Environmental Information Network for Asia and the Pacific (EINAP)

1999 Activity Report

Asia-Pacific Internet Environmental Information Guide

2000

EINAP URL: http://www.einap.org/

Email: webmaster@einap.org

1. Purpose and Review of Activities

With the 21st century nearly upon us, conserving the global environment is an increasingly urgent imperative, but we will not find a way to achieve that without progress in concrete environmental conservation initiatives especially in the countries and regions of Asia, and without the diverse implementation of new environmental cooperation throughout Asia, based on those initiatives. Additionally, taking on these problems will make it essential to develop a network for the mutual cooperation and solidarity of environmental NGOs in Asia.

Effective use of the Internet, which in recent years has grown phenomenally worldwide, allows these geographically dispersed parties to exchange information very rapidly and inexpensively. But at present Internet usage is undeveloped in Asia at the NGO level, which means that the promotion of information sharing via the Internet at this level is of great urgency to pursue global environmental conservation in the 21st century.
With these points in mind we set up our own network server in 1998, and started our research group's website and mailing list. These we have used to facilitate the collection, provision, and sharing of environmental information in Asia. At the Fourth Asia-Pacific NGO Environmental Conference (APNEC) we held discussions with people from around Asia on the sharing of environmental information through the Internet, and looked for people who would cooperate.

In 1999 we worked on collecting and disseminating environmental information using the Internet in two ways: sending information from Japan to other Asian countries (i.e., telling other Asian countries about Japan's pollution and about its experience in overcoming pollution) and sending information to Japan from other Asian countries (offering environmental information from other Asian countries as seen through the Internet).

2. What an Environmental Information Guide Should Be

Sharing environmental information is essential to working toward sustainable development. If information about environmental damage is not supplied broadly to the citizens, they will not make sufficient conservation efforts. This awareness has also emerged at the Earth Summit and other international conferences.

For Example, the Rio Declaration points out the importance of environmental information as follows.

> "Principle 10 Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available..." (Rio Declaration on Environment and Development)

Agenda 21 likewise observes the importance of environmental information in Chapter 40, "Information for Decision-Making."

> "In sustainable development, everyone is a user and provider of information considered in the broad sense. That includes data, information, appropriately packaged experience and knowledge. The need for

information arises at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels. The following two program areas need to be implemented to ensure that decisions are based increasingly on sound information:

(a) Bridging the data gap;

(b) Improving information availability."

(Agenda 21)

Since before the time when people saw the importance of sharing environmental information internationally, governments have responded to the requests of citizens and researchers by publishing environmental reports and statistics, and making environmental indicators available to the public.

In addition to releasing information through these traditional publications, information started becoming available over the Internet in the mid-1990s. Environment ministries and other government departments post a variety of information on their websites, from their environmental laws and the contents of their environmental reports, to daily air pollution indicators. Websites have also been set up by many kinds of NGOs campaigning against pollution and for nature protection, and working in other areas, and they post a variety of environmental information including their activities.

These Internet information sources are essential to researching Asian environmental problems. From an environmental education perspective as well, it is desirable that these information sources be used to better our understanding of Asia's environmental problems.

Each day the Internet hosts more sites, which provide a huge amount of information. The amount is now so large that even the use of various search engines fails to locate the desired information. Of help in this instance are publications that list websites, but Japanese publications which list existing websites concentrate mainly on Japanese-language sites, and lack adequate listings of information sources in other Asian countries. There is a steady stream of English-language publications that list environmental sites, but those sites are mainly in Western countries, and do not adequately treat Asian information sources. This is why we need an "Asian Environmental Information Guide" dealing primarily with environmental information on the Web.

The Asian Environmental Information Guide would not only be a valuable information source to people researching Asia's environmental problems, but would likely enjoy very wide use. NGOs and other parties would find environmental information from Asian countries of assistance in finding problems common to those countries and sharing their experiences. It would probably be the first step for college and graduate students studying Asia's environmental problems to discover those problems and obtain basic information about them. It is also anticipated that information on Asia's environmental problems that is presented in English will attract the interest of high school students in English-language and social studies classes.

This series henceforth shall present in detail the contents of the Asian Environmental Information Guide, but they can be organized in an easily understood manner into these four categories.

1. General Information Sources

English-language newspapers from various countries, links to government websites, search engines, etc.

2. Environmental Information Sources According to Theme

Primarily English-language information sources according to theme.

3. Information Sources According to Country/Region

Environmental information sources in each country/region, including vernacular sources.

4. Information Sources on Individual Events and Problems

Information sources on representative problems such as Minamata and Bhopal.

In future the second category, sources by theme, might be more systematically categorized, as by environmental medium.

Presenting a variety of information sources while evaluating the information will probably also be a good stimulus to those who produce web pages. The Asian Environmental Information Guide promises that it will encourage the provision of more detailed and easy-to-understand environmental information.

In particular, until now not much environmental information has issued from Japan in English. Information provided by Japan about its pollution experience from the 1950s through the 1970s, and about the various environmental problems it faces now, would likely be of use to other Asian countries in determining their development orientations and what measures to take. Information such as laws and other government documents and policy measures is available on the Environment Agency's website, but Japan ought to disseminate more concrete, diverse information such as what kind of environmental problems are in the spotlight, what the current disputes are, and what criticism there is of government policy. What is more, NGOs provide considerably less information than the government. We hope that the Asian Environmental Information Guide will function to encourage the provision of information from Japan, and to improve its quality.

As noted previously, even documents such as Agenda 21, which was adopted at the 1992 Earth Summit, see importance in the sharing of environmental information as a tool for many people to address environmental problems. This series will present in detail the information sources accumulated by researchers who have been investigating Asia's environmental problems. We hope this Asian Environmental Information Guide series will help facilitate the sharing and dissemination of environmental information, promote environmental education, and enhance research on environmental problems.

3. Current State of Environmental Information in Asia

3.1 General Information Sources

1) Newspapers

The most valuable source of information on contemporary environmental problems is the reporting by newspapers and other mass media. A representative book relating the seriousness of pollution in 1960s Japan is _The Horror of Pollution_ (Iwanami, 1964) by Mitsuru Shoji and Ken'ichi Miyamoto. Chapter 1 selects pollution incidents from local newspapers published in various prefectures and presents them in a chronicle style over several pages. The authors showed through newspaper articles that pollution was a nationwide problem.

Author Miyamoto made the following observation while looking back on the situation then.

> "In those days I troubled myself with how to bring an awareness of pollution, as a serious matter of public concern happening all the time, to not just the citizens, but also to researchers. I checked the four national dailies, which were inadequate because they reported mainly pollution in other countries. With the help of students I checked one local paper in each of 46 prefectures and made up a chronology, which appears at the beginning of _The Horror of Pollution_ as a pollution map of Japan which showed that in the early 1960s pollution was serious nationwide, not just in the large urban areas. It was clear that the environment was quite damaged, and concern about pollution quickly spread" (Miyamoto, 2000).

As Miyamoto notes, he used local newspapers because the national dailies lacked a sufficient awareness of how serious pollution was. For instance, from the reporting on Minamata disease in the Asahi Shimbun one can see that not many articles appeared in national editions before pollution was widely perceived as a matter of social concern (Asahi Shimbun, May 27, 1995). Editors perhaps reasoned that it was not something readers everywhere would be concerned with.

Environmental problems in Asian countries and other countries also appear infrequently in Japanese newspapers' international sections unless Japanese corporations or ODA are directly involved. For example, from December 1999 through January 2000, newspapers and television reported heavily on the medical waste that had been improperly exported from Japan to the Philippines, but in the mid-1990s there had been frequent improper waste imports into Asian countries. In 1993 68 containers of wastes from the Netherlands and other countries were found to have been abandoned in an Indonesian port, and around 1995 wastes exported to China from the U.S. and other countries became a major "Western waste" issue. In late 1998 mercury-containing industrial wastes were exported from Taiwan to Cambodia, and the residents rioted in the village where the wastes had been abandoned. While readers might once find an article on such incidents in Japanese newspapers, the stories hardly ever get continuous detailed coverage as a story develops. One must read locally published English-language or vernacular newspapers to find out about Asia's environmental problems. Kojima (1996) is one work that compares information on Asian environmental problems as reported by Japanese newspapers and by local media in the respective countries.

Although the information in newspapers and other media is secondary information, it is still an essential source for gaining an overview of problems in various countries. The websites of newspapers in those countries can be easily searched for past articles, thereby providing valuable information on what environmental problems there are, and what policies are being implemented.

□Links to newspapers around the world

http://www.newsdirectory.com/

There is an exhaustive listing by country of newspapers with websites.

Another way of finding newspapers is to look for them on the English-language Yahoo! site, www.yahoo.com.

3.2 Environmental Information Sources by Theme

1) Investigating Energy and Environmental Issues with the Internet

Energy consumption is increasing faster in Asia than anywhere else in the world, and nuclear power development is also the most active here. Because energy development underpins economic development, it is often led by governments and their relevant agencies. Information on energy policy was in the past unavailable unless one went to those agencies and directly asked officials, but it is now obtained with comparative ease as the Internet grows.

Energy policy information is obtainable in English, not to mention each country's vernacular. Naturally vernacular sources are more voluminous, but because it is in fact impossible to be conversant with all the languages of Asia, comparisons of Asian environmental information, elementary studies, and other such tasks are performed in English, the de facto international language.

Obtaining information over the Internet requires that one know a website's URL, and obtaining URLs for unknown sites ordinarily involves using Yahoo! or some other search engine. But if one does not know a certain country's language, it is very hard to find the English-language information on the desired country. The usual Internet search engines such as Yahoo!, which require site registration, will come up with very little information in English about the country for which one seeks URLs. For example, if you look for URLs on South Korea using Yahoo! Korea, you will get hardly any hits for energy-related sites in English.

This does not, however, mean there are no energy-related sites. The authors' study shows that for South Korea alone there are the sites shown in the following list, and that much of the information available there is useful to us Japanese as well.

This situation -- in which people want information on a certain country whose language they do not know, but cannot locate English-language sources -- holds not only for South Korea, but for other Asian countries as well. English-language information in Asian countries is buried among the information in their vernacular languages.

Another problem is that even when Web pages are in English as in countries like India, they are in many cases not registered with Yahoo! or other primary search engines. Even organizations that provide their information on websites likely register under their own volition with search engines like Yahoo!, whose registration systems require sites to register themselves, but even then a major detour is needed to find the sought URL because it still requires a search.

In light of this situation, it is crucial that in Japan we organize URL information on energy and the environment in Asia to create a shared asset for avoiding such detours and difficulties. Here the authors have listed only a few websites in South Korea and India, but detailed URL information will be posted on the EINAP site as it becomes available.

South Korean Energy- and Environment-Related Sites

□The Ministry of Environment

http://www.moenv.go.kr/

Corresponds to Japan's Environment Agency. Has some pages in English. Includes environmental policy documents, environmental news, contact lists, etc.

□The Ministry of Commerce, Industry and Energy

http://www.mocie.go.kr/

Corresponds to Japan's Ministry of International Trade and Industry. Has some pages in English Includes various statistics, press releases, reports, etc.

□The Ministry of Science and Technology

http://www.most.go.kr/

Corresponds to Japan's Science and Technology Agency. Has some pages in English.

□Korean Research Institute of Power

http://www.kepri.re.kr/

□Korea Atomic Energy Research Institute

http://www.kaeri.re.kr/

□Korean Electric Power

http://www.kepco.co.kr/

Korean Electric Power management statistics and data, electric power development targets, electricity demand outlook, domestic statistics on electric power in South Korea (generating capacity and power generated).

□Kori Nuclear Power Plant

http://www.kepco.co.kr/~kori/

Korean-only site.

□Korea Nuclear Fuel Co., Ltd.

http://www.knfc.co.kr/home/mainindex.htm

Environment- and Energy-Related Sites in India

□India Image

http://www.nic.in/

A directory site for India government sites. Allows searches.

□Ministry of Environment & Forests

http://www.nic.in/envfor/

Environment White Paper (summary), pollution data (air, rivers), environmental protection-related data, environmental law system, annual report, Enviro News, etc.

□The Indian Economy Overview

http://www.nedo.go.jp/report/807/807.html

India's national budget, economic overview.

□Ministry of Power

http://www.nic.in/powermin/

Energy plan, related documents, etc.

□http://www.nic.in/powermin/nrg4.htm

Energy-related laws and policies.

□Department of Statistics

http://www.nic.in/stat/

Statistics (general).

□Ministry of Water Resources

http://www.nic.in/mowr/

Water resource-related projects, water resource management plans, etc.

□India Search com

http://www.indiasearchengine.com/

Search engine for websites in India.

□USAID India

http://www.info.usaid.gov/india/

Has some pages on environment-related aid.

□Nuclear Power Corporation of India Limited

http://npcil.org/

State policy company that builds and operates nuclear power plants in accordance with Indian government policy.

□Site devoted to nuclear tests by India and Pakistan (CNN)

http://www.cnn.com/WORLD/9708/India97/index.html

□TERI (Tata Energy Research Institute)

http://www.teriin.org/

Website of this well-known research institute, featuring India's environmental and energy problems. Huge amount of information.

□India Code Information System

http://caselaw.delhi.nic.in/incodis/

Search site for India's laws.

□Ministry of Non-Conventional Energy Sources

http://www.nic.in/mnes/

Government agency for the development and promotion of renewable energy.

□Indian Renewable Energy Development Agency Ltd

http://solstice.crest.org/staff/mpt/INDIA/ireda.html

2) Gathering Waste-Related Information Using the Internet

When gathering information about wastes, it is a good idea to specify the waste type (municipal solid wastes or hazardous wastes), and search for data and information from the government offices, NGOs and international organizations concerned with that type.

In many Asian countries municipal wastes are managed and disposed by local governments, but amounts generated and data thereon are hardly available, and hardly any local governments have websites, which

necessitates asking the relevant central government agencies. Those include health ministries, the ministries or agencies with management guidelines, and the ministries or agencies in charge of local governments.

Because many international agencies and foreign aid agencies are involved in waste management in Asian countries in the form of urban development projects, it is a good idea to ask those agencies' urban development departments. International agencies post reports on their websites.

One attempt at comparing waste management in Asian countries is the downloadable World Bank report, "What a Waste: Solid Waste Management in Asia."

The Basel Convention secretariat's website offers basic information on the transboundary movements of hazardous wastes. This site presents documents from meetings of the parties, and the documents on transboundary hazardous waste movements reported to the secretariat by member states.

The Basel Action Network site offers a substantial body of information on the transboundary movements of hazardous wastes. It has an organized store of information, such as newspaper reports, that aids understanding of current problems. The network conducted its own on-site investigation of the export of mercury-containing hazardous wastes from Taiwan to Cambodia in late 1998. Through this and other efforts it continues monitoring the transboundary movements of hazardous wastes as an NGO.

Greenpeace is another NGO with a continuing campaign on hazardous substances. Since 1999 and into 2000 it has sent a ship around to places in Asia including India, Thailand, the Philippines, Hong Kong, and Japan on a Toxic Free Asia Tour. Greenpeace's Australia chapter issued a report on the transboundary movement of hazardous wastes in Asia. For its reports on lead recycling plants in India and the Philippines, Greenpeace's investigations included the lead concentrations in soil near those plants, thus demonstrating its capabilities of gathering information and analyzing it. Greenpeace also calls for a ban on waste incineration to limit the production of dioxins and other substances.

Waste-Related Sites

□Basel Action Network

http://www.ban.org/

Large volume of information including pages presenting news on the transboundary movements of hazardous wastes.

□Greenpeace International

http://www.greenpeace.org/

As part of its campaign on hazardous substances, this site deals with hazardous wastes, waste incineration, and the like.

□Greenpeace Australia

http://www.greenpeace.org.au/info/archives/toxic/trade/index.html

Presents reports on spent batteries in the Philippines and India.

□World Bank Report

http://www.worldbank.org/html/fpd/urban/solid_wm/swm_body.htm

□Basel Convention Secretariat

http://www.unep.ch/basel/

Documentation on conferences of the parties, a list of member states, and other basic information on the Basel Convention are available.

□Hong Kong Environmental Protection Department

http://www.info.gov.hk/epd/waste/index.htm

Provides information on municipal solid wastes and hazardous wastes in Hong Kong. Offers downloadable reports.

□Thailand: MOSTE, Pollution Control Department Hazardous Substances and Waste Management Division

http://www.pcd.go.th/

Choose "Hazardous Substances and Waste Management Division" from "Divisions." Its main offerings are a database on hazardous wastes and guidelines.

3) Using the Internet to Gather Forest-Related Information on Southeast Asia

The tropical forests of Southeast Asia have one of the fastest deforestation rates worldwide. Although mainly in the developed countries warnings and concern are expressed in various ways through the media, they do not provide enough information to understand the big picture in those Southeast Asian countries. Some of these countries, however, have made progress in providing information, which has created information differentials among Southeast Asian countries. This holds for websites as well. Using forest resources sustainably makes it essential that not only experts, but also the citizens, understand the situation and respond appropriately, meaning that information sharing is vital. We therefore chose several Southeast Asian countries and found forest-related information via the Internet. These sources are presented below.

To begin with, it is convenient to locate related sites in major Southeast Asian countries by using the following links from the World Resources Institute website, which lists links for Asia, Burma, Indonesia, Japan, and Malaysia. Following is a brief look at a number of links.

□World Resources Institute

http://www.wri.org/wri/ffi/internet/asia.htm

(Asia, Burma, Indonesia, Japan, Malaysia)

Although there are links for Asia (ASEAN), following them reveals that the sites have not been set up. For Burma one is taken to an English-language site called The Free Burma Coalition, which appears to be an NGO, but there one finds to information that deals mainly with forests. Further, the links from this site lead to others that are hardly useful at all in obtaining information on that country's forests. Useful links for Japan are the Forestry and Forest Products Research Institute of the Ministry of Agriculture, Forestry and Fisheries, and The Tokyo University Forests of The University of Tokyo. Especially the former offers a good collection of links to related sites, thereby allowing one to search for not only forest-related information, but also academic research.

Forest-Related Websites in Japan

□Forestry and Forest Products Research Institute

http://ss.ffpri.affrc.go.jp/

□Tokyo University Forests

http://www.uf.a.u-tokyo.ac.jp/homepage.html

Many Indonesian sites are likewise not up. The only apparently useful site is that listed below. Mainly in Indonesian, it offers an overview of the Forestry Law, related statistics by zone, maps, and the like.

A Forest-Related Website in Indonesia

□Indonesian Forestry

http://www2.bonet.co.id/dephut/dephut.htm

Forestry Law, statistics, maps, etc.

In Malaysia, the Malaysia Timber Council's website is substantial and presented in English, and has links to a variety of other sites including national and state government administrative agencies, the FAO and other international organizations, NGOs including environmental organizations, and forestry and forest product companies. This site presents Malaysia's forest and forestry statistics chronologically, which is very useful for understanding the past and present situations. Especially worth mentioning is that, owing to regional differences, statistical data are presented separately for Peninsular Malaysia, and Sabah and Sarawak states. Data are updated frequently, and data from about six months earlier are also available. The site is vital for obtaining information related to forests, forestry, the wood trade, and the like. And because Malaysia is putting effort into the certification of forests and wood, there is a wide selection of information related to that. This certification consists in labeling, mainly by NGOs, of sustainably managed forests and the wood produced by them, and is an effort aimed at trading only in labeled wood. In recent years there has been an increase, mainly in the West, in forests and wood receiving certification, and interest in certification is further intensifying from the perspective of forest sustainability. Forest and wood certification is described in detail on the FSC site, and likewise interesting is the ISO site dealing with environmentally compatible forestry management. Information disclosure is advanced on these sites, and for interested parties they are definitely worth reading.

Forest-Related Websites in Malaysia

□Malaysia Timber Council

http://www.mtc.com.my/

□Forestry and Environment

http://www.mtc.com.my/forestry/forestry.html

Websites on Forest and Wood Certification

□FSC

http://www.fscoax.org/

□ISO

http://www.iso.ch/

Trees for the Future's website offers brief reports of about 300 words each on activities in the Philippines, Indonesia, Thailand, and Vietnam. While the descriptions could not be considered detailed, they allow people to glimpse a part of NGO activities. The site also provides links to other sites worldwide, which is useful in understanding the situation around the world. However, there is a poor link selection for Southeast Asia, making it hard to gain detailed information about that region.

Forest-Related Websites in North America

□Logging and Sawmilling Journal

http://www.forestnet.com/

http://www.saverainforest.net/index.html

□Trees for the Future: Situation Report: SOUTHEAST ASIA

http://www.treesftf.org/asia.htm

As the foregoing survey shows, there are considerable differences in the content of information on websites established by Southeast Asian countries. What is more, it would be hard to say that English is generally used on those sites. As a consequence, it is not easy to gather the desired information on the Internet, so to collect information one must expend much time and money. It is therefore important to beef up these sites and their links, making it necessary to address these tasks by using the Internet and interpersonal ties.

3.3 Environmental Information Sources by Country/Region

1) South Korea's Environmental Problems and the Internet

In South Korea both the government and private organizations are making good use of the Internet with regard to the environment. Environmental issues in South Korea infrequently end up in the courts, more often being fought on the legislative front. Because the making of an excellent law is deemed a feather in the hat of a national assembly member or bureaucrat, it is not an uncommon occurrence for a law more advanced than needed by society to be passed, which is then followed by a citizens' movement. Owing to this situation, South Korea's government is more active than Japan's government in disclosing information in order to advocate the government's position to the citizens (its position is not necessarily pro-conservation). Some examples follow.

South Korean Government Websites

□National Assembly

http://www.assembly.go.kr/

Search of current laws, list of bills beginning with the first Assembly session (with site searching), list of assembly members (with site searching), minutes of assembly sessions, etc.

□Legislature

http://www.moleg.go.kr/

Search of current laws, explanations of new laws, advance notices of legislation (for public comment), legislation plans, etc.

□Ministry of the Environment

http://www.me.go.kr/

Site pages are arranged so as to describe the work of each department in accordance with the Environment Ministry's organization (atmosphere, water, wastes, nature protection, etc.). One can also obtain the entire texts (in the original Korean) of the Environmental White Paper and other Environment Ministry publications.

□Korean Recycling Corporation

http://www.koreco.or.kr/

A government-funded agency that runs recycling operations (what in Japan would be called a "special corporation").

□Ministry of Agriculture and Forestry

http://www.maf.go.kr/

In charge of agricultural policy.

□Korean Agricultural Infrastructure Corporation (formerly the Corporation for Fishing and Farming Village Development)

http://www.karico.co.kr/

In charge of land reclamation by drainage, water resource development, and other projects, including the Saemangum drainage land reclamation project.

□Ministry of Construction and Transportation

http://www.moct.go.kr/

Responsible for construction and transport.

□Korean Water Corporation

http://www.kowaco.or.kr/

Responsible for water development on the Tong River and elsewhere, for general development (from land reclamation to urban development) of Shihwa area, etc.

□Ministry of Marine Products

http://www.momaf.co.kr/

In charge of marine conservation, etc.

South Korean Citizen Movement Websites

South Korea has public-membership environmental organizations with several tens of thousands of members.

□Korean Federation for Environmental Movement

http://www.kfem.or.kr/

This organization is a federation of regional organizations in Seoul and other parts of the country. Currently its main efforts are going into the Tong River Dam, the Saemangum land reclamation project, an anti-nuclear power campaign, etc. KFEM's website features current major campaigns, and documents including past statements and media kits, thereby helping one get an overview of South Korea's environmental problems.

□Green Korea

http://www.greenkorea.org/

An organization working for nature protection. Currently putting its efforts into the Saemangum land reclamation project, high-tension power lines, a campaign for the conservation of the Paekdu Taekwan (a mountain range running from Paekdu Mountain in North Korea to the southern tip of South Korea), and other campaigns.

□Environment and Pollution Research Society

http://earth.peacenet.or.kr/

This organization is mainly for experts, not for the general public. Website includes the contents of its journal.

General South Korean Websites

There are also sites which, although not especially on the environment, are useful when gathering environmental information.

□Yahoo! Korea

http://www.yahoo.co.kr/

The South Korean Yahoo! site. The environment comes under the category "Society and Culture," with over 200 registered sites.

□Simmani

http://www.simmani.com/

A directory site. The environment comes under "Society/Daily Life," and has about 170 registered sites.

□Naver

http://www.naver.com/

A directory site. The environment comes under "Society/Culture," and has nearly 300 registered sites.

□AltaVista Korea

http://www.altavista.co.kr/

A keyword-search site. Using the keyword "environment" produced 295,728 hits, while "pollution" yielded 54,701 sites.

2) Malaysian Environmental Information

In Malaysia the federal government is working on the dissemination and development of information technology, which includes the Multimedia Super Corridor initiative. Internet usage in Malaysia is therefore relatively easier than in other ASEAN nations. Obtaining environmental information starts with looking for the relevant government agencies. The Department of Environment (DOE) under Malaysia's Environment Agency is part of the Ministry of Science, Technology, and Environment (MOSTE). While MOSTE administers the biodiversity plan, the Environment

Agency's DOE has charge of guidelines including environmental standards. For other items one must search for the administering agency, but in many cases information is available only in Malay.

Because it is the states in Malaysia that have the authority to develop land, when land is to be developed the federal government becomes involved in environmental conservation by giving advice and preparing guidelines. Since the 1990s Malaysia has privatized water supplies, sewage treatment, medical waste management, hazardous waste management, municipal solid waste management, and environmental monitoring. Obtaining information from those companies might be difficult subsequent to privatization.

Information obtainable via the Internet includes air pollution data on the Environment Agency's site. Environmental NGO sites include everything from WWF, which is active worldwide, to small groups, but many of them post information on mainly nature protection activities. One of those listed below, TrEES, is an environmental NGO active in recycling mainly in Kuala Lumpur and its outskirts.

Universities with environment-related departments and research institutes are well-supplied with links and document searches. Malaysia has UKM and UPM, included below. There are also websites that deal with individual environmental problems. The Sungai Selangor Dam website, listed below, was created by local people opposed to building the dam, which gives rise to concerns about damage to indigenous people's environment and to the ecosystem. When it is hard to find sites like this using worldwide search engines such as Yahoo!, it a good idea to search for information on Malaysia using JARING and other Malaysian search engines. It is also possible to get information by keyword searches of online newspapers like The Star and New Straits Times.

Environment-Related Websites in Malaysia

□Ministry of Science, Technology, and Environment

http://www.mastic.gov.my/kstas/

Annual report is available.

□Environment Agency of Malaysia

http://www.jas.sains.my/doe/dwiindex.htm

Posts descriptions and numbers of certified projects by state, for which there is much information on environmental impact assessments.

□WWF Malaysia

http://www.geocities.com/RainForest/2701/INDEX.HTML

Describes its activities, but there is little information.

□Consumers' Association of Penang (CAP)

http://www.capside.org.sg/souths/cap/dev.htm

Newsletters and descriptions of activities are category-searchable.

□Malaysian Nature Society

http://www.mns.org.my/

Contains mainly a description of activities.

□Treat Every Environment Special Sdn. Bhd. (TrEES)

http://www.w3xs.com/trees/htmls/home_ver3.html

Presents URLs of environmental NGOs working on recycling campaigns and other activities mainly in the Kuala Lumpur area, and detailed descriptions of their activities. Provides general environmental information for citizens, and posts statements such as one calling for the establishment of a state park in lieu of a development plan formulated by the Selangor state government.

□Institute For Environment And Development (LESTARI - UKM)

http://www.lestari.ukm.my/

Website of the Institute for Environment and Development, which is on the campus of Universiti Kebangsaan Malaysia (UKM).

□Department of Environmental Sciences (Universiti Putra Malaysia, UPM)

http://fsas.upm.edu.my/~sas/

Website of the Department of Environmental Sciences, Universiti Putra Malaysia (UPM). Good collection of links. UPM has beefed up the links on the site of its library's site, and its database, called WMS, allows searches of waste-related documents in the UPM library.

□UPM Library Search Engine (MINISIS)

http://202.184.24.3/Minisis/Upmdb/Upmdbhtm/upmh.htm

□Sungai Selangor Dam

http://www.bxserver.com/concern/

A site established by a citizens' group opposing dam development in Selangor State.

□JARING homepage (a search engine)

http://www.jaring.my/

3.4 Sources of Information on Certain Events or Problems

1) Bhopal 15 Years After the Disaster

It was late night on December 2, 1984, or early the next morning when the Union Carbide pesticide plant in Bhopal leaked deadly methyl isocyanate (MIC) into the environment. This chemical assaulted the citizens of Bhopal (whose population then was 700,000), killing 2,500 and harming 500,000 in this disaster.

This March we had an opportunity to see Bhopal 15 years after the disaster, under the guidance of Mr. Tani Yoichi, who is the representative of the Society for Consideration of the Bhopal Accident, and who since 1985 has visited the site a number of times. Here we present information obtained at Bhopal combined with that obtained via the Internet.

From interviews with victims and with affiliates of support organizations (see appendix) we learned that relief for victims has been very slow in coming. Because Union Carbide paid compensation to the Indian government in a lump sum instead of to the victims, not a few victims are unable to receive compensation owing to impediments such as complicated certification procedures.

Over half of the workshops provided by the government for women who lost their opportunities to work have already been closed, and at the presently existing workshops the disaster victims are paid lower wages than regular workers. Even the workshops established independently by victims and their support organizations were closed last year because their products did not sell as hoped.

As many as 4,000 tons of chemicals still await disposal at the site of the now closed plant, and the soil and groundwater in the area are still seriously contaminated by the hazardous wastes produced when the plant was operating (for details, see the Greenpeace report that can be found from the EINAP website).

Meanwhile, Warren M. Anderson, who was the Union Carbide CEO at the time of the accident, and the person who should take responsibility, ignored the court's summons, absconded, and is even now missing. By following links from EINAP's site to the sites of victims and support organizations, one can follow the progress of the trial in the U.S. A demand for Anderson's punishment is written on the wall of the closed plant.

The victims suffer from a variety of impacts, but the victims are a heavy financial burden to government medical care. For that reason victims and support organizations established the Bhopal People's Health and Documentation Clinic, which provides free medical treatment. They have their own website, which not only presents introductions to Sambhavna Trust staff members and activity reports, but also posts a collection of testimony by victims and photographs of Bhopal, thus informing the world about the situation.

Support from developed countries is especially needed when dealing with crimes by transnational corporations, as in the Bhopal disaster. In the case of Bhopal, Western NGOs such as Corporate Watch and Essential Action, as well as the previously mentioned Greenpeace, provide links among their web pages so as to cooperate not only in actual activities, but over the Internet as well.

Another feature of the Sambhavna Trust website is that it is produced by a young British volunteer and hosted by a British ISP. Another young person made a bicycle trip from Britain to India while calling for assistance to Bhopal along the way. His website posted his reports, which were made along the way by cellphone.

Such Bhopal-related use of websites suggests new possibilities for using the internet in NGO activities and supporting victims.

Websites Related to the Bhopal Disaster

□Bhopal victims' websites

http://www.bhopal.org/

http://www.bhopal.net/

Created by Alex, a British volunteer. Disk space is that of a British ISP. Substantial collection of information including testimony by victims, Bhopal photographs, reports of trial progress, and reports on Sambhavna Trust activities. A good example of NGO activities using the Internet.

□Life Cycle

http://www.kodex.demon.co.uk/lifecycle/

Website of the youth who traveled from Britain to India on a bicycle, appealing for help for Bhopal victims.

Bhopal-related websites of Western support organizations

□Corporate Watch

http://www.corpwatch.org/

Bhopal-related information

http://www.igc.org/trac/bhopal/listing.html

□Essential Action (a coordinating group for the Bhopal campaign in the U.S.)

Bhopal-related information

http://www.essentialaction.org/bhopal/index.html

□Campaign for Justice in Bhopal

http://www.bhopal-justice.com/

□Greenpeace or Greenpeace Japan

http://www.nets.or.jp/GREENPEACE/press/99/release/19991203.html (in Japanese)

http://www.greenpeace.org/~toxics/toxfreeasia/rembhopal.html (in English)

http://www.greenpeace.org/~toxics/toxfreeasia/bhopal.pdf

A report on studies of contamination at the plant site.

4. Conclusion and Outlook

As the foregoing discussion has shown, this year we have worked to enhance the EINAP website in two ways: sending information from Japan to other Asian countries and sending information to Japan from other Asian countries. Especially with respect to activities for collecting Asian environmental information and making it available to the public, we feel that during this one year we have achieved considerable progress in both the amount of information collected, and in the technical methodology for collecting and organizing information. It is possible that accumulating a corpus of information arranged by issue and region will in the future directly benefit the sharing of environmental information not only in Japan, but in Asia as a whole.

Accordingly, the orientation for our activities henceforth should perhaps be, domestically in Japan, augmenting the "Asian environmental information" website, and, over the long term, pursuing activities with the goal of publishing an "A Guide to Asian Environmental Information." As noted above, the information contained in this report has already been posted on the EINAP website, and there are plans to make improvements from time to time in the content and method of organization in accordance with user feedback. Additionally, beginning with vol. 30 no. 1 (published July 14) of _Research on Environmental Disruption_ we have established a new department called "Guides to Asian Environmental Information," which is written by EINAP.

In the Asian region, it will also perhaps be necessary to quickly push forward with translating the store of information into English, disseminate it through venues such as APNEC, and continue to increase and enhance information, as well as to look for cooperating parties in other countries.

In Japan, we shall work on expanding and enhancing the store of Asian environmental information, while at the same time providing for close work among existing publications such as _The State of the Environment in Asia_, _Research on Environmental Disruption_, and the EINAP website, and also endeavoring to issue publications meant specifically for the purpose. For the entire Asian region, make EINAP more widely known by beefing up the English-language information on EINAP's website and promoting EINAP at international conferences and other venues, while at the same time using the mailing list and other means to find cooperating parties in other countries. By

continuing these activities we will gain experience and build up our organization so that in the future EINAP can help build networks by serving as an information center for Asian environmental NGOs.

Appendix

Interview with a Victim of the Bhopal Poison Gas Accident

Following is the record of an interview conducted in Bhopal on March 19, 2000 by Abdul Jabbar, representative of the Bhopal Poison Gas Women Victims Alliance (in Hindi, Bhopal Gas Peedit Mahila Udyog Sangathan), with Rashida Bi (26 at the time of the disaster, now has an 18-year-old son), the representative of the Bhopal Poison Gas Women Victims Stationery Workers Union (Bhopal Gas Peedit Mahila Stationery Karmachari Sangh), which was organized by women victims of the disaster.

To provide job opportunities to 600,000 victims who lost their opportunities to work because of the accident, the government invested a total of 700 million rupees. One way the government extended help was establishing the District Industry Corporation (DIC, a semi-governmental company) in July 1985, and implementing a program that provided women with job training and places to work. The jobs involved making a variety of craftwork product such as stationery supplies, bedspreads, and leather articles. In the beginning 40 workshops were established in Bhopal. Women were trained for three months and then started working.

The women worked there for two and a half years, but were paid a mere 6 rupees a month. They formed a Stationery Workers Association (SWA) and appealed to the state assembly through demonstrations and other means, which resulted in a raise to 429 rupees a month. Even though in 1988 the pay for regularly employed workers was 3,000 rupees, the women's pay was held at 429 rupees on the grounds that "poison gas victims cannot work adequately." For this reason they went on a three-month strike.

At the same time, 100 women and their 25 children took over a month to walk the more than 700 km from Bhopal to Delhi to appeal directly to then Prime Minister Rajiv Gandhi. This happened during May and June, India's hottest season. To cover their travel costs, the women even sold the jewelry that they wear as proof they are married. They arrived in Delhi a month and three days after their departure, but because Prime Minister Gandhi made no attempt to see them, the state governor met them instead. With the governor's promise to solve the problem, the women returned to Bhopal.

But no concrete solutions at all were forthcoming, so in 1989 the women initiated a court battle to seek pay equivalent to that of regular workers. After seven years of hearings the court handed down a decision that gave the women the brushoff, claiming, "This complaint should be taken to the Labor Court, not this court." Dissatisfied with this pronouncement, the women appealed to a high court, but after three years of hearings that court also dismissed the case. On March 13, 2000 the women reportedly filed another appeal, this time with the District Labor Court in Bhopal.

As these court attempts proceeded, well over half the original 49 workshops were closed, and there now remains only one, where 86 women victims work part-time. These women are the plaintiffs. Even though the pay of regular company employees is 5,500 rupees, these women's pay is held at 1,931 rupees, and apparently they are

allowed only one day off per month. What is more, the closure of the other workshops resulted in 5,000 unemployed women.

In 1992 when the Hindu fundamentalist People's Party won the reins of government in the state of MP, some manufacturing facilities were closed because 70% of their workers were Muslim. After the government closed those facilities, they were run by the victims themselves as Economic Rehabilitation Centers. However, a garment factory that the authors visited, which employed 250 women gas victims, apparently closed last year because its products sold poorly owning to problems including quality and design.

I asked Rashida Bi about her own health and was told that she must take potent medicine because she is suffering from severe memory loss and headaches that last eight to 10 days. Further, walking is a chore because of arthralgia, and she soon loses her breath by just moving around. Her symptoms worsen year by year.

Additionally, even now one-half to one-third of the victims in Bhopal suffer with cancer. (Rashida Bi's father died of throat cancer in 1985). Women also have reproductive disorders. Some of the children born after the disaster have skin afflictions such as blisters and rashes, and other problems include congenital impairment like mental retardation.

In conclusion I asked about demands to the relevant parties.

1. To the Indian government

   We want relief for the victims (especially medical and economic assistance).

   Unless two people in a family can work, it is impossible to earn enough money to support the family and pay medicine and doctor bills (medical expenses).

2. To the U.S. government

   To heal the victims' mental injuries, Warren Anderson (Union Carbide CEO at the time of the accident) should be punished.

3. To Union Carbide

   Take responsibility for disposing of the hazardous substances and eliminate the contamination around the plant. Specifically, dispose of the 4,000 tons of chemicals left at the plant, and eliminate the contamination of soil and groundwater caused by the dumping of hazardous wastes (even now, people living in the area are drinking the groundwater around the plant, and the local government is unable to implement measures to supply safe water).

Victims also delivered a request to President Clinton, who happened to be in India at that time, to visit Bhopal and to take Anderson into custody.