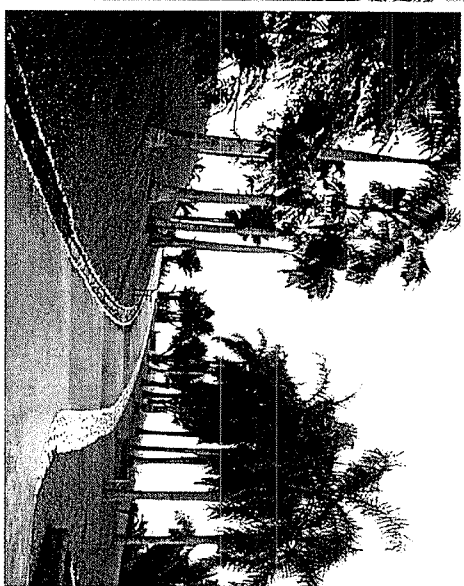
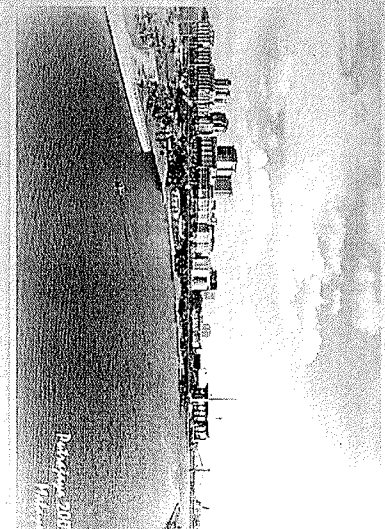


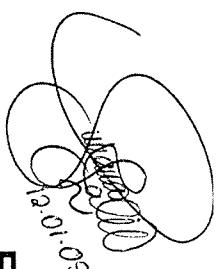


ENVIRONMENTAL IMPACT ASSESSMENT (EIA)



PROCEDURE AND REQUIREMENTS IN MALAYSIA

DEPARTMENT OF ENVIRONMENT
Ministry of Natural Resources
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**ENVIRONMENTAL IMPACT
ASSESSMENT
(EIA)**

**PROCEDURE AND REQUIREMENTS
IN
MALAYSIA**

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I. ENVIRONMENTAL IMPACT ASSESSMENT

What is Environmental Impact Assessment (EIA)?

EIA is a study to identify, predict, evaluate and communicate information about the impacts on the environment of a proposed project and to detail out the mitigating measures prior to project approval and implementation.

Why do we need EIA?

EIA is essentially a planning mechanism for preventing environmental problems due to an action. It ensures that the potential problems are foreseen and addressed at an early stage in the project planning and design. Thus this will avoid costly mistakes in project implementation, either because of the environmental damages that are likely to arise during project implementation, or because of modifications that may be required subsequently in order to make the action environmentally acceptable.

EIA when integrated into the existing planning and decision-making structure, provides additional information towards a better decision-making.

What to Consider Prior to EIA Study?

Project Concept

Project proponent must make sure that the concept of the proposed project does not contradict any development plans, policies or any decisions of the Government of Malaysia prior to the EIA Study, namely (but not limited to the following):-

- (i) National Physical Plan.
- (ii) Structure Plan.
- (iii) Local Plan.
- (iv) Regional Plan (inter-state planning).
- (v) Agreement between the Government of Malaysia and Kualiti Alam Sdn Bhd. on the disposal of scheduled wastes in Malaysia.

PREFACE

Environmental Impact Assessment (EIA) has been acknowledged as a useful tool which incorporates environmental factors in making a decision regarding new development. EIA has been mandatory for particular projects since 1 April 1988. This booklet summarizes the EIA procedure as an aid to environmental planning of new projects or the expansion of existing ones. It contains information on the EIA process which required proponents of particular projects, classified as 'prescribed activities' to submit to the Director General of Environmental Quality before the project is approved by the relevant approval authority. It also provides information on the nineteen categories of activities prescribed. Its contents are intended primarily for decision makers, project proponents as well as consultants preparing EIA reports.

- (vi) Agreement between the Government of Malaysia and Pantai Medivest Sdn. Bhd., Faber Mediserve Sdn. Bhd. and Radicare Sdn. Bhd. on the disposal of clinical wastes from Government Hospitals.
- (vii) Guidelines on Highland Development (*Garispanduan Pembangunan Di Kawasan Tanah Tinggi*).
- (viii) Guidelines on Siting and Zoning of Industries.

Site selection

The criteria for selecting a new site normally include engineering, environmental and economic aspects. Usually, some of these criteria limit the choice of potential sites to a given few. These sites are then investigated further for their suitability through site visits and analysis of existing information. During this stage, measures to protect the environment and resolve socio economic issues are also considered. Where the project is situated on private/ individual land or near waterways, and alternative users will be affected by the project, the issue of compensation and offset investment should be addressed in the EIA.

Project proponent is encouraged not to select site which is located in or adjacent to Environmentally Sensitive Areas (ESA), as defined in National Physical Plan (April 2005). ESA shall be integrated in the planning and management of land use and natural resources to ensure sustainable development. The management of ESA shall be guided by the following criteria:-

- ESA Rank 1 – No development, agriculture or logging shall be permitted except for low-impact nature tourism, research and education.
- ESA Rank 2 – No development or agriculture. Sustainable logging and low-impact nature tourism may be permitted subject to local constraints.
- ESA Rank 3 – Controlled development where the type and intensity of the development shall be strictly controlled depending on the nature of the constraints.

Source: *National Physical Plan (26 April 2005)*

The areas defined as environmentally sensitive as demarcated in IP8 of the National Physical Plan are:-

- ESA Rank 1
 - All Protected Areas (refer to National Physical Plan), potential Protected Areas, wetlands and turtle landing sites.
 - Catchment of existing and proposed dams.
 - All areas above 1000 m contour.
- ESA Rank 2
 - All other forests, corridors, corridors linking important Protected Areas, buffer zone around Rank 1 areas.
 - All areas between 300m- 1000 m contour.
- ESA Rank 3
 - All marine park islands, buffer zone around Rank 2 areas.
 - Catchment for water intakes and groundwater extraction (wellfields).
 - All areas between 150m-300m contour, all areas with erosion risk above 150 ton/ha/yr, all areas experiencing critical or significant coastal erosion.

Source: *National Physical Plan (26 April 2005)*

Furthermore, under the NPP20 of the National Physical Plan, sensitive coastal ecosystems shall be protected and used in a sustainable manner. One of the measures to be undertaken is that coastal reclamation for future urban expansion shall not be carried out except for the development of ports, marinas and jetties. The areas defined as sensitive coastal ecosystem as demarcated in IP10 of the National Physical Plan are mangrove forests, marine parks, critical coastal erosion areas (category 1) and turtle landing site.

The EIA documents the site selection process. However, in certain instances, for large or sensitive projects, the Project Proponent may wish to confirm the site is acceptable to the authorities and public prior to commencing detailed feasibility and EIA studies. In this instance a formal documented *Site Search Report* detailing the environmental, engineering and economic initial assessment of the sites and their ranking can provide a useful decision tool.

Some general criteria relevant to all projects are as below:-

- **Buffers:** Appropriate buffer zones should be included with respect to a specific category of development projects i.e. industrial projects, solid waste handling and disposal facilities (landfills, incinerators, composting plants, etc), toxic and hazardous wastes treatment and disposal facilities, with potential to give rise to air including odour problems, water and noise pollution and solid and toxic waste problems. DOE's "*Guidelines for the Siting and Zoning of Industries*" (latest revision) can be used as a general guide, subject to the findings of the EIA. Extensive control problems will be expected in many cases and bushes, trees, banks etc can provide barriers to neighbours and improve aesthetics.
- **Air pollution:** siting in areas where air pollution from emissions will seriously affect local communities should be avoided. Locate to minimize air pollution and odour impact from point and fugitive sources. Where emissions of carcinogenic or mutagenic substances is possible due account should be made for health risks.
- **Proximity:** The facility should be distant to sensitive potential receptors of impacts such as schools, places of worship, nursing homes, hospitals.
- **Water Pollution:** Siting a facility along water courses can cause their eventual degradation, and affect critical beneficial uses downstream such a public water supply intake, fisheries or basic riverine livelihood. Water catchment areas should be avoided.
- **Geology/Hydrology:** Siting of facilities (eg industries, scheduled wastes facilities, solid wastes landfills) should have due regard for their potential to contaminate groundwater reserves.
- **Risks of Toxic Clouds, Fire and Explosion:** Locate so that the outer hazard distances coincide with the outer boundary of the buffer zone and human settlements.

- **Waste Disposal/Raw Materials** site near to sources of principle raw materials and ensure availability of adequate waste disposal facilities.
- **Social/Cultural:** Avoid populated areas, parks and scenic areas. Public participation and local interest groups consultation to gain local acceptance and an assessment of the impact on cultural resources would be necessary.
- **Access:** Good all weather access roads should be avoided. For easy entry and exit of raw material, product and waste transportation vehicle (or equivalent rail or deep water sea access as appropriate). Utilization of secondary roadways or streets is undesirable because of noise impacts and traffic congestion on routes not designed for heavy truck use.
- **Noise:** Secluded locations are best if feasible. If not, suitable buffers and distances from human dwellings must be kept.
- **Land Value:** Land value and property value are likely to be affected by the placement of industrial facilities in a given area. The type of land use along roadways leading to the site entrance and the degree of residential development in the vicinity need to be considered.
- **Ecology:** Avoid unique habitat areas. Siting the plant near or in ecologically or environmentally sensitive habitats (e.g mangroves, estuaries, wetlands, coral reefs) can cause irreversible damage to these habitats.

Legal Requirement

In Malaysia, EIA is required under section 34A, Environmental Quality Act, 1974 (**Appendix 1**), which specifies the legal requirements in respect of EIA for Prescribed Activities:

- It empowers the Minister of Natural Resources and Environment after due consultation, to prescribe any activity which may have significant environmental impact as a "Prescribed Activity".

- The section further requires the Project Proponent of a Prescribed Activity to submit a report (the EIA) to the Director General of Environmental Quality before approval for the proposed activity is granted by the relevant approving authority.
- The EIA report must:
 - be in accordance with the guidelines issued by the DOE;
 - contain an assessment of the impact of the Prescribed Activity on the environment; and
 - detail the proposed measures that shall be instituted to prevent, reduce or control adverse impacts on the environment.

Which activities are subject to EIA?

Activities subject to EIA are prescribed under Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 1987 ([Appendix 2](#)).

Who can conduct EIA study?

An EIA Study has to be conducted by competent individuals who are registered with the Department of Environment under the EIA Consultant Registration Scheme. The DOE will reject EIA reports which are conducted by individuals who are not registered with the Department. As such, the project proponent or EIA study team leader has to ensure that all members in the EIA study team are registered with the Department of Environment. The list of registered EIA Consultants (including Subject Consultants and Assistant Consultants) is available at the Department of Environment website (www.doe.gov.my). Details on the registration scheme is also available at the website (EIA Consultant Registration Guidance Document).

How to conduct EIA?

In the preparation of EIA reports, project proponents and EIA consultants may refer to "A Handbook of Environmental Impact Assessment Guidelines" (Fourth Edition) 2007 and EIA Guidelines for specific activities published by the Department of Environment and

other relevant guidelines published by other agencies. The list of these Guidelines is at [Appendix 3](#).

Project Approving Authority

All prescribed activities need to obtain EIA approval from the Director General of Environment prior to the giving of approval by the relevant Federal or State Government authority for the implementation of the project.

The Approving Authority is the Government Authority that has the task of deciding, whether or not a project should proceed. The authorities include the following:

- The National Development Planning Committee for Federal Government sponsored projects.
- The respective State Planning Authorities for State Government sponsored projects.
- The Regional Development Authorities for the State Executive Committee (EXCO).
- Ministry of International Trade and Industry (MITI) (with due reference to the Malaysia Industrial Development Authority (MIDA)) - for industrial projects.

II. THE EIA PROCEDURE IN MALAYSIA

The Principal Stages of the EIA Process

The EIA Process in Malaysia is designed to follow the **Integrated Project Planning Concept** as shown in **Figure 1**. The features of the concept include the following:

1. At the onset, during the project identification stage, the need to conduct an EIA study is determined. At this stage, the project proponent has to confirm that the project concept is in line with any development plans, policies and decisions of the Government of Malaysia, prior to EIA study.

2. If the project requires EIA, screening of project options in respect of alternative sites and process/design variants with the aim of selecting the optimum site and design concept based on economic, engineering, social and environmental criteria, is done in parallel with the Pre-feasibility Study for the project.

The Scoping exercise, which could also be conducted in parallel with the site selection and project options assessment or immediately thereafter, usually during Pre-feasibility, determines the level and scope of EIA studies required.

The EIA study covering detailed identification of potential impacts, baseline surveys and data gathering, prediction and evaluation of impacts including, if appropriate, risk assessment, mitigation and abatement of impacts and Environmental Monitoring and Auditing (EM&A) requirements.

3. The EIA report is reviewed simultaneously with the Pre-feasibility and Feasibility reports respectively, before a final decision on the project is made. Review and decision on approval of the EIA by DOE followed by issued of approval conditions, requirement for further study or rejection of the EIA.

4. Detailed design of mitigation measures and preparation of Environmental Management Planning (EMP) which refines the

recommendations on mitigation and Environmental Monitoring & Audit in the EIA into an effective environmental protection strategy that demonstrates compliance to the terms of the EIA's approval.

5. During project construction, the mitigating measures and EMP for construction must be implemented.
6. Throughout project operation, the environmental monitoring and auditing are carried out to ensure effectiveness of the mitigating measures.

This concept is recommended to be followed to minimize project delay and improve project planning. EIA studies undertaken late in a project cycle do not assist in project planning.

Timing of Environmental Inputs

Figure 1 also indicates the approximate timings within the project cycle for each environmental activity defined above. Ideally, the scheduling should follow this format with environmental considerations integrated at the earliest opportunity. **Figure 2** shows the sequence of activities generally required for planning approval and compliance with environmental approval conditions in more detail and indicates who is responsible for various activities.

Table 1 shows the role and interest of various Group/Agencies in the EIA Process

Table 1: Role and Interest of various Group/Agencies in the EIA Process

Group	Role	Interest
Project Initiator	Plan, develop and/or manage the key sector development project	Mainly economic (case of private sector) but also socio-economic (in case of public sector development)
Project investor (leading agency and purchasers of land)	Investment in key sector projects	How impacts affect the viability of the project and liabilities to be incurred
Department of Environment (DOE)	Decision on EIA report	Extent of impacts the project has on land use and adjacent development
JPBD	Zoning and land use	Extent of impact the project has on land use and adjacent developments
Other Government Agencies (DID, JKR, Fisheries, Agriculture, Health, Sewerage Services, DOSH, etc)	Relevant inputs in respective areas of expertise	Implications of the proposed project on other projects or activities in which they have interest or wish to promote
Approving Authority	Project Approval	Impacts are to be within acceptable levels with no significant residual effects
Local Authorities	Zoning and development control	Extent of impact the project has on land use and adjacent developments
Local Community	Relevant inputs for protection of local interests	Impacts of project and how they affect the quality of life

EIA Procedure

There are two EIA procedures adopted in Malaysia, namely the Preliminary EIA and the Detailed EIA, that can be described as follows:

- **Preliminary EIA**

Preliminary EIA is assessment of impacts due to those activities that are prescribed.

The Preliminary EIA report is reviewed by a Technical Committee consisting of the Department of Environment State Offices and other relevant government agencies. The procedure for Preliminary EIA is as shown in **Figure 3**.

The number of Preliminary EIA report to be submitted to the Department of Environment State Offices for review is 12 copies, and 3 copies plus a softcopy of the Executive Summary of the Preliminary EIA report to the Department of Environment Headquarters.

- **Detailed EIA**

Detailed EIA is a procedure undertaken for those projects with major/significant impacts to the environment. The procedure for Detailed EIA is as shown in **Figure 4**.

The Detailed EIA involves EIA report display for the public and affected community to comment. Activities which need to go through the Detailed EIA procedure, are listed in **Appendix 4**. Notwithstanding the list in **Appendix 4**, the Director General of Environment may request a Detailed EIA for other prescribed activities as he deems necessary.

Terms of Reference

A Terms of Reference (TOR) for EIA must be submitted by project proponent for project which requires Detailed EIA. The TOR has to be project-related and site-specific, and based on the Guidance Document prepared by DOE (**Appendix 5**).

Environmental data collections required, assessment procedures to be used, and appropriate methodologies for impact prediction and assessment must be outlined in the TOR. The TOR should also be prepared in consultation with relevant agencies. The TOR will be reviewed by DOE with the assistance of an ad-hoc EIA Review Panel.

The number of copies of TOR to be submitted to the Department of Environment is 35 copies.

Detailed EIA

Detailed EIA is carried out based on specific terms of reference issued by an ad hoc Review Panel appointed by the Director General. The EIA Report is reviewed by the ad hoc Review Panel chaired by the Director General. The Department of Environment maintains a list of experts who may be called upon to sit as members of any Review. The selection of the experts depends on the areas of environmental impacts to be reviewed.

The number of Detailed EIA report to be submitted to the Department of Environment Headquarters for review is 50 copies.

III. THE REVIEW PROCESS

Time taken for EIA Review

The period allocated for a review of a Preliminary EIA report is 5 weeks while that for a Detailed EIA report is 12 weeks.

How are EIA Reports Processed and Concluded?

Preliminary EIA Reports are processed and concluded by the Department of Environment State Offices including projects within the Exclusive Economic Zone (EEZ).

Detailed EIA Reports and projects involving more than one state are processed at the Department of Environment Headquarters.

Preliminary EIA Reports

The organizational structure of the Preliminary EIA Report processing and approval procedure set-up at the Department of Environment State Offices is headed by the State Director. He is responsible for approving or rejecting an EIA Report. One-Stop Agency meetings with other relevant agencies or departments are held in the review process, where comments and verifications from relevant agencies or departments are sought.

Detailed EIA Reports

The organisational structure of the Detailed EIA Report processing and approval procedure set-up is headed by the Director General of Environmental Quality who is responsible for approving or rejecting the EIA report. He is assisted by the Director of Assessment Division, who also functions as Secretary to the Detailed EIA ad hoc Review Panel.

The Chairman of this panel is the Director General of Environmental Quality. The Detailed EIA Review Panel's main task is to critically review Detailed EIA Reports and formulate recommendations to the relevant project approving authority. The Detailed EIA Review Panel is established on an ad hoc basis specifically for a particular project.

The panel comprises independent members of relevant disciplines, from different organisations such as Universities and Non-Governmental organisations. Detailed EIA Reports are also displayed at all Department of Environment Offices, as well as public and university libraries for public comments. The public are widely notified through the mass media when and where the Detailed EIA Reports are available for review and comment.

Consultation

Although there is no requirement for notification and a project proponent is under no formal obligation to consult the Department of Environment about his proposal before submission of his EIA Report, there are practical reasons for doing so. The Department of Environment and other relevant departments often possess useful information in particular, data on environmental quality, local problems, as well as aspects of the project most likely to be of concern and requiring emphasis in the EIA Report. It would be beneficial for all concerned if Project Approving Authorities can advise potential project proponents as soon as a project is proposed to check with the Department of Environment to ascertain if EIA is required. By doing this the issues of timing and delay can be avoided.

IV. ACTIVITIES SUBJECT TO EIA

Prescribed Activities

The Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 which is made under powers conferred by section 34A of the Environmental Quality Act, 1974 specifies those activities that are subject to EIA. Nineteen categories of activities are prescribed and these include those related to: agriculture, airport, drainage and irrigation, land reclamation, fisheries, forestry, housing, industry, infrastructure, ports, mining, petroleum, power generation, quarries, railways, transportation, resort and recreational development, waste treatment disposal, and water supply.

Many of the activities related to these nineteen categories are defined in terms of project size (as area), capacity (quantum) while others are not defined by any unit of measure.

Hence, to assist project initiators or project approving authorities to make quick decisions on whether a proposed activity is subject to the Act or otherwise, three simple checklists have been prepared as follows:

- a) Activities defined by quantum (Table 2a)
- b) Activities defined by project size (table 2b); and
- c) Activities not defined by unit of measure (Table 2c)

Table 2a

Malaysia: Summary of Activities Subject to Environmental Impact Assessment (Activities Defined by Quantum)

Quantum	Unit	Activity	Number
60,000	Barrel	Construction of product depots for the storage of petrol, gas or diesel.	12(e)
5,000	Tonnes	Shipyards - Dead weight tonnage greater than 5,000 tonnes.	8(f)
4,500	Cubic meters/day	Groundwater development for industrial, agricultural urban water supply of greater than 4,500 cubic metres per day	19(b)
200	Tonnes/day	Iron and steel industries using scrap iron as raw materials for production greater than 200 tonnes/day.	8(e)
100	Family	Agricultural programmes necessitating Resettlement of 100 families or more.	1(b)
100	Tonnes/day	Chemical - Where production capacity of each product or of combined products is greater than 100 tonnes/day.	8(a)
100	Tonnes/day	Lime production industries - 100 tonnes/day and above burnt lime rotary kiln.	8(d)
100	Tonnes/day	Iron and steel industries using iron ore as raw materials for production greater than 100 tonnes/day.	8(e)
50	Tonnes/day	Non ferrous industries other than aluminium and copper.	8(c)
50	Tonnes/day	Lime production industries - 50 tonnes/day and above vertical kiln.	8(d)
50	Tonnes/day	Pulp and paper industry - Production capacity greater than 50 tonnes/day.	8(g)
30	Tonnes/day	Cement industries-for clinker throughput of 30 tonnes/hour and above.	8(d)
10	Megawatts	Construction of steam generated power stations burning fossil fuels and having a capacity of more than 10 megawatts	13(a)

Table 2b

Malaysia: Summary of Activities Subject to Environmental Impact Assessment (Activities Defined by Project Size)

Project Size	Unit	Activity	Number
5,000	Hectare	Irrigation schemes covering an area of 5,000 hectares or more.	3(c)
500	Hectare	Land development schemes covering an area of 500 hectares or more to bring forest land into agriculture production.	1(a)
500	Hectare	Development of agricultural estates covering an area of 500 hectares or more involving changes in types of agricultural use.	1(c)
500	Hectare	Logging covering an area of 500 hectares or more.	6(c)
400	Hectare	Construction of dams and hydroelectric power scheme reservoirs with a surface area in excess of 400 hectares.	13(b)ii
250	Hectare	Mining of mineral in new areas where the mining lease covers a total area in excess of 250 hectares.	11(a)
200	Hectare	Construction of dams and man-made lakes and artificial enlargement of lakes with surface areas of 200 hectares or more.	3(a)
200	Hectare	Construction of dams or impounding reservoirs with a surface area of 200 hectares or more.	19(a)
100	Family	Agricultural programmes necessitating resettlement of 100 families or more.	1(b)
100	Hectare	Drainage of wetland, wild-life habitat or of virgin forest covering an area of 100 hectares or more.	3(b)
80	Room	Construction of coastal resort facilities or hotels with more than 80 rooms.	17(a)

Table 2b (continuation)

Project Size	Unit	Activity	Number
50	Hectare	Coastal reclamation involving an area of 50 hectares or more.	4
50	Hectare	Land-based aquaculture projects accompanied by clearing of mangrove swamp forests covering an area of 50 hectares or more.	5(c)
50	Hectare	Conversion of hill forest land to other land use covering an area of 50 hectares or more.	6(a)
50	Hectare	Conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 hectares or more.	6(d)
50	Hectare	Housing development covering an area of 50 hectares or more.	7
50	Hectare	Industrial estate development for medium and heavy industries covering an area of 50 hectares or more.	9(b)
50	Hectare	Sand dredging involving an area of 50 hectares or more.	11(c)
50	Hectare	Hill station resort or hotel development covering an area of 50 hectares or more.	17(b)
50	Kilometre	Construction of off-shore and on-shore pipelines in excess of 50 kilometres in length.	12(b)
40	Hectare	Construction of dams and hydroelectric power schemes with dams over 15 meters high and ancillary structures covering a total area of 40 hectares.	13(b)i
2.5	Kilometre	Construction of airports (having an airstrip of 2,500 metres or longer).	2(a)

Table 2c

Malaysia: Summary of Activities Subject to Environmental Impact Assessment (Activities Not Defined by Unit of Measure)

Prescribed Activity	Activity	Number
AIRPORT	<ul style="list-style-type: none"> Airstrip development in state and national parks. 	2(b)
FISHERIES	<ul style="list-style-type: none"> Construction of fishing harbours. Harbour expansion involving an increase of 50 per cent or more in fish landing capacity per annum. 	5 (a) 5 (b)
FORESTRY	<ul style="list-style-type: none"> Logging or conversion of forest land to other land use within the catchment area of reservoirs used for municipal water supply, irrigation or hydropower generation or in areas adjacent to state and national parks and national marine parks. Clearing of mangrove swamps on islands adjacent to national marine parks. 	6 (b) 6 (e)
INDUSTRY	<ul style="list-style-type: none"> Petrochemicals industries – all sizes. Primary smelting of aluminium and copper-all sizes. 	8(b) 8(c)
INFRASTRUCTURE	<ul style="list-style-type: none"> Construction of hospitals with outfall into beachfronts used for recreational purposes. Construction of expressways. Construction of national highways. Construction of new townships. 	9(a) 9(c) 9(d) 9(e)

Table 2c (continuation)

Prescribed Activity	Activity	Number
PORTS	• Construction of ports.	10(a)
	• Port expansion involving an increase of 50 per cent or more in handling capacity per annum	10(b)
MINING	• Ore processing including concentrating for aluminium, copper, gold or tantalum.	11(b)
	• Oil and gas fields development.	12(a) 12(c)
PETROLEUM	• Construction of oil and gas separation, processing, handling and storage facilities.	12(d)
	• Construction of oil refineries.	
POWER GENERATION AND TRANSMISSIONS	• Construction of combined cycle power stations.	13(c)
	• Construction of nuclear-fueled power stations.	13(d)
	• Proposed quarrying of aggregate, limestone, silica, quartzite, sandstone, marble and decorative building stone within 3 kilometres of any existing residential, commercial or industrial areas, or any area for which a licence, permit or approval has been granted for residential, commercial or industrial development.	14
RAILWAYS	• Construction of new routes.	15(a)
	• Construction of branch lines.	15(b)
TRANSPORTATION	• Construction of Mass Rapid Transport projects.	16

Table 2c (continuation)

Prescribed Activity	Activity	Number
RESORT AND RECREATIONAL DEVELOPMENT	• Development of tourist or recreational facilities in national parks.	17(c)
	• Development of tourist or recreational facilities on islands in surrounding waters which are gazetted as national marine parks.	17(d)
WASTE TREATMENT AND DIS-POSAL	• Construction of incineration plant.	18(a)i
	• Construction of recovery plant (off-site).	18(a)ii
Toxic and Hazardous Waste	• Construction of wastewater treatment plant (off-site).	18(a)iii
	• Construction of secure landfill facility.	18(a)iv
	• Construction of storage facility (off-site).	18(a)v
Municipal Solid Waste	• Construction of incineration plant.	18(b)i
	• Construction of composting plant.	18(b)ii
Municipal Sewage	• Construction of recovery/recycling plant.	18(b)iii
	• Construction of municipal solid waste landfill facility.	18(b)iv
Municipal Sewage	• Construction of wastewater treatment plant.	18(c)i
	• Construction of marine outfall.	18(c)ii

V. CONCLUSION

APPENDIX 1

The EIA is an important phase in the process of deciding about the final shape of a proposed project. It helps officials make decisions about a project and it helps the project proponents achieve their aims successfully:

- A project that has been designed to suit the local environment is more likely to be completed on time and within budget, and is more likely to avoid difficulties along the way.
- A project that conserves the natural resources it relies upon will continue to be sustained by the environment for years to come.
- A project that yields its benefits without causing serious environmental problems is more likely to bring credit and recognition to its proponents.

In summary, an Environmental Impact Assessment:

- predicts the likely environmental impacts of projects;
- finds ways to reduce unacceptable impacts and to shape the project so that it suits the local environment in a sustainable manner; and
- presents these predictions and options to decision-makers.

ENVIRONMENTAL QUALITY ACT, 1974 (AMENDMENT, 1985) SECTION 34A

The Environmental Quality (Amendment) Act 1985, amended the Environmental Quality Act, 1974. Amendments include the insertion of section 34A which requires any person intending to carry out any prescribed activity to submit report on the impact on the environment to the Director of Environmental Quality for examination. The Amendment act was gazetted on 9 January 1986 and section 34A reads as follow:

- "34A (1) The Minister, after consultation with the Council, may by order prescribe any activity which have significant environment impact as prescribed activity.
- (2) Any person intending to carry out any of the prescribed activities shall, before any approval for the carrying out of such activity is granted by the relevant approving authority, submit a report to the Director General. The report shall be in accordance with the guidelines prescribed by the Director General and shall contain an assessment of the impact such activity will have or is likely to have on the environment and the proposed measures that shall be undertaken to prevent, reduce or control the adverse impact on the environment.
- (3) If the Director General on examining the report and after making such inquiries as he considers necessary, is of the opinion that the report satisfies the requirements of subsection (2) and that the measures to be undertaken to prevent, reduce or control the adverse impact on the environment are adequate, he shall approve the report, with or without conditions attached thereto, and shall inform the person intending to carry out the prescribed activity and the relevant approving authorities accordingly.
- (4) If the Director General, on examining the report and after making such inquiries as he considers necessary, is of the opinion that the report does not satisfy the requirements of subsection (2) or that the measures to be undertaken to prevent, reduce or control the adverse impact on the

environment are inadequate, he shall not approve the report and shall give his reasons therefore and shall inform the person intending to carry out the prescribed activity and the relevant approving authorities accordingly. Provide that where such report is not approved it shall not preclude such person from revising and re-submitting the revised report to the Director General for the approval.

- (5) The Director General may if he considers it necessary require more than one report to be submitted to him for his approval.
- (6) Any person intending to carry out a prescribed activity shall not carry out such activity until the report required under this section to be submitted to the Director General has been submitted and approved.
- (7) If the Director General approves the report, the person carrying out the prescribed activity, in the course of carrying out such activity, shall provide sufficient proof that the conditions attached to the report (if any) are being complied with and that the proposed measures to be taken to prevent, reduce or control the adverse impact on the environment are being incorporated into the design, construction and operation of the prescribed activity.
- (8) Any person who contravenes this section shall be guilty of an offence and shall be liable to a fine not exceeding one hundred thousand ringgit or to imprisonment for a period not exceeding five years or both and to a further fine one thousand ringgit for every day that the offence is continued after a notice by the Director General requiring him to comply with the act specified therein has been served upon him".

**ENVIRONMENTAL QUALITY (PRESCRIBED ACTIVITIES)
(ENVIRONMENTAL IMPACT ASSESSMENT) ORDER 1987***

In exercise of the powers conferred by section 34A of the Environmental Quality Act 1974, the Minister, after consultation with the Environmental Quality Council, makes the following order.

1. **Citation and commencement**
This order may be cited as the **Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987** and shall come into force on the 1st April 1988.
2. **Prescribed activities**
The activities specified in the Schedule are prescribed to be prescribed activities.
3. **Order not applicable to Sabah and Sarawak in certain prescribed activities**
This Order shall not apply in respect of-
 - (a) the prescribed activities [except item 7(viii)] listed in the First Schedule of the Conservation of Environment (Prescribed Activities) Order 1999 published under the Second Supplementary of the Sabah Government Gazette on the 30 August 1999; and
 - (b) the prescribed activities listed in the First Schedule of the Natural Resources and Environment (Prescribed Activities) Order 1994 published under Part II of the Sarawak Government Gazette on 18 August 1994

4. **Items in the Schedule still applicable to Sabah and Sarawak**

Notwithstanding paragraph 3, the prescribed activities listed as Items 2, 5(a) and (b), 8, 9, 10, 12, 13(a), (c) and (d), 15, 16 and 18 in the Schedule shall continue to apply in respect of the State of Sabah and Sarawak.

SCHEDULE

1. **AGRICULTURE:**

- (a) Land development schemes covering an area of 500 hectares or more to bring forest land into agricultural production.
- (b) Agricultural programmes necessitating the resettlement of 100 families or more.
- (c) Development of agricultural estates covering an area of 500 hectares or more involving changes in types of agricultural use.

2. **AIRPORT:**

- (a) Construction of airports (having an airstrip of 2,500 metres or longer).
- (b) Airstrip development in state and national parks.

3. **DRAINAGE AND IRRIGATION:**

- (a) Construction of dams and man-made lakes and artificial enlargement of lakes with surface areas of 200 hectares or more.
- (b) Drainage of wetland, wild-life habitat or of virgin forest covering an area of 100 hectares or more.
- (c) Irrigation schemes covering an area of 5,000 hectares or more.

4. **LAND RECLAMATION:**

Coastal reclamation involving an area of 50 hectares or more.

5. **FISHERIES:**

- (a) Construction of fishing harbours.
- (b) Harbour expansion involving an increase of 50 percent or more in fish landing capacity per annum.
- (c) Land based aquaculture projects accompanied by clearing of mangrove swamp forest covering an area of 50 hectares or more.

6. **FORESTRY:**

- (a) Conversion of hill forest land to other land use covering an area of 50 hectares or more.
- (b) Logging or conversion of forest land to other land use within the catchment area of reservoirs used for municipal water supply, irrigation or hydro-power generation or in areas adjacent to state and national parks and national marine parks.
- (c) Logging covering an area of 500 hectares or more.
- (d) Conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 hectares or more.
- (e) Clearing of mangrove swamps on islands adjacent to national marine parks.

7. **HOUSING:**

- (a) Housing development covering an area of 50 hectares or more.

8. **INDUSTRY:**

- (a) Chemicals - Where production capacity of each product or of combined products is greater than 100 tonnes/day.
- (b) Petrochemicals - All sizes.
- (c) Non-ferrous - Primary smelting:
 - Aluminium - all sizes
 - Copper - all sizes
 - Others - producing 50 tonnes/day and above of product
- (d) Non-metallic - Cement - for clinker throughput of 30 tonnes/hour and above.
 - Lime - 100 tonnes/day and above burnt lime rotary kiln or 50 tonnes/day and above vertical kiln.
- (e) Iron and steel - Require iron one as raw materials for production greater than 100 tonnes/day; or
 - Using scrap iron as raw materials for production greater than 200 tonnes/day.
- (f) Shipyards - Dead weight tonnage greater than 5,000 tonnes.
- (g) Pulp and paper industry - Production capacity greater than 50 tonnes/day.

9. **INFRASTRUCTURE:**

- (a) Construction of hospitals with outfall into beachfronts used for recreational purposes.
- (b) Industrial estate development for medium and heavy industries covering an area of 50 hectares or more
- (c) Construction of expressways
- (d) Construction of national highways
- (e) Construction of new townships

10. **PORTS:**

- (a) Construction of ports.
- (b) Port expansion involving an increase of 50 percent or more in handling capacity per annum.

11. **MINING:**

- (a) Mining of minerals in new areas where the mining lease covers a total area in excess of 250 hectares.
- (b) Ore processing, including concentrating for aluminium, copper, gold or tantalum.
- (c) Sand dredging involving an area of 50 hectares more.

12. PETROLEUM:

- (a) Oil and gas fields development
- (b) Construction of off-shore and on-shore pipelines in excess of 50 kilometres in length.
- (c) Construction of oil and gas separation, processing, handling and storage facilities.
- (d) Construction of oil refineries.
- (e) Construction of product depots for the storage of petrol, gas or diesel (excluding service stations) which are located within 3 kilometres of any commercial, industrial or residential areas and which have a combined storage capacity of 60,000 barrels or more.

13. POWER GENERATION AND TRANSMISSION:

- (a) Construction of steam generated power stations burning fossil fuels and having a capacity of more than 10 megawatts.
- (b) Dams and hydro-electric power schemes with either or both of the following:
 - (i) dams over 15 metres high and ancillary structures covering a total area in excess of 40 hectares;
 - (ii) reservoirs with a surface area in excess of 400 hectares.
- (c) Construction of combined cycle power stations.
- (d) Construction of nuclear-fueled power stations.

14. QUARRIES:

Proposed quarrying of aggregate, limestone, silica, quartzite, sand-stone, marble and decorative building stone within 3 kilometres of any existing residential, commercial or industrial areas, or any area for which a licence, permit or approval has been granted for residential, commercial or industrial development.

15. RAILWAYS:

- (a) Construction of new routes.
- (b) Construction of branch lines.

16. TRANSPORTATION:

Construction of Mass Rapid Transport projects.

17. RESORT AND RECREATIONAL DEVELOPMENT

- (a) Construction of coastal resort facilities or hotels with more than 80 rooms.
- (b) Hill station resort or hotel development covering an area of 50 hectares or more.
- (c) Development of tourist or recreational facilities in national parks.
- (d) Development of tourist or recreational facilities on islands in surrounding waters which are gazetted as national marine park.

18. WASTE TREATMENT AND DISPOSAL:

- (a) Toxic and Hazardous Waste:-
 - (i) Construction of incineration plant.
 - (ii) Construction of recovery plant (Off - site).
 - (iii) Construction of wastewater treatment plant (off-site).

- (iv) Construction of secure landfill facility.
- (v) Construction of storage facility (off - site)

(b) Municipal Solid Waste:-

- (i) Construction of incineration plant.
- (ii) Construction of composting plant.
- (iii) Construction of recovery/recycling plant.
- (iv) Construction of municipal solid waste landfill facility.

(c) Municipal Sewage:-

- (i) Construction of wastewater treatment plant.
- (ii) Construction of marine outfall.

19. WATER SUPPLY:

- (a) Construction of dams or impounding reservoirs with a surface area of 200 hectares or more.
- (b) Groundwater development for industrial, agricultural or urban water supply of greater than 4,500 cubic metres per day.

Made the 30th September 1987.

DATUK AMAR STEPHEN K.T. YONG
Minister of Science, Technology and Environment

Department of Environment's Publications on EIA

1. A Handbook Of EIA Guidelines.
2. EIA Guidelines For Coastal Resort Development Projects.
3. EIA Guidelines For Petrochemical Industries.
4. EIA Guidelines For Industrial Estate Development.
5. *Penilaian Kesan Kepada Alam Sekeliling Bagi Pembangunan Padang Golf.*
6. EIA Guidelines For Groundwater And/Or Surface Water Supply Projects.
7. EIA Guidelines For Thermal Power Generation And/Or Transmission Projects.
8. EIA Guidelines For Drainage And/Or Irrigation Projects.
9. EIA Guidelines For Fishing Harbours And/Or Land Based Aquaculture Projects.
10. EIA Guidelines For Dam And/Or Reservoir Projects
11. EIA Guidelines For Mines And Quarries.
12. EIA Guidelines For Development Of Resort And Hotel Facilities In Hill Station.
13. EIA Guidelines For Development Of Tourist And Recreational Facilities In National Parks.
14. EIA Guidelines For Development Of Tourist And Recreational On Island In Marine Parks.
15. EIA Guidelines For Industrial Projects.
16. EIA Guidelines For Municipal Solid Waste And Sewage Treatment And Disposal Projects.
17. EIA Guidelines For Toxic And Hazardous Waste Treatment And Disposal Projects.
18. EIA Guidelines For Petroleum Industries.
19. EIA Guidelines For Forestry.
20. EIA Guidelines For Coastal And Land Reclamation.
21. EIA Guidelines For Housing And Township Development Project.
22. EIA Guidelines For Agriculture.
23. EIA Guidelines For Risk Assessment.