



# BERITA ENSEARCH

JANUARY — MARCH 2014 / 1st QUARTER

E-Bulletin at [www.ensearch.org/publications/berita](http://www.ensearch.org/publications/berita)



## BRIEF HISTORY OF ENSEARCH

ENSEARCH was formed in 1984 by a pioneer group of local professionals and academics from multidisciplinary backgrounds. Its first President (1984-2000) was Ir. K Kumarasivam and its first Hon. Secretary General was Dato' Dr. Abu Bakar Jaafar. Today, ENSEARCH has more than 300 members consisting of corporate, individual and life members.

It is acknowledged that enhanced awareness and capacity building of organizations and individuals through education and training is essential to achieve the objectives of Malaysian Environmental Quality Act, 1974.

Therefore ENSEARCH began formulating and implementing training programs to enhance the capacity for environmental management in Malaysia.

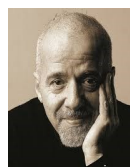
In addition, ENSEARCH organizes Tea Talks and Public Lectures to enhance awareness on pertinent and comprehensive issues on the environment.

ENSEARCH has also been actively involved in dialogue sessions with relevant authorities in development of legislative and regulatory frameworks that are supportive of good environmental management practices.

In recognition of ENSEARCH's objectives, it has been given tax-exempt status whereby the donations to ENSEARCH are exempted by from tax.

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*“ How can we be so arrogant? The planet is, was and always will be stronger than us. We can't destroy it; if we overstep the mark, the planet will simply erase us from its surface and carry on existing. Why don't they start talking about not letting the planet destroy us? ”*

- Paulo Coelho



# EDITOR'S NOTE

## ENSEARCH

is a non-profit association of organizations, professionals, students and people with interest in learning and promoting effective ways to manage the impact of human activities on the environment.

We at ENSEARCH believe that everyone is responsible for managing and mitigating the impacts of their corporate, professional and daily living activities on the environment.

ENSEARCH is also involved in indigenous fruit tree species conservation and poverty eradication through its project Cyber Plant Conservation Network [www.cpcnet.atbioversity.net](http://www.cpcnet.atbioversity.net)

Hi everyone and Happy 2014,

Welcome back to the first quarter of Berita ENSEARCH. This year, our nemesis the haze returned early following a long period of dry weather, mainly from bush fires, resulting in unhealthy to even hazardous API readings in several areas. The lack of rainfall also caused the water levels at a lot of dams, especially ones in Selangor to fall below the critical level, triggering the need of daily water rationing for the residents of Selangor.

ENSEARCH started the year's event with the KKEF Memorial Public Lecture and Young Environmentalist Award in January 2014 at Kelab Golf Negara Subang Petaling Jaya.

In February ENSEARCH organized a Post-Warsaw Climate Forum, presented by Dr. Gary Theseira and Mr. Gurmit Singh, in-conjunction with the annual international climate conference held in earlier in November 2013.

In the coming months, there is a variety of training scheduled for members, beginning with the Groundwater Risk Assessment in April. The full training calendar is accessible through the ENSEARCH website.

On the 15th May 2014, ENSEARCH will be having its 30th Annual General Meeting at Kelab Golf Negara Subang. ENSEARCH will be celebrating its 30 years of serving the environment through public learning and effective management of human activity on the environment.

Thank you once again for your continuous support and contribution. We look forward to more exciting programmes as we move on to the second chapter quarter of the year.

**KHOO BOON KEAT**  
Chairperson  
WEBSITE & PUBLICATION

## OUR VISION

"Malaysians are environmentally aware and are committed to taking personal responsibility to manage and mitigate the impacts of their corporate, professional and daily living activities on the environment"

## OUR MISSION

"To promote excellence in environmental management among organizations, professionals and interested persons."



# PROFILE OF COUNCIL MEMBER

## Eng Weng Hong



Mr. Eng Weng Hong is well known in Sabah as the founder of ENSEARCH Sabah in the year 2012. He started a protem team to start various activities and projects in Sabah. In the year 2013, Mr. Eng became the advisor to ENSEARCH Sabah. With the chairman and committee in place, they began to organize many activities and seminars such as Social Impact Assessment, SLIM project and the Wetlands project just to name a few. ENSEARCH Sabah with the guidance of Mr. Eng continued to

organize events like Mangrove planting, Wetlands Talk and involved in the membership drive. He also sponsored more than ten members to join ENSEARCH. Mr. Eng still offers his valuable time through service by actively being involved in activities and spreading awareness on ENSEARCH.

Mr. Eng began his primary and secondary education journey at All Saints and Sabah College, Kota Kinabalu, Sabah. He continued his tertiary education in Otaga, New Zealand. He pursued his Bachelors in Science in Physics and Mathematics in the year 1969. Mr. Eng later continued his Diploma in Education in Auckland Teachers College in 1970. Mr. Eng didn't stop his education journey yet, he pursued his BSCE in Civil Engineering in the University of Washington Seattle in the year 1978 and completed his Masters in Science in Forestry at the University of Washington as well the next year.

His working experience began as a high school teacher in Sabah for four years. Subsequently, after completing his BSCE in Civil Engineering, he worked as a research assistant at the University of Washington. Beginning in 1979, Mr. Eng began his civil engineering career for ten years, in the design and construction of timber complexes, dams, timber camps, and power plants. He has thirty years working experience in the field of forestry, project management and engineering. Mr. Eng was employed by Weyerhaeuser for of USA for 2 years, before moving to Pacific Hardwoods where he served for sixteen years. In 1994, Mr. Eng was the Executive Director at Serisar Industries Berhad till 1996 and then he moved to Sabah Forest Industries Sdn. Bhd. where he was the General Manager. In the year 1999, Mr. Eng co-founded Kiwiheng Environmental Consultants and its subsidiaries where he remains as the Director until today. Mr. Eng 's areas of interest includes forestry, soil erosion protection, biodiversity and agro-forestry plantation. Mr. Eng is also the assessor and auditor for Danaharta for the last five years, working with administrators on managing and restructuring wood based factories in Sabah. Mr. Eng also holds CoC Certification with MTCC as well as FSC. He is as well registered with both the Federal DoE and State EPD .

Mr. Eng was married late in life and is blessed with a beautiful daughter Kimberly, who is now pursuing her studies in Chemical Engineering at Curtin University, Miri. For leisure, Mr. Eng loves to play tennis. He also enjoys socializing with friends and family members after work.



# FEATURE

## ENERGY PLANNING FOR SUSTAINABLE DEVELOPMENT IN MALAYSIA

Research Article by,

**Jonathan Kovilpillai**

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### 1.0 Introduction

Malaysia's economy sector is recovering from the financial and economic crisis, resurgence in the energy demand is expected. The energy demand has increased almost 20% from the 13,000 MW in the year 2000 to 15,500 MW in the year 2003. The energy generating capacity is expected to increase to 22,000 MW by the 2010 (Mohamed A. R. & Teong L. K., 2004). Malaysia's energy consumption is expected to grow by 45% in 2013 with demand stemming from strong economic growth. Energy demand is expected to reach 20,700 MW by 2020 from 15,826 MW in 2012 which is spurred by the New Economic Model, Economic Transformation Programme (ETP) and the country's strong GDP growth. Malaysia's power sector has received strong government support and there is also positive indication of greater willingness to reform the sector. Plans are also in place to move the power sector towards a cost-based structure and to assure the sustainability of power supply security in the long run. Malaysia already has one of the highest rates of power consumption per capita among the emerging economies in the ASEAN region and as the country becomes more developed, the per capita power consumption is expected to increase even further (Pandey T., 2013).

### 2.0 Energy Policies

Throughout the years the government has formulated some policies and programs on energy in order to ensure long term reliability and security of energy supply for sustainable social-economic development in the country. The various energy policies includes the National Energy Policy (1979), National Depletion Policy (1980) and Fuel Diversification Policy (1981 & 1999) while the various energy related programs are the renewable energy and energy efficiency program (Mohamed A. R. & Teong L. K., 2004). The National Energy Policy was first formulated in 1979 by the Economic Planning Unit under the Prime Minister's Department. The policy consists of three principle objectives:

*The Supply Objective:* To ensure the provision of adequate, secure and cost effective supply of energy.

*The Utilization Objective:* To promote efficient utilization of energy and to discourage wasteful and non-productive patterns of energy consumption.

*The Environmental Objective:* To minimize the negative impacts of energy production, transportation, conversion, utilization and consumption on the environment.

The three principle objectives are instrumental in the development of Malaysia's energy sector. Subsequent policies are designed to support these objectives and their implementation (APEC Energy Demand and Supply Outlook, 2013).

To achieve these three objectives, various related policies were formulated such National Depletion Policy was introduced in 1980 to safeguard the exploitation of natural oil reserves. The Four-Fuel Diversification Strategy policy was introduced in 1981 (i.e., oil, natural gas coal and hydro). These policies accelerated the transition from a dependence on oil as the main energy source to natural gas as a cleaner and cheaper source of energy. This policy was then succeeded by the Five-Fuel Diversification Policy in 2001, with the addition of Renewable Energy (RE) as a fifth fuel source to complement oil, natural gas, coal and hydro.

Although the general objectives of the 1979 National Energy Policy remain unchanged, the Five-Fuel Diversification Policy signaled the intention of the Government for concentrated efforts to usher energy sector development on a greener path, by encouraging the use of renewable sources of energy. As part of its initiative to ensure adequate, reliable and cost-effective supply of initiatives were conscious efforts by the Government to diversify fuel sources for the power generation to ensure sufficient and reliable power at affordable prices (Tan C. S. *et.al.*, 2013).

### 3.0 Energy Mix in Malaysia

Malaysia has drastically tipped the balance in the fuel mix in energy consumption from a high almost 90% dependence on oil in 1980 to less than 15% in 1995 as shown in **Table 1**. The four-fuel policy was intended to avoid over dependence of any one source of fuel. Gas is predominantly used and electricity suppliers are also turning to coal, a cheap and abundant energy source. Using conventional non-renewable energy such as fossil fuels and natural gas has two major consequences. One, it depletes a finite resource and two; it leads to the emission of greenhouse gases, that raise the issue of climate change. Considering the fact the energy demand in Malaysia is growing at a rate of about 5-6% annually, against finite conventional energy resources, the government realized the importance of further diversifying the energy mix into more sources of alternative energy (Leo-Moggie A., 1999).

Source	1980	1995	2001	2010 (estimated)
<b>Oil</b>	87.9%	13.3%	4.4%	2.0%
<b>Natural Gas</b>	7.5%	62.7%	71.8%	45.5%
<b>Hydro</b>	4.1%	13.1%	10.1%	12.7%
<b>Coal</b>	2.2%	10.9%	12.0%	34.6%
<b>Others (renewable energy)</b>	-	-	1.7%	5.2%

Table 1. Energy Mix in Malaysia.

( Source: Mohamed A. R. & Teong L. K., (2004), Energy Policy for Sustainable Development in Malaysia, The Joint International Campus on "Sustainable Energy and Environment", University Sains Malaysia, 9-028 (O). )

In order to ensure sustainability of energy resources and to reduce the emission of greenhouse gases, under the 8<sup>th</sup> Malaysia Plan (2001-2005) had changed the four-fuel policy to the five-fuel policy with the renewable energy as the fifth source of fuel in 1999 (Lee-Moggie A., 2001). A more sustainable energy mix is needed for Malaysia in the term will see a greater percentage of coal utilization of between 30 to 35% while that of natural gas at not more than 50%. This is due to the commissioning of new coal-fired electricity generating plants, which will account for the 60% of the increasing demand of energy in the future. At the same time, efforts will be intensified to encourage the utilization of renewable sources for energy generation.

Under the Tenth Malaysia Plan (2011 – 2015), Feed-in Tariff (FiT) is designed and targeted to 76,809ktoe in 2009 and 2010 respectively. While the total final demand has increased by 1.54% from 40,845 ktoe to 41,476ktoe in 2009 and 2010 respectively. The electricity gross production has increased by 2.3% from 105,706GWh in 2009 and 2010 respectively. In terms of electricity demand, it has increased by 8.53% from 96,302GWh to 105,519GWh. As for commercial primary energy mix in 2010, natural gas accounted for 46%, followed by crude oil and petroleum for 33%, coal for 19% and hydropower for 2% while RE is negligible (National Energy Balance, 2011).

However, the growth for electricity in Malaysia forecasted by Economic Planning Unit (EPU) has shown increase of 3.52% in 2012 compared to 3.48% in 2011. This growth has been driven by strong demand growth from commercial and domestic sectors. The share of electricity consumption to total energy consumption has increased from 17.4% to 21.7% in 2007 and 2012 respectively. The total electricity production was reported at 122.12TWh in 2012, where gas is still the major fuel source contributing to 52.7% of the total generation fuel mix of electricity followed by Coal, 38.9%, hydro, 7.3%, oil, 1% and others, 0.2%. Based on the projections Malaysia electricity production will increase from 87,306GWh to 314,984GWh in 2005 and 2030 respectively with an annual growth rate of 5.3%. However, the projections does not take into consideration of nuclear and RE (non-hydroelectric) is insignificant (The Malaysian Economy in Figures, 2012).



Fuel by Type	Electricity Production (GWh)			Share of Electricity Production (%)		
	2005	2010	2030	2005	2010	2030
Coal	23, 134	49, 675	154, 686	26.5	41.6	49.0
Oil	2, 489	2,855	3,107	2.9	2.4	1.0
Natural Gas	55, 899	55,700	139, 025	64.0	46.6	44.0
Hydro	5, 784	11,245	18, 166	6.6	9.4	5.7
<b>Total</b>	<b>87, 306</b>	<b>119, 475</b>	<b>315, 984</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

#### 4.0 Energy resources and reserves.

Malaysia's current energy mix of primary energy supply consists of oil, gas, coal, hydro, and RE resources. Escalating prices of oil and gas, coupled with their finite reserves, will see coal, hydro, and RE is gaining increased importance for electricity generation, which is a trend, observed globally (International Energy Agency, 2012).

##### 4.1 Crude Oil and Natural Gas

As of 2010, Malaysia is a net energy exporter backed by proven oil reserves of 4.00 billion barrels with a reserves-to-production (R/P) ratio of 18.9 years. Over the years, the geological structures associated with crude oil production have matured likewise, the majority of the oilfields discovered either had been developed or have been in production for more than 30 years. Pending new discoveries, the remaining fields are generally lower in quality due to high carbon dioxide contents, smaller in sizes, and scattered in distribution-factors that make development of these fields costly.

On the other hand, Malaysia's natural gas reserves of 83 trillion standard cubic feet (tscf) (as of 2010) have an R/P ratio of 38.2 years (U.S. Energy Information Administration, 2012). The oil and gas reserve are fast depleting has prompted a need to reaffirm the sustainability of their supplies. Appraisals wells will continue to be drilled in small field offshore and in deepwater areas. Under the Economic Transformation Programme (ETP), efforts are underway to attract international oil companies for exploration activities, particularly in waters deeper than 200 m and in ultra-deep waters greater than 1 km in depth, as well as efforts to drill deeper into matured fields to increase domestic petroleum and gas production. Thus, it is probable that the medium and long terms, even maintaining the present level of oil production at 630,000 bpd and gas at 2000mmscfd can prove challenging (PEMANDU, 2010).

##### 4.2 Coal

Malaysia's coal reserves of 1938 million ton has R/P ratio 285 years (U.S. Energy Information Administration, 2012). The coal fields are located mainly in East Malaysia with small portion in West Malaysia. Current annual coal production in Malaysia stands at about 383,000 t, a significant increase from the 65,000 t produced in 1991. Together with the imported coal, this constitutes about 27.3% of the total power generation mix (Mohamed A. R. & Teong L. K., 2006). Although the National Mineral Policy 1998 was implemented to promote improved extraction and utilization of locally sourced coal, the production rate has yet to respond fully to the initiatives. Recently, Suruhanjaya Tenaga (ST) has awarded new licenses for two 1-GW units of supercritical coal-fired power plants at Tanjung Bin and Manjung. More licences have been proposed by independent power producers (IPP) beyond 2015 in view of coal's relative ease of supply in the international market and its lower cost to other fossil fuel types. ST has also called for bids for new coal or gas-fired power plants in view of the expected expiry of some of the original IPP licenses from 2015 onwards, although ST is still renegotiating the existing IPP power purchase agreements for possible extensions of 5 and 10 years.

#### 4.3 Hydroelectric Power

Malaysia possesses substantial hydroelectric resources; however, developing a hydroelectric power (HEP) plant is capital extensive and overwhelming complex, because it not only involves the design, construction and operations of the dams but also entails substantial environmental, social and political considerations. Nevertheless, the advantages are numerous as hydroelectric is renewable, and the power generated is less affected by fluctuation in fuel prices (Mohamed R., 2009).

Malaysia has substantial hydroelectric resources. The hydropower potential is estimated at 29,000MW, of which only 2,000MW is currently utilized. The government decided to implement the Bakun project having a capacity of 2,400MW. The Bakun hydroelectric project will involve the construction of a 205 meter high rock filled concrete dam creating a reservoir of 695 km<sup>2</sup>. This project is expected to cost about RM 15 billion including the 1,650 km of transmission system of which 650 km will be undersea cable. Its construction will generate much job opportunities as well as transfer of technology and know-how to the country. The completion of the project will also bring much development to Sarawak especially to the interior areas (Plant Engineering Business, 2004).

#### 4.4 Miscellaneous renewable energy.

Sources of non-hydroelectric RE in Malaysia include biomass, biogas, solar, wind, geothermal, as well as waste-to-energy sources. They provide alternative supply options in the overall energy mix without restriction to only a few finite energy sources. In view of abundant agriculture residue, sunshine and precipitation (rainfall), the most significant sources of RE in Malaysia are biomass and biogas, solar and small- and mini-HEP, respectively. In addition, wind energy contributes 0.2MW off-grid electricity, but it varies with location in the country, thus arguably its development is still largely at an early stage (Ong M. C. *et.al.*, 2011). Other RE sources that have been identified for the country include geothermal and ocean tidal energy.

Currently, the installed capacity of RE stands at less than 1% (55MW) of total power generation capacity nationwide. RE is expected to grow with the implementation of an FiT scheme, in which individuals can sell the power generated to utility companies such as TNB and Sabah Electricity Sendirian Berhad (SESB) at a fixed premium rate for specific period. Such efforts support policies for additional fossil-fuelled power plants while reducing carbon emission at the same time.

#### 5.0 Moving Forward

Malaysia aims to become a high income country by 2020, in which knowledge, technology, entrepreneurship, and innovation will be central to economic growth. To support the nations thrust, current maximum demand for electricity in West Malaysia is about 15.4GW and is predicted to grow to an estimated 20.7GW in 2020. Meanwhile current total electricity capacity stands at approximately 21.8GW. About 4.2GW of IPP plants will be decommissioned from 2015 to 2020, but ST has reportedly been seeking bids for about 7.3GW for commissioning over the period besides renegotiating possibility of extending the IPP licenses beyond the current expiry dates.

For the purpose of the subsequent analysis hereafter, let us assume that the two coal-fired plants are part of the 7.3GW under bidding. In addition to that, the RE act with its associated FiT regime is expected to add 2.1-3.2GW by 2020 (which is separate from the capacity that ST has put up for bids). On top of that, the ETP under the Entry Point Project 9 for EE envisages a demand reduction of 10-15% on a business-as-usual growth (PEMANDU, 2010).

Assuming conservative achievement of EE and RE at 70% of their target lower ends, demand and generating capacity are estimated to be 19.3GW and 26.3GW, respectively, while generating capacity will be 26.3GW by 2020. Thus, we would still maintain a reserve margin of the order of 36% which is well above a recommended 25% target. If EE and RE achievements are better than the conservative 70% assumption, the reserve margin would be close to 46-50%. With all the developments taken together, it warrants the considerations of whether Malaysia needs the proposed 2GW of NPP in early 2020s.

Hence, there have been calls to further develop RE resources particularly in view of Malaysia's depleting fossil fuel resources. It is forecast that Malaysia will become a net energy importer starting from 2017 or 2019 (Mohamed R., 2009). Being a net energy importer does not mean that the country's reserves are completely drained or coal for its own use or for export. It implies that the value of imported fossil fuels is much higher than what is exported. However, recent offshore discoveries, development and production have improved oil and gas reserves by 2% and 3%, respectively, thus possibly delaying the transition to a net importer.

In this regard, RE is expected to play a more significant role with reduced proportion of oil and gas in Malaysia's primary energy demand. Although RE has been anticipated to assume a higher profile in the country's electricity generation mix with the implementation of the SREP program, RE's contribution hitherto has been at less than 1% despite the financial incentives granted (Mustapha I., 2008). The boost RE's contribution to generation mix, the recent RE Act incorporates a generous FIT Scheme that allows companies and individuals to sell electricity generated from renewable to public utilities companies. As such, RE's contribution is expected to increase to 9% by 2020 and up to 12% by 2030 (Harris A. H., 2010). The targets may seem optimistic, but they are achievable and show that RE has the potential to be a major source in the nation's future power generation equation.

Clearly, Malaysia has to consider alternative approaches to sustain its reserves and meet its energy needs for desired economic development, besides re-examining its energy mix. Potential proactive measures include adopting EE&C practices and demand side management in general. There is also a need to reassess the available electricity generation options.

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# ENSEARCH CALENDAR

## MARCH 2014

**Training: Environmental Quality (Scheduled Wastes) Regulations 2005  
- Application, Compliances & Implications**

Trainers: Mr. Chan Tein Kee

**Training: Social Impact Assessment**

Trainers: Md. Herlina Abdul Aziz

12th March (Wed)

13-14 March (Thurs & Fri)

## APRIL 2014

**Training: Groundwater Risk Assessment at Sanitary Landfill Site**

Trainer: *Dr. Saim Suratman*

8 - 9 April (Tues & Wed)

## MAY 2014

**Event: Forum on Environmental Management (FEM2014)  
& ENSEARCH 's 30th AGM**

15 May (Thurs)



# CYBER PLANT CONSERVATION NETWORK (CPCNet)



### ON-GOING ACTIVITIES:

- Developing a mobile phone application that allows users to upload observed information on tree health, flowering and fruiting.
- Developing a school class project for environmental awareness.

Join us by becoming:



Join us on our Facebook:



Visit us :

[www.cpcnet.atbioversity.net](http://www.cpcnet.atbioversity.net)

Contact us :



Cyber Plant Conservation Network



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Fax: 03-8948 7655  
(<http://www.bioversityinternational.org/>)

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Fruits and seedlings pictures by F. Quek  
Activities pictures by A. Prusak



## The Cyber Plant Conservation Network (CPCNet)

is a community program that embraces the effort of keeping our rare and diverse fruit tree species available for future generations.



### Goals:

- To encourage the public in planting indigenous rare fruit trees to make them common and sharing the knowledge on these trees.
- To engage public participation in an online networking program to conserve Malaysian rare fruit trees and monitor the planted trees through adoption and tracking the tree development.



### Objectives:

- Care and propagate our indigenous fruit trees
- Provide additional income for forest fringe communities
- Complement our national tree genebank system
- Network with civil societies
- Enhance public appreciation of our indigenous fruit trees
- Track the wellbeing of our planted fruit trees online



### Impacts:

- Increase the public awareness and participation especially the youth, in looking after our environment through their direct involvement in taking care of these fruit trees.
- Make available a collection of traditional knowledge related to these trees for the younger generations.
- Strengthen the economic values of these fruit trees to the forest fringe communities, through their participation in seedling production.



### Achievements

- Planted over 600 indigenous fruit trees of 35 different species in 30 schools and 10 organizations within Selangor and Kedah.
- Collected more than 2500 indigenous fruit tree seedlings of 56 different species from five different forest fringe communities in Selangor, Perak and Pahang.
- Awareness and education on fruit tree conservation and tree care to participating schools and interested organizations.





## FORUM ON ENVIRONMENTAL MANAGEMENT 2014

(In Conjunction With ENSEARCH's  
30th Annual General Meeting)

**DATE : 15th May 2014 (Thursday)**  
**TIME : 08.30 AM - 04.00 PM**  
**VENUE : Kelab Golf Negara Subang, (KGNS)**

### OVERVIEW

Ineffective management of waste may cause degradation of valuable land resources, increasing land cost and escalating environmental health problems. This Environmental Management Forum will debate on strategies beyond 2013 for a possible integrated and sustainable waste management agenda for Malaysia, after Ketua Pengarah Jabatan Pengurusan Sisa Pepejal Negara delivers the Keynote Address.

The Forum will discuss the local perspective of moving forward in this area of sustainable options even though there are many limitations. Integration and streamlining of approaches would bring the system into environmental compliance and build the infrastructure necessary to maintain more effective and sustainable operations.

### PARTICIPATION FEE

- **RM 150.00 (ENSEARCH Member)**
- **RM 200.00 (Non ENSEARCH Member)**

#### Target Audience :

- Business and Industry captains
- Consultants
- Academia
- Government Agencies
- NGO

**CPD HOURS : 5**

ENSEARCH extends a cordial invitation to you to support and participate at this Forum On Environmental Management 2014. Should further detailed information be required, please do not hesitate to contact Ms. Gee Baba at:

Tel: 03-61569807; Fax: 03-61569803

E-mail: [ea@ensearch.org](mailto:ea@ensearch.org)

Website: [www.ensearch.org](http://www.ensearch.org)

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Kota Damansara, 47810 Petaling Jaya, Selangor Darul Ehsan,  
Malaysia.

### SUPPORTED BY :



Department of Environment  
Malaysia



Jabatan Pengurusan Sisa Pepejal  
Negara



## TENTATIVE PROGRAMME

15th May 2014, Thursday

08:30 AM - 09:00 AM	Registration
09:00 AM - 09:05 AM	Welcome Address by ENSEARCH President
09:05 AM - 09:45 AM	Keynote by Director General of Jabatan Pengurusan Sisa Pepejal Negara, Y.Bhg <b>Dato' Dr Nadzri Yahaya</b> : Waste Management Beyond 2013 (Invited)
09:45 AM - 10:15 AM	<b>Paper 1:</b> DOE Requirements for Contaminated Land Management, Pn. Ijan Khushaida Bt Mohd. Jan, Department of Environment, Malaysia
10:15 AM - 10:45 AM	Break
10:45 AM - 11:15 AM	<b>Paper 2:</b> 3R Challenges and Innovative Approaches for Sustainable Waste Management, Prof. Dr.P. Agamuthu, University Malaya
11:15 AM - 11:45 AM	<b>Paper 3:</b> Challenges in the Collection and Disposal of Scheduled Wastes Management , (TBC)
11:45 AM - 12:15 PM	<b>Paper 4:</b> Integrated Waste Management-Prevailing Technology Options, Aikan Technology, Denmark
12:15 PM - 12:45 PM	Q & A
12:45 PM - 02:00 PM	Lunch
02:00 PM - 02:30 PM	<b>Paper 5:</b> Innovative Geosynthetics for Enhanced Landfill Security, Mr. Daniel Tan Su Ming, Solmax International
02:30 PM - 03:15 PM	Panel Discussion (DOE, JPSPN, Aikan Technology, UNDP, Solmax)
03:15 PM - 03:30 PM	Closing Remarks
03:30 PM - 04:00 PM	Tea Break
04:00 PM - onwards	ENSEARCH's 30th Annual General Meeting

# K . KUMARASIVAM YOUNG ENVIRONMENTALIST INTERNSHIP AWARD 2014



The Environmental Management and Research Association of Malaysia (ENSEARCH) would like to invite young Malaysians with a passion for environmental management excellence to apply for the **K. Kumarasivam Young Environmentalist Internship Award**. This award began in 2004 and will provide the selected individual with the opportunity to be placed as an Intern in a reputable center of environmental management excellence abroad for a period of at least two weeks. It will cover all expenses related to travel, accommodation and an allowance for living expenses. In previous awards, successful applicants have been placed in Korea, Germany, Australia, Thailand, India, Singapore, Sri Lanka, Taiwan and Hong Kong.

Candidates are invited to submit their: photocopy IC, current photo, current evidence of employment/education, detailed CV, essay (hardcopy & softcopy) and cover letter stating area of interest for internship and how they would benefit from the experience to be gained.

#### Selection Criteria:

1. Below 35 years old (at the time of application) as of 15 April 2014.
2. Anyone who is passionate about the environment is encouraged to apply.
3. Interest in the environmental field.
4. Detailed CV highlighting interests, leadership and accomplishments in your field of expertise.
5. Include at least two (2) professional referees.
6. Submission of a type-written (*Font: Times New Roman, Font Size: 12*) English essay of not more than 1,000 words, with thoughts and ideas, based on your personal experience, of current environmental issues/causes that you are passionate about. [Please refer to our website for the Essay Format.](#)
7. Shortlisted candidates will be contacted for interview.

Upon return, the candidate will be required to write a report on what he/she has gained as an intern and share his/her experiences and findings in an ENSEARCH organized function.

Please submit the above to the KKEF Awards Committee at No. 30-2, Jalan PJU5/16, Dataran Sunway, Kota Damansara, 47810 Petaling Jaya and /or email to [kkef@ensearch.org](mailto:kkef@ensearch.org) before **30th July 2014**. Further details about ENSEARCH and the KKEF awards are available at [www.ensearch.org/kkef/](http://www.ensearch.org/kkef/) Tel: 03-61569807/08 Fax: 03-61569803.

**K. KUMARASIVAM ENDOWMENT FUND ( KKEF )  
MEMORIAL PUBLIC LECTURE & YOUNG ENVIRONMENTALIST  
AWARD 2013**

**Date** : 9th January 2014.  
**Venue** : Subang National Golf Club ( KGNS ), Selangor.

**Speaker** : Dr. Salmah Zakaria  
**Title** : Water and Sustainable Development.

**Summary** : The KKEF Memorial Public Lecture and Young Environmentalist Award was held on the 9th January 2014 at Kelab Golf Negara Subang. KTA Tenaga Sdn. Bhd. of which Ir. K. Kumarasivam was a founding Partner, supported by providing RM 2,000.00 towards this event. The Speaker for the Public Lecture was Dr. Salmah Zakaria, Economic Affairs in the Water Security Section Commission for Asia and the Pacific ( UN ESCAP ) Bangkok. Her presentation on “Water and Sustainable Development ” drew interest of 62 participants both ENSEARCH members and the general public who were from diverse professional backgrounds. In her closing remarks, Dr. Salmah highlighted that we only have one globe, all natural resources are limited and the three pillars of sustainable development is to have a balance economy, social and environmental development.

The ninth recipient of the KKEF Young Environmentalist Award is Mr. Ng Chuck Chuan, who is a graduate from University Malaya in Environmental Science and Management. He is currently pursuing the second-semester of his fast-track PhD in Plant Bioremediation, Soil Pollution and Land Rehabilitation as well as working as a Research Assistant and Academic Tutor in the same university. ENSEARCH will be partnering the Hong Kong Green Technology Consortium ( GTC ) for the two-weeks Internship programme which will be conducted from 23rd April—9th May 2014.



KKEF Memorial Public Lecture and Young Environmental Internship Award at Kelab Golf Negara Subang, 9th January 2014.



En. Abdul Aziz Long, President ENSEARCH presenting a memento to Speaker Dr. Salmah Zakaria.



Mr. Gobinathan, Vice President of ENSEARCH presenting the KKEF Young Environmentalist Internship Award to Mr. Ng Chuck Chuan.

## POST-WARSAW CLIMATE FORUM

- Date** : 19th February 2014.
- Venue** : Pusat Sains Negara, Kementerian Sains, Teknologi dan Inovasi, Persiaran Bukit Kiara, 50662 Bukit Kiara, Kuala Lumpur.
- Summary** : The UN Climate Change Conference in WARSAW took place in November 2013 marked a step forward in the international fight against climate change. The conference agreed a time plan for participating countries to table their contributions to reducing or mitigating greenhouse gas emissions under a new global climate agreement to be adopted in 2015. It is also agreed ways to accelerate efforts to deepen emission cuts over the rest of the decade, and to set up a mechanism to address losses and damages caused by climate change in vulnerable developing countries.

In conjunction with this annual international climate conference, ENSEARCH organized a Post Warsaw Climate Forum by Dr. Gary W. Theseira from the Ministry of Natural Resources and Environmental (NRE) and Mr. Gurmit Singh, the Chairman of CETDEM. This was a half day forum commenced with Dr. Gary 's presentation on "Post Warsaw Climate Change Talk and Malaysian Government Response and also " Views and Comments on Climate Change Negotiation from NGO 's Perspective " by Mr. Gurmit. A total of 36 participants attended this Wednesday morning event.





Welcome Speech given by Mr. K. N. Gobinathan,  
Vice President of ENSEARCH.

Dr. Foo Say Moo, Chairperson for the event.



Dr. Gary W. Theseira during his presentation at Dewan Quantum.

Dr. Gary (left), Dr. Foo and Mr. Gurmit during the  
Question & Answers session.



Tan Sri Dr. Salleh Mohd. Nor was one of the participant during the  
event.

### LYNAS CORPORATION TECHNICAL VISIT 2014.

**Date** : 16th January 2014 (Thursday)

**Venue** : LYNAS Malaysia Sdn. Bhd.

Kawasan Perindustrian Gebeng, Kuantan, Pahang Darul Makmur.

**Summary** : On the 16th January 2014, ENSEARCH organized a technical visit to LYNAS Malaysia Sdn. Bhd. The objectives of this trip was to create awareness and educate members and the public on the LYNAS Project and also to understand better the process involved in radiation protection, waste management, decommissioning and environmental remediation, transport and safety assessment. A total of 35 participants joined the trip, representing a wide spectrum of stakeholders which included government agencies, professionals institutions, industry and trade association and environmental consultants. It was an informative trip experienced by the participants. The response from members and the public for the visit was truly overwhelming but due to the limited number of seats in the bus, we only managed to bring along a small group. ENSEARCH will be looking forward to more support from LYNAS on future programs.



EMS Display Panel provides online and real-time results to regulators, LYNAS employee's and the public.



Ir. Elias Saidin introducing En. Luqman Harith, Corporate Communications from LYNAS Malaysia.



Participants during the presentation given by LYNAS technical team.



Group photo taken in front of LYNAS Administration Building.

Rotary Kiln 's are used in a section of the process to remove and separate certain elements in the material.







# ENSEARCH IN NEWS

**CYBERJAYA** - The recent spate of fatal construction related accidents underlines the need for sustainable and consistent practices by construction companies, the Prime Minister's Hibiscus Award (PMHA) organizing committee chair Tan Sri Mustafa Mansur said.

He said the demands on the industry in terms of costs, deadlines, schedules, supplies, labour, profit and competition should never be at the expense of sustainable practices.

“Construction safety as well as occupational safety and health (OSH) will determine the future of the environment. If you don't conserve the environment and disturb the eco-system, it can lead to safety and health hazards as well as disasters that cause destruction of lives, property and quality of life, “ said Mustafa, who is also chairman of the Malaysian Standards and Accreditation Council.

He said as such, there should be more participation from the construction industry for the 2014/15 PMHA which was a private sector environmental award for businesses and industries established to recognize best environmental and operational practices.

The biennial award is jointly given by the Business Council for Sustainability and Responsibility Malaysia, Environmental Management and Research Association of Malaysia, Federation of Malaysian Manufacturers (FMM) and Malaysia International Chamber of Commerce and Industry.

“The response has not been encouraging because while awareness exists, commitment is lacking. Responsibility has been displaced by greed and profiteering.

“PMHA would like to urge the stakeholders to get involved. It all comes back to business sustainability. If you do not conform to standards, there will come a day when your business is no longer competitive, “ he stressed.

Mustafa a former president of FMM, said the construction industry - its developers, employees, subcontractors and workers - should have the safest possible working environment.

“Promote zero tolerance for any safety and environment related issues,” he said.

Source : Goh L., (2014), Call for sustainable practices to ensure construction safety, 30th June 2014.

## ENSEARCH COUNCIL 2013 / 2014

President	:	En. Abdul Aziz Long
Vice President	:	Mr. Gobinathan Kumaran Nair
	:	Ir. Ellias Saidin
Honorary Secretary General	:	Ms Geetha P. Kumaran
Asst. Honorary Secretary General:	:	Mr. Joel Lawrence Jayasunthar
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Co-opted Members	:	Mr. Jaya Sarathy
	:	Ms. Jenny Tan Suat Eam
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	:	( Petronas Rep. )
	:	Dr. Svenja Hanson
	:	( University of Nottingham Rep. )
	:	Datuk Adeline Leong
	:	( ENSEARCH Sabah Rep. )



## ENSEARCH Secretariat 2013/2014

Executive Secretary	: Ms. Edna Xavier
Project Officer ( Events & Activities, Training )	: Ms. Geetha Baba
Project Officer ( CPCN, Website & Publication )	: Ms. Audrey Percival
External Accountant	: Ms. Tan Siok Yin

*“For a better environment”*



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