

BAB 3 / CHAPTER 3



PENILAIAN KESAN KEPADA ALAM SEKELILING DAN INPUT KEPADA PERANCANGAN PEMBANGUNAN ENVIRONMENTAL IMPACT ASSESSMENT AND INPUT FOR DEVELOPMENT

Penilaian Kesan Kepada Alam Sekeliling (EIA) merupakan satu kaedah perancangan untuk menghalang berlakunya masalah-masalah alam sekitar akibat daripada aktiviti pembangunan. Ianya juga dapat mengelak berlakunya kesilapan semasa projek dilaksanakan serta dapat meminimumkan kos projek.

Di Malaysia, EIA adalah kajian yang menggabungkan pertimbangan alam sekitar di dalam perancangan projek, yang mana apabila ianya disatukan di dalam projek sedia ada akan memberikan maklumat tambahan bagi membolehkan keputusan yang lebih baik dilakukan.

Laporan EIA 2009

Sebanyak 277 laporan telah diterima pada tahun 2009 (**Rajah 3.1**). Daripada bilangan ini, 256 adalah Laporan Penilaian Awal EIA, 14 Laporan Penilaian EIA Terperinci dan tujuh (7) Bidang Rujukan (**Rajah 3.2**). Negeri Johor menerima bilangan laporan EIA tertinggi pada tahun 2009 diikuti dengan Negeri Selangor (**Rajah 3.3** dan **3.4**).

Prosedur EIA: Piagam Pelanggan

Selaras dengan usaha Kerajaan di dalam mempertingkatkan perkhidmatan sektor awam, Jabatan Alam Sekitar (JAS) telah mengambil langkah bagi mempertingkatkan serta memperkukuhkan sistem penyampaian Jabatan, khususnya di dalam prosedur dan pemprosesan EIA. Sehubungan itu, masa bagi memproses Laporan EIA Awal telah disingkatkan dari 12 minggu kepada 5 minggu, dan dari 20 minggu kepada 12 minggu bagi Laporan EIA Terperinci. Usaha ini telah dikenalpasti menjadi salah satu pemangkin bagi memastikan projek pembangunan khususnya projek-projek kerajaan dan juga projek-projek yang telah digariskan di dalam pelan-pelan pembangunan dapat berjalan dengan lancar.

Environmental Impact Assessment (EIA) is essentially a planning tool for preventing an environmental problems due to development activity. It also seeks to avoid costly mistakes in project implementation as well as minimizing project cost.

In Malaysia, EIA is used as a tool to incorporate environmental considerations into project planning which when integrated into existing planning and decision-making processes provides additional information for better decision-making.

EIA Reports 2009

A total of 277 reports were received in 2009 (**Figure 3.1**). Of these, 256 were preliminary EIA reports, 14 Detailed EIA Reports and seven (7) Terms of Reference (TOR) (**Figure 3.2**). Johor received the highest number of EIA reports in 2009, followed by Selangor (**Figure 3.3** and **Figure 3.4**).

EIA Procedures: Client Charter

Consistent with the Government's effort in improving the public delivery system, the Department of Environment (DOE) has taken the step to enhance as well as strengthening the Department's delivery system, in particular the EIA procedures and processes. Hence, the time taken to process a preliminary EIA report has been reduced from 12 weeks to 5 weeks; and from 20 weeks to 12 weeks for a detailed EIA report to be processed. This effort has been recognized as one of the catalysts in ensuring that government-related development projects as well as other development projects as outlined in the development plans, progress smoothly.

Beberapa langkah berterusan diambil di dalam memastikan prosedur dan pemprosesan EIA yang ditambahbaik berjalan dengan lancar, seperti berikut:-

- (i) Memperkenalkan Skim Pendaftaran Jururunding baru bagi mempertingkatkan tahap profesionalisma EIA *practitioners* dengan memastikan mereka mempunyai kelayakan dan kemahiran bagi melaksanakan kajian EIA. Semua jururunding EIA hendaklah berdaftar dengan JAS di bawah skim baru ini supaya laporan EIA yang berkualiti disediakan.
- (ii) Menyediakan beberapa dokumen panduan (*guidance document*) dalam bentuk “*scope of work*” dan “*checklist*” bagi membantu jururunding menyediakan laporan EIA yang lengkap, berkualiti serta menjurus kepada isu-isu utama dan signifikan bagi sesuatu projek. Lanya boleh dirujuk melalui laman web JAS. Laporan EIA yang tidak memenuhi skop ini (tidak lengkap) akan terus ditolak.
- (iii) Melengkapkan pengetahuan pegawai-pegawai yang memproses laporan EIA dari semasa ke semasa dengan kursus-kursus teknikal yang ditawarkan dan pengalaman semasa di lapangan dan semasa pemprosesan laporan EIA.

Siasatan Penguatkuasaan Projek EIA

Sejumlah 1,289 siasatan penguatkuasaan telah dijalankan pada tahun 2009 untuk mengenalpasti status pembangunan dan pematuhan projek-projek EIA (**Rajah 3.5**). Sebanyak 867 notis atau surat arahan dan sebanyak 53 kompaun telah dikeluarkan manakala 28 kes telah didakwa di mahkamah kerana tidak mematuhi syarat-syarat kelulusan.

Input Alam Sekitar Kepada Perancangan Pembangunan

Pada tahun 2009, sejumlah 120 input alam sekitar telah dikemukakan kepada agensi-agensi yang berkaitan dengan penyelarasan perancangan pembangunan, plan tempatan, kajian rancangan fizikal negara, kajian kawasan sensitif alam sekitar dan aktiviti-aktiviti pembangunan di tanah tinggi.

Continuous measures have been taken, to assure that the improved EIA procedures and decision-making processes proceed efficiently, among others:-

- (i) Introducing a new EIA Consultant Registration Scheme to improve the standard of professionalism among EIA practitioners by ensuring that they have qualifications and skills required to conduct an EIA study. All EIA Consultants must be registered with the DOE under this new scheme to guarantee good quality EIA reports being submitted.
- (ii) Developing several guidance documents in the form of checklists and scope of work, essentially to assist project proponents and EIA consultants in submitting a complete and good quality EIA report which focus on critical and significant issues of the proposed project. These guidance documents are made available in the DOE's website. Incomplete EIA reports will be rejected instantaneously by the DOE.
- (iii) Enriching and expanding the technical knowledge of EIA processing officers, from time to time through various technical courses and on-the job experiences via site investigations and quality assessment of the EIA reports.

EIA Enforcement Investigations

A total of 1,289 enforcement investigations were conducted in 2009 to check on the progress of projects and compliance of EIA approval conditions (**Figure 3.5**). Consequently, 867 notices or return directives and 53 compounds were served and 28 cases were charged in court for non-compliance.

Environmental Input for Development Planning

In 2009, a total of 120 environmental inputs were provided to other agencies in relation to development planning coordination, local plans, national physical plan studies, environmentally sensitive areas and highland development activities.

Skim Pendaftaran Jururunding EIA

Skim Pendaftaran Jururunding EIA yang baru telah mula diperkenalkan pada 1 Jun 2007. Mulai 1 Oktober 2007, JAS telah mula mewajibkan semua jururunding EIA untuk berdaftar dengan JAS sebelum memulakan kajian.

Pada tahun 2009, empat (4) Mesyuarat Panel Penilaian Permohonan Jururunding telah diadakan. Sebanyak 91 permohonan telah diterima dan tiga (3) daripadanya telah didaftarkan sebagai Jururunding EIA, 32 individu sebagai Jururunding Subjek dan 56 Penolong Jururunding (**Jadual 3.1**).

Sehingga 31 Disember 2009, seramai 936 individu telah berdaftar dengan JAS untuk menjalankan kajian EIA, di mana 240 orang adalah Jururunding EIA, 325 orang merupakan Jururunding Subjek dan 371 orang Penolong Jururunding.

Jumlah keseluruhan mengikut kategori ditunjukkan di **Jadual 3.2**.

Tujuan utama skim pendaftaran ini adalah untuk memastikan hanya individu yang benar-benar kompeten sahaja dibenarkan menjalankan kajian EIA. Ini memastikan kualiti laporan EIA adalah baik dan membantu pembuat keputusan membuat keputusan yang terbaik terhadap sesuatu cadangan projek.

Penyediaan *Guidelines on Economic Valuation of Environmental Impacts for EIA Projects*

Penyediaan garis panduan ini telah dijalankan dengan kerjasama Unit Perancang Ekonomi dan *Danish International Development Agency* (DANIDA) di bawah Komponen Strategi Perancangan Alam Sekitar. Garis panduan ini menghuraikan pendekatan serta kaedah-kaedah yang boleh digunapakai dalam penyediaan kajian EIA.

Semua pegawai yang memproses EIA, Jururunding EIA dan pegawai-pegawai dari agensi kerajaan pusat dan negeri yang berkaitan telah dilatih untuk menggunakan garis panduan ini menerusi beberapa siri bengkel latihan.

Garis panduan ini telah dicetak untuk diedarkan kepada semua agensi-agensinya yang berkaitan.

EIA Consultants Registration 2009

The revised EIA Consultant Registration Scheme was introduced on June 2007. Starting from October 2007, the DOE has made it a requirement for consultants to be registered before they are allowed to conduct the study.

In 2009, four (4) Panel Review Meeting have been carried out to assess consultant's application. A total of 91 applications were reviewed and three (3) individuals had been registered as EIA Consultants, 32 individuals as Subject Consultants and 56 as Assistant Consultants (**Table 3.1**).

Until 31 December 2009, a total of 936 individuals had been registered with DOE. 240 individuals are registered as EIA Consultants, 325 are registered as Subject Consultants and 371 are registered as Assistant Consultants.

Details of the numbers and categories are indicated in **Table 3.2**.

The main objective of the scheme is to ensure only competent individuals are allowed to conduct EIA study. This is to ensure the quality EIA of the reports which will later assist the decision makers making the best decision on the proposed project.

Preparation of *Guidelines on Economic Valuation of Environmental Impacts for EIA Projects*

The drafting of this guideline was conducted with the support from the Economic Planning Unit and the Danish International Development Agency (DANIDA) under the Environmental Planning Strategies Component. This guideline describes relevant approaches and methodologies to be employed in EIA studies.

All EIA officers, EIA consultants and officers from federal as well as state government agencies have been trained to use the guideline through the implementation of several training workshops.

This guideline has been printed and circulated to relevant stakeholders.

Penyediaan *Guidelines on The Ecological Assessment*

Pada tahun 2009, JAS telah meneruskan usaha dalam penyediaan garis panduan EIA berkaitan *Ecological Assessment* dengan kerjasama pihak DANIDA. Objektif garis panduan ini adalah untuk membantu jururunding EIA bagi menjalankan kajian penilaian kesan ekologi yang disebabkan oleh sesuatu aktiviti pembangunan.

Dua (2) bengkel untuk membincangkan garis panduan ini bersama *stakeholders* telah dijalankan dan garis panduan ini dijangka siap sepenuhnya pada tahun 2010.

Penyediaan *Guidelines on Health Impact Assessment*

Satu garis panduan khusus untuk kajian impak kesihatan di dalam EIA juga telah mula disediakan pada tahun 2009. Satu bengkel untuk membentangkan draf garis panduan tersebut telah diadakan pada 8 Disember 2009 bertempat di Shangri-La Putrajaya. Garispanduan ini dijangka akan siap dan mula digunakan pada tahun 2010.

Objektif garis panduan ini ialah untuk membantu Jururunding EIA dalam menilai impak kepada kesihatan bagi projek yang dicadang.

Kursus Induksi Untuk Jururunding EIA

Semua jururunding berdaftar diwajibkan menghadiri Kursus Induksi Untuk Jururunding sebagai prasyarat bagi memperbaharui pendaftaran mereka.

Pada tahun 2009, sebanyak tujuh (7) kursus induksi telah dijalankan untuk semua jururunding yang berdaftar. Tujuan kursus ini adalah untuk memberikan penerangan terperinci kepada semua jururunding yang terlibat dalam kajian EIA tentang keperluan-keperluan pentadbiran dan teknikal serta isu-isu kritikal yang perlu diambil kira semasa menjalankan kajian EIA.

Senarai jururunding EIA yang menghadiri kursus tersebut adalah seperti di **Jadual 3.3**.

Preparation of EIA Guideline on The Ecological Assessment

In 2009, the DOE continued with the drafting EIA Guideline on the Ecological Assessment with the assistance from DANIDA. The objective of this guideline is to assist the consultants in evaluating the ecological impacts of a proposed project.

Two (2) Consultation workshops have been carried out with the stakeholders to discuss the guidelines and it is expected to be completed in 2010.

Preparation of EIA Guideline on Health Impact Assessment

In 2009, the DOE started drafting the EIA Guideline on Health Impact Assessment for EIA Projects. A workshop was conducted on 8 of December 2009 in Putrajaya Shangri-La to discuss the draft guidelines. The document is expected to be completed in 2010.

The objective of this guideline is to assist the EIA consultants in evaluating the health impacts of a proposed project.

Induction Course for EIA Consultants

All registered consultants are required to attend the compulsory EIA Induction Course as a prerequisite for renewal of their registration.

In 2009, seven (7) induction courses has been conducted for the registered consultants. The objectives of the course is to provide detailed explanation to all consultants involved in EIA study on the relevant administrative and technical requirements, as well as other critical issues to be considered in the EIA study.

The list of EIA consultants who had attended the course is in **Table 3.3**.

Pembangunan Profesional Berterusan (CPD)

Keperluan bagi Pembangunan Profesional Berterusan telah diwajibkan di bawah Skim Pendaftaran Jururunding EIA, di mana jururunding berdaftar perlu mengumpul jumlah jam latihan yang tertentu bagi membolehkan mereka memperbaharui pendaftaran. Mana-mana penyedia latihan boleh memohon bagi mendapatkan jam kredit. Maklumat berkenaan program-program ini kemudiannya disebar kepada semua jururunding berdaftar. Senarai program-program yang diberikan kredit bagi 2009 adalah seperti di **Jadual 3.4**.

Penilaian Awal Tapak Projek

Bagi projek-projek pembangunan yang tidak tertakluk di bawah Perintah Kualiti Alam Sekeliling (Aktiviti Yang Ditetapkan)(Penilaian Kesan Kepada Alam Sekeliling), 1987, Penilaian Awal Tapak (PAT) perlu dikemukakan untuk menentukan kesesuaian tapak projek yang dicadangkan.

Pada tahun 2009, sejumlah 11,850 permohonan telah diterima di mana Negeri Johor mencatat permohonan PAT (2,710) paling tinggi, diikuti oleh Selangor (1,804) dan lain-lain negeri seperti yang ditunjukkan di dalam **Rajah 3.6**. Permohonan-permohonan ini dirujuk kepada JAS oleh pihak berkuasa seperti Pihak Berkuasa Tempatan dan Pejabat Tanah.

Input teknikal telah diberikan bagi memastikan aspek alam sekitar diberikan pertimbangan yang sewajarnya di dalam membuat keputusan.

Kebenaran dan Kelulusan Bertulis

Peraturan-Peraturan Kualiti Alam Sekeliling (Kumbahan dan Efluen-Efluen Perindustrian), 1979 dan Peraturan-Peraturan Kualiti Alam Sekeliling (Udara Bersih), 1978 mengkehendaki supaya kebenaran dan kelulusan bertulis diperolehi terlebih dahulu daripada Ketua Pengarah Alam Sekitar (KPAS) sebelum apa-apa loji rawatan sisa kumbahan dan alat kawalan pencemaran udara dipasang.

Continuous Professional Development (CPD)

The mandatory requirement for CPD has been included under the EIA Consultant Registration Scheme. Therefore, registered consultants are required to obtain a certain number of training (CPD) hours every year to enable them to renew their registration. Any related organiser or course provider may apply to obtain CPD hours for their programmes. The information about the programmes were disseminated to all registered consultants. The list of approved programmes is presented in **Table 3.4**.

Project Pre-Siting Evaluation

Where development project were not subjected to the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 1987, pre-siting evaluation of proposed site suitability were carried out.

In 2009, a total of 11,850 such applications were received, whereby Johor recorded the highest number (2,710), followed by Selangor (1,804), and other states as shown in **Figure 3.6**. These applications were mainly referred to the DOE by Local Authorities and Land Offices.

Technical environmental aspects were given due consideration in the decision making process.

Written Permission and Approval

The Environmental Quality (Sewage and Industrial Effluents) Regulations, 1979 and the Environmental Quality (Clean Air) Regulations, 1978 require written permissions and approvals to be obtained from the Director-General of Environment before construction of wastewater treatment plants and installation of air pollution control systems are installed.

Pada tahun 2009, JAS telah menerima 873 permohonan bagi pembinaan loji rawatan sisa kumbahan (**Rajah 3.7**) dan 2,243 permohonan bagi pemasangan alat kawalan pencemaran udara (**Rajah 3.8**). Selain daripada peralatan kawalan pencemaran, Jabatan Alam Sekitar juga telah menerima 2,137 permohonan bagi kelulusan bertulis untuk pemasangan alat pembakaran bahan api seperti dandang dan alat janakuasa telah diproses (**Rajah 3.9**).

Sistem Maklumat Geografi (GIS)

Pelbagai program pembangunan GIS terus dipergiatkan dan dilaksanakan dalam tahun 2009 bertujuan supaya teknologi GIS dapat dimanfaatkan sepenuhnya oleh JAS dalam menguruskan alam sekitar di Malaysia.

Program Pembangunan Data termasuk pembangunan data spatial bagi Negeri Sabah dan Sarawak, serta perolehan data imej *remote sensing* telah dilaksanakan untuk melengkapkan pangkalan data spatial. Selain daripada itu, program melengkapkan dan mengemaskini punca-punca pencemaran, stesen-stesen pengawasan kualiti alam sekitar, projek-projek pembangunan dan premis-premis yang tertakluk kepada Akta Kualiti Alam Sekeliling (AKAS), 1974 terus dilaksanakan.

Pada tahun 2009, dua (2) bengkel kemahiran telah diadakan kepada pegawai-pegawai JAS Negeri. Program latihan GIS secara *hands-on* telah diaturkan kepada pegawai-pegawai JAS Negeri dan Cawangan. Di samping itu, GIS juga digunakan dalam menyediakan maklumat harian berkaitan dengan lokasi titik panas bagi tujuan pemantauan pembakaran terbuka. GIS juga digunapakai dalam membekalkan input yang berkaitan dengan maklumat spatial dan peta yang diperlukan oleh Bahagian-bahagian di Ibu Pejabat, pejabat JAS Negeri / Cawangan dan lain-lain agensi.

In 2009, 873 such applications were received for construction of effluent treatment plants (**Figure 3.7**) and 2,243 applications for installation of air pollution control equipment (**Figure 3.8**). In addition 2,137 applications for written approvals for installation of fuel burning equipment such as boilers and generator sets were processed (**Figure 3.9**).

Geographical Information System (GIS)

Various GIS development programs continue to be intensified and implemented in 2009, in order to enable the GIS technology to be fully utilized by the DOE in the environmental management in Malaysia.

Data development programs including the development of spatial data for Sabah and Sarawak, remote sensing data acquisition have been implemented in order to develop a complete and updated spatial data center. Besides that, the program to update the location of pollution sources, environmental monitoring stations and the development projects and prescribed under the Environmental Quality Act (EQA), 1974 have been continuously conducted.

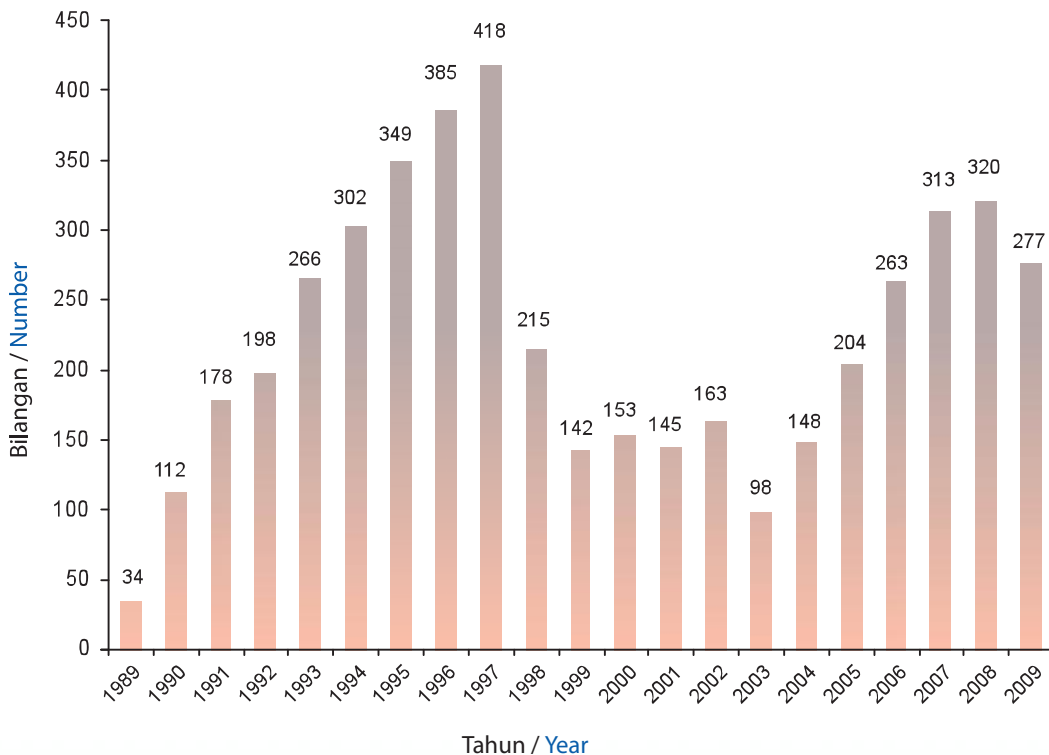
In 2009, two (2) workshops were held to provide training to DOE State officers. GIS hands-on training programs had been conducted to all State and Branch offices. In addition, GIS had been used to supply daily information on hotspot locations in the monitoring of open burning. GIS also had been applied to provide input relating to spatial information and maps required by various Divisions in the Headquarters, State / branch offices and other agencies.

Persijilan MS ISO 9001:2008

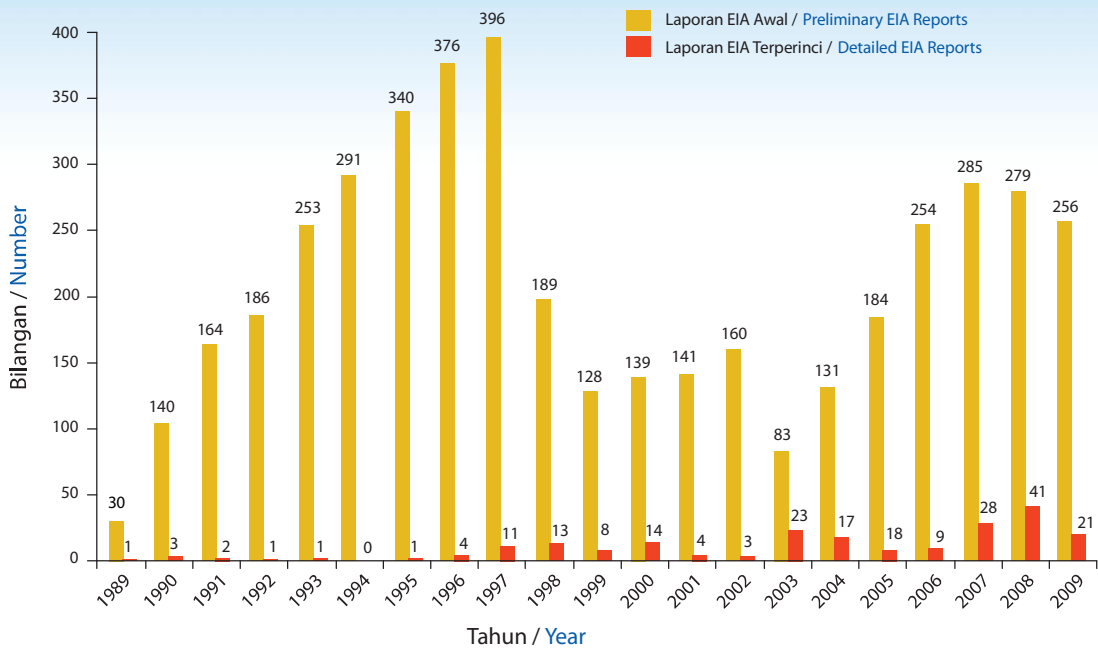
JAS telah melaksanakan Sistem Pengurusan Kualiti bagi aktiviti-aktiviti memproses Laporan EIA Awal, Laporan EIA Terperinci dan penguatkuasaan syarat-syarat kelulusan EIA berdasarkan keperluan standard MS ISO 9001:2008. Sistem ini dilaksanakan di Ibu Pejabat JAS dan semua 15 pejabat negeri. SIRIM QAS International Sdn. Bhd. telah dilantik sebagai badan persijilan bagi tujuan pengauditan dan persijilan MS ISO 9001:2008. Audit persijilan telah dijalankan pada akhir bulan Disember 2009 di Ibu Pejabat JAS dan pejabat-pejabat JAS Negeri yang ditetapkan oleh SIRIM.

MS ISO 9001:2008 Certification

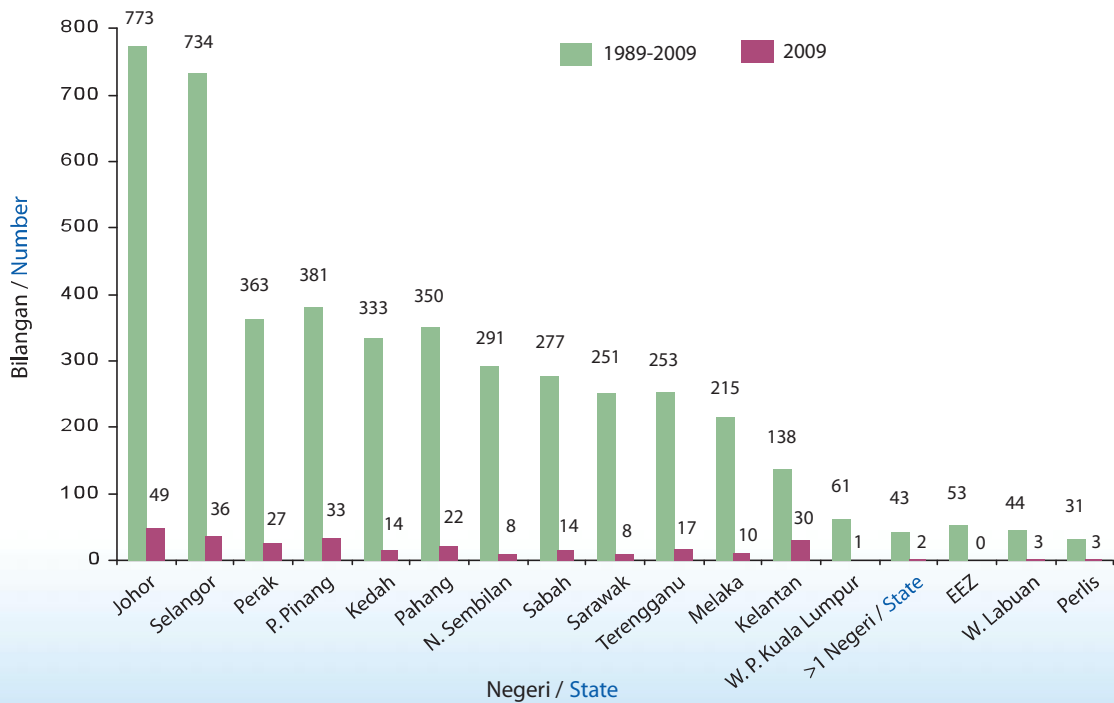
DOE had implemented a Quality Management System for processing of Preliminary EIA Reports, Detailed EIA Reports dan enforcement of EIA approval conditions to comply with MS ISO 9001:2008 standards at the head office and all 15 state offices. SIRIM QAS International Sdn. Bhd. had been appointed as the certification body for the auditing and certification to MS ISO 9001:2008. Certification audit had been carried out in December 2009 at the head office and all selected DOE state offices as determined by SIRIM.



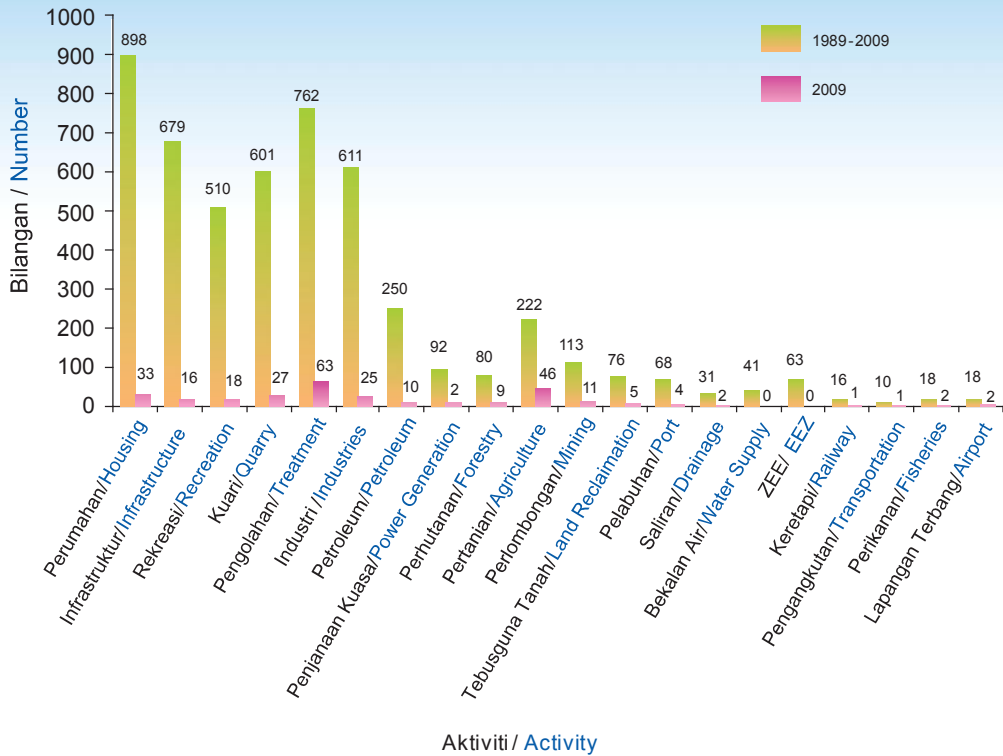
Rajah 3.1 JAS: Bilangan Laporan EIA Yang Diterima Mengikut Tahun, 1989-2009
Figure 3.1 DOE: Number of EIA Reports Received by Year, 1989-2009



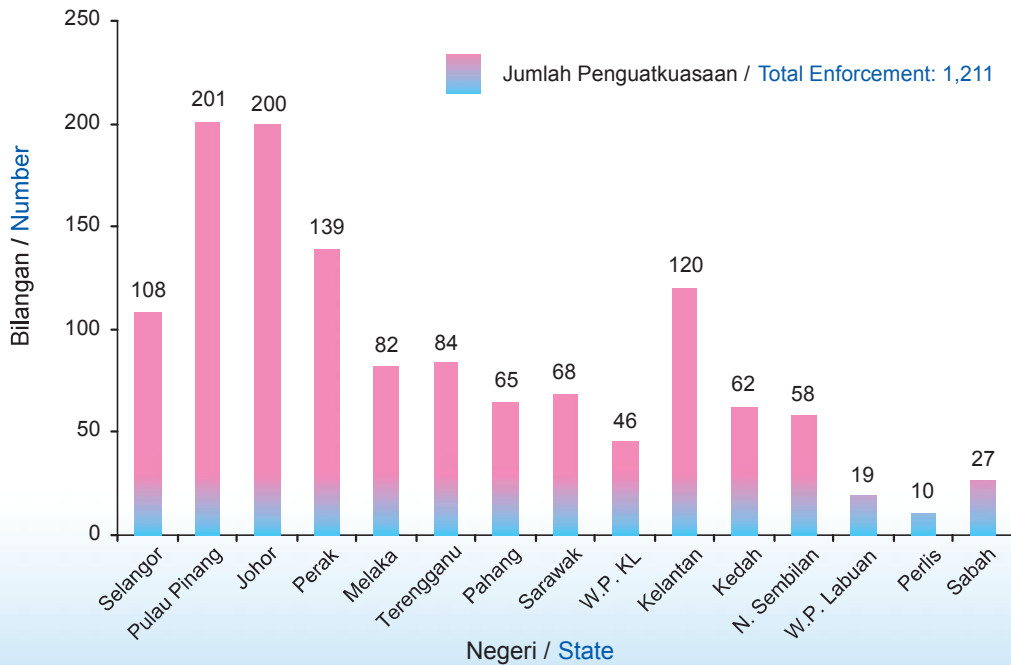
Rajah 3.2 JAS: Bilangan Laporan EIA dan Jenis Laporan Yang Diterima, 1989-2009
 Figure 3.2 DOE: Number and Type of EIA Reports Received by Year, 1989-2009



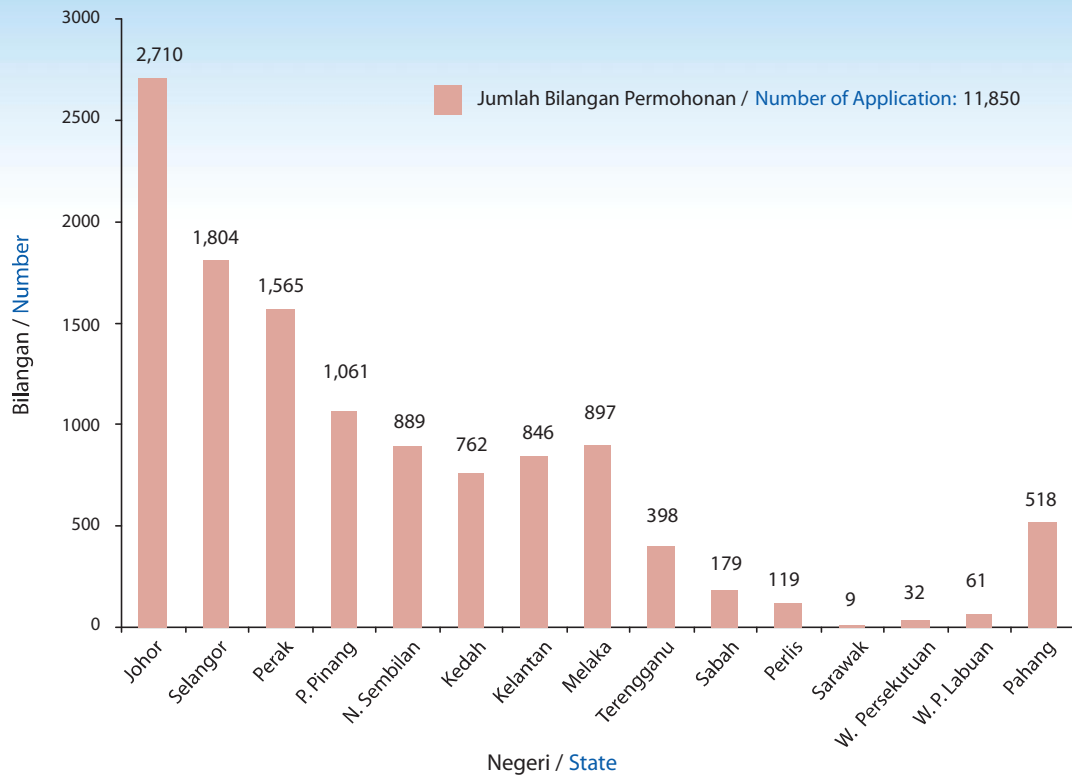
Rajah 3.3 JAS: Bilangan Laporan EIA Yang Diterima Mengikut Negeri, 1989-2009
 Figure 3.3 DOE: Number of EIA Reports Received by State, 1989-2009



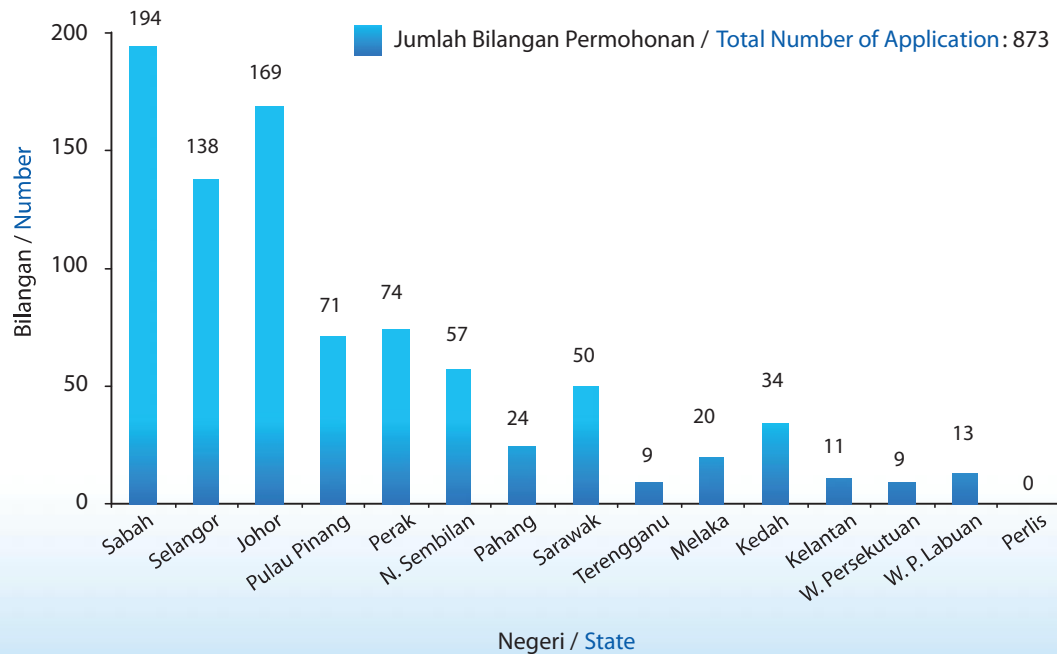
Rajah 3.4 JAS: Bilangan Laporan EIA Yang Diterima Mengikut Aktiviti, 1988-2009
 Figure 3.4 DOE: Number of EIA Reports Received by Activity, 1988-2009



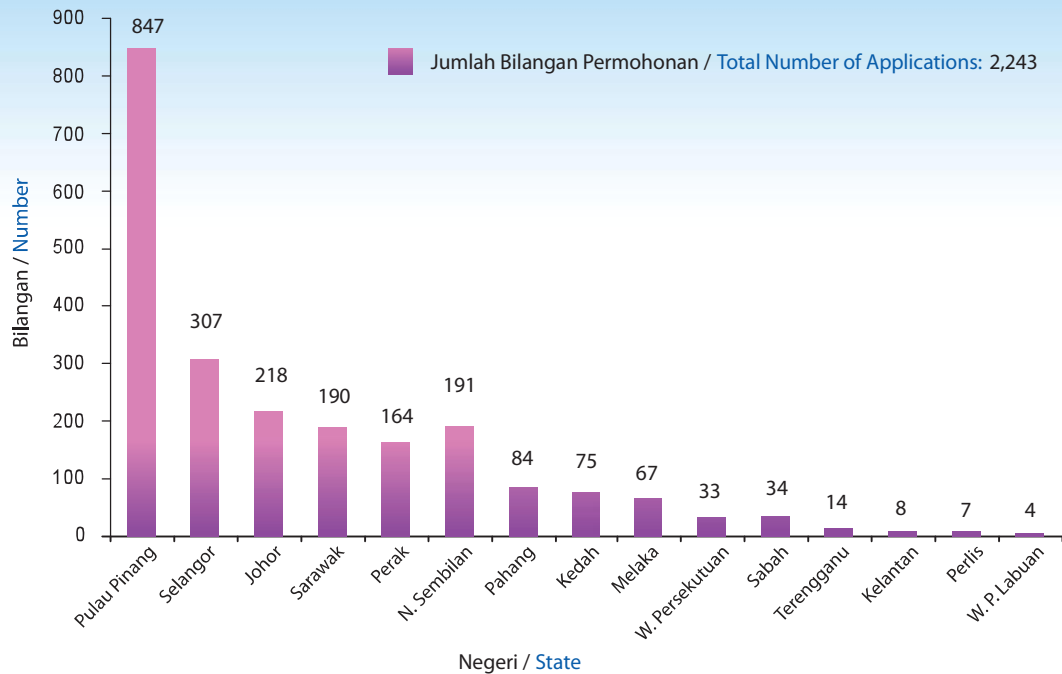
Rajah 3.5 JAS: Siasatan Penguatkuasaan Projek EIA, 2009
 Figure 3.5 DOE: Post EIA Enforcement Investigations, 2009



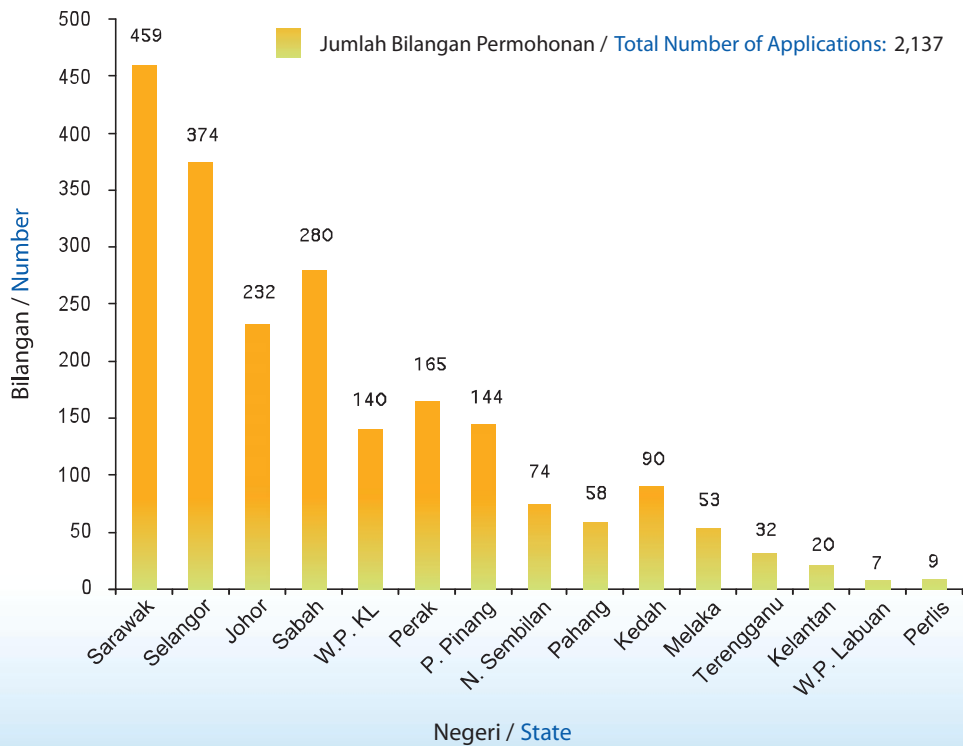
Rajah 3.6 JAS: Penilaian Awal Tapak Untuk Projek Pembangunan Mengikut Negeri, 2009
 Figure 3.6 DOE: Pre-Siting Evaluation of Development Projects by State, 2009



Rajah 3.7 JAS: Kebenaran Bertulis Untuk Pembinaan Logi Pengolahan Efluen Mengikut Negeri, 2009
 Figure 3.7 DOE: Written Approval for Construction of Wastewater Treatment Plants by State, 2009



Rajah 3.8 JAS: Permohonan Bagi Pemasangan Alat Kawalan Pencemaran Udara Mengikut Negeri, 2009
 Figure 3.8 DOE: Applications for Installation of Air Pollution Control Equipment by State, 2009



Rajah 3.9 JAS: Permohonan Bagi Pemasangan Alat Pembakaran Bahan Api Mengikut Negeri, 2009
 Figure 3.9 DOE: Applications for Installation of Fuel Burning Equipment by State, 2009

Jadual 3.1 JAS: Jumlah Permohonan Yang Diluluskan, 2009
Table 3.1 DOE: Number of Approved Applications, 2009

Kategori / Category	Jumlah Permohonan / No. of Applications	Jumlah Lulus / No. of Applications Approved	Peratusan Lulus / Percentage Approved
Jururunding EIA / EIA Consultant	3	2	66.7%
Jururunding Subjek / Subject Consultant	32	26	81%
Penolong Jururunding Assistant Consultant	56	54	96%
Jumlah/ Total	91	82	90%

Jadual 3.2 JAS: Jumlah Keseluruhan Jururunding Berdaftar sehingga 31 Disember 2009
Table 3.2 DOE: Number of Registered Consultants until 31 December 2009

Perkara / Category	Jumlah Diluluskan / No. of Applications Approved	Peratusan (%) / Percentage (%)
Jururunding EIA / EIA Consultant	240	25.6%
Jururunding Subjek / Subject Consultant	325	34.7%
Penolong Jururunding / Assistant Consultant	371	39.7%
Jumlah / Total	936	100%

Jadual 3.3 JAS: Kursus Induksi EIA Untuk Jururunding EIA, 2009
Table 3.3 DOE : Induction Course For EIA Consultants, 2009

Bil. / No.	Kursus / Course	Tarikh / Date	Tempat / Venue
1	Kursus Induksi EIA untuk Jururunding EIA Bil. 1/ 09 EIA Induction Course 1/ 09	2 – 3 Jun 2009 2 – 3 June 2009	Pullman Putrajaya Lakeside Pullman Putrajaya Lakeside
2	Kursus Induksi EIA untuk Jururunding EIA Bil. 2/ 09 EIA Induction Course 2/ 09	16 – 17 Jun 2009 16 – 17 June 2009	Pullman Putrajaya Lakeside Pullman Putrajaya Lakeside
3	Kursus Induksi EIA untuk Jururunding EIA Bil. 3/09 EIA Induction Course 3/ 09	12 – 13 Ogos 2009 12 – 13 August 2009	Shangri-La, Putrajaya Shangri-La, Putrajaya
4	Kursus Induksi EIA untuk Jururunding EIA Bil. 4/ 09 EIA Induction Course 4/ 09	19 – 20 Ogos 2009 19 – 20 August 2009	Le Meridien Hotel, K. Kinabalu Le Meridien Hotel, K. Kinabalu
5	Kursus Induksi EIA untuk Jururunding EIA Bil. 5/ 09 EIA Induction Course 5/ 09	28 – 29 Oktober 2009 28 – 29 October 2009	Hilton Hotel, Kuching Hilton Hotel, Kuching
6	Kursus Induksi EIA untuk Jururunding EIA Bil. 6/ 09 EIA Induction Course 6/ 09	10 – 11 Nov. 2009 10 – 11 Nov. 2009	Shangri-La Putrajaya Shangri-La, Putrajaya
7	Kursus Induksi EIA untuk Jururunding EIA Bil. 7/ 09 EIA Induction Course 7/ 09	18 – 19 Nov. 2009 18 – 19 Nov. 2009	Shangri-La Putrajaya Shangri-La, Putrajaya

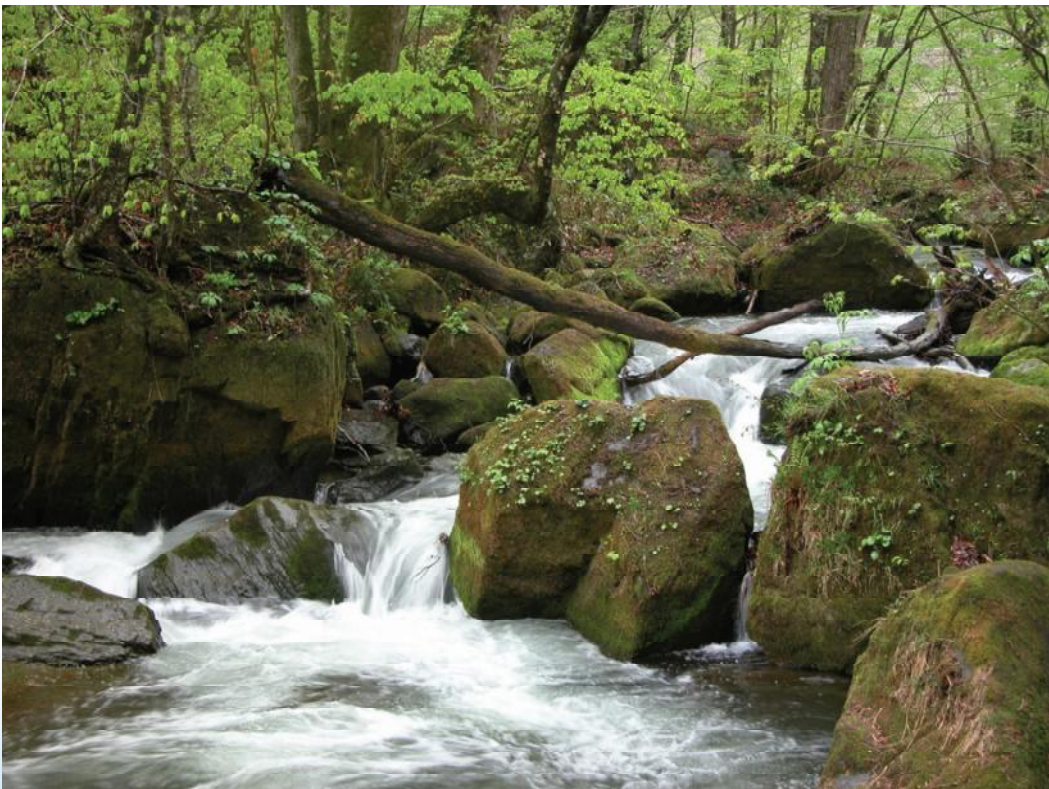
Jadual 3.4 JAS : Program-Program Luar Yang Diberi Kelulusan Jam CPD

Table 3.4 DOE : Programmes Approved For CPD Hours

Bil. / No.	Program / Programme	Penganjur / Organizer	Tarikh / Date	Tempat / Venue
1.	2 nd Annual Environmental Conference 2009 2 nd Annual Environmental Conference 2009	Asia Executive Programs Sdn. Bhd	24 - 25 Februari/ February 2009	Berjaya Times Square Hotel & Convention Centre, Kuala Lumpur
2.	Seminar on Strategic Environmental Assessment (SEA) Using RIAM Seminar on Strategic Environmental Assessment (SEA) Using RIAM	Envirolink Sdn. Bhd	i. 2 - 4 Mac / March 2009 ii. 6 - 8 Mei / May 2009 iii. 18 - 20 Mei / May 2009 iv. 12 - 14 Oktober/ October 2009	- Promenade Hotel, Kota Kinabalu - Kota Kinabalu, Sabah - Miri, Sarawak - Kuala Lumpur
3.	EIA for Infrastructure Development Training EIA for Infrastructure Development Training	ENSEARCH	31 Mac / March 2009	ENSEARCH Training Centre
4.	EIA for Petrochemical Industry EIA for Petrochemical Industry	ENSEARCH	8 April 2009	ENSEARCH Training Centre
5.	In-House Training: Impact Assessment on Air Pollution & Environmental Health In-House Training: Impact Assessment on Air Pollution & Environmental Health	Chemsain Konsultant Sdn. Bhd.	23 - 24 April 2009 7 - 8 Mei / May 2009	Chemsain Konsultant Sdn. Bhd., Kuching
6.	½ Days Hands-On Workshop On: River Water Quality Modeling ½ Days Hands-On Workshop On: River Water Quality Modeling	Water Resources Technical Division, Institute of Engineers Malaysia (IEM)	4 - 6 Mei / May 2009	UiTM Shah Alam
7.	FMM / DOE Selangor Seminar on Complying With Environmental Regulations on Industrial Effluents and Scheduled Wastes FMM / DOE Selangor Seminar on Complying With Environmental Regulations on Industrial Effluents and Scheduled Wastes	Federation of Malaysian Manufacturers (FMM) Selangor	7 Mei / May 2009	Concorde Hotel, Shah Alam
8.	Workshop on Water Treatment Process and Drinking Water Analysis Workshop on Water Treatment Process and Drinking Water Analysis	Universiti Kuala Lumpur	12 - 14 Mei / May 2009	UniKL, Melaka
9.	International Conference on Water Resources (ICWR 2009) International Conference on Water Resources (ICWR 2009)	Fakulti Kejuruteraan Awam, Universiti Teknologi Malaysia	26 - 27 Mei / May 2009	Hotel Bayview, Langkawi, Kedah
10.	International Conference of Marine Ecosystem 2009, Awana Porto Malai, INCOMES2009 International Conference of Marine Ecosystem 2009, Awana Porto Malai, INCOMES2009	Universiti Kebangsaan Malaysia	26 - 28 Mei / May 2009	Awana Porto Malai, Langkawi, Kedah

Jadual 3.4 JAS : Program-Program Luar Yang Diberi Kelulusan Jam CPD
Table 3.4 DOE : Programmes Approved For CPD Hours

Bil. / No.	Program / Programme	Penganjur / Organizer	Tarikh / Date	Tempat / Venue
11.	Summer Course 2009 -Sustainable Production : Improving Eco-Efficiency Summer Course 2009 -Sustainable Production : Improving Eco-Efficiency	Institut Pengurusan Alam Sekitar & Sumber Air (IPASA), UTM	1 - 6 Jun / June 2009	UTM, Skudai
12.	7 th Asia Pacific Structural Engineering and Construction Conference (APSEC 2009) and European Asean Civil Engineering Forum (EACEF 2009) 7 th Asia Pacific Structural Engineering and Construction Conference (APSEC 2009) and European Asean Civil Engineering Forum (EACEF 2009)	Universiti Teknologi Malaysia	4 - 6 Ogos / August 2009	UTM, Skudai
13.	Half-Day seminar On EIA Half-Day seminar On EIA	The Institution of Engineers, Malaysia	1 August / August 2009	Wisma IEM
14.	Air Pollution Control Training Air Pollution Control Training	ENSEARCH	18 August / August 2009	ENSEARCH Training Centre
15.	Integrated Flood Management – An Environmental Perspective Integrated Flood Management – An Environmental Perspective	ENSEARCH	10 September 2009	ENSEARCH Training Centre
16.	EIA for Infrastructure Development Training EIA for Infrastructure Development Training	ENSEARCH	14 Oktober/ October 2009	ENSEARCH Training Centre
17.	Technology Options in Treatment and Disposal of Special Waste (Scheduled Waste) Technology Options in Treatment and Disposal of Special Waste (Scheduled Waste)	Pakar Management Technology (M) Sdn. Bhd.	26 – 27 Oktober/ October 2009	Residence Hotel at UNITEN
18.	2 nd Annual Waste Management Seminar 2 nd Annual Waste Management Seminar	Asia Executive Programs Sdn. Bhd	13 Oktober / October 2009	Berjaya Times Square Hotel & Convention Centre, Kuala Lumpur
19.	Air Pollution Assessment Course (Level 1 – Beginner) Air Pollution Assessment Course (Level 1 – Beginner)	ENSEARCH	27 – 28 Oktober/ October 2009	ENSEARCH Training Centre
20.	Environmental Impact Assessment (EIA) & Post EIA Principles Training Environmental Impact Assessment (EIA) & Post EIA Principles Training	ENSEARCH	5 November 2009	ENSEARCH Training Centre
21.	Training Course on Industrial Wastewater Treatment system Training Course on Industrial Wastewater Treatment system	Pakar Management Technology (M) Sdn. Bhd	2 – 3 November 2009	Residence Hotel at UNITEN
22.	1 Malaysia: Towards A Sustainable Landscape 'Sustainable Green' 1 Malaysia: Towards A Sustainable Landscape 'Sustainable Green'	SPACE, Universiti Teknologi Malaysia	10 – 11 November 2009	Nilai Springs Resort Hotel, Nilai
23.	Regional Conference on Environmental and Earth Resources 2009 (RCER09) Regional Conference on Environmental and Earth Resources 2009 (RCER09)	Universiti Malaysia Pahang	7 – 8 Disember 2009	Universiti Malaysia Pahang



Pembangunan Lestari: Pemuliharaan Sumber Semulajadi
Sustainable Development: Conservation of Natural Resources