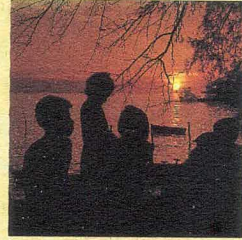


Chapter 5

Programme Development





FORMULATIONS OF REGULATIONS

Environmental Law Review

The Environmental Law Review Committee completed its task in early 1993 and a report on the Committee's findings and recommendations was submitted to the Honourable Minister of Science, Technology and the Environment on April 1, 1993. DOE together with the Ministry of Science, Technology and the Environment examined the recommendations made by the Committee to ensure they are in line with the Government's policy, and in doing so, sought the views of other relevant Ministries and State Governments. This step was necessary, as a significant portion of the findings touched on the legislative functions of other authorities. Upon completion of this effort, it is proposed that the Cabinet be informed of the outcome of this study. Meanwhile, work on the proposed amendments to the Environmental Quality Act, 1974, was carried out by the DOE.

Study on Proposed Regulations

The Department also initiated development of new environmental legislation to control emerging as well as significant environmental problems. A study for the development of marine pollution control regulations was one of the problem areas identified by the Department. Existing legislation would be reviewed with the view to recommend measures for the enhancement of marine pollution control in Malaysia.

Formulation of new regulations for the control of industrial chemicals, tanker

cleaning activities and incineration facilities were also planned during the year and it was anticipated that the Department would also focus on amending existing provisions under the Environmental Quality Act, 1974, in the following year.

ENVIRONMENTAL GUIDELINES

In addition to the EQA 1974, environmental guidelines have been developed to enhance the implementation of the EQA and its regulations and also to enable the industry, developers and planners to incorporate the environmental dimension into their works. In 1993 several guidelines pertaining to the management of toxic and hazardous wastes were developed in order to comply with the requirements of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal which will come into effect in Malaysia on January 6, 1994. These guidelines are:

- (a) Guidelines for Storage of Scheduled Wastes;
- (b) Guidelines for the Export of Scheduled Wastes; and
- (c) Guidelines for the Import of Scheduled Wastes.

Besides developing new guidelines, existing ones also had to be reviewed based on the progress of technology development and the experience gained over the years. Among the guidelines that were redrafted in 1993 were:

- (a) Code of Practice-Manual for Service Stations; and



- (b) Guidelines for the Siting and Zoning of Industry.

Supplementary to the above, an application system for siting of industries based on GIS is being developed for the Klang Valley and this work is expected to be completed by July 1994.

MANAGEMENT OF CHEMICALS

The Implementation of the Montreal Protocol

Malaysia acceded to the Vienna Convention on the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer on August 29, 1989. The Protocol came into force on November 29, 1989. Malaysia also acceded to the Amendment (London 1990) on June 16, 1993 and the Amendment (Copenhagen 1992) on August 5, 1993. Malaysia also had a seat in the Executive Committee (EXCOM) of the Multilateral Fund for the period 1991-1993, and was elected as Chairman of the Committee in 1994.

The National Steering Committee (NSC) was established to control and monitor the use of ozone depleting substances under the auspices of the Department of Environment (DOE) which is the National Focal Point (NFP). Seven industrial working groups were established under NSC to formulate strategies for phasing out ozone-depleting substances (ODS) in the various sectors.

In 1993, the following control measures to facilitate the implementation of the action plan were formulated:

- (a) Customs (Prohibition of Import and Export) (CFCs and Halon) Order 1993 (Schedule II);

- (b) Environmental Quality (Prohibition on the Use of CFCs and Other Gases as Propellants and Blowing Agents) Order 1993; and

- (c) Application Permit System (under MITI).

In addition, the following activities were organised under this programme :

- (a) KL ODS-Solvents Conference, April 24-26, 1993. This conference was jointly organised with USEPA and JEMA.
- (b) National ODS Conference, July 20-21, 1993, jointly organised with FMM.

In essence the national country programme aims to reduce progressively the consumption of ODS in each sector. It was anticipated that with sufficient resources, inclusive of financial and technical, the relevant industries would be able to phase out their uses by year 2000, sooner than the mandatory date stipulated under the Montreal Protocol for developing countries (2010). For period of 1991-1993, Malaysia received about US\$4.2 million in financial assistance from the Multilateral Fund of the Montreal Protocol to cover the phasing-out of 10 ODS investment projects, institutional strengthening for DOE, technical assistance as well as to organise conferences and workshops.

Malaysia participated in the Fifth Meeting of the Parties to the Montreal Protocol in Bangkok on November 21-23, 1993. The main conclusions reached at the Bangkok meeting were:



**National ODS
Conference,
20-21 July 1993,
Kuala Lumpur** ▶



**Fifth meeting of
the Parties to the
Montreal Protocol
and third meeting
of the Conference
of the Parties to
the Vienna
Convention,
17-23 November
1993, Bangkok,
Thailand** ▶



■ *Decision V/18: Consideration of Alternatives*

It was decided that when selecting alternatives and substitutes, (Article 2F paragraph 7 of the Montreal Protocol), parties should evaluate:

- Environmental aspects
- Human health and safety aspects
- Technical feasibility, commercial availability and performance
- Economic aspects; and
- Country-specific circumstances

■ *Decision V/19: Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol*

The budget for the Multilateral Fund intended to meet the incremental cost of developing countries in phasing-out of controlled substances was set at a total of US\$510 million for 1994-1995. Endorsement was made of the selection of Malaysia as Chairman of the Committee for 1994.



■ *Decision VI/14: Essential Uses of Halon*

The parties decided that there should be no further production or use of halon for essential uses in developed countries from 1994 onwards.

■ *Decision VI/17: Banning or Restricting from States Not Party to the Montreal Protocol on the Import of Products Produced with but Not Containing ODS (Annex A).*

It was decided that it was not possible to ban trade between parties and non-parties for the above mentioned products.

Chemical Management under London Guidelines/IRPTC/PIC

No single or comprehensive legislation exists for the control of chemicals per se in Malaysia, and whatever regulations that are related to chemicals, are highly fragmented. Laws that have been enacted to regulate the importation, manufacture, use, handling, storage and transport of industrial chemicals, are implemented by various agencies. To cater for chemicals information management, Malaysia has two Designated National Authority (DNAs) namely, the Department of Environment (DOE) and the Pesticides Board of the Ministry of Agriculture. By virtue of its role as the National Focal Point (NFP) for the United Nations Environment Programme (UNEP), DOE has been designated the Malaysian National Correspondent for the International Register of Potentially Toxic Chemicals (IRPTC/NRPTC), International Programme on Chemical Safety (IPCS), the implementation of the London Guidelines for the Exchange of

Information on Chemicals in International Trade (Amended) 1989, operation of the information exchange and the Prior Informed Consent (PIC) procedure and other international chemical programmes. The DOE in this context, therefore, played a complementary role as the DNA for non-pesticides, or more specifically industrial chemicals.

DOE had also established an inter-agency committee namely, the Technical Committee on Banned and Severely Restricted Chemicals (TCC) as well as the PIC Working Group and Working Group of Transportation Guidelines.

Under the advice and guidance of the PIC Working Group, the Custom Order, 1989 (Schedule I) was amended to control use of the first five industrial chemicals such as crocidolite, PCB, PBB, PCT and tris-phosphate. With the implementation of the Interim Guidelines for the Transportation of Dangerous Goods (Chemicals Not Otherwise Controlled) 1992, companies as well as transporters had been directed to use labelling (placard) and Material Safety Data Sheets (MSDS) during handling operation of dangerous goods. DOE was also represented in the Chemical Industries Council of Malaysia (CICM) Advisory Group on the implementation of the Responsible Care Programme.

The draft Environmental Quality (Industrial Chemicals) Regulations were reviewed for the second time. The proposed regulations would be discussed at the Environmental Quality Council Meeting in 1994.



ENVIRONMENTAL RESEARCH AND DEVELOPMENT

Environmental research and development activities were established to promote the development of environmental criteria and standards including its review, for better environmental management and control. Other activities include the development of indigenous technology in pollution control and waste utilisation, mainly to assist the small scale industries to comply with the various effluent discharge and air emission standards under the Act. Research findings and latest know-how would be applied to support the existing programmes for pollution control as well as to strengthen enforcement programmes.

In 1993, a total of eight projects were implemented of which four were new projects. The other four were projects carried over from 1992. The details of projects implemented in 1993 are as follows:

Formulation of Water Quality Criteria and Standards

Phase III

The study which involved the review of existing discharge standards was undertaken by Syed Muhammad, Hooi and Binnie Sdn. Bhd. and was completed in December 1993. The study recommended improvement to existing standards including outlining practical approaches for setting up discharge standards.

Phase IV

The phase IV study which involved the classification of ten more major rivers according to their quality and beneficial uses was completed in November 1993.

The ten river basins which have been chosen for classification in this study were Sungai Selangor, Sungai Bernam, Sungai Kelantan, Sungai Terengganu, Sungai Rompin, Sungai Melaka, Sungai Perlis, Sungai Juru/Perai, Sungai Sugut and Sungai Sarawak. Additional assessment parameters that were taken into account were biological, ecological and hydrological characteristics of the river basins as well as the landuse and other socio-economic factors.

Study on Toxic and Hazardous Wastes Disposal Sites

The study undertaken by the Consultancy and Research Unit of Universiti Teknologi Malaysia is to identify and investigate potential sites as preparation for the toxic and hazardous wastes disposal sites Master Plan. This study has so far identified 39 potential sites suitable for toxic and hazardous wastes disposal. Detailed assessment of two selected sites of the Master Plan would be carried out in 1994.

Development of an Oil Spill Model

The Oil Spill Model developed under this study is basically to determine the trajectory movement of an oil spill as well as its origin so as to develop scenario for counter measures in combating oil spills. The Model developed is being tested and the study will be continued in 1994.

New projects implemented during the year are as follows:

Development of Groundwater Quality Monitoring Network

The study which commenced in November 1993 has two main objectives:



- to set up a groundwater quality monitoring network for Peninsular Malaysia; and
- to set up a groundwater quality monitoring programme for a selected site.

The Consultancy and Research Unit of Universiti Teknologi Malaysia has been appointed to undertake this study, and due for completion in mid-1994.

Social Impacts of Noise Pollution to Population Residing in the Vicinity of Noise Sources

This study commenced in November 1993 and is undertaken by the Institute of Noise and Vibration, Universiti Teknologi Malaysia.

The study comprise:

- Developing questionnaires to be used in the questionnaire - interview type of study on selected population;
- Conducting ground survey by interviewing respondents;
- Conducting actual sound level measurements at selected study areas; and
- Data analysis and interpretation.

The final output of this study will comprise recommendations on strategies to control and abate noise problems.

Socio-Economic Study of Coastal Areas Threatened by Oil Spills

Perunding GEA (M) Sdn. Bhd. was appointed to carry out this study and the commencement date of the study was November 15, 1993. The duration of the study is twelve months and will be continued in 1994. The objectives of this study include the following:

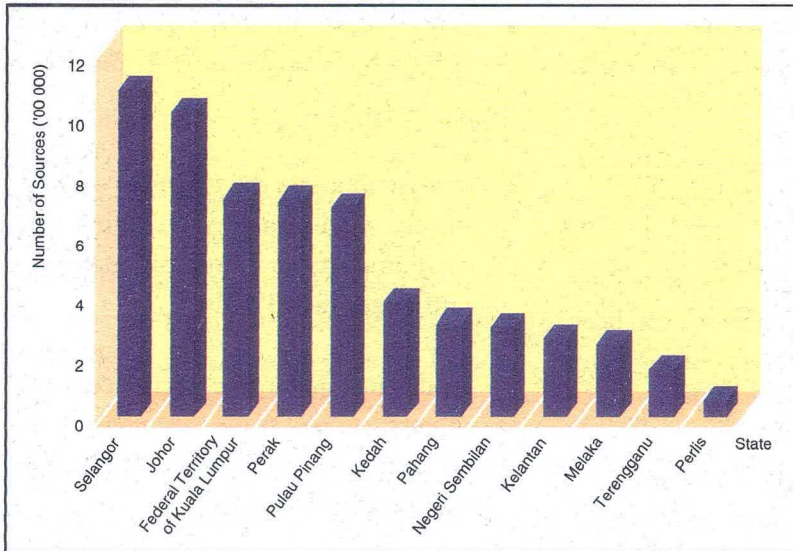
- obtaining information on cases of oil spills which have occurred (mainly in Malaysia);
- study and assess the effects of oil spills on the environment, including residual impacts in terms of qualitative and quantitative basis;
- study and assess the socio-economic effects of oil spills on coastal inhabitants in terms of qualitative and quantitative basis; and
- outline a viable "Action Plan" to 'safeguard' the socio-economic structure of the affected residents.

Study of a Scheme on the Assessment and Registration of Chemicals

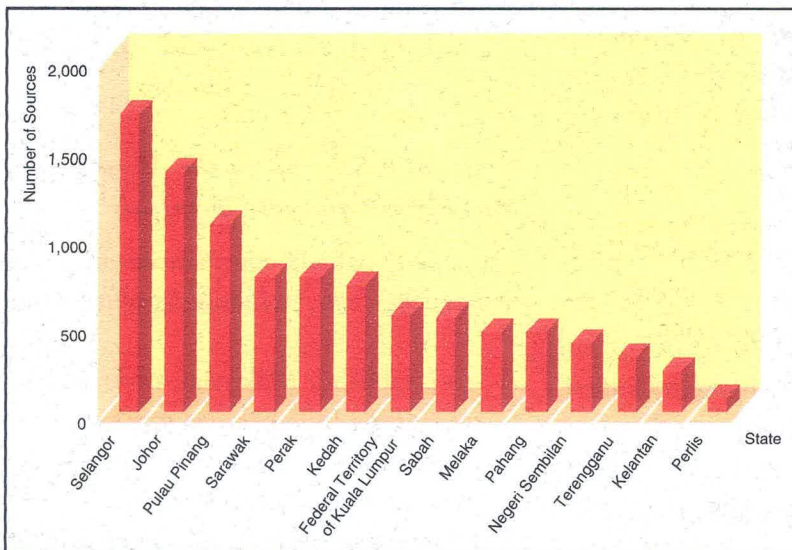
This study which commenced in December 1993 has the following objectives:

- to establish a Malaysian inventory of chemicals and chemical substances;
- to establish a comprehensive scheme on the assessment and registration of chemicals; and
- to propose an institutional mechanism whereby an assessment of chemicals can be carried out.

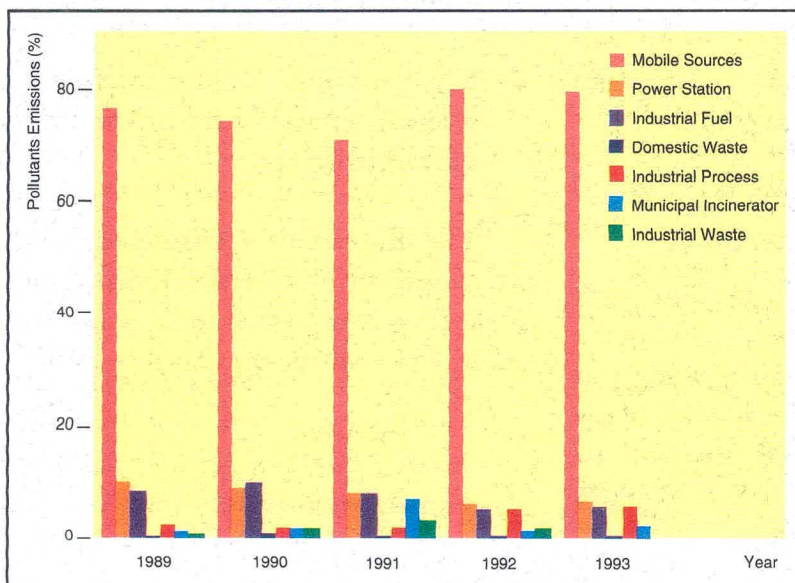
The Bureau of Consultancy and Development, Universiti Kebangsaan Malaysia was appointed to carry out the study, which will be continued in 1994.



■ **Figure 5.1**
Peninsular Malaysia:
Number of Significant Mobile Sources by State as at September 30, 1993



■ **Figure 5.2**
Malaysia:
Number of Significant Stationary Air Pollution Sources by State, 1993



■ **Figure 5.3**
Malaysia: Trend of Emission of Pollutants to the Atmosphere by Various Sources, 1989-1993

INVENTORY OF POLLUTION SOURCES

The collection and gathering of information on the sources of pollution were continued in 1993 to update the database for air and water pollution sources. Detailed source investigation was carried out through inspection visits and detailed questionnaires sent out to the industries and relevant agencies.

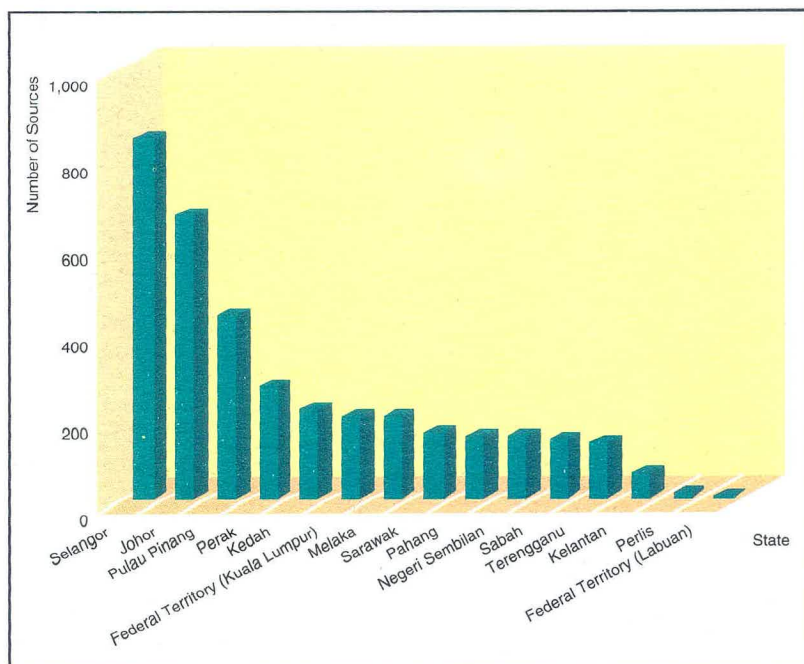
Air Pollution Sources

The Department's 1993 emission inventory sources comprised stationary, mobile and solid waste disposal sources, summarised in Figures 5.1 to 5.3, with the latter indicating load distribution. Fuel combustion sources form the majority of stationary air pollution sources, numbering 3,287 out of a total of 9,012, followed by food and agriculture (1,841) and wood-based products (1,651). Motor vehicles which form the mobile sources

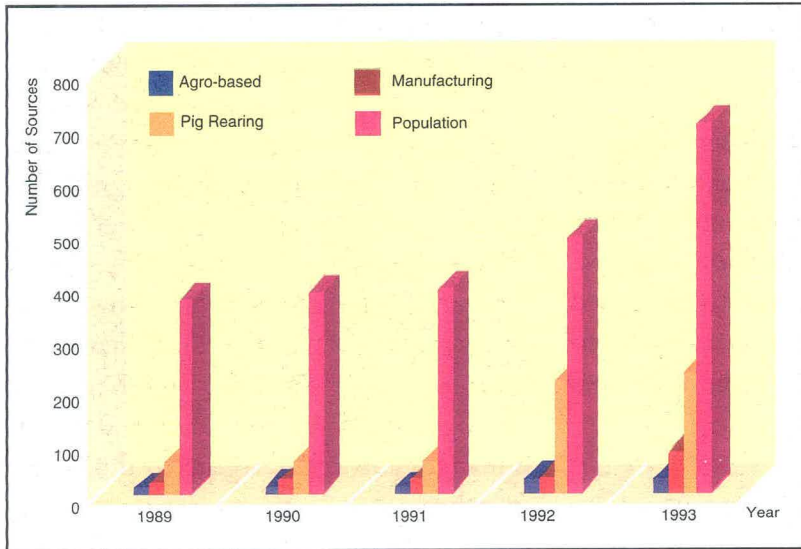
of air pollution are the most significant in number totalling 5,871,333, while there are 26 potential sources from solid waste disposal. As in the previous year, the highest distribution of significant mobile sources in 1993 is Selangor, followed by Johor and Federal Territory of Kuala Lumpur with the lowest in Perlis, while the distribution of stationary sources shows the majority being in Selangor, followed by Johor and Pulau Pinang. Perlis again, registered the lowest number.

Water Pollution Sources

A total of 3,632 industries were identified as significant water pollution sources in Malaysia in 1993. Of the total number of sources, the food and beverage industries contributed 1,169 at 32.2 per cent, followed by the rubber product industries with 597 sources, and the chemical industries with 560 sources. Figure 5.4 shows the contribution of



■ **Figure 5.4**
Malaysia:
Distribution of
Major Industrial
Sources of Waste
Pollution, 1993



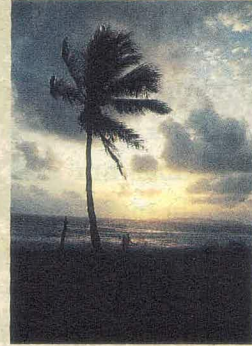
■ **Figure 5.5**
Malaysia: Organic
Load Discharged
According to
Sector,
1989-1993

significant water pollution sources by state, while Figure 5.5 reinforces the findings of the Department's monitoring which pinpoint sewage and animal wastes as the biggest contributors of organic

pollution load. The State of Selangor had the highest number of sources at 838, followed by Johor with 659, Pulau Pinang with 425 and Perak with 260.

Chapter 6

Environmental Education and Information





PUBLICATIONS

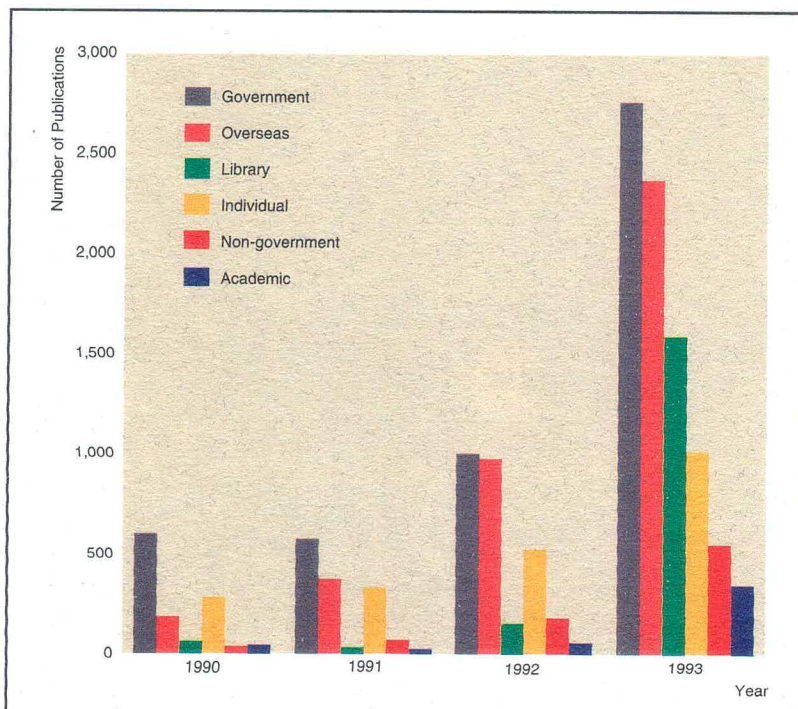
In 1993, a total of 8,617 environmental publications comprising the *Environmental Quality Report*, *SEKITAR*, *Berita EIA*, booklets and pamphlets were distributed locally as well as overseas to various target groups, including individuals, government agencies, universities and other institutions of higher learning, libraries, non-governmental organisations (NGOs) and the press. This was a significant 67 per cent increase compared to the previous year, thus indicating the increase in demand for environmental publications produced by DOE. Figure 6.1 shows that the biggest number of publications were distributed to Government agencies followed by recipients of foreign entities and libraries.

Nine new publications were published during the year namely, *Strategi Rancangan Perlindungan Lapisan Ozon*,

Laporan Kajian Ulangkaji Undang-Undang Alam Sekitar, *Ringkasan Strategi Rancangan Perlindungan Lapisan Ozon, 1990-2000*, *SEKITAR 1/93*, *SEKITAR 2/93*, *Malaysia Country Programme to Reduce and Eliminate the Consumption and Emissions of Ozone Depleting Substances*, *IRPTC*, *Directory of Environmentally Sensitive Areas* and the 4th Edition of the *EIA Procedure and Requirements in Malaysia*.

To provide supplementary reading on the subject of environment, two publications entitled *Acid Rain* and *Sources of Groundwater Pollution* were published by the Information Unit under its Environmental Information Series for distribution to secondary schools and universities as part of its environmental education programme.

The Department's mailing list increased by 2 per cent from 1,400 the previous year to 1,428 in 1993.



■ **Figure 6.1**
Dissemination of
Environmental
Publications,
1990-1993

QUERY-RESPONSE SERVICES

Responding to public queries is one of the primary roles of the Information Unit. A total of 2,719 queries for environmental information were received in 1993, showing a decrease of 0.8 per cent compared to the previous year. This could have been due to the closure of the Department's library to the public on Mondays effective from August 1, 1993. Despite this, the highest percentage of queries still came from the users of the Department's library, followed by requests through letters and via the INFOTERRA network. Requests through letters increased by 16 per cent compared to 1992. From Figure 6.2, it could be clearly seen that the Department's library has been the most popular source of environmental information to the public.

The requests for information were received from various groups, of which students were found to be the major users of the Department's library and also the major enquirers. The speed of response would depend on the urgency of the information required. A comprehensive analysis on the category of information users is given in Figure 6.3, showing that the rate of students using the library is high in correlation between users of the information resources.

ENVIRO-LIBRARY SERVICES

To upgrade the quality of library services, a computerised cataloguing system using the Columbia Library System (CLS) was initiated at the end of 1992. However, since April 1, 1993, this work was privatised to the MARA Institute of Technology, whereby cataloguing of

library materials was intensified. Till the end of 1993, a total of 13,000 reference materials were catalogued and 9,555 records were computerised. Materials that were catalogued included: books, reports, seminar papers as well as working papers produced by DOE. This computerised cataloguing system also enables users to search for materials through the *On-line Public Access Catalogue* (OPAC).

Press coverage of environmental matters increased and hence, the number of newspaper cuttings relating to the subject increased exponentially since 1977 as shown in Figure 6.4. To upgrade the record for storage and easy retrieval of all the available newspaper cuttings, which amounted to a total of 32,200 till end of 1993, the Department has embarked on a computerisation programme called DOKUMAS. Through this system, which is expected to complete by early 1994, users are able to access information by the newspaper name, date, title of the article as well as by subject keywords.

Figure 6.5 shows the rapid increase in the number of outside users of the library since 1983, while Figure 6.6 shows the category of users for 1993, indicating that students form the main category of users comprising 61% of the total. This was a clear reflection of the increasing awareness on the subject of environment among the students at secondary level and institutions of higher learning.

INFOTERRA

As the National Focal Point for Malaysia, the DOE received and processed a total of 12 queries in 1993 through the INFOTERRA Network. Most of these queries came through the INFOTERRA



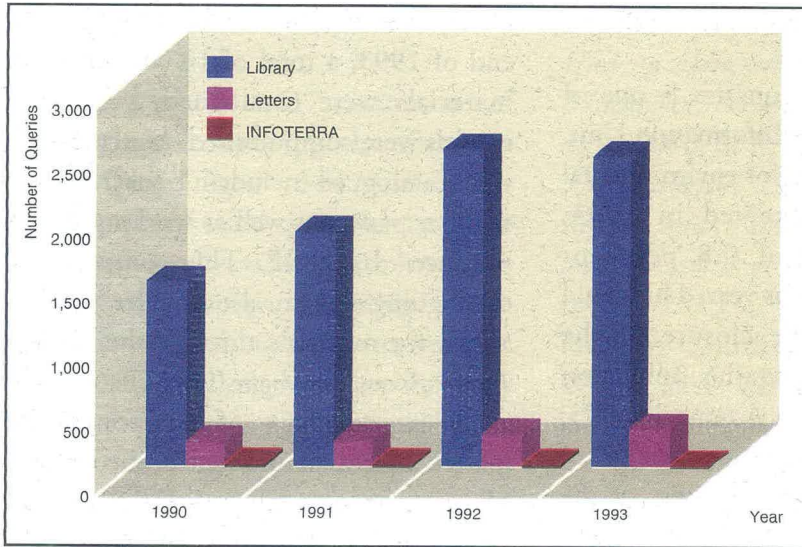


Figure 6.2
Channels of Query Responses, 1990-1993

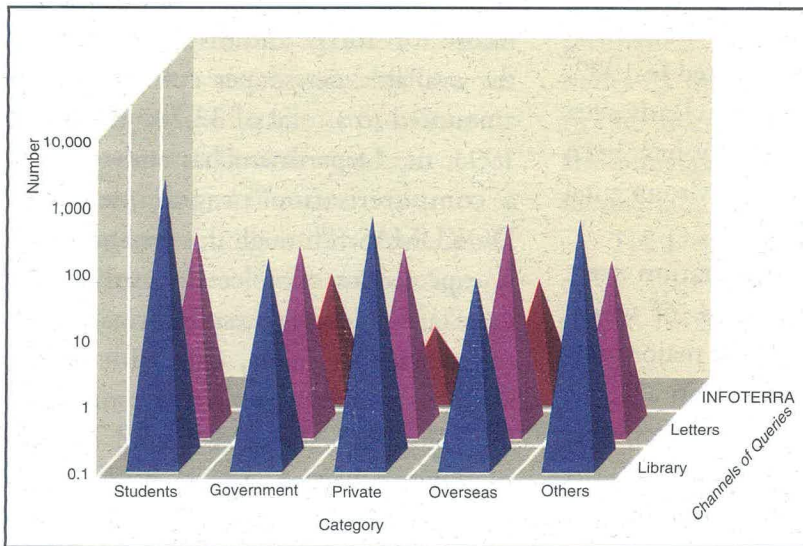


Figure 6.3
Category of Information Users, 1993

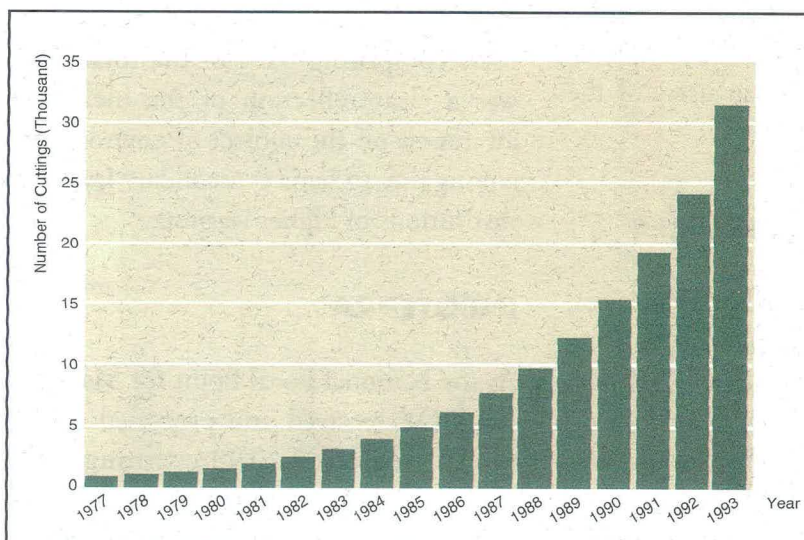
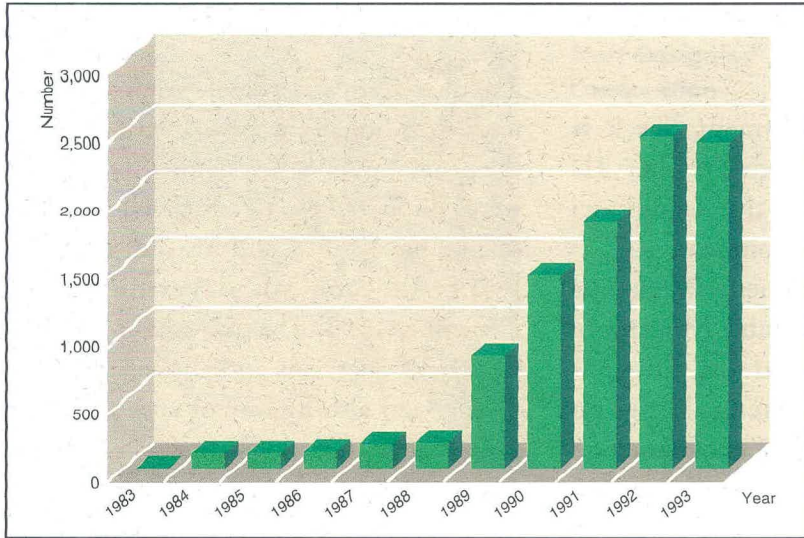
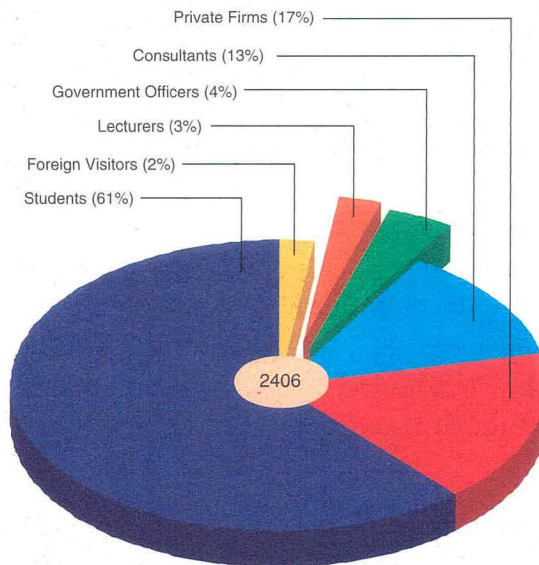


Figure 6.4
Number of Newspaper Cuttings Compiled, 1977-1993



■ **Figure 6.5**
Number of
Library Users,
1983-1993



■ **Figure 6.6**
Library Users,
1993

Programme Activity Centre (PAC) in Nairobi while the rest were directly sent by the enquirers. Out of these 12, 7 were enquiries from our local Government agencies, while 5 were overseas enquiries from Japan, Pakistan, Singapore, Sri Lanka and the United Kingdom.

WORLD ENVIRONMENT DAY (WED)

World Environment Day (WED) was celebrated on June 6, 1993 at the Forest

Research Institute of Malaysia (FRIM). The celebration was co-organised by The STAR, Department of Aborigines Affairs, Department of Environment and other non-governmental agencies such as Malayan Nature Society (MNS) and the World Wide Fund for Nature, Malaysia (WWF). The one-day celebration with the theme *Poverty and the Environment: Breaking the Vicious Circle* comprised a variety of activities including exhibition, screening of environmental videos, public lectures, concerts, etc.



MALAYSIAN ENVIRONMENT WEEK (MEW)

The Malaysian Environment Week is celebrated every year from October 21-27 to commemorate the Langkawi Declaration on the Environment.

The 1993 Environment Week was launched by the Honourable Minister of Science, Technology and the Environment, Datuk Law Hieng Ding on October 21 at Subang Jaya in conjunction with SIME UEP's *Green Campaign. Development with Quality, Environment in Harmony* was chosen as the 1993 theme for the MEW to enhance awareness on the needs for a balanced development and the protection of the environment.

Amongst the highlights were:

- Presentation of the Langkawi and Better Environment Award
- Forum on the environment entitled *Ethics and the Environment*
- Enviro Hunt and Enviro Carnival
- Official opening of the Environment Education Centre
- Seminar on *Air Quality Management in Malaysia*
- Presentation of the ICI Environmental Journalism Award

MEW was also observed at the State level between October and December. Activities such as launching by the Chief Minister of the State, *gotong-royong* cleanliness campaigns, seminars, exhibitions, drawing competitions and tree planting were also organised to instill a greater sense of responsibility and awareness among fellow citizens in protecting and conserving the environment.

ENVIRONMENTAL QUIZ

To cultivate greater awareness and improve understanding of the environment among the general public, Environmental Quizzes were conducted by the DOE with the co-operation of RTM and broadcasted over Radio 1 every Monday from June-December 1993. The quiz was conducted by way of questions and answers via telephone, and also by way of answers using postcards to questions over a four-week period. Attractive prizes were given to winners. Judging from the comments received, this form of environmental education programme actually had been successful in imparting knowledge on current environmental issues to the general public and to seek their co-operations to prevent and solve mundane environmental problems.

INTER VARSITY DEBATE

The Inter Varsity Debate was organised on September 25-27. A total of 8 universities took part in the event namely, UTM, USM, UUM, UPM, UKM, UM, UIA and ITM. The finals was aired for the first time over TV1 on October 27, 1993. The University of Malaya team walked away with a RM3,000 cash prize and a challenge trophy after defeating the team from Universiti Teknologi Malaysia on the topic *The Rio Summit Fails*. The runner-up received a reward of RM2,000.

ENVIRO HUNT (ENVIRONMENTAL TREASURE HUNT) AND ENVIRO CARNIVAL

The Enviro Hunt and Enviro Carnival was held on October 24, 1993, at the WWF



Environment T-Shirt Designing Competition



▼ **Winner of the Green Campaign during launching of the Malaysian Environment Week**





**Official opening
of the Environ-
mental Education
Centre (EEC) by
the Hon. Minister
in conjunction
with Malaysian
Environment
Week**



Environmental Education Centre (EEC) at Bukit Gasing, Petaling Jaya. A total of 1,500 people gathered at Bukit Gasing, either to take part in the Enviro Hunt or other related activities such as exhibition, mini concert, collage and T-shirt designing, and drawing competition. The EEC was also officially opened by the Honourable Minister, Datuk Law Hieng Ding.

**PROJEK RIADAH ALAM
SEKITAR (PRIAS)**

The PRIAS Programme which began in 1992 was initiated by the Department of Environment, Malaysian Scientific Association (MSA) and the Ministry of Education and supported by Tetra Pak (M) Sdn. Bhd. The objectives of PRIAS are to increase environmental awareness among the Malaysian public, especially the younger generation and to promote the use of environment friendly products and technology.

PRIAS involves producing environmental-themed posters and resource books. It also intends to increase environmental awareness among students through competitions on essay and poetry writing, photography, sketches, school environ-

mental projects and other activities related to the environment. Melaka, Negri Sembilan and Johor participated in the PRIAS '93 project.

ENVIRONMENTAL LECTURES

A total of 223 lectures and talks on environment-related issues were conducted by officers from Head Office and the State Offices of DOE. Hydrology was found to be the most favourite subject requested, with a total number of 67 lectures, followed by Environmental Education and Awareness as shown in Figure 6.7.

ENVIRO-EXHIBITIONS

The Department organised and participated in a total of 53 exhibitions throughout the year, covering all States as shown in Figure 6.8. Besides taking part in exhibitions, the Environmental Education Resource Centre in DOE also provides videos, slides and posters for interested institutions and agencies to conduct their own exhibitions, research work, publications, etc. Figure 6.9 shows the number of exhibition materials borrowed from the Resource Centre.



Figure 6.7
Lectures
Conducted by
Subject, 1993

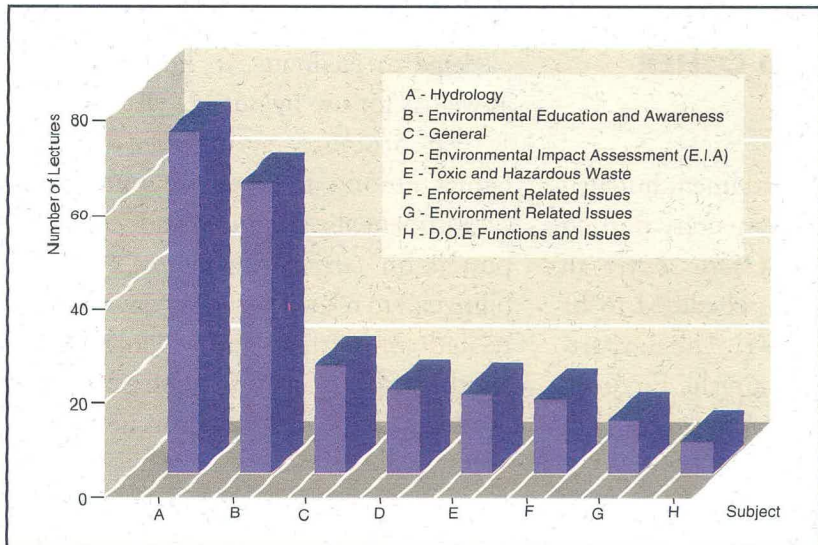


Figure 6.8
Exhibitions
Conducted
Nation-wide,
1993

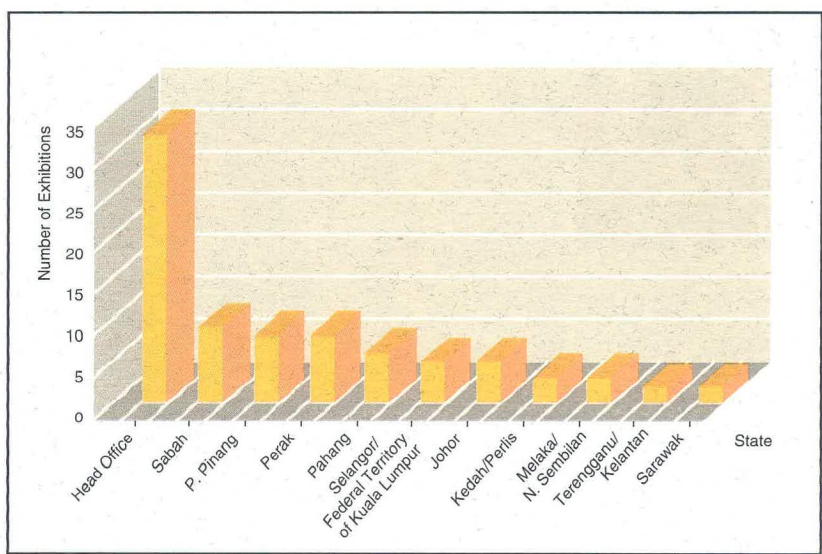
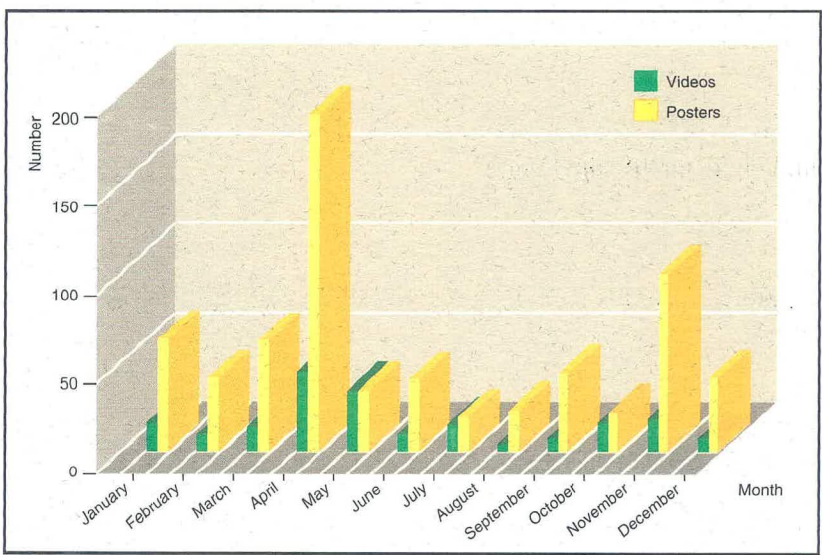


Figure 6.9
Audio-visual Aids
Borrowed from
the Environmental
Education Unit,
1993



ENVIRONMENTAL VIDEO PRODUCTION AND OTHER PUBLICATIONS



The Department of Environment initiated the production of a documentary film on the *Protection of the Ozone Layer* in November 1993. It was scheduled to be completed by early 1994. The Department also planned to equip the Environmental Education Resource Centre with

more audio visual aids such as multi media package to facilitate "in house" viewing as well as for use by outside visitors.

To promote environment-friendly habits among the general public, the Department also produced and distributed posters on *Green Tips for the Office* (in bilingual) to related agencies, environment-related committees, and schools. This is another effort to increase public awareness, especially in the office environment.

Chapter 7

Environmental Affairs





NATIONAL CO-OPERATION

Federal State Relations

The 8th Meeting of Ministers and State Exco members responsible for environmental matters (MEXCOE), chaired by the Honourable Minister of Science, Technology and the Environment was held on July 13, 1993, in Kuantan, Pahang. The main aim of this forum is to strengthen the co-operation between the Federal and State Governments in matters relating to environmental management. For the 8th. meeting the following subject matters were discussed: environmental law review; delegation of power to the Local Authorities for the enforcement of the provision made under the Environmental Quality (Motor Vehicle Noise) Regulations 1987; Malaysian Environment Week 1993 programmes; progress in the implementation of the recommendations on EIA procedure; and status of scheduled wastes management in Malaysia.

Malaysia Incorporated

On the public-private sector interface, the Centre for Environmental Technologies (CETEC), was established in October 1992 with the view to protect and enhance the environment and support sustainable development through research and development, education and training, consultancy and advisory services, as well as promotion of awareness on environmentally sound technologies. In 1993, the DOE became a member of its Technical and Scientific Advisory Panel.

The annual dialogue between the Minister of Science, Technology and the Environment and the NGOs took place on February 22, 1993. Compared to

1992, the number of memorandums submitted and the turnout were bigger. A total of 45 organisations participated in the dialogue. EIA and the problems of scheduled waste management were the main issues raised. In addition, the Minister also conducted separate dialogues for the food and beverage industry, textile associations and with the Malaysian Rubber Exchange and Licensing Board on problems related to compliance with the environmental regulations.

BILATERAL CO-OPERATION AND ASSISTANCE

Malaysia-Australia

The co-operation between Malaysia-Australia in environmental field was further strengthened when Dr. Richard Bowman, Director of ASEAN Section, Department of Industry and Regional Development, Australia, visited the Ministry of Science, Technology and the Environment on June 14, 1993. This was a follow-up meeting for Senior Officials of the Malaysian-Australian Scientific and Technological co-operation programme with the objective of formulating project proposals.

Malaysia-Brunei

On October 1, 1993, the Department of Environment, organised the Official Level Meeting on Oil Spill Contingency Plan and Common Malaysia-Brunei Standard Operating Procedure (SOP) to discuss the draft Common Malaysia-Brunei SOP to combat oil spill. The meeting also discussed other possible areas for future co-operation such as joint enforcement and oil spill combat exercise.



Malaysia-Indonesia

The Minister of Science, Technology and the Environment led a delegation of senior officials to Indonesia on February 7-14, 1993, to discuss with the Indonesian counterparts on environmental matters of mutual interest. The meeting was fruitful and among the major topics discussed were:

- the safety of navigation and oil spills threat in the Straits of Malacca
- transboundary air pollution (haze problem)
- EIA
- transboundary movement of wastes

To further strengthen bilateral cooperation on environmental matter, Indonesia and Malaysia agreed to set up an Indonesia-Malaysia Joint Committee on the Environment (IMJCE). The Joint Committee will serve as a forum for mutual consultation as well as exchange of experience and information on the environment in order to enhance environmental quality of both countries.

On December 7, 1993, the Department of Environment was visited by 40 officials from Indonesia who were undertaking a comparative study of the environment and its implementation in Malaysia, Singapore and Indonesia.

Malaysia-Singapore

The Fifth and Sixth Meetings of the Malaysia-Singapore Joint Committee on the Environment (MSJCE) were held on April 19-20, 1993, in Singapore and October 13-14, 1993, at Pulau Tioman Malaysia, respectively. Various environmental issues of concern to both

countries were discussed. These included the following:

- (a) Control of Motor Vehicle Emissions;
- (b) Water Quality in the Straits of Johor;
- (c) Control of Tanker Cleaning Activities;
- (d) Air Quality Monitoring;
- (e) Sound Management of Chemicals and Wastes;
- (f) Joint Malaysia-Singapore Hydraulic and Water Quality Study for the Straits of Johor.

On July 14, 1993, the contract signing ceremony to award the tender for the Hydraulic and Water Quality Study to the successful tenderor was held in Johor Bahru. It was witnessed by the Chief Minister of Johor where the study was to take place. The study commenced on August 2, 1993, and was expected to be completed in one year. The principal objective is to chart the water movement in the Straits of Johor, assess the water circulation rate as well as to determine the most cost effective method to improve the water circulation and water quality in the Straits.

On November 18-20, 1993, the Honourable Minister of Science, Technology and the Environment (MOSTE) on this programme, led a delegation of senior officials and staff of the Ministry to visit the Ministry of the Environment, Singapore (ENV). This programme is held annually on a reciprocal basis, to promote mutual understanding and to foster a closer working relationship among senior officers and staff of the



two ministries. Among the matters discussed were issues of common concern and the report of work carried out by the Malaysia-Singapore Joint Committee on the Environment. The Malaysians were also taken to Senoko Refuse Incineration Plant. The 8th Annual MOSTE-ENV Friendly Games were also held at various venues in Singapore.

Malaysia-Germany

- (a) The Director-General of Environment, Dato' Dr. Abu Bakar Jaafar visited Germany under the UNIDO Environmental Technology Mission on May 7-15, 1993. He visited a few places to view the latest German technologies in the field of environmental management. Pursuant to his visit, the Honourable Minister of Science, Technology and the Environment, Malaysia, and his delegation paid a visit to Germany on June 15-20, 1993. The delegation held discussions with German Officials on specific measures to promote bilateral co-operation in the environmental field.
- (b) Upon request made by the Malaysian Government, Dr. Hanno Henkel from Bayer AG, an expert in environmental protection technologies visited the Department of Environment from November 20-25, 1993. His visit is to help the Malaysian Government in waste management.
- (c) From December 18-21, 1993, nine German Parliamentarians from the Research and Technology Committee of the German Parliament were on a mission to the Ministry of Science, Technology and the Environment to

explore the possibilities of bilateral co-operation.

- (d) A study on Determination of Load of Motor Vehicles in Urban Areas in Malaysia was commenced on July 19, 1993, for the duration of three months by three experts from the Department of Environmental Technology of TUV Bayern Sachsen. This study is one of the activities of the present phase of the Malaysia-German Technical Co-operation Project. The objective of the study was to provide methods for the determination of emission load and emission factor from motor vehicles.

Malaysia-United Kingdom

On August 18, 1993, Dr. Joshua Bishop, Economist from the London Environmental Economics Centre, U.K, visited the Department of Environment, Malaysia to identify project proposals under the Programme of Co-operation between the United Kingdom and Malaysia on Tropical Forests.

Malaysia-Vietnam

H.E. Mr. Dang Huu, State Minister for Science, Technology and the Environment, Vietnam, and his delegation paid an official visit to the Department of Environment on March 9, 1993, to explore bilateral co-operation on the environment.

Other Bilateral Co-operation Programmes

In 1993, visits of foreign delegation continued to take place on an average of two a month. The Department received environmental missions forum. This



frequency is twice that of 1992, indicating two a month a positive sign for Malaysia's environmental image abroad. The Department received environmental missions from Australia, Germany, India, Indonesia, Japan, Korea, New Zealand, Scotland, Singapore, Sri Lanka, United Kingdom, United States and Vietnam. Meanwhile, Malaysian missions led by the Minister of Science, Technology and the Environment visited Germany, Indonesia and Singapore to discuss environmental matters of mutual interest and to promote bilateral co-operation in the field of environment.

REGIONAL CO-OPERATION

Economic and Social Commission for Asia and the Pacific (ESCAP)

ESCAP/UNDP High Level Meeting on Environmentally Sound and Sustainable Development in Asia and the Pacific was held in Kuala Lumpur from February 15-19, 1993. This meeting was the first high-level expert group meeting on environment and development organised by ESCAP following UNCED. It was attended by Senior Officials from countries of the Asia-Pacific Region and associate members of ESCAP. Among the issues discussed at the meeting include deliberation on the implementation of a Regional Strategy on Environmentally Sound and Sustainable Development, Analysis of Agenda 21 and Natural Resource Accounting.

ASEAN Senior Officials on the Environment (ASOEN)

The Fourth Meeting of the ASEAN Senior Officials on the Environment (ASOEN) was convened in Bangkok,

Thailand from July 6-8, 1993. It was attended by Senior Officials from ASEAN Countries and the representatives of the ASEAN Secretariat.

The Meeting reviewed the activities of the six ASOEN Working Groups and also the status of ASEAN Co-operative Programmes in the field of environment with its dialogue partners. Malaysia, having completed the 3-years term as Chairman of ASOEN handed over the chairmanship to the Philippines.

ASEAN Co-operative Programmes on Marine Science (ACPMS)

Until August 20, 1993, the Department of Environment (DOE) as Chairman coordinated two on-going co-operative programmes on marine science at national level and was also the Secretariat of the National ASEAN Sub-Committee on Marine Science. The DOE continued to provide office space to the Centre of Operation for the ASEAN-Canada Co-operative Programme on Marine Science Phase II until August 1993.

ASEAN-US

The ASEAN Environmental Improvement Project (EIP) under the USAID/ASEAN programme, has been formulated to facilitate environmentally acceptable economic development by strengthening local, national and regional capabilities in environmental management such as waste minimisation, energy conservation, and pollution control. It specifically aims to help providing the means for private sector initiatives to reduce industrial wastes. In Malaysia, EIP seeks to achieve this objective through action in three areas:



- policy and industrial development;
- technology transfer and training;
- technology commercialisation and investment promotion.

The draft of the First Work Plan for EIP was discussed in July 1993, in Bangkok.

ASEAN-Australia

The 15th ASEAN-Australia Forum was held on June 19-20, 1993, in Bangkok at Senior Officials level. Such meetings are organised every 18-24 months, hosted alternately by ASEAN and Australia, to set policy guidelines and direction, and to review the progress, problems and obstacles in co-operation in the field of economic, trade, investment, science, environment and human resources development.

Among the topics discussed at the 15th ASEAN-Australia Forum include exchange of views and discussion on global and regional economic trends, trade and investment problems, and co-operation in science, technology and environment, telecommunication as well as the consideration of the mid-term Review Report of the ASEAN-Australia Economic Co-operation Programme (AAECP).

As part of the programme planning process, two workshops were held to identify and formulate specific activities stream and to refine the selection criteria to be used for the linkages stream. The second workshop was held on June 8-10, 1993, in Kuala Lumpur, focusing on environment and telecommunications.

A number of project proposals were submitted for consideration at the workshop and 5 were selected for implementation:

- (a) Coastal Zone and Environmental Resource Management;
- (b) Wastewater Treatment Technology Transfer and Clean Production;
- (c) Transboundary Pollution of Haze and Acidic Deposition in ASEAN Countries;
- (d) ASEAN Climate Assessment and Climate Impact Analysis; and
- (e) ASEAN Conservation Areas Network

MULTILATERAL CO-OPERATION

Montreal Protocol

After the Protocol came into force on November 29, 1989, Malaysia also acceded to the Amendment (London 1990) on June 16, 1993, and the Amendment (Copenhagen 1992) on August 5, 1993. Malaysia continued to have a seat in the Executive Committee (EXCOM) of the Interim Multilateral Fund for the ending year 1993. The National Steering Committee (NSC) was established to control the use of all CFCs and Halon with the Department of Environment (DOE) being the National Focal Point. Seven Industrial Working Groups were established under the National Steering Committee (NSC) to formulate strategies for phasing out Ozone-Depleting Substances (ODS) in the various economic sectors.

Basel Convention

Progress on the implementation of the Basel Convention on the Control of Transboundary Movement of Hazardous Waste and their Disposal was reported in the **Scheduled Waste Management** sub-chapter. In order to enforce the requirements of the Convention in Malaysia, a



new set of control procedure under the Customs Act 1967 was enacted. The Customs (Prohibition of Exports) (Amendment) (No. 2) Order 1993 and the Customs (Prohibition of Imports) (Amendment) (No. 3) Order 1993 were enforced as of August 12, 1993. These Orders, enforced by both the Royal Customs and Excise Department and the DOE, specify that any export or import of toxic and hazardous wastes out of or into Malaysia must obtain prior written consent of the Director-General of Environmental Quality.

Following the enforcement of the above export and import control regulations, Malaysia deposited its instrument of accession to the Basel Convention on October 8, 1993. Thus, the Convention came into force for Malaysia 90 days later, which was on January 6, 1994.

In 1993, Malaysia participated in the following meetings organised by the Secretariat of the Basel Convention:

- (a) Fifth Session of the Technical Working Group to Prepare Technical Guidelines for the Environmentally Sound Management of Wastes subject to the Basel Convention, Geneva, September 1-3, 1993; and
- (b) First Meeting of the *Ad-Hoc* Committee for the Implementation of the Basel Convention, Geneva, October 26-28, 1993.

INTERNATIONAL CO-OPERATION

United Nations Environment Programme (UNEP)

As the focal point for UNEP, DOE continued to participate in various major activities associated with UNEP and these include the Montreal Protocol, IRPTC and INFOTERRA such as:

- The 2nd Phase of the Socio-Economic Impact and Policy Responses Related to Climate Change in Southeast Asia.

This is a follow-up study of the 1st Phase of the Socio-Economic Impact and Policy Responses Related to Climate Change in Southeast Asia. It is fully funded by UNEP. A workplan and timetable for the 2nd Phase Study had been agreed at the follow-up meeting of the Task Team Leaders in Bangkok from July 22-23, 1993. The main objectives of the Study are:

- (a) To evaluate the existing studies on the effects of climate change in Southeast Asia with respect to:
 - (i) their value for formulation of policies response;
 - (ii) their data requirements;
 - (iii) appropriateness of their analytical methods;
 - (iv) the degree to which they integrate the potential effects of climate change and sea-level rise; and
- (b) To make recommendations concerning the next steps to be taken concerning further work on this issue in the region.

- 17th Session of the UNEP Governing Council

The 17th Session of the Governing Council of the United Nations Environment Programme (UNEP) was held in Nairobi, Kenya on May 10-21, 1993. This Session of the Governing Council, UNEP's ruling body comprising 58 Governments, was attended by 54 member states, 51 non-member states, 20 UN and specialised organisations and 25 international non-governmental organisations. About 40 Ministers attended this Session of the Governing Council.

Malaysia played a very active role in steering the course of discussions at this Session. It was clear that developing countries continue to expect Malaysia to play a dominant role in ensuring that Rio's commitments were implemented. Our delegation made numerous suggestions and contributions with regard to programme priorities and funding both at the Committee and at the plenary session. This helped to guide and shape the final resolutions which were adopted at this Session. Malaysia was also requested to participate in all the core groups involved in drafting and negotiating resolutions.

- International Environment Ministers' Round Table

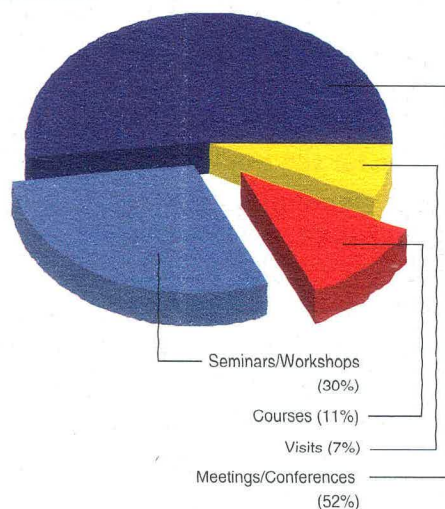
This Meeting which was held in Quebec, Canada from April 16-18, 1993, was attended by the Honourable Minister of Science, Technology and the Environment and his delegation. The Meeting brought together 13 Environment Ministers from both developed and developing

nations to exchange ideas in an informal setting. Other nations involved were, Australia, Brazil, Canada, China, Cote d'Ivoire, Germany, India, Indonesia, Italy, Malaysia, Nigeria, UK and USA. This was the first meeting of its kind, where Ministers from developed and developing countries gathered to discuss ways to achieve progress on the global sustainable development agenda.

- Co-ordinating Body on the Seas of East Asia (COBSEA)

The Tenth Meeting of COBSEA was convened in Bangkok on May 31 - June 1, 1993. The meeting reviewed the achievement in the implementation of the East Asian Seas Action Plan, considered the future role and mode of operation of the COBSEA, reviewed the TOR for Regional Co-ordinating Unit for the East Asian Seas Action Plan and decided on the programme of activities for 1993-1994.

■ **Figure 7.1**
illustrates the attendance of DOE
in environmental assignments
overseas





**The Director-General of
Environment during his visit to the
Bayer AG Waste Management
Facilities in Leuerkusen-Burriq,
Germany, May 1993**

