



BERITA ENSEARCH

Developed Countries with historically one-sixth of the world's population account for more than three-fourths of carbon dioxide emissions

Capacity Building NGO in the Environmental Field as an Enabler to Malaysian Professionals Growth

Brief History of ENSEARCH

ENSEARCH was registered on 26th November 1984 by a pioneer group of local professionals and academics from multidisciplinary background. The founder President (1984-2000) was Ir. K. Kumarasivam and the first Hon. Secretary General was Dato' Prof 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 competency of organisations 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 programmes to enhance the capacity for environmental management in Malaysia.

In addition, ENSEARCH organises 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 strengthens the environmental management practices in Malaysia. In recognition of ENSEARCH's objectives, it has been given tax-exempt status whereby the donations to ENSEARCH are exempted from tax.

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NOTE TO MEMBERS

Members are encouraged to write to us at admin@ensearch.org in the event of changing contact details. Corporate members are recommended to provide more than one contact (email address) to facilitate better dissemination of ENSEARCH information.

Editor's Note

Dear Members,

It has been eventful months with environmental incidences springing from irresponsible and unsustainable business operations which eventually impacts social wellbeing of public and the mass.

The haze, air pollution and river contamination may just be forgotten as we go on with life and some may say the climate change impacts are not significant to impact their lives.

It is ironic that many are unaware of the socio-economic and environmental consequences caused by anthropogenic actions when some of the globally celebrated days i.e. World Biodiversity Day, World Environment Day, World Oceans Day are mainstreamed on social media in recent months. As we celebrate World Population Day in July, how many of us have thought of humanity bracing through climate crisis for generations to come.

It is in these times that all sectors shall play its role for the benefits of all. The formulated environmental and climate change policies would not set things on track without initiatives from the businesses. As more investors look into sustainable business practices through Environment, Social and Governance (ESG) indicators as well as risks and opportunities arise i.e. climate change mitigation and adaptation, addressing the ESG risks has been proven by many companies integrating sustainability into businesses.

Reviewing and improving the process of resource consumption and production within the business operations could be part of the solution. In this bulletin, we bring to you updates from the ASEAN Sustainable Consumption and Production (SCP) Multi-stakeholders Dialogue. It is high time that sharing of information among the ASEAN countries enables better planning and implementation of initiatives towards achieving SDG 12: Responsible Consumption and Production.

As Circular Economy Waste System is a part of the drafted SCP Blueprint, an article on microplastics is featured in this bulletin. Perhaps, by understanding the impact of our lifestyle on the environment, biodiversity and climate, it is time to review and redesign the life cycle of products and services that is more environmentally as well as ecologically friendly.

Please head to the International Conference and Exhibition on Waste Management (ICEWM 2019) organised by us which is endorsed by MESTECC and Selangor State Government, in collaboration with World Biogas Association and Cenergi SEA. It would be a great platform for practitioners, policy makers and innovators to meet and streamline waste management towards circular economy.

Hope it would be good read for all and we are pleased to hear from you about sustainable findings or practices that you would like to share, for a better environment.

Thank you.

Kelvin Diong

Editor

Publication and Website

Featured Member

ENSEARCH Council Member

Training Committee Chairperson



Mr Zaipul Anwar bin Zainu is one of the ENSEARCH 2018/2019 Council Members and heads the training committee. He holds a Masters Degree (MSc) & Post Grad Diploma in Engineering Business Management (EBM) from University of Warwick, UK and a Diploma in Mechanical Engineering from University Technology of Malaysia (UTM).

Mr Zaipul started his career as an engineering technician at Seiko Epson Corporation, and climbed the rank to become the Head of Manufacturing Department (Sub Assembly) for the company before joining Johor Skills Development Centre (JSDC). He played key role in the company's ISO 9001 certification by SIRIM in 1994.

Mr Zaipul is now the CEO of Institut Tun Perak (ITP). Before joining ITP he was a Lecturer in the area of Engineering & Business Management (EBM) at UniKL's Institute of Product Design & Manufacturing, currently known as Malaysia Italy Design Institute (MIDI).

With almost 30 years of working experience, Zaipul Anwar has developed vast experience predominantly in HRD (human resource development) and engineering technology & management. These include manufacturing, engineering, quality management technology, business development & management, developing and delivering training, lecturing, marketing, CAD/CAM (computer aided design/computer aided manufacturing), IT system applications as well as R & D.

He is now completing his PhD in Environmental Management, specializing in Waste Treatment and Management System at Malaysia Japan International Institute of Technology (MJIT), UTM International Campus, Kuala Lumpur.



Mr Zaipul meeting Mr Gopi (Ex Malacca Fisheries Director) Datuk Ir. Othman (Vice President ENSEARCH) & Dato' Munir (DG, DOF Malaysia) during the Fisheries & Environmental Impact Assessment talk in Malacca.



Mr Zaipul loves reading and traveling. These photo taken at Australia, Japan and China leave fond memories.

Featured Article

ASEAN Sustainable Consumption and Production (SCP) Multi-stakeholders Dialogue.

By : Dr Hari Ramalu Ragavan

The dialogue was held on 12 July 2019 in Bangkok with a focus on SCP and Circular Economy (CE) through Sustainable Tourism and Food Waste management. The meeting was co-organised by the Ministry of Natural Resources and Environment of Thailand (MONRE), the Thai-SCP Network, and the SWITCH-Asia SCP Facility.

According to the United Nations, the current world population of 7.6 billion is expected to reach 8.6 billion in 2030 and 9.8 billion in 2050. The demand for energy supply, water resource and food are also expected to increase by 50, 40 and 35 percent respectively by 2030. This increase has an impact on natural resources.

In the next decades, resource scarcity and pollution are going to be critical issues for the world population. In the ASEAN region, since more than a decade, urbanisation, economic growth and industrialisation have been rapidly increasing; however, the patterns of production and

consumption have often followed the path of unsustainability. Rising resource use and amount of waste constitute serious challenges. The importance of resource efficiency must be addressed, as well as the need to switch to more sustainable consumption and production patterns. Further integration of SCP into overarching policy frameworks, serious commitment from governments, technological innovation, new business models, stronger multi-stakeholder partnerships, and effective awareness raising efforts are of critical importance when moving towards a more circular economy.

The main objectives of the dialogue were to exchange experiences, perspectives and lessons learned on how to overcome the challenges for SCP and circular economy, in particular through sustainable tourism and food waste management. Recommendations and suggestions from the dialogue is expected to improve the SCP policy in Thailand and the ASEAN region.



**Ensure Sustainable Consumption
& Production Pattern**



Featured Article

ASEAN Sustainable Consumption and Production (SCP)

Multi-stakeholders Dialogue.

By : Dr Hari Ramalu Ragavan

Representatives from EU, Thailand, Philippines, Indonesia and Malaysia shared their experiences. Malaysia was represented by ENSEARCH and Global Policy Asia Sdn Bhd, Penang. Both international and national companies in Thailand also presented their activities related to SCP in Food and Tourism Sector.

Among the salient points highlighted by ENSEARCH were:

- The country has already adopted SCP in its plans since 2001 (The 8th Malaysia Plan) but it is only since the current plan (The 11th Malaysia Plan) that a strong commitment has been clearly expressed on pursuing green growth for sustainability and resilience.
- Introduced the draft National SCP Blue Print (2016-2030), explained the ten pathways that are included in the Blue Print to achieve the goals set by 2030, the progress of its implementation and the challenges faced by the country in adopting a circular economy approach. These include making a business case for SCP, monitoring and evaluation, and awareness raising.
- ENSEARCH reiterated the commitment to support the government of Malaysia to streamline the draft National SCP Blue Print so that it becomes the guide for the implementation of SCP in Malaysia.
- ENSEARCH also proposed that a National SCP Network in Malaysia is officially set up to coordinate and enhance the effectiveness of all SCP activities carried about by all interested parties.
- There is a greater role for Social Enterprise in implementing SCP initiatives in Malaysia especially among the youth.
- Other ongoing initiatives in Malaysia including the public sector green procurement, and Green Building Index.

Recommendations and Next Steps

- Ensure more exchange between the ASEAN member countries for sharing experience and cross-fertilisation.
- SCP policies and strategies should be followed by a clear Action Plan for short and medium delivery. In terms of material and resource efficiency to promote CE, a life cycle of products should be considered from designing in the early stage to its end of life through EPR.
- The government should promote all types of green label of products and services through green procurement for all sectors and stakeholders in order to promote CE. Additionally, consumers should drive the green market.



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- Raising SCP awareness to change people's behaviour is challenging for all target groups, hence, stronger behavioural change communication strategies should be adopted and put in place.
- Technology innovation is necessary to improve the ability of the private sector to use materials in a cycle as long as possible by creating new materials and improving quality of products. Monitoring and evaluation of products is necessary.
- The national SCP monitoring system, data-base and reporting mechanism should be strengthened in order to improve the capacity of main responsible organisations and related stakeholders.
- It is important to establish an inter-ministerial consultation or coordination body (including the private sector, civil society, academic institutes, among others) since SCP and CE are multi-sector and multi-actor.
- The tourism sector, a driving force for development in various Asian Countries, should integrate SCP and resource efficiency if it seriously wants to contribute to Circular Economy. The role and knowledge of local communities and SMEs is fundamental.
- With the increasing population and growth in most Asian countries and considering the large potentials for waste reductions and savings, the management of food supply and consumption should integrate more sense of responsibility.

Follow-up activities might include, but are not limited to:

- Review and Update the demand from Thailand for support from SWITCH-Asia.
- Consider options for providing support to the Thai SCP Network, as an enabler for SCP and delivering CE with MONRE and other actors. ENSEARCH proposed an exchange programme between Thai SCP Network and Malaysian network.
- Initiative SWITCH-Asia supported awareness and capacity building programme in Malaysia
- Explore opportunities for collaboration with the ASEAN SCP Committee, to further strengthen collaboration between ASEAN countries.

All presentations of the dialogue can be accessed at <https://drive.google.com/drive/folders/1RHY2FpZCjilvA98rKG9EagoHopRmOPY>



Featured Article

Tiny Plastic, Big Problem

Scientists find that tiny pieces of plastic travel great distances, threatening the ocean ecosystem

By : ALISON PEARCE STEVENS

Original Article from ScienceNewsforStudents

Plastic bottles lying in the gutter. Grocery bags tangled in branches. Food wrappers scuttling across the ground on a windy day. Although such examples of litter easily come to mind, they only hint at the serious and growing problem of plastic pollution — a problem mostly hidden from view. The problem with plastics is they do not easily degrade. They may break down, but only into smaller pieces. The smaller those pieces get, the more places they can go.

Many pieces wind up at sea. Tiny bits of plastic float throughout the world's oceans. They wash up on remote islands. They collect in sea ice thousands of kilometers (miles) from the nearest city. They even meld with rock, creating a whole new material. Some scientists have proposed calling it *plastiglomerate*. Exactly how much plastic is out there remains a mystery. Scientists are hard at work trying to find out. So far, though, experts haven't found as much plastic floating in the oceans as they expected. All that missing plastic is worrisome, because the smaller a plastic bit becomes, the more likely it will make its way into a living thing, whether a tiny plankton or an enormous whale. And that may spell some real trouble.

Into the soup

Plastics are used to make countless everyday products — from bottles to auto bumpers, from homework folders to flowerpots. In 2012, 288 million metric tons (317.5 million short tons) of plastic were produced worldwide. Since then, that amount has only grown. Just how much of that plastic winds up in the oceans remains unknown: Scientists estimate about 10 percent does. And one recent study suggests as much as 8 million metric tons (8.8 million short tons) of plastic wound up in the ocean in 2010 alone.

How much plastic is that? "Five plastic bags filled with plastic for every foot of coastline in the world," says Jenna Jambeck. She's the researcher from the University of Georgia, in Athens, who led the new study. It was published February 13 in *Science*.

Of those millions of tons, as much as 80 percent had been used on land. So how did it get into the water? Storms washed some plastic litter into streams and rivers. These waterways then carried much of the trash downstream to the sea.



Fish net and yellow rope melded with volcanic rock to create this *plastiglomerate*— a completely new type of "rock". P. CORCORAN ET AL/GSA . 2014

The other 20 percent of plastic ocean trash enters the water directly. This debris includes fishing lines, nets and other items lost at sea, dumped overboard or abandoned when they become damaged or are no longer needed. Once in the water, not all plastics behave the same way. The most common plastic — polyethylene terephthalate or PET — is used to make water and soft-drink bottles. Unless filled with air, these bottles sink. This makes PET pollution tough to track. That's especially true if the bottles have drifted to the ocean depths .

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Most other types of plastic, however, bob along the surface. It's these types — used in milk jugs, detergent bottles and Styrofoam — that make up the abundance of floating plastic trash. Abundant, indeed: Evidence of plastic pollution abounds across the world's oceans. Carried by circular currents called gyres, discarded pieces of plastic can travel thousands of kilometers. In some areas, they amass in huge quantities. Reports on the largest of these — the "Pacific Garbage Patch" — are easy to find online. Some sites report it to be twice the size of Texas. But defining the actual area is a difficult task. That's because the garbage patch is actually quite patchy. It shifts around. And most of the plastic in that area is so tiny that it's hard to see.



Different types of plastic litter a remote beach in northern Norway. The plastic washed ashore after being swept into the ocean or dumped at sea. BO EIDE

Millions of tons... gone missing

Recently, a group of scientists from Spain set out to tally just how much plastic floats in the oceans. To do so, the experts traveled the world's oceans for six months. At 141 locations, they dropped a net into the water, dragging it alongside their boat.

The net was made of very fine mesh. The openings were only 200 micrometers (0.0079 inch) across. This allowed the team to collect very small bits of debris. The trash included particles called microplastic.

The team picked out the plastic pieces and weighed the total found at each site. Then they sorted the pieces into groups based on size. They also estimated how much plastic might have moved deeper into the water — too deep for the net to reach — due to wind churning up the surface.

What the scientists found came as a complete surprise. "Most of the plastic is lost," says Andrés Cózar. This oceanographer at the Universidad de Cádiz in Puerto Real, Spain, led the study. The amount of plastic in the oceans should be on the order of millions of tons, he explains. However, the collected samples lead to estimates of just 7,000 to 35,000 tons of plastic floating at sea. That's just one-hundredth of what they had expected.

Most plastic that Cózar's team fished out of the seas was either polyethylene or polypropylene. These two types are used in grocery bags, toys and food packaging. Polyethylene is also used to make microbeads. These tiny plastic beads can be found in some toothpastes and facial scrubs. When used, they wash down the drain. Too small to be trapped in filters at wastewater treatment plants, microbeads continue to travel into rivers, lakes — and eventually down to the sea. Some of this plastic would have been too small to have been caught in Cózar's net. Most of what Cózar's group found were fragments broken from larger items. That comes as no surprise.

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These tiny plastic fragments broke off of larger items that had washed into the ocean. GIORA PROSKUROWSKI/SEA EDUCATION ASSOCIATION

In the oceans, plastic breaks down when it's exposed to light and wave action. The sun's ultraviolet (UV) rays weaken the otherwise strong chemical bonds within the plastic. Now, when waves smash the chunks against each other, the plastic breaks into smaller and smaller pieces. When the Spanish team began sorting its plastic by size, the researchers expected to find larger numbers of the very smallest pieces.

That is, they figured that most of the plastic should have been tiny fragments, measuring just millimeters (tenths of an inch) in size. (The same principle applies to cookies. If you were to smash a cookie, you would wind up with many more crumbs than you would large pieces.) Instead, the scientists found fewer of these tiny bits of plastic.

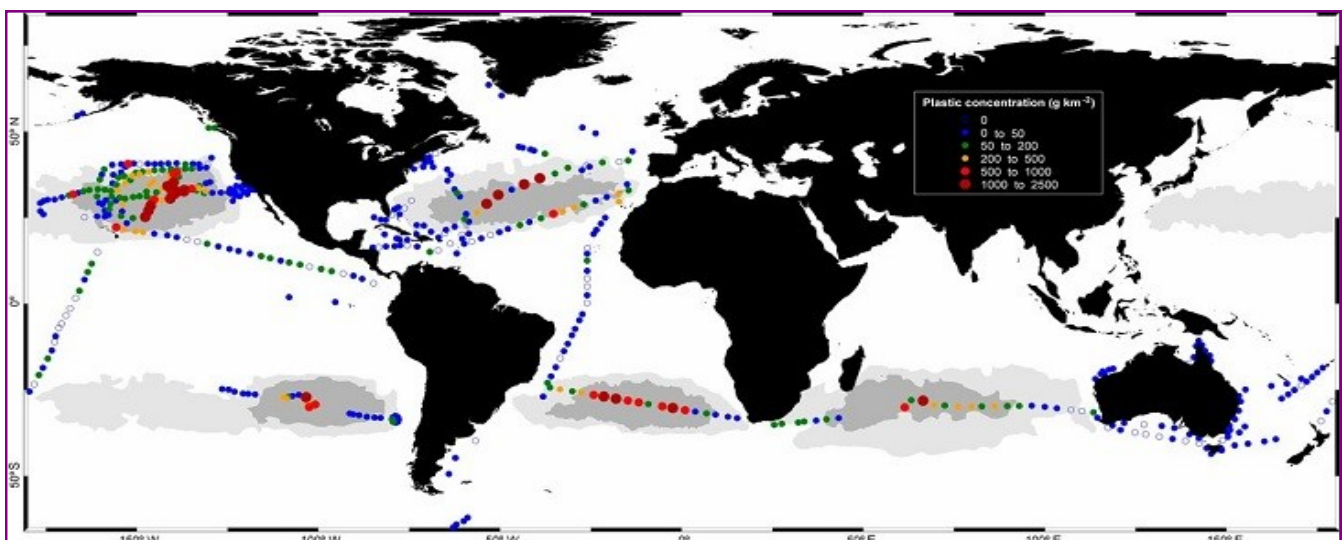
What had happened to them?

Entering the food web

Cózar proposes several possible explanations. The tiniest bits might have broken down quickly into particles too small to catch in his net. Or maybe something caused them to sink. But a third explanation seems even more likely:

Something ate them.

Unlike the organic matter found in living things, plastics do not provide energy or nutrients to growing animals. Still, critters do eat plastic.



Almost every sample of ocean water collected by a Spanish team contained at least a few small pieces of plastic. On this map, the dots show the average concentration of plastic in hundreds of locations. Red dots mark highest concentrations. The gray areas denote gyres, where plastics accumulate. CÓZAR ET AL/PNAS 2014

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Sea turtles and toothed whales gulp down plastic bags, mistaking them for squid. Sea birds scoop up floating plastic pellets, which can resemble fish eggs.

Young albatross have been found dead from starvation, their stomachs full of plastic garbage. While feeding, adult seabirds skim floating trash with their beaks. Parent birds then regurgitate the plastic to feed their young. (These plastic bits eventually can kill them.)

Yet such large animals wouldn't eat pieces just millimeters in size. Zooplankton might, however. They are much smaller marine creatures.

“Zooplankton describe a whole range of animals, including fish, crab and shellfish larvae,” explains Matthew Cole.

He is a biologist at the University of Exeter in England. Cole has found that these tiny critters are just the right size to snap up the millimeter-size bits of plastic.

His research team has collected zooplankton from the English Channel. In the lab, the experts added polystyrene beads to tanks of water holding the zooplankton. Polystyrene is found in Styrofoam and other brands of foam. After 24 hours, the team examined the zooplankton under a microscope. Thirteen of the 15 zooplankton species had swallowed the beads.

In a more recent study, Cole found that microplastics limit the ability of zooplankton to consume food. Zooplankton that had swallowed polystyrene beads ate smaller bits of algae. That cut their energy intake nearly in half. And they laid smaller eggs that were less likely to hatch. His team published its findings January 6 in Environmental Science & Technology.

“Zooplankton are very low on the food chain,” Cole explains. Still, he notes: “They are a really important food source for animals like whales and fish.” Reducing their population could have a widespread impact on the rest of the ocean ecosystem.

And, it turns out, not just tiny zooplankton are eating the plastic bits. Larger fish, crabs, lobster and shellfish do too. Scientists have even found plastic in the guts of marine worms. Once there, the plastic tends to stick around. In crabs, microplastics remain in the gut six times longer than food does, says Andrew Watts. He is a marine biologist at the University of Exeter. What's more, eating plastic causes some species, such as marine worms, to store less fat, protein and carbohydrate, he explains. When a predator (such as a bird) now eats those worms, it gets a less nutritious meal. It also ingests the plastic. With each meal consumed, more and more plastic makes its way into a predator's body.



This image shows zooplankton that has swallowed polystyrene beads. The beads glow green.
MATTHEW COLE/UNIVERSITY OF EXETER

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An accumulating problem

The thought of eating plastic isn't pleasant. But it isn't just the plastic that's cause for concern. Scientists also worry about a variety of chemicals found on the plastic. Some of those chemicals come from the manufacturing process, explains Kara Lavender Law. She is an oceanographer at the Sea Education Association in Woods Hole, Mass. Plastics also attract a variety of dangerous pollutants, she notes. That's because plastic is hydrophobic — just like oil, it repels water.

But plastic, oil and other hydrophobic substances are attracted to each other. So oily contaminants tend to glom onto pieces of plastic.

In a way, plastic acts like a sponge, soaking up hydrophobic contaminants. The pesticide DDT and polychlorinated biphenyls (or PCBs) are two such toxic contaminants that have been found in ocean-going plastics.

Even though both contaminants have been banned for decades, they are slow to break down. So they persist in the environment. To this day, they hitch a ride on trillions of pieces of plastic floating in the oceans. One reason these contaminants were banned is because of the way they affect animals and people.

When eaten, the chemicals work their way into an animal's tissues. And there they stay. The more of these chemicals a critter consumes, the more that gets stored in its tissues. That creates a constant exposure to the pollutants' toxic effects. And it doesn't stop there. When a second animal eats that first critter, the contaminants move into the new animal's body. With each meal, more contaminants enter its tissues. In this way, what had started as trace amounts of a contaminant will become increasingly



Scientists found 47 pieces of plastic in the stomach of this triggerfish. It had been caught near the surface in the North Atlantic subtropical gyre.

DAVID M. LAWRENCE/SEA EDUCATION ASSOCIATION

Managing microplastics

The very nature of microplastics makes cleanup impossible. They are so tiny and so widespread that there is no way to remove them from the seas, notes Law. The best solution is to prevent more plastic from reaching the ocean. Trash traps and litter booms can snag garbage before it enters waterways. Even better: Reduce plastic waste at its source. Be aware of packaging and buy items that use less of it, Law suggests. Skip the plastic bags, including zippered ones used for foods. Invest in reusable water bottles and lunch containers. And say no to straws.

Law also recommends asking restaurants to stop using polystyrene foam containers. These break up quickly and are not recyclable. Talk to friends and parents about the problems of plastic, and pick up litter when you see it. Law recognizes that reducing plastic use won't be an easy change. "We live in an era of convenience," she says. And people find it convenient to throw things away when they are done with them.

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This trash trap in Washington, D.C., stops litter before it can enter the Anacostia River. About 80 percent of the plastic that ends up in the world's oceans gets its start on land.

MASAYA MAEDA/ANACOSTIA WATERSHED SOCIETY

That's not to say that we should do away with plastic altogether. "Plastic has a lot of beneficial uses," says Law. But people need to stop looking at plastic as disposable, she argues. They need to view plastic items as durable things to hold on to and reuse.

Further Reading

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Where do the oceans' microplastics come from?



SDG Corner



35% Synthetic textiles

7% Road markings

24% City dust

3.7% Marine coatings

0.3% Plastic pellets

24% Personal care Products

International Union for Conservation of Nature 2017

Past Events & Activities

Technical Field Visit Pantai 2 STP, IWK

25th April 2019

ENSEARCH successfully organized a Technical Field Visit at Pantai 2 Sewage Treatment Plant (Indah Water Konsortium Facility), Bangsar, Kuala Lumpur. As it was organised exclusively for ENSEARCH's member only, This TFV was attended by 20 participants. The visit covers Biogas Production, Solar Capturing, Rainwater Harvesting System as well as Sewerage Treatment. We would like to thank Indah Water Konsortium for hosting this visit and a sincere thanks to all ENSEARCH's Members for your support on our Technical Field Visit @ Pantai 2 STP (IWK).



Ms Irdanie from IWK delivered briefing during the Technical Field Visit. She shared the history of the STP 2, the area covered and the technology adopted at the Pantai 2 STP.

Past Events & Activities

Technical Field Visit Pantai 2 STP, IWK

~Testimonial~

By *Natasha Nordin Manan*

The Technical Field Visit that was organised by ENSEARCH recently at Pantai 2 STP, Indah Water Konsortium, was excellent. As an environmental practitioner, I'm required to have in depth knowledge and understanding how this plant works. The contents of the technical field visit provided me with the right information for our understanding about how the treatment plant works.

We gained much knowledge during the technical field visit especially in understanding how this treatment works and I also noticed that bio-solid would be produced at the end of the treatment processes which will then be transferred to Slim River for disposal. The reclaimed Final Effluent (FE) for plant utilization would be treated via ultraviolet (disinfection) and ultrafiltration. The reclaimed FE for its Eco Park is further treated using reverse osmosis (RO).

This visit exposed us to lots of technology and management system such as Supervisory Control and Data Acquisition (SCADA) for overall plant monitoring and system control. We also found that the car park at the Pantai 2 STP is equipped with solar panels which are capable to produce 200 kWh electricity for the plant's consumption.

As the Pantai 2 STP features a fully underground plant, 160 numbers of ventilation system are installed to provide a safe working environment for the operators and to ensure optimum performance of the equipment and devices.

I am very glad to have attended this visit to learn about how IWK treat the wastewater. I would like to thank ENSEARCH for organising this training and to Ms Irdhanie for showing us around and sharing with us the technical specifications about the treatment plant.



Back by Popular Demand!



Air Pollution Assessment Level 1

17 and 18 December 2019- **12 EIMAS CPD approved**

Level 2 - UPCOMING

◇◇ Please make your way to www.ensearch.org for the latest updates! ◇◇

Past Events & Activities

Environmental Droners—Beginners and Intermediate Levels

25th and 26th June 2019

The Environmental Droners Training was another full house, thanks to support from 19 participants. This time around, the trainees get to learn insights and tricks from experience trainer, En. Hairul Fadli & En. Syaqr Al-Ezree from Foxie Aerialgraphy, using DJI Phantom 4. The training was held indoor to give basic knowledge prior to field exposure to enable trainers to pick up hands on experience.



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<https://goo.gl/bvtTF7>

Past Events & Activities

Environmental Droners—Beginners and Intermediate Levels

~Testimonial~

By *Victoria Charles Juta*
Oil & Gas Industry

I am not a fan of any electronic/online games since I was small or in university because I would get bored easily. However, with new technology coming to compensate our current methods of doing routine work like environmental monitoring, surveillance and consultation, there is no excuse for using such technology. In oil & gas industry, drone has been used widely for monitoring and surveillance works.

In my line of work, it involves a small amount of works with regards to environmental monitoring but it is used mainly for surveillance of maintenance works by engineers. Being an environmental management fraternity, we opt to utilise the technology as we have a few of it. When the drone training was advertised by ENSEARCH, I registered myself and another colleague, to test the training module with the intention to use the training module to train more staffs on the matter. I was not prepared much on the hands-on training i.e flying the drone because I know i had bad coordination with my hand on remote control.

The training finally came and without knowing what to expect, I went to the training with much hope. At that time, I didn't know that my colleague has been flying drone before for fun while i have never done it. Day 1 of the training was the beginner level of drone flying coordination and hands-on module. When it was time for me to fly the drone, I could feel the chill and with all eyes on me, I felt like I'm going to be judged on the "amateur-close to none" skill.

I memorised every coordinations that have been taught (the way I memorised the steps that are supposed to be performed during BOSIET training - oil and gas offshore related training where the helicopter will be overturned inside the water at 360 degree and I am supposed to escape out of it.



Victoria about to fly the DJI Phantom 4 Pro! All participants were given a beginner's drone to practise.

Day 2 was more serious at intermediate level, as we learnt about how to use drone for our work - monitoring and observation. We learnt about regulations and how we can get permits to fly drones for any project. We had hands-on experience monitoring the field and again i was pretty amazed at the work a drone can do for human. Observation can be done in minutes compared to hours or even days for such an area in addition to limited manpower required. The view that we could observe from drone monitoring (on air view) is quite amazing compared to ground view and it can be zoom in for more details without jeopardising the safety of human being.

It was one of the best experiences attending trainings that I have ever had. Most trainings I attended were all classroom knowledge-based but the drone training is somehow special - I can be a kid again but at the same time enhance my work competence. I would definitely put this knowledge into use for my work. With that, i can safely say i am a certified intermediate droner. Hooray!!

Past Events & Activities

35th Annual General Meeting 2019/2020

The Agenda for the AGM

1. Opening Address by the President of ENSEARCH 2017/2018
2. Confirmation of the Minutes of the 34th Annual General Meeting held on 7th May 2018 (Thursday).
3. Matters Arising
4. Tabling of the Annual Report, Balance Sheet and Statement of Accounts for the financial year 2018.
5. Acceptance of the Annual Report, Balance Sheet and Statement of Accounts for the financial year 2018.
6. Election of Council Members
7. Appointment of two Honorary Auditors / Professional Auditors
8. Debate and decision on any resolution, duly submitted and received by the Hon. Secretary General at least two weeks before the Meeting.

Resolution : To add "The President's term of office shall be restricted to two consecutive terms only. Consequently the Presidents shall be co-opted into the Council for one term as the Immediate Past President." in the Constitution of ENSEARCH.

9. Any Other Business



Past Events & Activities

Talk on Environmental Law & Current Legislation in Malaysia

Mr Hon Kai Ping, Bar Council—Environment and Climate Change Committee Deputy Chairperson presented a Talk on Environmental Law & Current Legislation in Malaysia that was successfully held at the ENSEARCH Office, Petaling Jaya. The talk attracted about 31 people from our members and non-members. Mr Hon was critical of the interpretation of the EQA in some high profile cases that involves scheduled wastes recyclers. Enforcement activities by untrained officers was a matter to be concerned. This talk has enabled the audience to gain more knowledge and insights on Malaysia Environmental Law & Current Legislation. His talk was well received by those who attended. We would like to express sincere appreciation to all members who took the time & effort to come. We thank you!



Top left: Mr Hon delivering his presentation, with interactive Q&A and example of case law as reference.

Top right: Token of appreciation to Mr Hon for enlightening the attendees on environmental legislations.

Bottom: Some of the ENSEARCH's Council Members attended the session.

ENSEARCH Training & Activities Calendar 2019

COMING SOON—EiMAS CPD Approved

**International Conference & Exhibition on
Wastes Management (ICEWM2019)**

(24 - 26 Sept, Tues—Thurs)

(12 EiMAS CPD Confirmed)

Quantitative Risk Assessment (QRA)

(1 Day Training: 26 November, Tues)

(EiMAS 6 CPD APPROVED)

(REGISTRATION WILL START SOON)

Dynamic River Water Quality Modeling

(1 Day Training: 3 December, Tues)

(EiMAS 6 CPD APPROVED)

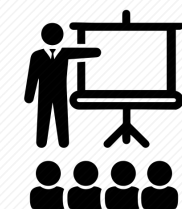
(REGISTRATION WILL START SOON)

Air Pollution Assessment Level 1

(2 Day Training—17 & 18 December Tues, Wed)

(12 EiMAS CPD Confirmed)

(REGISTRATION HAS STARTED)



ENSEARCH Trainings are **HRDF Claimable & EiMAS CPD Points Applicable**. For more information:

Please register or state your interest at www.ensearch.org or drop us an email at spo@ensearch.org.

Featured Event

The International Conference & Exhibition on Waste Management (ICEWM 2019)

The banner for the International Conference & Exhibition on Waste Management (ICEWM 2019) features the ENSEARCH logo with the tagline 'For a Better Environment' and the hashtag #ICEWM2019. It includes the SDG 12 logo and the text 'Effective Solutions For A Greener Future'. The event details are: DATE: 24TH-26TH SEPTEMBER, 2019; TIME: 0900 - 1700; VENUE: SHAH ALAM CONVENTION CENTRE (SACC), SELANGOR D.E, MALAYSIA. A red badge indicates '12 EIMAS CPB APPROVED'. The banner also lists 'ENDORSED BY' the Selangor State Government and 'PARTNERS' World Biogas Association and Cenergi. 'SUPPORTED BY' SWCorp Malaysia and Malaysia Business Chamber Vietnam. On the right, it features the Sustainable Development Goals 12 (Responsible Consumption and Production) and 13 (Climate Action) icons.

An International Conference and Exhibition - “Responsible Consumption and Production through Wastes Management - ICEWM2019” being driven by ENSEARCH Council 2018/2019.

This Conference will take place on 24th to 26th September 2019 at the Shah Alam Convention Centre (SACC) in Shah Alam, Selangor Malaysia. The Selangor State Government is a Key Supporter, wherein the YAB Menteri Besar will be the Guest-of-Honour to officiate the opening of ICEWM2019

YB Hee Loy Sian, (EXCO Alam Sekitar, Teknologi Hijau dan Hal Ehwal Pengguna, Sains, Teknologi dan Inovasi Selangor) will provide the Luncheon Keynote Address. The ICEWM 2019 is in collaboration with World Biogas Association alongside with one of ENSEARCH key members - Cenergi SEA Sdn Bhd - as the Lead Partner.

ENSEARCH, in our efforts to drive the sustainability agenda for the country, strives for a vibrant and interactive information sharing avenue where Public and Private Sectors could exchange ideas and showcase their experiences as well as current best practices in Waste Management.

This event is expected to bring together Government, Policy Makers, Business Leaders, Decision Makers, Businesses, Industry Players, Consultants, Regulators, Researchers, Academia, and Civil Society Organisations involved in sustainability and environmental management in Malaysia as well as Asia Pacific region.

Featured Event

The International Conference & Exhibition on Waste Management (ICEWM 2019)

AGENDA

PRE-CONFERENCE WORKSHOP: TUESDAY, 24TH SEPT 2019

- 0800 REGISTRATION
- 0900 WELCOMING REMARKS BY CENERGI SEA
- 0910 KEYNOTE 1: **HARNESSING THE BIOGAS POTENTIAL IN MALAYSIA**
- REPRESENTATIVE FROM MINISTRY OF PRIMARY INDUSTRIES
- 0940 KEYNOTE 2: **BIOGAS AS A SOLUTION TOWARDS SDG**
- DAVID NEWMAN, PRESIDENT OF WORLD BIOGAS ASSOCIATION
- 1010 TEA BREAK
- 1030 PANEL DISCUSSION 1: **SUCCESS STORIES OF BIOGAS IN SOUTH EAST ASIA**
- SEDA REPRESENTATIVE
- CHAIRMAN, ASIA PACIFIC BIOGAS ALLIANCE
- REGIONAL SPEAKER – INDONESIA
- 1230 LUNCH BREAK
- 1400 PANEL DISCUSSION 2: **GREEN FINANCING FOR BIOGAS**
- MGTC REPRESENTATIVE
- BANK REPRESENTATIVE
- UK FOREIGN COMMONWEALTH OFFICE REPRESENTATIVE
- 1530 COFFEE BREAK
- 1600 PANEL DISCUSSION 3: **EVOLUTION OF BIOGAS GLOBALLY**
- REPRESENTATIVE FROM WBA / SPEAKER FROM THAILAND
- GENERAL MANAGER OF ANGVA
- SIRIM REPS/ SIME DARBY O&E
- 1700 CLOSING

DAY 1 CONFERENCE & EXHIBITION: WEDNESDAY, 25TH SEPT 2019

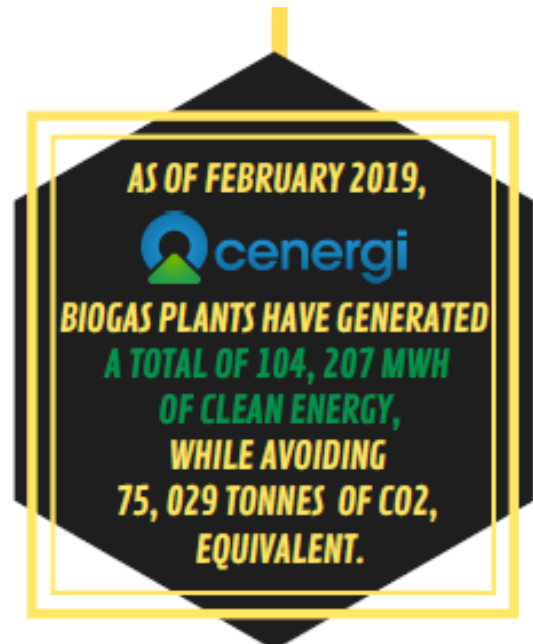
- 0800 REGISTRATION
- 0900 WELCOMING REMARKS BY ENSEARCH
- 0910 OPENING ADDRESS BY CHIEF MINISTER OF SELANGOR STATE
- 0930 VIP TOUR OF EXHIBITION + PRESS CONFERENCE / PARTICIPANTS COFFEE BREAK
- 1000 CAPTAINS OF INDUSTRY FORUM: **POTENTIALS AND ISSUES IN THE INDUSTRY**
- 1230 KEYNOTE 1 : **WAY FORWARD FOR WASTE MANAGEMENT IN THE STATE OF SELANGOR**
- SELANGOR STATE EXCO
- 1300 LUNCH BREAK
- 1400 KEYNOTE 2 : **WASTE MANAGEMENT PLANNING IN MALAYSIA**
- MINISTER OF MHLG
- 1630 EMBASSY DIALOGUE
FUTURE OF WASTE MANAGEMENT IN THEIR RESPECTIVE COUNTRIES
- 1700 NETWORKING + TEA
- 1900 CLOSING

Featured Event

The International Conference & Exhibition on Waste Management (ICEWM 2019)

DAY 2 CONFERENCE & EXHIBITION: THURSDAY, 26TH SEPT 2019

0800	REGISTRATION		
0900	WELCOMING REMARKS BY ENSEARCH		
0910	KEYNOTE 3: PLASTIC WASTE MANAGEMENT IN MALAYSIA - MINISTER OF MESTECC		
0940	KEYNOTE 4 : THE FUTURE OF WASTE MANAGEMENT – A WORLD OVERVIEW - PRESIDENT OF WORLD BIOGAS ASSOCIATION		
1010	VIP TOUR OF EXHIBITION + PRESS CONFERENCE / PARTICIPANTS COFFEE BREAK		
1030	PARALLEL SESSION 1 – WASTE UPCYCLING	PARALLEL SESSION 2 – WASTE PROJECT FINANCING	PARALLEL SESSION 3 – WASTE MINIMIZATION
1300	LUNCH BREAK SPECIAL		
1400	KEYNOTE 5 : *TO BE ADVISED - MINISTER OF KATS		
1430	PARALLEL SESSION 4 – CIRCULAR ECONOMY FOR WM	PARALLEL SESSION 5 – HAZARDOUS WASTE MANAGEMENT	PARALLEL SESSION 6 – LITTER MANAGEMENT
1630	CLOSING		



ENSEARCH Seminar/Training Room for RENT

RM350.00 net per day

Approximately 800 square feet

Classroom seating - 25 pax

Theatre seating - 40 pax

Time: 0830 - 1700

INCLUDING

Projector Screen

Whiteboard & Marker

Flip Chart

Water dispenser

High Speed WIFI Internet

Tables & Chairs

Prayer Room



Spacious classroom or theatre setting



Reading corner at the room's entrance



**ENVIRONMENTAL MANAGEMENT & RESEARCH
ASSOCIATION OF MALAYSIA (70/84 WP)**

30-2 Jalan PJU 5/16, Kota Damansara,
47810 Petaling Jaya, Selangor Darul Ehsan.

Tel : 03-61569807 / 08 Fax : 03 - 61569803

Email : admin@ensearch.org

Website : www.ensearch.org

**10 MINUTES walk from
MRT Surian Station**

Interested? Please drop us an email at admin@ensearch.org or call us at 03-61569807.

ENSEARCH COUNCIL

2018-2019

PRESIDENT	: Encik Gobinathan Kumaran Nair
VICE PRESIDENT I	: Datuk Ir Othman Bin Abdul Rahim
VICE PRESIDENT II	: Puan Geetha P. Kumaran
HON. SEC. GENERAL	: Encik Tan Poh Aun
HON. TREASURER	: Puan Jenny Tan Suat Eam
ASST. HON. SEC. GENERAL	: Encik Kelvin Diong Siong Loong

COUNCIL MEMBERS

Encik Abdul Aziz bin Long
Encik Mohamed Siraj Abdul Razack
Ir Lee Heng Keng
Dr Subramanian A/L Karuppanan
Dr Hari Ramalu Ragavan
Encik Zaipul Anwar Bin Zainu

CO-OPTED MEMBERS

Ir Elias Saidin (Intermediate Past President)
Mr Peter Toh Zhao Sing
Puan Ruhaidah Md Hassan (Indah Water Konsortium Sdn. Bhd. Rep)
Ir Fazli Rahim (Petronas Rep)
Puan Ismawati Mohd Shah (Cenviro Sdn. Bhd. Rep)
Puan Tania Golingi (ENSEARCH Sabah Rep)
Encik Khalid Obaideen (Student Rep)

ENSEARCH


SECRETARIAT 2018-2019

EXECUTIVE SECRETARY & ACCOUNT : Cik Vishal Singam
SENIOR PROJECTS OFFICER : Cik Sharon Woo
PROJECTS OFFICER : Encik Mohamad Amirul Asraf

**ENVIRONMENTAL MANAGEMENT & RESEARCH
ASSOCIATION OF MALAYSIA (ENSEARCH)**

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 www.ensearch.org

 ENSEARCH Resident



For a Better Environment