



BAB
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 alat perancangan untuk mengelakkan dan mengurangkan kesan-kesan kepada alam sekitar akibat aktiviti pembangunan. Ianya juga dapat menghindarkan perbelanjaan yang tidak sepatutnya dalam pelaksanaan projek yang disebabkan oleh kerosakan alam sekitar semasa pelaksanaan projek.

EIA adalah kajian untuk mengenal pasti, meramal, menilai dan memberi maklumat mengenai kesan-kesan kepada alam sekeliling bagi sesuatu cadangan projek dan mengemukakan langkah-langkah tebatan sebelum projek berkenaan diluluskan dan dilaksanakan.

Environmental Impact Assessment (EIA) is essentially a planning tool for preventing, avoiding and reducing the environmental impacts due to development activities. It can also help to avoid unnecessary cost in the project implementation caused by damage to the environment during project implementation.

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.

Laporan EIA – Tahun 2013

Sejumlah 256 laporan EIA telah diterima dan diproses oleh JAS pada tahun 2013 **(Rajah 3.1)**.

Daripada bilangan ini, sebanyak 244 laporan EIA telah diproses mengikut prosedur EIA Awal dan 12 laporan EIA lagi diproses melalui Prosedur EIA Terperinci **(Rajah 3.2)**.

Negeri Johor menerima bilangan laporan EIA yang tertinggi pada tahun 2013 sebanyak 46 laporan diikuti dengan Negeri Selangor sebanyak 34 laporan. **(Rajah 3.3)**. Terdapat sembilan (9) laporan EIA bagi cadangan projek petroleum di Zon Ekonomi Eksklusif (ZEE) dan tiga (3) laporan EIA bagi cadangan projek yang melibatkan dua negeri.

Aktiviti pengolahan dan pelupusan buangan (sisa pepejal, kumbahan dan buangan terjadual) merupakan aktiviti yang paling banyak diterima laporan EIA pada tahun 2013 iaitu sebanyak 60 laporan **(Rajah 3.4)**.

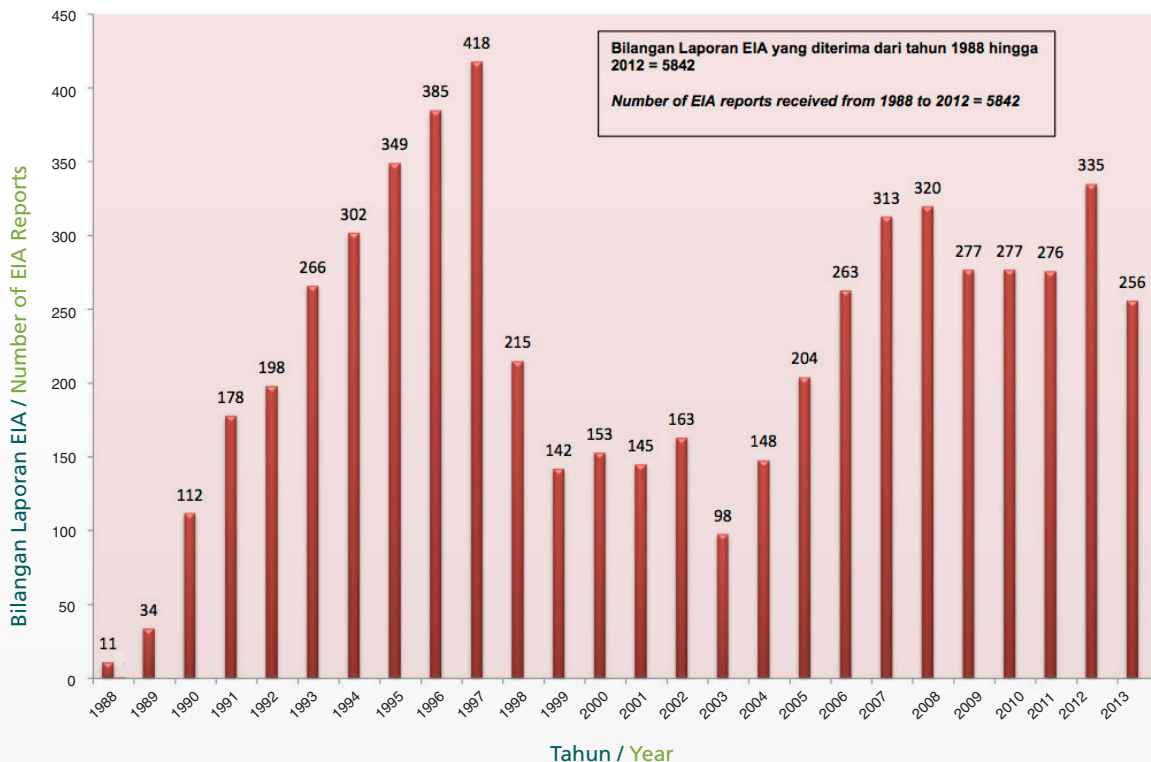
EIA Reports - Year 2013

A total of 256 EIA reports were received and processed by the DOE in 2013 **(Figure 3.1)**.

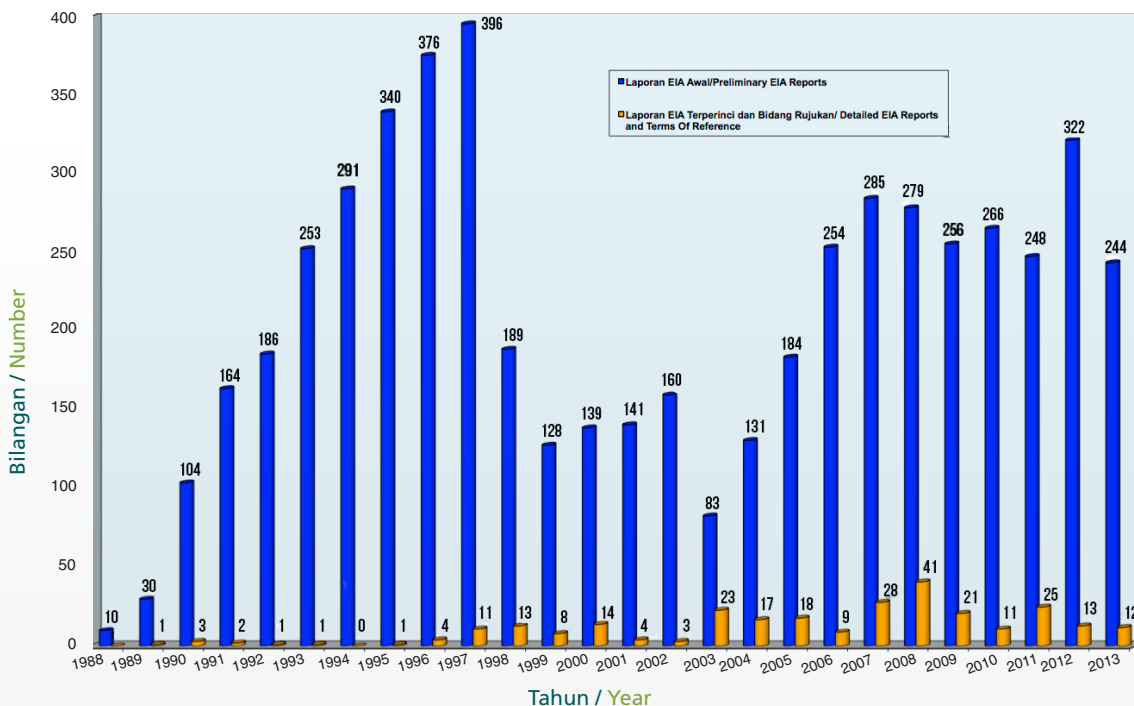
Of these, 244 EIA reports were processed through the Preliminary EIA procedure whilst 12 EIA reports were processed through the Detailed EIA procedure **(Figure 3.2)**.

Johor received the highest number of EIA reports in 2013, with a total of 46 reports, followed by Selangor with 34 reports **(Figure 3.3)**. There were nine (9) EIA reports for proposed petroleum-based projects in the Exclusive Economic Zone (EEZ) areas and three (3) EIA reports for proposed projects involving two states.

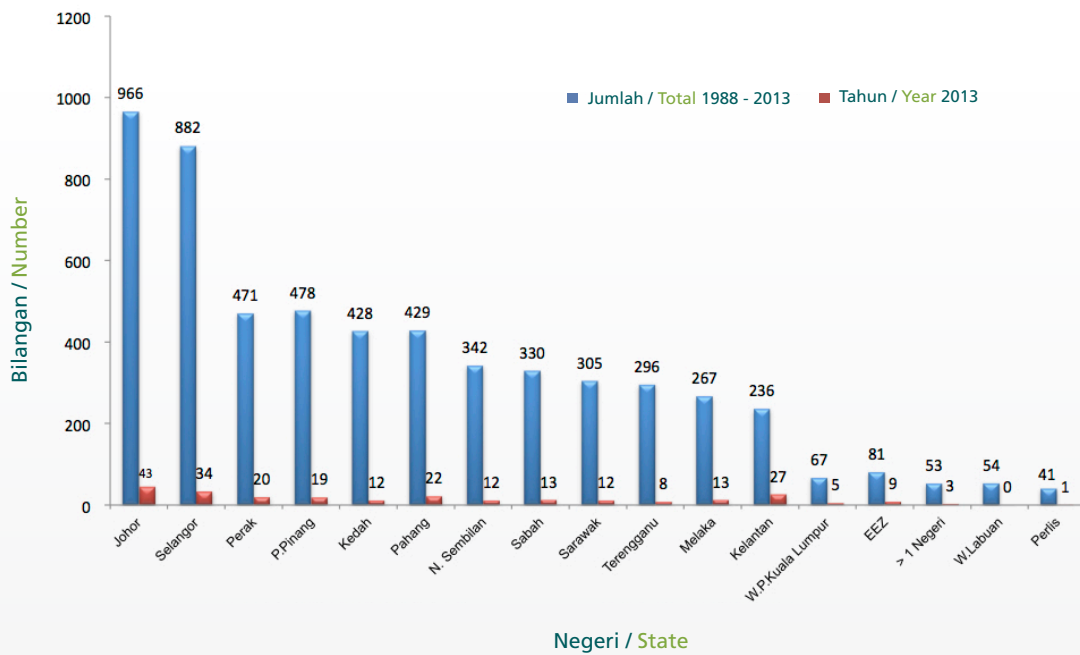
Based on types of activities, the highest number of EIA reports received in 2013 was from the waste treatment and disposal activities (solid wastes, sewage and scheduled wastes), whereby a total of 60 reports received **(Figure 3.4)**.



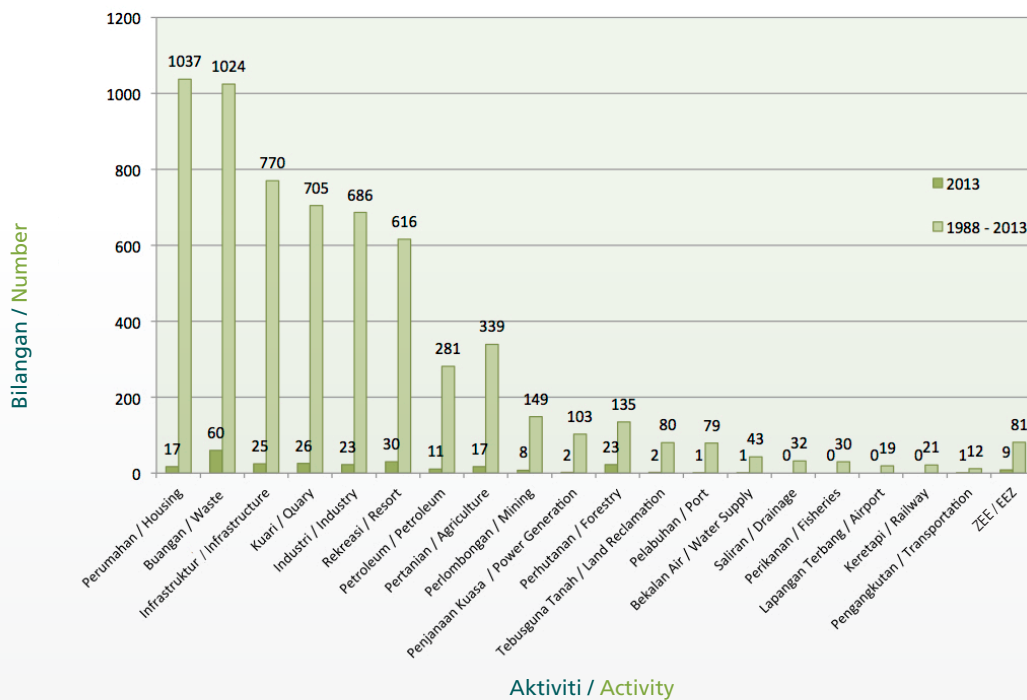
Rajah 3.1 JAS: Bilangan Laporan EIA Yang Diterima Mengikut Tahun, 1988 - 2013
Figure 3.1 DOE: Number of EIA Reports Received By Year, 1988 - 2013



Rajah 3.2 JAS: Bilangan Laporan EIA dan Jenis Laporan Diterima, 1988 - 2013
Figure 3.2 DOE Number and Type of EIA Reports Received, 1988 - 2013



Rajah 3.3 JAS : Bilangan Laporan EIA Yang Diterima Mengikut Negeri, 1988-2013
Figure 3.3 DOE: Number of EIA Reports Received By State, 1988-2013



Rajah 3.4 JAS : Bilangan Laporan EIA yang Diterima Mengikut Aktiviti, - 1988-2013
Figure 3.4 DOE : Number of EIA Reports Received by Activity,- 1988-2013

Siasatan Penguatkuasaan Projek EIA

Sejumlah 1,299 siasatan penguatkuasaan telah dijalankan pada tahun 2013 untuk mengenalpasti status pembangunan dan pematuhan projek-projek EIA (**Rajah 3.5**). Daripada bilangan siasatan tersebut, sejumlah 690 notis atau surat arahan, 177 kompaun telah dikeluarkan manakala 30 kes telah didakwa di mahkamah kerana tidak mematuhi syarat-syarat kelulusan.

Pewakilan Kuasa Kepada Jabatan Pengairan Dan Saliran Bagi Penyiasatan Ke Atas Kawalan Hakisan Dan Kelodakan Bagi Projek-Projek EIA

Pewakilan kuasa kepada pegawai-pegawai Jabatan Pengairan dan Saliran (JPS) bagi penyiasatan kawalan hakisan dan kelodakan adalah satu program di bawah 1NRE Enforcement Team (1NET). Bermula pada 6 Disember 2012 Ketua Pengarah Kualiti Alam Sekeliling, menerusi Perintah Kualiti Alam Sekeliling (Pewakilan Kuasa) (Penyiasatan Ke Atas Kawalan Hakisan dan Kelodakan) 2012, mewakilkan kuasa berikut kepada pegawai-pegawai JPS:

- (i) Seksyen 31 - Kuasa menghendaki pemunya atau penduduk memasang, mengendali, membaiki, dsb;
- (ii) Seksyen 37 - Pemunya atau penduduk hendaklah memberi maklumat;
- (iii) Seksyen 38 - Kuasa untuk menahan, menaiki, menggeledah, dsb (kecuali kuasa untuk menahan, menaiki dan menggeledah kapal atau pesawat udara); dan

EIA Enforcement Investigations

A total of 1,299 enforcement inspections on EIA projects were conducted in 2013 to check the project development status and the compliance of EIA approval conditions (**Figure 3.5**). From the inspections, a total of 690 notices or written directives were issued, 177 compounds were served and 30 cases were charged in court for non-compliance.

Delegation Of Powers To The Drainage And Irrigation Department For The Investigation On Erosion And Sediment Control Of EIA Projects

Delegation of powers to Drainage and Irrigation Department officers for the investigation on erosion and sediment control is a program under 1NRE Enforcement Team (1NET). As of 6 December 2012, The Director General of Environmental Quality through the Environmental Quality Order (Delegation of Powers) (Investigations on Erosion and Sedimentation Control) 2012, delegates the following powers to DID officers:-

- (i) Section 31 - Power to require owner or occupier to install, operate, repair, etc.;
- (ii) Section 37 - Owner or occupier to furnish information;
- (iii) Section 38 - Power to stop, board, search, etc. (except power to stop, board and search ship or aircraft); and
- (iv) Section 38A - Power to examine person acquainted with case.

(iv) Seksyen 38A - Kuasa untuk memeriksa orang yang mengetahui kes.

Sehingga Disember 2013, sebanyak 515 pegawai JPS telah diberikan kuasa secara bertulis di bawah Perintah ini.

Bagi tahun 2013, mesyuarat penyelarasan antara JAS-JPS Ibu pejabat telah diadakan sebanyak dua (2) kali. Mesyuarat bertujuan memantau pelaksanaan program perwakilan kuasa ini. Mesyuarat-mesyuarat penyelarasan antara JAS-JPS juga dibuat di peringkat negeri.

Salah satu program di bawah perwakilan kuasaini adalah latihan berkaitan penyiasatan kawalan hakisan dan kelodakan kepada pegawai-pegawai JAS yang diadakan pada 1-4 April 2013 di Lojing, Kelantan. Latihan seumpamanya juga diadakan kepada pegawai-pegawai JPS di peringkat negeri.

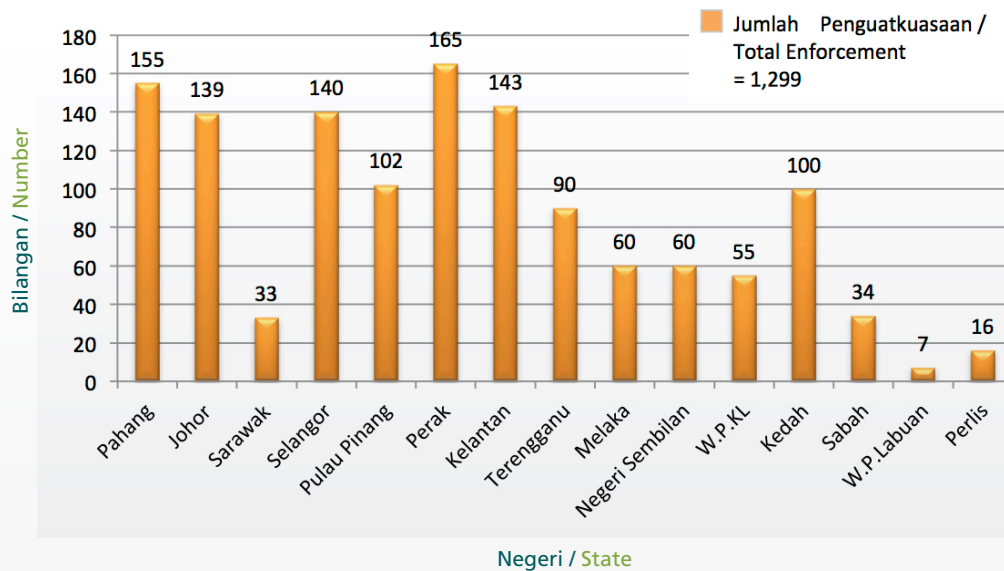
Pewakilan kuasa kepada JPS menerusi Perintah Kualiti Alam Sekeliling (Pewakilan Kuasa) (Penyiasatan Ke Atas Kawalan Hakisan Dan Kelodakan) 2012 ini juga telah dimaklumkan di Mesyuarat Majlis Sumber Air Negara ke-8 (MSAN) yang telah diadakan pada 7 Oktober 2013.

As of December 2013, a total of 515 DID officers had been authorized in writing under this Order.

Coordination meetings between DOE-DID headquarters were held twice in 2013. The meetings aim to monitor the implementation of this delegation of powers. Coordination meetings were also held between DOE-DID at the state level.

DOE officers had undergone training related to inspections of erosion and sediment control which was held on 1 -4 April 2013 in Lojing, Kelantan as part of the programme under this delegation of powers. Similar trainings were also conducted at the states level for DID officers.

The delegation of powers to DID through the Environmental Quality Order (Delegation of Powers) (Investigations on Erosion and Sedimentation Control) 2012 was also tabled the 8th National Water Resources Council Meeting which was held on 7 October 2013.



Rajah 3.5 JAS : Siasatan Penguatkuasaan Projek EIA, 2013
Figure 3.5 DOE : Post EIA Enforcement Investigation, 2013

Penilaian Awal Tapak Bagi Projek Pembangunan

Penggerak projek dikehendaki untuk mengemukakan permohonan Penilaian Awal Tapak (PAT) kepada Jabatan Alam Sekitar untuk menentukan kesesuaian tapak projek yang dicadangkan (projek EIA dan bukan EIA).

Pada tahun 2013, sejumlah 10,848 permohonan telah diterima di Jabatan Alam Sekitar Negeri. Negeri Johor mencatat permohonan PAT (2,622) paling tinggi, diikuti oleh Selangor (1,914) dan lain-lain negeri seperti yang ditunjukkan di **Rajah 3.6**.

Site Preliminary Assessment For Development Projects

Project developers are required to submit Site Preliminary Assessment (PAT) application to the respective DOE State Office to determine the suitability of the proposed sites for any proposed development projects (EIA and non-EIA projects).

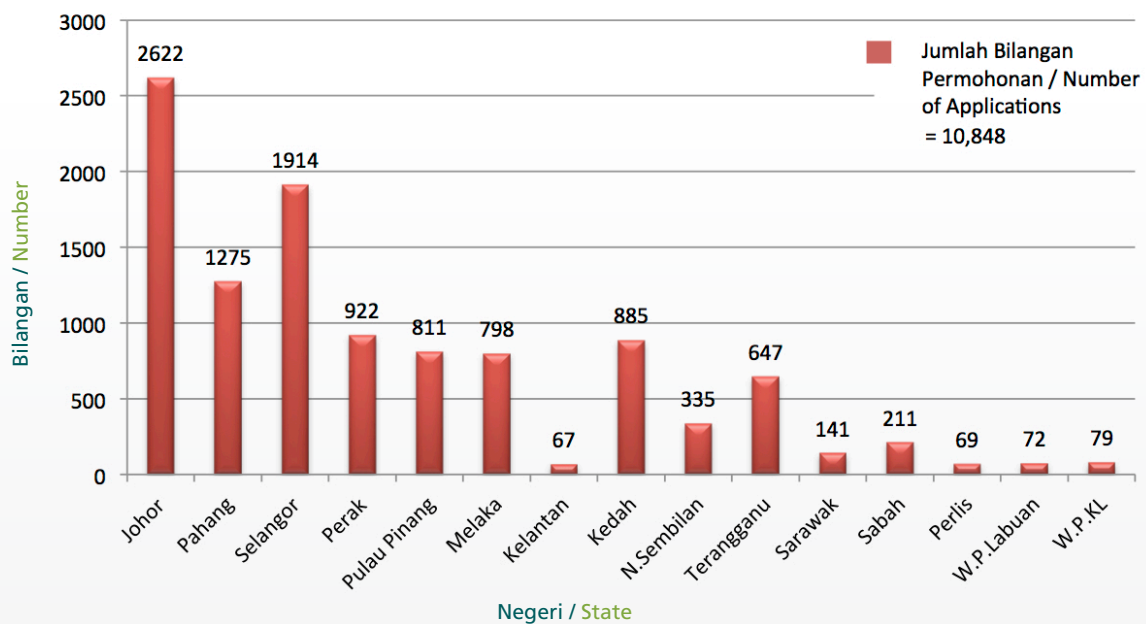
In 2013, a total of 10,848 applications were received and processed by the respective Department of Environment State Offices. Johor recorded the highest number of applications (2,622), followed by Selangor (1,914) and other states as shown in **Figure 3.6**.

Selain dari penggerak projek, permohonan ini juga dirujuk kepada Jabatan Alam Sekitar oleh Kerajaan Negeri, Pihak Berkuasa Tempatan dan Pejabat Tanah serta agensi-agensi lain yang berkaitan.

Input Teknikal telah diberikan kepada pihak berkuasa ini bagi memastikan aspek alam sekitar diberikan pertimbangan yang sewajarnya di dalam membuat keputusan.

Besides the project developers, these applications were also referred to the Department of Environment by the State Governments, Local Authorities and Land Offices, as well as other relevant agencies.

Technical environmental inputs were provided through the above agencies to ensure environmental aspects were given due consideration in the decision making process.



**Rajah 3.6 JAS : Penilaian Awal Tapak Untuk Pembangunan
Projek- Projek Pembangunan Negeri, 2013**

Figure 3.6 DOE:Pre- Sitting Evaluation of Development Projects By State 2013

Pemberitahuan Dan Kelulusan Bertulis

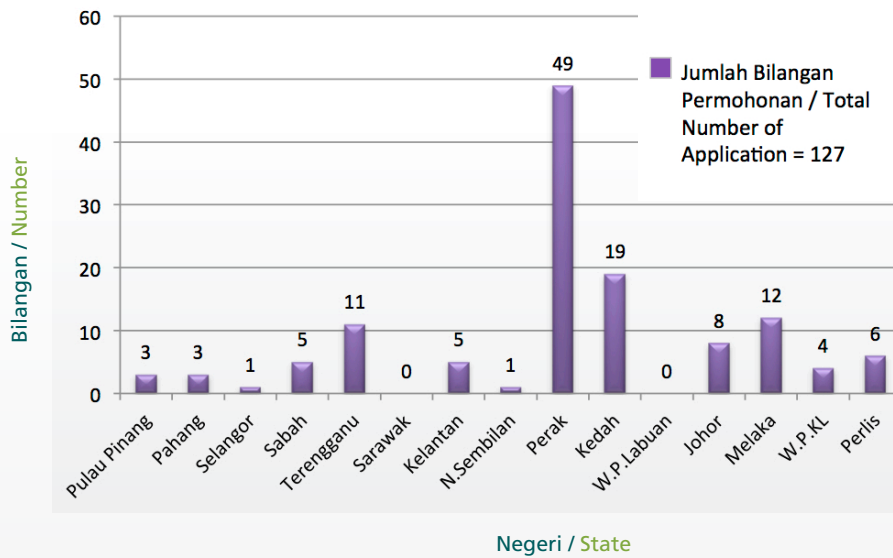
Peraturan-Peraturan Kualiti Alam Sekeliling (Kumbahan), 2009 dan Peraturan-Peraturan Kualiti Alam Sekeliling (Efluen Perindustrian), 2009 menghendaki supaya pihak premis mengemukakan pemberitahuan bertulis kepada Ketua Pengarah Alam Sekitar sebelum pembinaan sistem pengolahan kumbahan/ efluen perindustrian. Manakala Peraturan-Peraturan Kualiti Alam Sekeliling (Udara Bersih) 1978 menghendaki supaya Kelulusan Bertulis diperolehi terlebih dahulu daripada Ketua Pengarah Alam Sekitar sebelum pemasangan alat pembakaran bahan api dan cerobong.

Pada tahun 2013, JAS telah menerima 127 pemberitahuan bertulis bagi pembinaan loji rawatan sisa kumbahan (**Rajah 3.7A**), 330 pemberitahuan bertulis bagi punca baru atau yang diubah efluen perindustrian atau efluen bercampur (**Rajah 3.7B**) dan 2,530 permohonan bagi pemasangan alat kawalan pencemaran udara (**Rajah 3.8**). Di samping itu, Jabatan Alam Sekitar juga telah memproses sebanyak 2824 permohonan bagi kelulusan bertulis untuk pemasangan alat pembakaran bahan api seperti dandang dan alat janakuasa (**Rajah 3.9**).

Written Notification And Approval

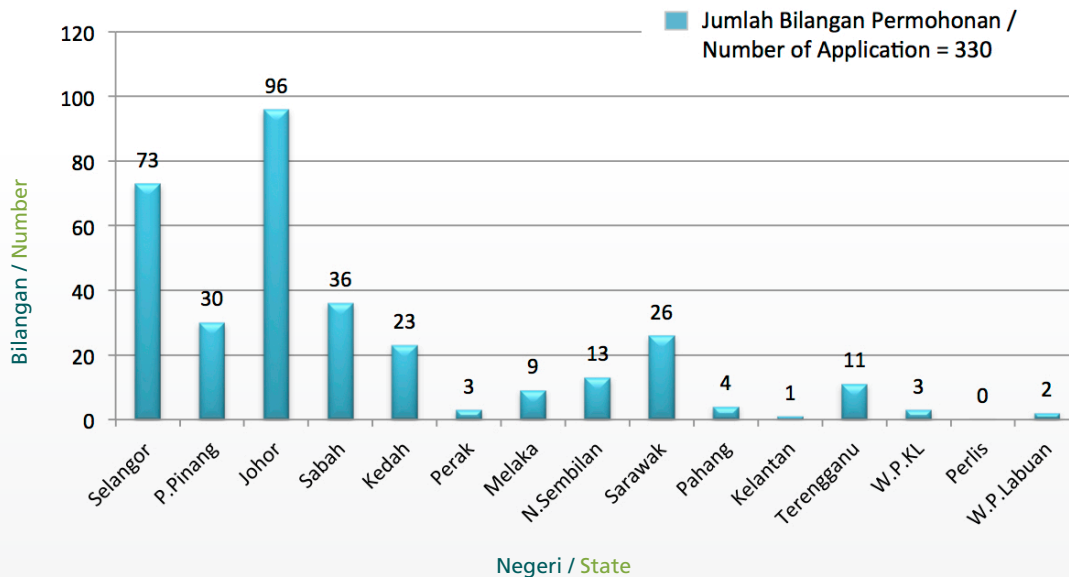
The Environmental Quality (Sewage) Regulations 2009 and the Environmental Quality (Industrial Effluents) Regulations 2009 require written notifications to be submitted to the Director General of Environmental Quality before the constructions of sewage/industrial effluent treatment system. The Environmental Quality (Clean Air) Regulations, 1978 require Written Approval to be submitted to the Director General of Environmental Quality before any fuel burning equipment and chimney/stack are installed.

In 2013, a total of 127 written notifications were received for the construction of effluent treatment plants (**Figure 3.7A**), 330 written notifications for new or altered sources of discharges of industrial effluent or mixed effluents (**Figure 3.7B**) and 2,530 applications for installation of air pollution control equipment (**Figure 3.8**). In addition, 2824 applications for written approvals for the installation of fuel burning equipment such as boilers and generator sets were processed by the Department of Environment (**Figure 3.9**).



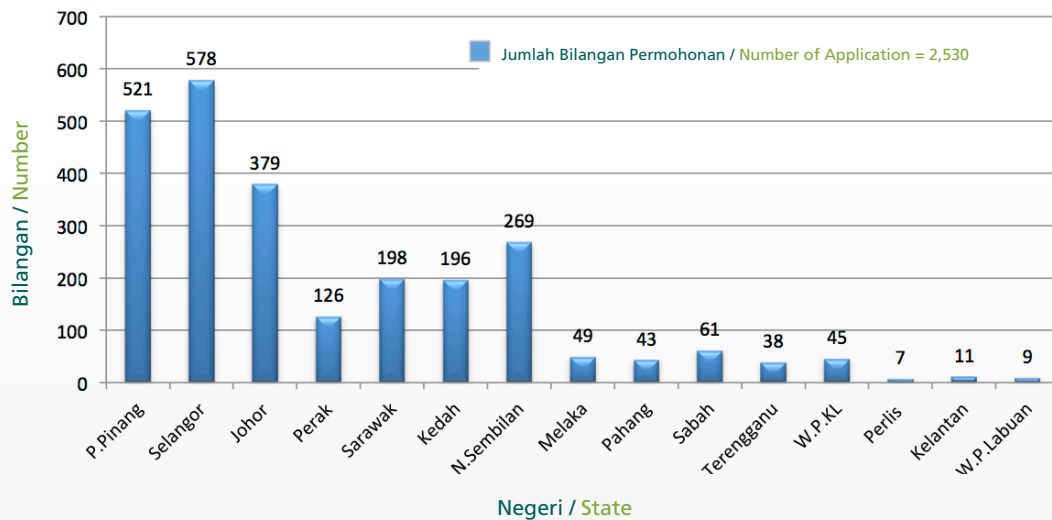
Rajah 3.7A JAS : Pemberitahuan Bertulis Bagi Punca baru Pembuangan atau Pelepasan Kumbahan, 2013

Figure 3.7A DOE : Notification For New Sources of Sewage Discharge or Release, 2013



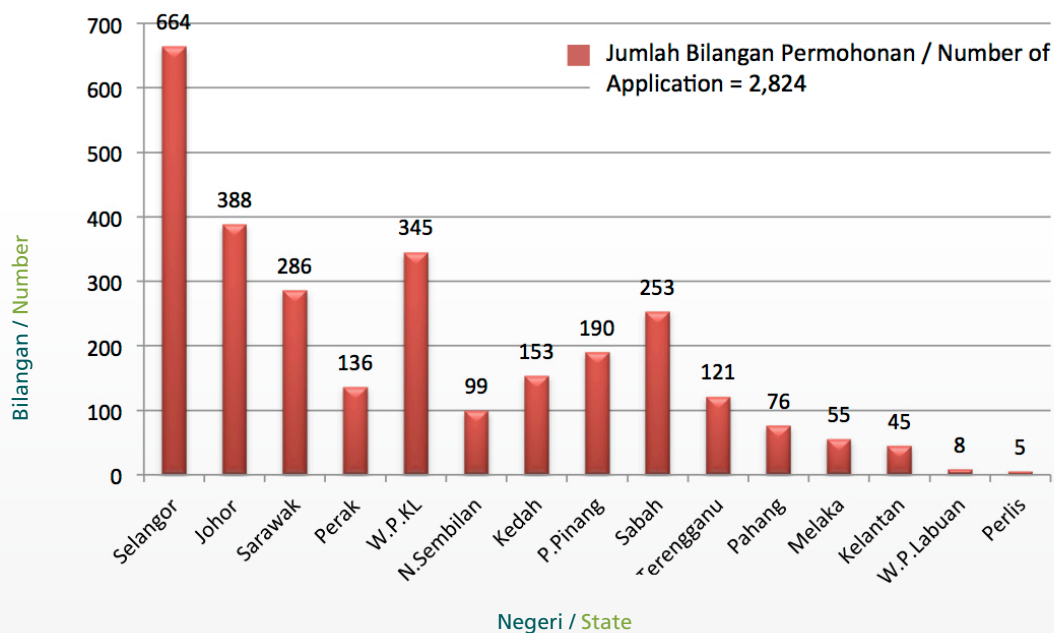
Rajah 3.7B JAS : Pemberitahuan Bertulis Bagi Punca Baru Atau Yang Diubah Efluen Perindustrian atau Efluen Bercampur, 2013

Figure 3.7B DOE : Notification For New Or Altered Sources of Discharge of Industrial Effluent Or Mixed Effluent, 2013



Rajah 3.8 JAS : Permohonan Bagi Pemasangan Alat Kawalan Pencemaran Udara Mengikut Negeri, 2013

Figure 3.8 DOE : Application for Installation of Air Pollution Control Equipment By State, 2013



Rajah 3.9 JAS : Permohonan Bagi Pemasangan Alat Pembakaran Bahan Api Mengikut Negeri, 2013

Figure 3.9 DOE : Application for Installation of Fuel Burning Equipment By State, 2013

Input Alam Sekitar Kepada Perancangan Pembangunan

Pada tahun 2013, 110 input alam sekitar telah dikemukakan kepada agensi-agensi yang berkaitan, mengenai penyelarasan perancangan pembangunan, pelan tempatan, kajian rancangan fizikal negara, kajian kawasan sensitif alam sekitar dan aktiviti-aktiviti pembangunan di tanah tinggi.

Persijilan MS ISO 9001:2008

JAS telah memperoleh persijilan Sistem Pengurusan Kualiti MS ISO 9001:2008 sejak 19 Mac 2010. Persijilan yang diberikan adalah bagi tempoh tiga (3) tahun dan telah tamat tempoh pada 18 Mac 2013. Bagi meneruskan persijilan tersebut, JAS telah diaudit oleh badan pensijilan SIRIM QAS International Sdn Bhd pada 6-8 Februari 2013 dan JAS telah berjaya meneruskan pensijilan untuk tempoh tiga (3) tahun sehingga 18 Mac 2016.

Dalam memastikan pelaksanaan prosedur kerja sentiasa mematuhi kehendak prosedur kualiti MS ISO 9001:2008, JAS telah menjalankan Audit Kualiti Dalaman (AKD) sebanyak dua (2) kali iaitu pada bulan Mei-Jun 2013 dan Oktober-November 2013 di peringkat Ibu Pejabat dan semua pejabat JAS Negeri.

JAS telah memperluaskan skop pensijilan dengan menambah aktiviti pemprosesan Kebenaran Bertulis (KB) di bawah Seksyen

Environmental Input For Development Planning

In 2013, a total of 110 environmental inputs were provided to other agencies in relation to development planning coordination, local plans, review of national physical plans, environmentally sensitive areas and highland development activities.

MS ISO 9001:2008 CERTIFICATION

The DOE has acquired the quality management System certification ISO 9001:2008 since 19 March 2010. This certification is granted for a period of three (3) years and expired on 18 March 2013. To renew the certification, DOE were audited by certification body SIRIM QAS International Sdn Bhd on 6-8 February 2013 and DOE have succeeded in continuing certification for a period of three (3) years until 18 March 2016.

In order to ensure the implementation of the work procedures adhere to the requirements of MS ISO 9001 quality procedures: 2008, DOE conducted two (2) internal quality Audit (AKD) in May-June and October-November 2013 at Headquarters and all State office.

The DOE has expanded the scope of certification by adding the processing of written permission (KB) under section 19,

19, pemrosesan Lesen di bawah Seksyen 18 dan penguatkuasaan syarat-syarat lesen Premis Yang Ditetapkan (PYDT) iaitu Kilang Minyak Kelapa Sawit Mentah, Kilang Getah Asli Mentah dan Kemudahan Pengolahan, Penstoran dan Pelupusan Buangan Terjadual dan masih dalam tempoh percubaan dan pengemaskinian skop sehingga Jun 2014.

Skim Pendaftaran Jururunding EIA

Skim Pendaftaran Jururunding EIA yang baru telah mula diperkenalkan pada 1 Jun 2007. Pendaftaran Jururunding EIA ini telah menjadi satu keperluan undang-undang di bawah Akta Kualiti Alam Sekeliling, 1974 (Pindaan 2012) yang mewajibkan semua jururunding EIA untuk berdaftar dengan JAS sebelum menjalankan kajian EIA.

Pendaftaran adalah terbuka kepada individu dan dibahagikan kepada tiga kategori iaitu Jururunding EIA, Jururunding Subjek, dan Pembantu Jururunding. Pemohon boleh mengemukakan permohonan bagi untuk didaftarkan di bawah kategori yang bersesuaian dengan kelayakan akademik, kepakaran dan pengalaman mereka.

Sebanyak 177 permohonan telah diterima pada tahun 2013 di mana hanya 126 layak untuk didaftarkan. Butiran adalah seperti di **Jadual 3.1**. Sehingga 31 Disember 2012, sebanyak 1,158 individu telah didaftarkan di bawah Skim Pendaftaran Jururunding EIA, dimana 284 orang adalah Jururunding EIA, 390 orang Jururunding Subjek dan 484 orang adalah Penolong Jururunding (**Jadual 3.2**).

the processing of licence under section 18 and the enforcement of licence conditions on prescribed premises (PYDT) of Crude Palm Oil Mill, Raw Natural Rubber Factory and Scheduled Wastes Recovery, Storage and Disposal Facilities and this certification programme is still on trial period until June 2014.

EIA Consultants Registration Scheme

The new EIA Consultants Registration Scheme was introduced on 1 June 2007. This registration of EIA Consultants has become a legal requirement under the Environmental Quality Act, 1974 (Amendment 2012) which requires all EIA consultants to be registered with DOE prior to carrying out any EIA studies.

Registration is open for individuals and divided into three (3) categories namely, EIA Consultant, Subject Consultant and Assistant Consultant. Applicants may apply for any registration category appropriate to their academic background, expertise and experience.

A total of 177 applications were received in 2013 and only 126 were qualified to be registered. Details are as in **Table 3.1**. As of December 2013, DOE has registered 1,158 individuals under this EIA Consultant Registration Scheme where 284 are EIA Consultants, 390 are Subject Consultants and 484 are Assistant Consultants (**Table 3.2**).

Tempoh sah pendaftaran bagi Jururunding EIA adalah selama tiga (3) tahun, manakala Jururunding Subjek pula adalah lima (5) tahun dan pendaftaran hendaklah diperbaharui setelah tamat tempoh.

Skim Pendaftaran Juruaudit Alam Sekitar

Skim Pendaftaran Juruaudit Alam Sekitar telah mula diperkenalkan pada Jun 2009. Keperluan untuk Juruaudit Alam Sekitar berdaftar dengan JAS telah menjadi satu keperluan undang-undang di bawah Seksyen 33A, Akta Kualiti Alam Sekeliling, 1974 (Pindaan 2012).

Bagi tahun 2013, sebanyak 15 permohonan telah diterima dan sembilan (9) daripadanya telah didaftarkan sebagai Juruaudit Alam Sekitar (**Jadual 3.3**). Sehingga 31 Disember 2013, sebanyak 73 orang individu telah didaftarkan sebagai Juruaudit Alam Sekitar.

Tujuan utama skim pendaftaran ini adalah untuk memastikan hanya mereka yang kompeten dan layak sahaja dibenarkan menjalankan audit alam sekitar. Audit Alam Sekitar yang dilaksanakan merupakan Audit Pihak Ketiga (Audit Bebas) bagi pematuhan terhadap keperluan alam sekitar di bawah Seksyen 33A, Akta Kualiti Alam Sekeliling 1974 (Pindaan 2012).

Skim ini adalah untuk memastikan pelaksanaan audit dan pelaporan audit alam sekitar adalah mengikut prosedur dan garis panduan yang ditetapkan.

Validity period for registration of EIA Consultants is three (3) years, whereby Subject Consultant is five (5) years. Renewal is required at the end of the validity period.

Environmental Auditor Registration Scheme

Environmental Auditor Registration Scheme was first introduced in June 2009. The requirement for environmental auditors to be registered with DOE is mandatory under Section 33A, Environmental Quality Act, 1974 (Amendment 2012).

In 2013, 15 applications were received and nine (9) have been registered as Environmental Auditors (**Table 3.3**). Until 31 December 2013, a total of 73 individuals are registered as Environmental Auditors.

The main objective of the registration scheme is to ensure that only competent and qualified persons are allowed to carry out environmental audits. The category of environmental audit conducted is Third Party Audit (Independent Audit) for compliance audit requirements under Section 33A of the Environmental Quality Act 1974 (Amendment 2012).

This scheme ensures the audit and environmental audit reporting is in accordance with the procedures and guidelines. The implementation of this audit

Pelaksanaan audit ini dapat mengurangkan kebergantungan terhadap aktiviti penguatkuasaan oleh Jabatan Alam Sekitar dan menggalakkan industri dan pemaju projek untuk meningkatkan tahap pematuhan alam sekitar secara langsung serta tidak langsung. Pada tahun 2013, sejumlah 130 laporan audit berkaitan pematuhan syarat kelulusan EIA dan premis yang ditetapkan, telah diterima oleh Jabatan Alam Sekitar.

AKTIVITI-AKTIVITI BERKAITAN

Kursus Induksi Untuk Jururunding EIA Juruaudit Alam Sekitar

Setiap pemohon yang ingin berdaftar di bawah Skim Pendaftaran Jururunding EIA perlu menghadiri Kursus Induksi Jururunding EIA dan lulus penilaian sebelum didaftarkan mengikut kategori masing-masing. Pada tahun 2013 empat (4) kursus telah dilaksanakan dengan jumlah peserta seramai 156 orang, di mana 146 peserta telah lulus penilaian (**Jadual 3.4**).

Tujuan utama kursus ini dilaksanakan adalah untuk memaklumkan keperluan dan kehendak JAS dalam penyediaan Laporan EIA.

Semua juruaudit alam sekitar yang berdaftar adalah diwajibkan untuk menghadiri Kursus Induksi Juruaudit Alam Sekitar dan lulus penilaian. Tujuan kursus ini adalah untuk memberikan penerangan kepada semua Juruaudit Alam Sekitar tentang prosedur dan pelaporan audit, pemahaman terhadap

can reduce dependence on enforcement activities by the Department of Environment and encourage industry and project developers to raise the level of environmental compliance directly and indirectly. In 2013, a total of 130 audit reports on compliance to the EIA approval conditions and audit from prescribed premises were received by the Department of Environment.

RELATED ACTIVITIES

Induction Course For EIA Consultants

All applicants who wish to register under the EIA Consultant Registration Scheme are required to attend Induction Course for EIA Consultant and passed the assessment before registered under respective categories. In 2013, four (4) courses were conducted with 156 participants whereby 146 participants had passed the assessment (**Table 3.4**).

The main purpose of this course is to provide information on DOE procedures and requirements in the preparation of EIA report.

All registered environmental auditors are compulsory to attend Induction Course for Environmental Auditor and pass the assessment. The objectives of the course are to provide description to all Environmental Auditors on audit procedures and reporting, understanding of the laws and regulations

undang-undang dan peraturan Akta Kualiti Alam Sekeliling, 1974 dan konvensyen yang berkaitan. Pada tahun 2013 satu siri kursus telah dijalankan dengan jumlah peserta seramai 19 orang **(Jadual 3.5)**.

Pembangunan Profesional Berterusan (CPD)

Keperluan bagi Pembangunan Profesional Berterusan telah diwajibkan di bawah Skim Pendaftaran Jururunding EIA dan Skim Pendaftaran Juruaudit Alam Sekitar. Jururunding EIA dan Juruaudit berdaftar perlu mengumpul jumlah jam latihan yang tertentu bagi membolehkan pendaftaran diperbaharui. Mana-mana pihak penyedia latihan boleh memohon bagi mendapatkan jam kredit bagi latihan yang disediakan dengan menghubungi pihak EiMAS (Institut Alam Sekitar Malaysia).

PAKEJ PENAMBAHBAIKAN EIA

(a) Perintah Larangan

Bagi memperkukuhkan elemen penguatkuasaan dan sebagai langkah pencegahan, satu Seksyen baru, 34AA telah diperkenalkan pada tahun 2012 yang memberi kuasa kepada Ketua Pengarah Alam Sekitar untuk memberhentikan kerja orang yang menjalankan aktiviti yang ditetapkan tanpa kelulusan di bawah subseksyen 34A(3); yang mencabuli apa-apa syarat yang dilampirkan pada kelulusan laporan itu; atau yang pada pendapat Ketua Pengarah adalah dijalankan mengikut cara

of the Environmental Quality Act, 1974 and related conventions. In 2013 one course was conducted with a total of 19 participants **(Table 3.5)**.

Continuous Professional Development (CPD)

Requirements for Continuous Professional Development has been mandated under the EIA Consultants Registration Scheme and Environmental Auditors Registration Scheme, where the registered consultants and auditors must collect a certain number of training hours to renew their registration. Any training providers / organizers may contact EiMAS (Environmental Institute Malaysia) to apply credit hours for their programmes.

EIA IMPROVEMENT PACKAGE

(a) Prohibition Order

To further strengthen the enforcement element and as preventative measures, a new Section 34AA was introduced in 2012, which provides for the Director General to issue a prohibition order or stop work order to the person carrying out the prescribed activities without the approval under subsection 34A(3), who violates any conditions attached to the approval of the report; or which in the opinion of the Director General are being carried out in a manner that is likely to cause environmental

yang mungkin menyebabkan kerosakan alam sekeliling. Perintah Larangan atau perintah berhenti kerja itu boleh dikeluarkan bagi maksud menghalang aktiviti yang ditetapkan daripada berterusan sama ada secara mutlak atau bersyarat; bagi apa-apa tempoh sebagaimana yang ditentukan oleh Ketua Pengarah; atau sehingga kehendak untuk meremеди sebagaimana yang diarahkan oleh Ketua Pengarah telah dipatuhi.

Pada tahun 2013, JAS Ibu Pejabat telah mengeluarkan enam (6) Perintah Larangan di bawah Seksyen 34AA(2) Akta Kualiti Alam Sekeliling 1974 (Pindaan) 2012 kepada beberapa projek EIA di atas kesalahan antaranya, projek bermula tanpa kelulusan EIA; atau mencabuli syarat kelulusan laporan EIA yang boleh menyebabkan pencemaran atau yang memberi impak kepada alam sekitar.

(b) Kajian Keberkesanan EIA

Pada tahun 2013, Jabatan Alam Sekitar telah melaksanakan Kajian Keberkesanan EIA di Malaysia di bawah projek pembangunan Rancangan Malaysia Ke-10 (RMK-10).

Tujuan kajian ini adalah untuk menilai keberkesanan pelaksanaan EIA di Malaysia yang merangkumi prosedur EIA, proses, sistem, penguatkuasaan, peranan dan kehendak pihak berkepentingan (pemaju projek, badan bukan kerajaan, rakyat) dalam strategi pengurusan dan pencegahan

damage. The prohibition order or stop work order may be issued for the purpose of preventing the prescribed activities from continuing either absolutely or conditionally; for such period as the Director General may determine; or until requirements to remedy as the Director General may direct have been complied with.

In 2013, DOE Headquarters had issued six (6) Prohibition Orders under Section 34AA (2) of the Environmental Quality Act 1974 (Amendment) 2012 to several EIA projects for commencing the project without EIA approval; or violation of EIA approval conditions which could lead to environmental pollution or caused impact to the environment.

(b) The Study Of EIA Effectiveness In Malaysia

In 2013, the DOE has undertaken a study on the effectiveness of EIA in Malaysia under the development project of 10th Malaysia Plan (10 MP).

The purpose of this study was to evaluate the effectiveness of EIA in Malaysia comprising the aspects of EIA procedures, processes, systems, enforcement, the role and expectations of stakeholders (project developers, NGOs, publics) in environmental management strategies

pencemaran alam sekitar. Ini selaras dengan Pelan Transformasi Kerajaan, Pelan Transformasi Ekonomi dan peningkatan sistem penyampaian Kerajaan menuju ke arah merealisasikan Wawasan 2020.

Kajian ini merangkumi status mekanisma dan amalan EIA di Malaysia selepas tempoh pelaksanaannya selama 25 tahun, mengenal pasti kekuatan utama dan batasan dan mencadangkan langkah-langkah untuk mengukuhkan EIA sebagai menghadapi cabaran pembangunan mampan.

Beberapa perbincangan dan sesi telah diadakan di antara kumpulan sasaran semasa pelaksanaan kajian ini, iaitu:-

- (a) Lima (5) siri mesyuarat;
- (b) Empat (4) siri perbincangan;
- (c) Sebelas Focus Group Discussion (FGD) (termasuk di Sabah dan Sarawak); dan
- (d) Satu (1) bengkel bersama lima (5) pihak berkepentingan iaitu agensi kerajaan berkaitan, Pihak Berkuasa Tempatan (PBT), pemaju projek, jururunding EIA, Badan Bukan Kerajaan (NGOs), dan pegawai-pegawai JAS.

Hasil kajian telah mencadangkan perkara-perkara berikut:-

- (a) Enam (6) prinsip panduan bagi EIA di Malaysia iaitu "proactive, participatory, transparent, credible, cost-effective, practical"; dan

and pollution prevention. This effort is in line with the Government Transformation Plan, the Economic Transformation Plan and improvement on Government delivery system towards the realization of Vision 2020.

The study was focused at the status of EIA practices and mechanisms in Malaysia for the past 25 years, identified major strengths and limitations, and proposed measures to enhance EIA in meeting with sustainable development challenges.

Several discussions and sessions among the target groups were held during the course of the study, namely:-

- (a) Five (5) series of meetings;
- (b) Four (4) series of discussions;
- (c) Eleven Focus Group Discussion (FGD) (including Sabah and Sarawak); and
- (d) One (1) workshop with five (5) stakeholders, i.e. relevant Government agencies, Local Authorities (LA), project initiator, EIA consultants, Non Governmental Organisations (NGOs), and DOE officers.

The study has recommended the followings:-

- (a) Six (6) guiding principles of EIA in Malaysia ie proactive, participatory, transparent, credible, cost-effective, practical"; and

(b) 22 Preliminary Recommendations bagi meningkatkan keberkesanan EIA, yang diuraikan dari lapan (8) rangka kerja utama, seperti berikut:-

- Memastikan EIA mempunyai nilai tambah dalam setiap perancangan projek;
- Menambah baik pelaporan EIA;
- Meningkatkan proses penilaian EIA;
- Menambah baik penguatkuasaan EIA dan pengawasan alam sekitar;
- Mengukuhkan rangka kerja dasar;
- Meningkatkan penglibatan pihak berkepentingan;
- Pembangunan modal insan; dan
- Meningkatkan ketelusan dan integriti.

Prosedur Tetap Operasi (SOP) Penguatkuasaan EIA

Prosedur Tetap Operasi (SOP) Penguatkuasaan EIA bertujuan untuk memperincikan langkah-langkah yang perlu diambil di dalam menjalankan penguatkuasaan EIA bagi aktiviti-aktiviti yang tertakluk di bawah Perintah Kualiti Alam Sekeliling (Aktiviti Yang Ditetapkan) (Penilaian Kesan Kepada Alam Sekeliling) 1987 di setiap peringkat yang merangkumi:-

- (i) Penyediaan program penguatkuasaan EIA.
- (ii) Perancangan penguatkuasaan EIA.
- (iii) Penguatkuasaan di lapangan.
- (iv) Penyediaan laporan penguatkuasaan EIA dan tindakan susulan.

(b) 22 Preliminary Recommendations to enhance the effectiveness of EIA, as depicted from eight (8) main frameworks:-

- Ensure EIA value added in every project planning;
- Improving EIA reporting;
- Improving EIA evaluation process;
- Improving enforcement of EIA and environmental monitoring;
- Strengthening the policy framework;
- Increase the involvement of stakeholders;
- Capacity building, and
- Improving transparency and integrity.

Standard Operating Procedure EIA Enforcement

The Standard Operating Procedures (SOP) for EIA Enforcement is developed to detail out the steps to be taken in carrying out EIA enforcement for activities regulated under the Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987 at each stage as follows:-

- (i) Preparation of EIA enforcement program.
- (ii) Planning.
- (iii) Enforcement.
- (iv) Report and follow up actions.

Objektif penyediaan SOP ini adalah untuk:-

- (i) Mengenalpasti prosedur yang perlu dilakukan semasa aktiviti penguatkuasaan EIA dijalankan.
- (ii) Menyediakan maklumat dan menyelaras langkah-langkah yang perlu diambil di dalam penguatkuasaan EIA dari segi tindakan penguatkuasaan EIA, penggunaan borang yang seragam dan sebagainya.
- (iii) Mengukuhkan dan memantapkan prosedur penguatkuasaan EIA bagi menghasilkan satu penguatkuasaan yang berkualiti dan dapat memperbaiki sebarang ketidakpatuhan kepada syarat-syarat kelulusan laporan EIA sesuatu projek EIA.
- (iv) Menyediakan satu dokumen sebagai rujukan dan panduan bagi penguatkuasaan EIA kepada pegawai-pegawai JAS.

Bahagian Penilaian sedang dalam proses pengemaskinian SOP Penguatkuasaan EIA selaras dengan Prosedur Kualiti – Penguatkuasaan EIA di bawah MS ISO 9001:2008.

Business Licensing Electronic Support System (BLESS)

Jabatan Alam Sekitar telah bekerjasama dengan Unit Penyelaras Pelaksanaan (ICU), Jabatan Perdana Menteri untuk penggunaan sistem permohonan kelulusan secara atas talian melalui laman sesawang BLESS.

The objectives of of the SOP are to:-

- (i) Identify procedures and steps to be taken in conducting enforcement of EIA projects.
- (ii) Provide information and coordinate measures and actions to be taken in the EIA enforcement, ie. EIA enforcement legal actions, usage of standardized form, etc.
- (iii) Enhance and strengthen the enforcement procedures for EIA in conducting good quality enforcement and improving non-compliances of EIA approval conditions.
- (iv) As a reference and guide for the DOE enforcement officers for EIA projects.

The Assessment Division is currently updating the SOP for EIA Procedure in accordance with the Quality Procedure-EIA Enforcement under the MS ISO 9001:2008.

Business Licensing Electronic Support System (BLESS)

The Department of Environment, has been working together with the Implementation and Coordination Unit (ICU), Prime Minister's Department towards effective application of on-line submission system for approvals related to the Department of Environment, which can be accessed through the BLESS website.

Sehingga tahun 2013, penggunaan BLESS tertumpu kepada sektor perkilangan di kawasan Lembah Klang. Sehingga kini, JAS telah menerima 19 permohonan untuk memperbaharui lesen/meminda milik lesen di bawah Akta Kualiti Alam Sekeliling 1974, satu (1) permohonan telah diterima bagi penubuhan Kemudahan Penstoran Luar Tapak/Pengangkutan, satu (1) permohonan bagi mendirikan Kemudahan Pemerolehan Kembali Luar Tapak dan 16 permohonan bagi pelupusan buangan (Premis Yang Ditetapkan)(Minyak Kelapa Sawit Mentah).

Sistem Pangkalan Data EIA

Bahagian Penilaian, Jabatan Alam Sekitar (JAS) Ibu Pejabat telah mewujudkan pangkalan data di bawah sistem E-KAS, bagi memantau dan menyelaraskan Laporan Suku Tahun Penguatkuasaan EIA yang dijalankan oleh semua JAS Negeri di bawah Seksyen 34A Akta Kualiti Alam Sekeliling, 1974.

Penerbitan Buku Syarat-Syarat Pelaksanaan Pertanian Di Tanah Tinggi Bagi Meminimumkan Kesan Negatif Kepada Alam Sekitar

Pada tahun 2013, Bahagian Penilaian telah menerbitkan buku kecil bertajuk "Buku Panduan Syarat-Syarat Pelaksanaan Pertanian di Tanah Tinggi Bagi Meminimumkan Kesan Negatif Kepada Alam Sekitar" dan diedarkan kepada pengusaha-pengusaha di Tanah Tinggi Lojing dan Cameron Highlands.

Buku kecil ini adalah sebagai panduan yang berguna kepada pengusaha-pengusaha mengenai perkara-perkara yang boleh dan

As of 2013, the use of BLESS was focused on the manufacturing sector in the Klang Valley. To date, DOE has received 19 applications for renewal of license / amend possession of a license under the Environmental Quality Act 1974, one (1) application has been received for the establishment of Off Site Storage Facilities / Transportation, one (1) application for the erection of Off Site Recovery Facility and 16 applications for disposal waste (Prescribed Premises) (Crude Palm Oil).

EIA Data Management System

The Assessment Division has established a set of database under the E-KAS system, to monitor and coordinate EIA Enforcement Quarterly Report undertaken by all DOE State Office under Section 34A of the Environmental Quality Act 1974.

Publication Of "Syarat-Syarat Pelaksanaan Pertanian Di Tanah Tinggi Bagi Meminimumkan Kesan Negatif Kepada Alam Sekitar"

In 2013, the Assessment Division has published a "pocket-book" entitled "Syarat-Syarat Pelaksanaan Pertanian Di Tanah Tinggi Bagi Meminimumkan Kesan Negatif Kepada Alam Sekitar" to be distributed to highland agriculture operators in Cameron Highlands and Lojing.

This "pocket-book" is a useful guide for the operators regarding the do's and don'ts for agriculture practices in highland areas,

yang tidak boleh diabaikan bagi pertanian di kawasan tanah tinggi, termasuklah amalan terbaik kawalan hakisan dan sedimen, berdasarkan kepada contoh sebenar projek perintis di Lojing, yang boleh dilaksanakan and kos efektif.

“GUIDELINES FOR SITING AND ZONING OF INDUSTRY AND RESIDENTIAL AREAS”

Guidelines for Siting and Zoning of Industries mula dibentuk pada tahun 1976 oleh JAS untuk membantu perancang dan pembuat keputusan di peringkat Negeri dan Kerajaan Tempatan, termasuk pemaju projek dan perunding alam sekitar di dalam penempatan industri dan menentukan zon penempatan yang sesuai. Setelah sedekad pemakaiannya, garis panduan ini telah dikemaskini pada tahun 1994, dengan mengambilkira pembangunan yang pesat serta kemajuan teknologi terutamanya dalam proses dan kawalan pencemaran.

Garis panduan terkini yang dikemaskini pada tahun 2012 bertajuk ‘Guidelines for the Siting and Zoning of Industry and Residential Areas’ adalah mengambilkira perubahan-perubahan yang berlaku dua (2) dekad yang lalu sejak ia mula diperkenalkan. Industri baru diperkenalkan di Negara ini dan penambahbaikan kepada teknologi proses dan kawalan pencemaran alam sekitar telah menuju ke arah sistem pengeluaran bersih. Tambahan itu, ianya juga mengambilkira perubahan kepada pola guna tanah dan tindakbalas manusia kepada impak alam sekitar.

including best erosion and sediment control practices, based on actual, implementable and cost-effective best practices from a pilot project in Lojing.

“GUIDELINES FOR SITING AND ZONING OF INDUSTRY AND RESIDENTIAL AREAS”

A set of Guidelines for Siting and Zoning of Industries was first developed in 1976 by the DOE to assist planners and decision makers in the State and Local Governments, as well as project developers and environmental consultants in the siting of industries and determining the suitable buffer zones. The Guidelines went through a review process in 1994, after more than a decade in use, taking into consideration the country’s rapid land development as well as the technological advancement, especially in industrial processes and pollution control.

The present revision to the Guidelines in 2012 entitled, ‘Guidelines for the Siting and Zoning of Industry and Residential Areas’ takes into account of changes that have taken place over the past two (2) decades since it was first introduced. New industries have been introduced into the country since, and improvements in process technology and environmental pollution control have led to cleaner production systems. In addition, changes in land use patterns and human responses to environmental impacts necessitate that the new guidelines take into consideration such changes.

Garis panduan baru ini mengelaskan industri dan aktiviti berbahaya berpotensi menyebabkan pencemaran kepada kategori “Risiko Tinggi (High Risk); Berat (Heavy); Sederhana (Medium); Ringan (Light) dan Kotej (Cottage)”, berdasarkan kepada tahap pencemaran dan beberapa keperluan. Garispanduan ini turut memperkenalkan dua (2) jenis zon penamparan iaitu ‘Zon Penamparan Primer’ dan ‘Zon Penamparan Sekunder’. Kedua-duanya akan membentuk keseluruhan zon penamparan (Overall Buffer Zone) yang perlu disediakan diantara industri atau aktiviti dengan penerima impak pencemaran.

Pada tahun 2013, Bahagian Penilaian telah mengadakan taklimat kepada JAS Negeri termasuklah agensi dan Pihak Berkuasa Meluluskan untuk pemahaman dan pemakaian keperluan baru garispanduan ini.

The new Guidelines classify industries and potentially polluting hazardous activities under the categories of “High Risk; Heavy; Medium; Light and Cottage” which were based on the degree of pollution and some standard requirements. The Guidelines also provide for the application of two (2) types of buffer namely, the ‘Primary Buffer Zone’ and the ‘Secondary Buffer Zone’. The sum of these two buffer zones constitute the ‘Overall Buffer Zone’ that is to be met between an industry or an activity with the receptor or recipient of the environmental impact.

In 2013, the Assessment Division has conducted briefings to the State DOE officers including agencies and approving authorities for better understanding and implementation of the new requirements in the guidelines.

JADUAL 3.1 JAS : JUMLAH PERMOHONAN YANG DILULUSKAN BAGI TAHUN 2013
TABLE 3.1 DOE : NUMBER OF APPLICATIONS APPROVED 2013

Kategori / Category	Jumlah Permohonan / No. Of Application	Jumlah Lulus / No. Of Application Approved	Peratusan Lulus (%) / Percentage Approved (%)
Jururunding EIA / EIA Consultant	42	24	57%
Jururunding Subjek / Subject Consultant	49	29	59%
Penolong Jururunding / Assistant Consultant	86	73	85%
Jumlah / Total	177	126	71%

JADUAL 3.2 JAS : JUMLAH KESELURUHAN JURURUNDING BERDAFTAR SEHINGGA 31 DISEMBER 2013

TABLE 3.2 DOE : NUMBER OF REGISTERED CONSULTANTS UNTIL 31 DECEMBER 2013

Kategori / Category	Jumlah Diluluskan / No. of Application Approved	Peratusan (%) / Percentage (%)
Jururunding EIA / EIA Consultant	284	25%
Jururunding Subjek / Subject Consultant	390	34%
Penolong Jururunding / Assistant Consultant	484	41%
Jumlah / Total	1158	100%

JADUAL 3.3 JAS : JUMLAH PERMOHONAN YANG DILULUSKAN BAGI TAHUN 2013
TABLE 3.3 DOE : NUMBER OF APPLICATIONS APPROVED 2013

Kategori / Category	Jumlah Permohonan / No. Of Application	Jumlah Lulus / No. Of Application Approved	Peratusan Lulus (%) / Percentage Approved (%)
Juruaudit Alam Sekitar / Environmental Auditor	15	9	60 %

JADUAL 3.4 JAS : KURSUS INDUKSI EIA UNTUK JURURUNDING EIA**TABLE 3.4 DOE : INDUCTION COURSE FOR EIA CONSULTANTS**

Bil./ No	Kursus / Courses	Tarikh / Date	Tempat / Venue
1.	Kursus Induksi EIA untuk Jururunding EIA Bil 1/13 EIA Induction Course 1/12	6 – 7 Mar 2013	Puri Pujangga, UKM
2.	Kursus Induksi EIA untuk Jururunding EIA Bil 2/13 EIA Induction Course 2/13	21 – 22 May 2013	Jabatan Alam Sekitar, Negeri Sabah
3.	Kursus Induksi EIA untuk Jururunding EIA Bil 3/13 EIA Induction Course 3/13	18 – 19 Sep 2013	Puri Pujangga, UKM
4.	Kursus Induksi EIA untuk Jururunding EIA Bil 4/13 EIA Induction Course 4/13	24 – 25 Sep 2013	Puri Pujangga, UKM

JADUAL 3.5 JAS : KURSUS INDUKSI UNTUK JURUAUDIT ALAM SEKITAR.**TABLE 3.5 DOE : INDUCTION COURSE FOR ENVIRONMENTAL AUDITORS**

Bil./ No	Kursus / Courses	Tarikh/Date	Tempat/Venue
1.	Induksi untuk Juruaudit Alam Sekitar Bil 1/13 Induction Course for Environmental Auditors for year 2013.	1 – 4 Oct 2013	Puri Pujangga, UKM