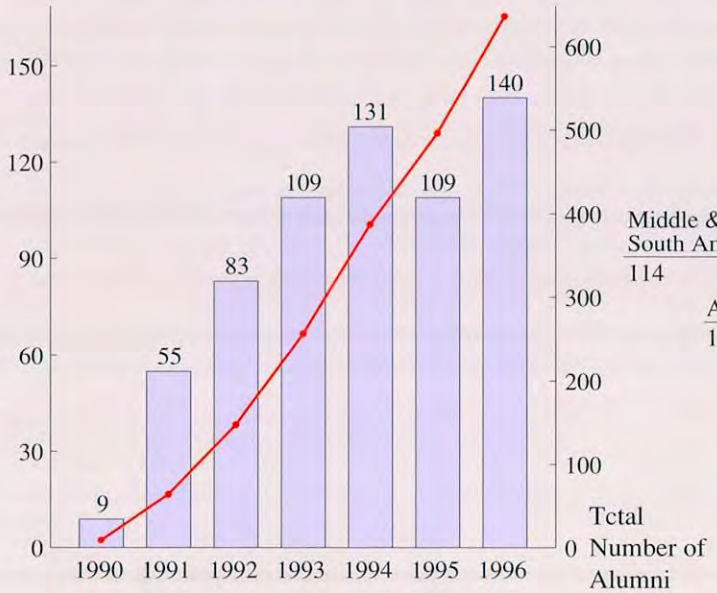
Participants in the 1993 ICETT training course from Bulgaria, Poland, and Romania had a meeting. This was our first attempt at collaboration.

ICETT Alumni Association

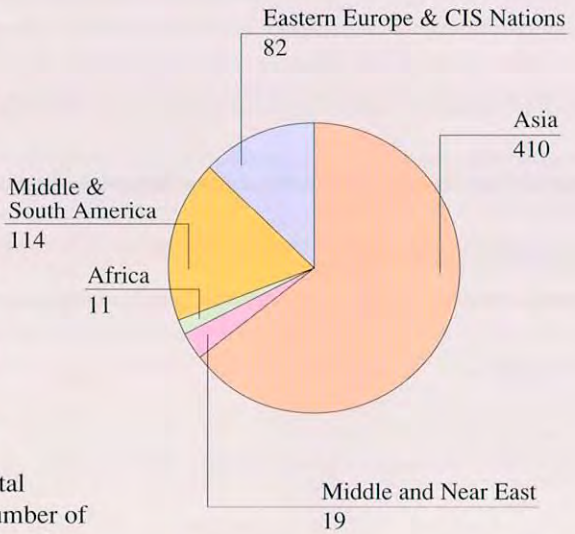
It has been decided that an ICETT Alumni Association will be established in each country in order to strengthen the relationship among ICETT alumni as well as between the members and ICETT, and to facilitate the exchange of information among members.

The ICETT Alumni Association is intended to encourage alumni to present difficult environmental problems in their countries. ICETT will respond by investigating and providing information on technology transfers concerning high-priority problems, thereby contributing to an improvement of the situation. At the same time, the results of these efforts shall be shared among ICETT alumni, thereby contributing to environmental conservation in other areas. Through this process, ICETT Alumni can contribute to global environmental conservation.

This year, the Thai ICETT Alumni Association will be established and will hold an environmental exchange meeting.



Number of Alumni by Fiscal Year



Number of Alumni by Region

The readers' column

ICETT is publishing this newsletter in an effort to establish a network of ICETT alumni. This issue has been compiled from information gathered by ICETT. We invite the reader to contribute information, requests, opinions regarding the ICETT training programs in which you have participated, and suggestions for this newsletter. (Submissions within 1,200 words.) Those whose opinions are selected for publication in the newsletter will receive a small token of our appreciation for their efforts.

(As we would like to stay in touch with our alumni, please keep us informed of any change of address.)

ICETT

INTERNATIONAL CENTER FOR ENVIRONMENTAL TECHNOLOGY TRANSFER

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