



REFLECTION
at a **GLANCE**
REVIEW
REPORT

2011-2014

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AN OVERVIEW OF PENANG GREEN COUNCIL.

Penang Green Council (PGC) is a non-profit, governmental organisation that nurtures, facilitates and co-ordinates environmental causes in Penang.

Penang Green Council Office has been awarded GBI (NRNC) Office Interior Tool Gold Certification.



OUR VISION.

Penang as a green state that is clean, safe and harness green technology.

OUR MISSION.

To enable, empower and enrich all stakeholders to practice sustainable development that protects the environment and quality of life.

OUR OBJECTIVES.

We orient ourselves towards the following objectives:

We carry out activities & programmes to realise the state government vision of making Penang a green state by preserving and conserving the environment; to improve the quality of life with the assistance and co-operation of all stakeholders, related governmental or non-governmental organisations and the private sector corporations.

We are the platform or forum to identify, discuss and undertake projects, surveys, investigations on sustainable development in Penang as well as to carry out and enforce the policies and aspirations of the state government.

We promote green industries and sustainable development that utilises resources today in a manner that can still be utilised tomorrow.



MESSAGE FROM CHIEF MINISTER OF PENANG CUM PENANG GREEN COUNCIL CHAIRMAN.

Over the last few years, Malaysia has been experiencing distressing environmental crisis from Mother Nature: Kedah was hit by mini tornados; devastating flashflood and landslide in Cameron Highlands, followed by freak storm that hit Balik Pulau in Penang and heavy flood woes in the East Coast of Malaysia, hitting Kelantan, Terengganu, Pahang, Perak, Kedah and Perlis. It has been a year marked by the wrath of Mother Nature, prompting human beings to take actions against climate change.

What is more important than letting our people and generations to come to breathe in clean air, to see clear skies, trees and the deep blue seas? Today, if you want to ensure environmental, economic and social sustainability for your children, you have no other choice but to face the challenges of climate change together.

Our vision is to make Penang to become an international and intelligent state cannot be possible without Penang being a green state - This vision must educate and nurture talent; promotes and rewards diligence, expertise and entrepreneurship; is livable by being clean, green, safe and healthy; and practices integrity, justice and people-centric governance. Recognising the importance of joining

the global trend and efforts in making our community cleaner and greener, Penang Green Council was established in 2011.

Over the last four years, Penang became the first state in Malaysian history to launch a state-wide campaign to reduce plastic bag consumption. On 1 January 2011, Penang has implemented "Every day is No Free Plastic Bags". Every individual can now contribute towards reducing their carbon footprints so that we can preserve our environment for the next generation.

In promoting Zero Waste, Penang has banned free plastic bags in the supermarkets and hypermarkets since 2009, and followed up with the ban of polystyrene food containers in all eateries. We are proud to see that in 2014, Penang has already achieved to-date a 32% recycling rate which exceeds the country's targeted 20% rate for 2020.

For the past 4 years, PGC seeks to enable, empower and enrich all stakeholders to practice sustainable development that protects the environment and quality of life. In Malaysia, only Penang have a set of government driven incentive schemes that provides a platform for schools,

businesses or private sectors that are genuinely promoting sustainable living to showcase their green products, services and technologies, and house-to-house education for the communities.

I thank and commend our partners, individuals and communities for the strong commitment and relationships towards building a positive environmental change. You cared. You acted. And you delivered. We thank you. As we go forward, I hope you can inspire more of such ventures to strive towards a sustainable and livable city by providing cleaner, greener, healthier and safer living environment for everyone in Penang.

As we bid farewell to 2014 and welcome 2015, I strongly urge all of you to support the green efforts by managing your resources: waste, water and energy in a wise and efficient manner. Our personal and collective choices of lifestyle have an enormous impact on the environment and climate change. Be the solution!

Lim Guan Eng



MESSAGE FROM GENERAL MANAGER.

It truly has been a highly eventful year, with many accomplishments and challenges. We, at PGC, have always strive to enable, empower and enrich all stakeholders to practice sustainable development that allows resources to be utilised today in a manner that will still be available tomorrow.

From reaching out to the local communities in Penang to crossing the borders of the region, we make sure all our programmes and events are carried out to positively impact the environment as well as the mindset and behaviour of the communities starting from homes, schools, offices and businesses.

Through the house-to-house education campaign, hand in hand with our green helpers, from the first door we knocked on, to the 5,600th and more, we will continue knocking. We value seeing each recycling initiative taken at each household. Young children volunteering in the environmental conservation effort in schools, measuring the importance of resources efficiency, energy and water conservations. Offices being eco-conscious, adopting the Green Office Project practices at their workplace, creating a healthier work

environment. More individuals, groups and/or organisations putting in efforts in building a sustainable place to live in, projected in the Green Pinang 3A Gala Night.

The success of the Penang International Green Carnival 2014, bringing together visitors, exhibitors and leading proponents of environment and resources management as far as Japan, Australia and Singapore, with the aim of raising awareness of climate change, discussing its enabling factors and challenges, exchanging their solutions and experiences. Environmental causes know no boundaries, the Green Carnival served as a great platform for traders and families from young to the elderly, to educate and promote sustainable development, also, to emphasise on environmental preservation and conservation.

I believe PGC is rapidly building and growing its network and collaborations with all stakeholders from relevant governmental, non-governmental organisations and private sector corporations through ongoing and upcoming events and projects. PGC could not do what it does without the generous support of all our partners and sponsors. Despite our

shortcomings and limitations. Thank You for your bighearted support & inputs to PGC. It meant so much to us, and to PGC as a whole. You have contributed tremendously to every success we have had in achieving our objectives of our events and projects.

In 2015 and beyond, let us reach out to more people - the communities, partners and individuals, we need to resolve and firmly address environmental issues. We inevitably ponder over the past, learned from the crisis that we have faced so far and hope for a better 2015 as we swiftly moving towards realising the state's vision - together, let's build a Cleaner, Greener, Healthier and Safer Penang.

Thing Siew Shuen



CHAIRMAN

YAB TUAN LIM GUAN ENG

Chief Minister of Penang



Vice-Chairman

YB TUAN PHEE BOON POH

Penang State Exco Member for Welfare, Caring Society and Environment



Vice-Chairman

YB TUAN CHOW KON YEOW

Penang State Exco Member for Local Government, Traffic Management & Flood Mitigation

**BOARD OF
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BIN MOHD YUSOF**

Former Senator



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Retired academician and areas of interest and expertise in ecology, environmental conservation and management and sustainable development issues.



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DATO' RENJI SATHIAH

Malaysian Diplomat to Belgium. Currently Patron of the Alliance Francais in Penang.

One of the key people in the Foreign Ministry that was involved in the Earth Summit in Rio in 1992 and lead the Malaysian delegation to the Climate Change Negotiation from 1991-1999.

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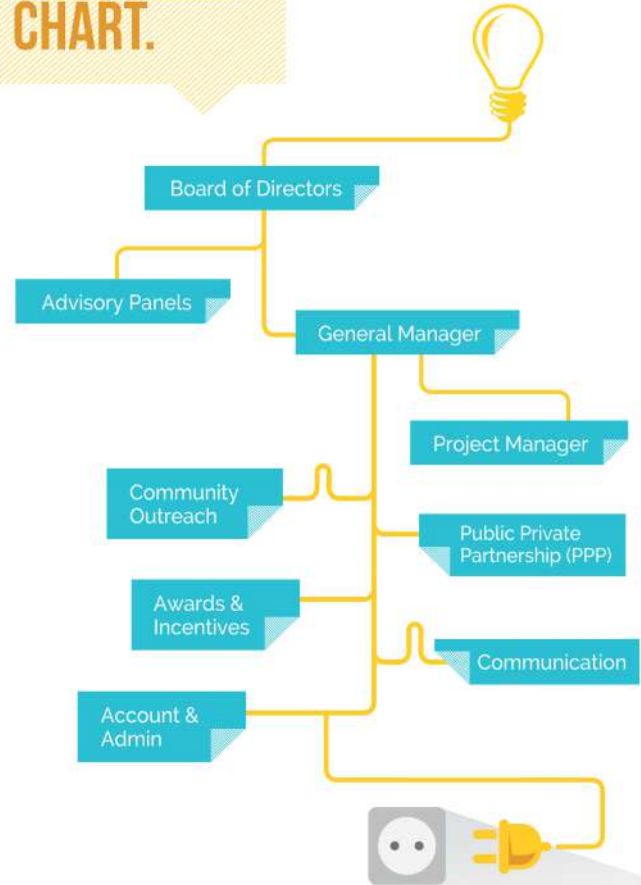


ADVISORY PANELS.

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Pulau Pinang
- » **Dato' Maimunah bt Mohd. Sharif**
Yang Dipertua (YDP) Majlis Perbandaran
Seberang Perai

ORGANISATION CHART.





HOUSE-EDUCATION TO-HOUSE CAMPAIGN.

We started the House-to-House Education Campaign in 2013, and have visited a total of 5,600 households as of December 2014, within the 5 districts of Penang, namely Timur Laut (TL), Barat Daya (BD), Seberang Perai Utara (SPU), Seberang Perai Selatan (SPS) and Seberang Perai Tengah (SPT).

As the name suggests, our staff and Green Helpers go door-to-door to make sure objectives of the campaign are met; to increase the awareness of the rural localities on the importance of segregation at source, recycling and the "zero waste" concept. Also, to reduce the number of open-burnings.

Low and low-medium cost houses are targeted in the campaigns. We remind and encourage the local residents about the practice of waste separation, recycling and even composting at home.

A. Our green helper approaching one of the residents on the importance of segregation at source
B. House-to-house education campaign conducted by PGC staff and our volunteers monthly.

The following are the house-to-house education campaigns conducted :

HOUSE-TO-HOUSE EDUCATION CAMPAIGN 2014.

Date	Location	Number of Household Visited
Jan 2014	Flat Taman Tun Dr Sardon (BD)	270
Feb 2014	Flat Jalan Mohd Saad, Buterworth (SPU)	220
Mar 2014	Taman Penaga (SPU)	150
April 2014	Taman Sri Kijang (SPT)	150
May 2014	Flat Sri Jangus, Bukit Mertajam (SPT)	180
Jun 2014	Flat Taman Utama, Perisarian Minden(BD)	212
Jul 2014	Flat Jalan Mayang Pasir, Bayan Baru (BD)	260
Sep 2014	Taman Alma Jaya, Alma (SPT)	200
Sep 2014	Taman Lima Kongsi, Sg. Bakap (SPS)	210
Oct 2014	Taman Inderawasih, Perai	193
Nov 2014	Taman Chal Ling, Perai	700
Dec 2014	Flat Rifle Range, Padang Tembak	600

Total >> 3,345

HOUSE-TO-HOUSE EDUCATION CAMPAIGN 2013.

Date	Location	Number of Household Visited
19 Jan 2013	> Zero Waste Corner JKKK Sg. Semambu, Mukim 5	100
	> Kubang Semang, Sg. Semambu, Mukim 5, Permatang Pasir	
20 Jan 2013	> Zero Waste Corner JKKK Alma Jaya, Alma, Bukit Mertajam	180
	> Taman Alma Jaya, Alma, Bukit Mertajam	
3 Feb 2013	> Zero Waste Corner JKKK Mahtsuri, Bayan Baru	250
	> Flat Jalan Mayang Pasir, Bayan Baru	
30 Mar 2013 / 2 Apr 2013 / 6 Apr 2013	> Kompleks Bukit Jambul Recycling Center (Loading Area)	710
	> Surrounding residential areas	
20 Apr 2013	> Kompleks Bukit Jambul Recycling Center (Loading Area)	250
	> Kompleks Bukit Jambul's Tenants	
24 Aug 2013	> Sekitar Taman Perumahan Bukit Jambul	560
	> Flat Bukit Jambul and Flat Solok Kampung Relau	
28 Sep 2013	> Zero Waste Corner JKKK Sg. Semambu, Mukim 5	210
	> Kampung Kubang Semang including Kampung Seberang Jalan	

Total >> 2,250



GREEN CAMP 2014.

Date	Location	Participation (Pax)
15 Mar 2014	Dewan Utama Pelajar, USM, Sungai Dua (BD)	60
25 May 2014	Gelanggang Bola Keranjang, Taman Berjaya, Jawi (SPS)	120
27 Sep 2014	Sek. Ren Kampung Valdor, Bukit Tambun (SPS)	60
29 Nov 2014	Sekolah Kebangsaan Batu Maung, Batu Maung (BD)	60
		Total >> 300

GREEN CAMP 2013.

Date	Location	Participation (Pax)
23 Mar 2013	Dewan Awam Penaga, Penaga (SPU)	120
6 Jul 2013	Dewan Yayasan Aman, Penanti (SPT)	86
26 Oct 2013	Dewan JKKK Bukit Gedung (BD)	50
14 Dec 2013	Youth Park (TL)	120
22 Dec 2013	Dewan Tanjung Berembang, Sg. Acheh (SPS)	60
		Total >> 435

GREEN CAMP.

We want kids to have fun while learning to become a green crusader! Children as young as 4 to 12 years old explore various environmental protection components such as waste, water and energy elements in our green camps.

Green Camp activities contain simple tips and hands-on experience for young children to understand more about simple environmental conservation efforts. For instance, matching recyclable items to the correct recycle bins, poster designing, making paper bags from used magazine papers and others.

Going green begins at home, there are instances where young children and teachers engage their family members to developing positive environmental behaviour at home from the knowledge they have learned from the camps.

1-2 Green Helpers will be assigned as group moderator to assist in conducting group activities and to ensure the children's safety at the green camp.



C. The green camp participants were guided by our green helper to create a simple water filter to understand the filtration process.

D. Young children from Melody Kindyland, Sg Ara, explored the environmental values through planting during the Junior Green Camp jointly organised by PGC and Institute For Research in Molecular Medicine (INFORMM) and Division of Industry and Community Network (DJM) Universiti Sains Malaysia, Penang.

As the saying by Elizabeth Andrew goes, "Volunteers do not necessarily have the time; they just have the heart". PGC's Green Helpers range from high school students to university and/or college students.

The Green Helpers are putting their hands together in our Community Outreach projects, assisting us in our monthly House-to-House Campaigns and Green Camps. Sometimes under the scorching heat of the sun or even light rain, to spread environmental awareness and flyers as a form of reminder to the communities about the positive impact of segregation at source and recycling.

They lend us their invaluable support in most of our major events too. Their relentless volunteerism also contributed to the overall success of the Penang International Green Carnival this year. We would like to take this opportunity to thank the Green Helpers for their invaluable contributions in our projects and events for a worthy cause.



ZERO WASTE NETWORK.

On 18 June 2013, the Zero Waste Network officially went live on PGC's website: www.pgc.com.my/zerowastenetwork. The release of the Zero Waste Network tool is to increase the efficiency of recycling and/ or buyback processes, allowing users to search for the nearest recycling and/ or buyback centre at ease.

The tool carries 103 recyclers so far which consists of recycling and buyback centres' locations and contact details in Penang. Users can custom search by waste category (e-waste, plastic, paper, etc), district and company name.

Expansion of the recyclers' network will be updated from time to time. PGC is currently in the midst of promoting the Zero Waste Network tool to another level, adding a touch of technology to the tool. Exploration of avenues to develop mobile application (app) for smart phone to ensure users can go green at their fingertip anywhere, anytime.

- A. A briefing session was conducted to prepare and assign roles to volunteers.
- B. Our green helpers and PGC staff after moderating the green camp.
- C. The volunteers behind house-to-house education campaign

GREEN HELPERS.

Launched by the State Government in 2009, more than 14,000 individuals have pledged to commit to at least one green initiative to make Penang a Green State in line with the State's vision.

These Green Citizens have shown their concerns on environmental issues and had taken the initiative to pledge online or during one of our roadshows. They have signed the Green Citizens' Pledge, promising to abide by the 10 green initiatives:



Green Citizens' card will be issued to individuals who have pledged as a formal recognition.



PENANG GREEN PARTNERS PROGRAMME.

Penang Green Partners Programme promotes environmental awareness within the retail industry. Over 240 merchants have pledged as Green Partners to commit at least one environmentally friendly practice in their shops as they recognise the value of being socially responsible towards the community and the environment.

Penang Green Citizens Programme and Penang Green Partners Programme are interrelated. Green Citizens can enjoy special privileges like discounts and promotions from Green Partners by flashing the Green Citizens' Card.

Green Citizens and Green Partners can both stay up-to-date as promotions and PGC's latest event update are slotted into PGC's website, Green Citizens' email list and Green Partners' Catalogue.

Both programmes demonstrate that individuals and merchants can be both environmentally responsible while shopping or participating in business.

D. Flash the Penang Green Citizens' Card to any of our Green Partners to enjoy special promotion or discounts.

E. 200 Salon Owners and Hair Stylists pledged to become Green Citizens during the eco-product launching of our Green Partners, HAIRFINDER & Beauty Sdn Bhd & GreenKagon Marketing Sdn. Bhd.

PENANG GREEN SCHOOL AWARD

Reaching the 5th year since its launching by the State Government in 2010, Penang Green School Award is a collaboration programme with both Penang Island and Seberang Perai Municipal Councils.

Penang Green School Award is an annual environmental audit programme for both primary and secondary schools in Penang to educate students on the importance of environment conservation and protection. Auditors involved are from the Penang Institute, Forestry Department, Department of Environment, Education Department and PGC.

Schools involved in this programme must inculcate environmentally friendly practices and habits based on the 4 criterions set for the programme; the 3Rs (Reduce, Reuse & Recycle), Innovation & Creativity, Cleanliness & Greening efforts and Community Involvement. Environmental initiatives taken by the students and

schools were then compiled in a report for submission to the Penang Island or Seberang Perai Municipal Council.

A significant rise in the number of participating schools from Penang Island and Seberang Perai for the award, from 54 in 2010 to 138 in 2014. The active involvement from students, teachers and even parents, cultivated positive environmental efforts particularly waste reduction of paper, water and energy at school, work or home.

In the near future, the Green School Award will also be available for institutions of higher learning – pillars of the nation, to reinforce continuous environmental measures and improvement.

(See Appendix 1 for Penang Green School Award Winners List.)

Sponsors of the Penang Green School Award:

- >> Continental Automotive Components Malaysia Sdn Bhd
- >> Sunway Grand Sdn Bhd
- >> Eastern & Oriental Berhad
- >> Sunwah Corporation Berhad.
- >> Matahari Uniform Centre Sdn Bhd
- >> Popular Book Co. (M) Sdn Bhd
- >> OHL Gallery



A. SMK Sri Muda, Penaga students demonstrating weaved baskets from used magazines and newspapers during the Green School Award audit session.



B. The winners of the Penang Green School Awards with Penang Chief Minister cum PGC's Chairman, YAB Tuan Lim Guan Eng, at the Green Penang 3A Gala 2014.



Inspired by the Singapore Environment Council (SEC), Penang Green Office Project was launched in conjunction with Penang Green Expo in September 2012 in partnership with both public and private sectors: State Economic Planning Unit (UPEN), Penang and Seberang Perai Municipal Councils, Forestry Department, Penang Water Supply Corporation (PBA), Department of Environment (DOE), Tenaga Nasional Berhad (TNB), HGSST, FREPENCA/ Osram, The Association of Banks in Malaysia, Malaysian Association of Hotels (Penang Chapter) and Federation of Malaysian Manufacturers (FMM).

The Penang Green Office Project supports PGC's vision of Penang as a Green State by adopting the Green Office Concept through education and implementation of environmentally friendly initiatives in the office based on 8 criterions.

As a kick start to stir awareness and interest about the Green Office Project, 1,000 Green Office Starter Kits were distributed at the Green Expo. All form of publicity vehicles including social media and briefings were used to draw active participation from both public and private offices in Penang and across Malaysia.



C. Successful Penang Green Office recipients with Penang Chief Minister cum PGC's Chairman, YAB Tuan Lim Guan Eng and Ms Pat Chung, Chairman of Penang Green Office Project.



D. Penang Green Office Project certificates and plaques – a recognition for strong commitment towards positive environmental and behavioural change for office environment.

Penang Green Office PROJECT

The first year of the Green Office Project was significant, with 22 public and private offices being certified as Penang Green Office. The ceremony was launched by the Chief Minister cum Chairman of Penang Green Council, YAB Tuan Lim Guan Eng together with Ms Pat Chung, the Chairman of Penang Green Office Project. This year, 10 more offices are being certified; adding to a total of 32 Green Offices in Penang.

The Penang Green Office Project will be revamped in its 3rd run in April next year with the integration of Aqua Save Certification by PBA to further enhance positive behaviour and environmentally friendly workplaces. Serving as a double certification where applicants could obtain two certifications at once – Green Office and Aqua Save.

Penang Green Office Project Roll of Honour 2014:

- >> Perbadanan Bekalan Air Pulau Pinang Sdn Bhd
- >> Flextronics Technology (Penang) Sdn Bhd - Plant 5
- >> Actimovair Sdn Bhd
- >> PARISOYAL Penang Resort
- >> Polydynamic Sdn Bhd
- >> Citigroup Transaction Services (M) Sdn Bhd
- >> Eastin Hotel Penang
- >> Penang Island Council
- >> A Lu Z Wedding House Sdn Bhd
- >> Ikora Hotel

Penang Green Office Project Roll of Honour 2013:

- >> sTec Technology Sdn Bhd
- >> DSRAM Opto Semiconductors (M) Sdn Bhd
- >> Kaly Management & Consulting Sdn Bhd
- >> Shan Poornam Metals Sdn Bhd
- >> Alam Aikam Kusini (M) Sdn Bhd
- >> Intel Technology Sdn Bhd
- >> WD Media (Malaysia) Sdn Bhd
- >> PMI Stamping & Moulding Sdn Bhd
- >> DELTA Business Solutions Sdn Bhd
- >> Pejabat Ketua Menteri Pulau Pinang
- >> Perfect Press Sdn Bhd
- >> Georgetown City Hotel, Penang
- >> Spanion (Penang) Sdn Bhd
- >> DHL Supply Chain (Malaysia) Sdn Bhd
- >> Seberang Perai Municipal Council
- >> Intel Products (M) Sdn Bhd
- >> Buddy Rich International Sdn Bhd
- >> WD Media (Malaysia) Sdn Bhd
- >> Cycle Trend Industries Sdn Bhd
- >> Perbadanan Perindustrian Awam Pulau Pinang
- >> Creadex (M) Sdn Bhd
- >> Pejabat Ketua Menteri Pulau Pinang
- >> Flextronics Technology (Penang) Sdn Bhd

PENANG GREEN INNOVATION INCENTIVE (PGII).



PGC also focuses on environmental sustainability solutions that could be commercially viable and applicable to Penang with a view to tackle environmental degradation and to reduce carbon footprint in Penang.

PGII is an annual scheme that provides cash grants and assistance for outstanding entries (innovative product, technology or process). We welcome innovations from all walks of life. Winners will be selected by review panel comprising of both public and private sectors, headed by YB Tuan Phee Boon Poh, PGII Chairman, PGC Vice-Chairman cum Penang State Exco Member for Welfare, Caring Society and Environment; based on 3 assessment criteria, namely value: impact on environment and society, concept: inspiration and uniqueness and delivery: implementation and feasibility.

Successful applicants will receive guidance on patent application, mentoring on entrepreneurship, product readiness and total disbursement of up to RM 200,000 which inclusive of seed money and patent financing.



A. PGC's Vice-Chairman, YB Tuan Phee Boon Poh, presenting the certificate of congratulations to the representative of Ecobiomaterial Research Laboratory, USM, for the Pilot Project Implementation Grant for the Penang Green Innovation Incentive 2014.

Penang State Government appreciates by recognising and rewarding professional journalists that produce articles which explore the value on environmental issues in Penang. Awareness on green, sustainability and environment in the community is created through the exposure of environmental journalism.

This year, apart from the two existing categories – News Report and Feature Writing, the creation of a new category – Green Photojournalism, enables journalists and photographers to present environmental news story with photographs.

We received a total of 43 submissions this year. Journalists from The Star Publications, Guang Ming Daily, Sinar Harian, Kwong Wah Yit Poh and Sin Chew Daily made clean sweep of the Penang Green Journalism Award 2014.

(See Appendix 2 for Penang Green Journalism Award Winners List.)



A. The winners of the Photojournalism category for Penang Green Journalism Award 2014.



B. The panel of judges and winners of Penang Green Video Contest 2014 at the Green Penang 3A Gala awards presentation ceremony.

PENANG GREEN VIDEO CONTEST.



Adding a touch of creativity to express ideas about environmental conservation and sustainability; short video clips, too, serve as influential promotional materials for environmental awareness in Penang.

This year, 15 short videos were received as creative and fun green initiatives and ideas were transformed into multimedia presentation. The idea of the contest is to call forward Malaysians to share their environmental concerns, initiatives and practices in Penang.

(See Appendix 3 for Penang Green Video Contest Winners List.)

YOU CARED. WE THANK YOU.

For the very first time, Penang State Government acknowledged all green spirits, who have had outstanding contributions in environmental conservation. The main objective of the certification is to show appreciation to individuals and organisations in Penang who steered, facilitated and contributed to the sustainability and environmental excellence in Penang, subsequently further enhance green initiatives within the state.

Green Pinang 3A Gala marked the end of the last chapter in 2014, where 3A stands for Achievements, Awards & Accolades. Certificates were awarded to 11 individuals and organisations who were nominated to receive recognition for their outstanding accomplishments and commitment to the positive environmental change.

The environmental excellence award ceremony was held on 20 November 2014 at Lim Lean Teng Hall, Han Chiang High School, officiated by YAB Tuan Lim Guan Eng, Chief Minister of Penang cum Chairman of Penang Green Council. The ceremony saw the conferment of 300 attendees comprising award winners of Penang Green School Award, Penang Green Office Project Certification, Penang Green Innovation Incentive, Penang Green Journalism Award and Penang Green Video Contest, sponsors, co-organisers, partners and representatives.

(See Appendix 4 for Green Pinang 3A Gala Recipients List.)

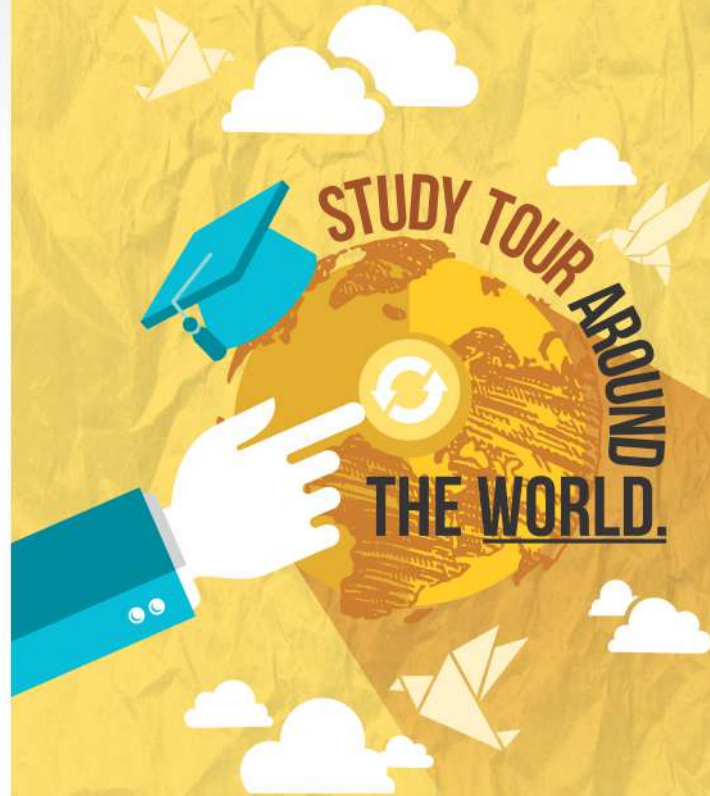


A. Our valued partners engaging to each other at the Green Pinang 3A Gala ceremony.

B. The 11 Green Spirits comprised of individuals and organisations being nominated for and going on to the ultimate recognition, together with PGC's Vice-Chairman, YB Tuan Phee Boon Poh and PGC's General Manager, Ms Thing Siew Shuen.



GREEN PINANG 3A GALA.



STUDY TOUR AROUND THE WORLD - SINGAPORE.

»» SINGAPORE - AN INSPIRED STUDY TOUR

In March 2013, delegation consists of PGC's staff and Board of Directors was honoured with a golden opportunity to visit Singapore - to gain a better understanding about the standards and efforts towards sustainability in Singapore. We were fortunate to have the Singapore Environmental Council (SEC) to host our visit to various destinations under their programmes such as Eco-School, Eco-Canteen, Eco-Hotel and Punggol Eco-Town.

Penang being accorded as a UNESCO World Cultural Heritage Site, embracing modernity while retaining the old world charm; a sound ecotourism development should be taken into consideration. The visit to The Siloso Beach Resort inspired us most, the interior and exterior designs of the building, stretching to the environmentally friendly practices; are what made it the pilot hotel for SEC's Eco Hotel certification scheme.

Anti-lightning devices installed on trees, existing trees being incorporated into the internal architecture of buildings and land being developed without affecting the habitat of birds, squirrels and insects; the Siloso Beach Resort's management is also mindful not to serve any endangered meat like sharks fin and blue tin tuna. Food and materials are purchased from local sources to reduce carbon footprint. As for food waste, they are either composted using the wormery method or turned into fertilised water.

Guests can also experience a quality eco-friendly environment through natural lighting and ventilation as most of the recreation areas, including pool, gym, restaurant and corridors are open-air. To keep the building cooler, they have a self-maintenance rooftop garden - a green sanctuary with various types of spices, herbs, tea leaves, vegetables, plants, flowers & etc. for their dishes and decorations. Using reclaimed wood for repairing and making furniture and used tires for carpeting which can assure the safety of children and the elderly. The resort has also done their part by sending recyclables to contractors.

Green technologies are harnessed like the third-generation modular heat exchange chiller system, which collects the heat dispersed from the air-conditioning process and uses it for heating water for rooms. The pool water comes from a natural spring reservoir and is sanitised with ionised salt, which conserve water and is much healthier in contrast with the ordinary chlorine-scented pools in most of the hotels.

If all the new and existing hotels incorporated these green initiatives, may it be on the building attributes or green practices as their part for the preservation of mother earth, Penang can definitely move one step closer to its goal of becoming a cleaner, greener, healthier and safer place.

The National University of Singapore (NUS) Eco Canteen - The Deck, is a true inspiration when it comes to an integration of environmentally friendly physical structure and practices. From their 'least air-conditioning' concept: natural ventilation and fan only, installation of energy saving lightings and water-saving devices to their meat-out-day and catchy reminder messages on the pillars. Campus students are encouraged to bring their own lunchboxes and tumblers and will be rewarded in an effort to minimise packaging. Eventually, the engagement from canteen management/ stall owners to properly manage food waste, composting, implementing green procurement such as organic dish washer liquid/ detergent, reusable cutleries, no Styrofoam and turning used cooking oil into bio-diesel to run school's shuttle buses.

These concepts are excellent and perhaps can be taken as a model to be implemented in schools, colleges and university canteens or even food courts in Penang. Besides getting students and staff alike to be involved and being socially responsible at an early age, resources like water, energy and waste can be managed efficiently.

At PGC, our roles are not just purely concentrated on raising awareness and handling projects and programmes but doing it conscientiously. As our vision goes, "to enable, empower and enrich all stakeholders to practice sustainable development that protects the environment and quality of life". We believe that a successful organisation should not only be found on the quantity of projects, but measured by the quality and impact it creates to the community, hence, towards environmental sustainability.

We are very much benefited from the tour as we are able to learn and look at how well a city state like Singapore with limited resources and growing needs can be so successful in economic development; at the same time, being able to utilise their resources prudently and to groom a generation of civic minded community members.



STUDY TOUR AROUND THE WORLD - MELBOURNE, AUSTRALIA.

»» SUSTAINABLE LIVING FESTIVAL (SLF) 2014 IN MELBOURNE, AUSTRALIA

In order to bring the Penang International Green Carnival 2014 to a higher level with more interesting contents and activities, the Organising Chairman, YB Tuan Teh Yee Cheu brought two staff from PGC to visit Sustainable Living Festival (SLF) on 15-18 February 2014, which was held in Melbourne, Australia.

The Sustainable Living Festival raises awareness and provides tools for change by showcasing leading solutions to the ecological and social challenges we face. The Sustainable Living Festival aims to inspire and empower everyday Australians to accelerate the uptake of sustainable living.

The Festival attracts over 150,000 visitors and engages with hundreds of organisations and individuals including families and children to stage Australia's largest and oldest sustainability festival. The Festival engages individuals and communities across Victoria to host and promote sustainability events. Beyond this, the Festival is extending the reach of the sustainability message to the cities, suburbs and streets of the nation.

The Festival's Big Weekend event at Federation Square in the heart of Melbourne will continue to celebrate the very best examples of ecological and social sustainability. The event embraces interactive workshops, talks, demonstrations, artworks, exhibits, films and live performances. The SLF is a manifestation of a commitment to heal our environment, a demonstration of diverse proposals for changing our behaviour and reducing the damaging impact we are having.

The 4-day study trip was led by the Organising Chairman, YB Tuan Teh Yee Cheu. We have visited:

- »» 15-16 February Big Weekend of Sustainable Living Festival.
- »» Environment committee for Melbourne City
- »» Moreland Energy Foundation
- »» Beyond Zero Emission
- »» Centre For Education and Research in Environmental Strategies (CERES)
- »» Bicycle Network

We also noticed the number of people that volunteer their time to help create the SLF event. It is indeed a reflection of the passion for sustainability in the community. With boundless energy, and a diversity of interests and skills people come from all walks of life to make the event possible. From this visit, we hoped that the Penang International Green Carnival will involve people with such enthusiasm and creativity that brings the event to life every year.

It was a fruitful tour, that we ultimately developed our key findings and recommendations for our Penang International Green Carnival 2014:

- »» We confirmed the concept of Green Carnival as an event comprises of indoor and outdoor educational activities.
- »» We will develop assessment tools for the participants of the Green Carnival so that it would not be seen as a Green Wash event in future. This is also to ensure the quality of exhibitors as the event goes on a yearly basis.
- »» The need to explore energy saving programme and develop it into a carbon credit/offset scheme.
- »» The state or local authority needs to look into the collaboration with financial institutions to encourage and incentivise commercial buildings to retrofit their buildings into green buildings.
- »» Sustainable living is not just about technology and products, it is a way of living that should be instilled in people's daily lives and culture.



STUDY TOUR AROUND THE WORLD - KAWASAKI, JAPAN.

>> PROJECT FOR A LOW CARBON SOCIETY THROUGH "WASTE TO ENERGY TECHNOLOGY" ON PENANG

United Nations Environment Programme – International Environment Technology Centre (IUNEP/ IETC), Kawasaki City & Global Environmental Centre (GEC), Japan, invited 12 delegates from Penang for a working trip from 10-13 September 2013 to Japan Kawasaki. The delegation was led by YB Tuan Phee Boon Poh, State Exco for Welfare, Caring Society & Environment cum Vice-Chairman of Penang Green Council.

The purpose of the working trip is to give trainings to the delegates on strategies to carry out low carbon society project and it also involved discussion on the eco-town project. The trip is divided into two sessions:

A. Training on developing a Low Carbon Society through "Waste to Energy Technology"

- >> Sharing on the implementation of Joint Crediting Mechanism UCM).
- >> Technical Challenges and Opportunities for Improvement of Organic Waste Management in Developing Asia.
- >> Overview of Waste Policy of Kawasaki City and Recycling Systems in Japan.
- >> Brief introduction of Low Carbon Society creation activities in Kawasaki City.
- >> Field trip in Kawasaki :
 - ① Tsurumi Fluorescent Lamp Recycling Facility
 - ② Yokohama Clean Recycling Facility Solid Waste Management
 - ③ Kawasaki Biomass Power Station

From the training, several implementations can be fostered in Penang such as giving incentives to boost green technology investors, enhancement of organic waste segregation for utilisation, new rules creation for different categories of waste collection and Japan Recycling Laws enforcement may be duplicated in Penang to tackle specific environmental issues.

B. Workshop on strategy paper to promote Eco-town approach.

- >> Discussion on different strategies by different stakeholders to promote transformation of cities/ towns into eco-towns.
- >> Development of a strategy paper for eco-towns.
- >> Field visit of Kawasaki eco-town:
 - ① Kawasaki ecoLife Museum for the Future
 - ② Recycling Treatment Facility (for mix paper and plastic packages)
 - ③ Kawasaki Mega Solar Power Generation Plant
 - ④ Ukishima Incineration Plant

Whereas, the workshop showed the SWOT analysis from the perspectives of different stakeholders such as the government, private sector, NGOs/ NPOs, Academia and International/ Bilateral Agencies/ Organizations/ Institutes. Each plays a vital role and is interrelated in promoting the transformation of a city into an eco-town. The workshop sees that implementation of the eco-town on waste management and other structural indicators to establish environmental performance index should be reinforced.

The tour uncovered waste management methodologies and technologies, environmental programmes, legal enforcement, community involvement and effective development plans in Kawasaki City, Japan that the State Government should study and consider picking up the appropriate proposals to improve the current management, hence establish a sustainable, low carbon society in Penang.



STUDY TOUR AROUND THE WORLD - OSAKA, JAPAN.

>> TRAINING WORKSHOP OF STATE DELEGATE FOR "CAPACITY BUILDING FOR SUSTAINABLE WASTE MANAGEMENT IN THE ASIA-PACIFIC REGION TO PROMOTE ECO-TOWN MODEL AND INTEGRATED SOLID WASTE MANAGEMENT (ISWM)" FROM 10-12 DECEMBER 2013 IN OSAKA, JAPAN

United Nations Environment Programme (IUNEP) – International Environment Technology Center (IETC), Centre International de Formation des Autorités/ Acteurs Locaux (ICIFAL) Jeju, United Nations Institute for Training and Research (UNITAR) and Global Environmental Centre Foundation (GECI); invited delegation from Penang to visit Osaka, Japan.

The delegation was led by YB Tuan Phee Boon Poh, State Exco for Welfare, Caring Society & Environment cum Vice-Chairman of Penang Green Council.

The capacity building training workshop promoted the importance of effective waste management and provided:

- >> An opportunity for countries in the Asia-Pacific region to build capacities in waste management through eco-town concepts.
- >> A platform to exchange in-depth learning from experts in waste management and to share good practices among participants.
- >> A venue for country-to-country or city-to-city cooperation in formulating and implementing waste management strategies.

Through the training, we learned about the National Waste Management System and Green Growth Policy of Japan and the Republic of Korea, Green Growth and Low-Carbon City, Stakeholder's responsibility, Polluter Pay Principle in Japan, introduction of ISWM and Eco-Town methodology and case studies. All participants including the Penang State Delegation shared their experiences and made a presentation on the challenges faced in solid waste management.

During the workshop session, we were divided into working groups to study on the key challenges and learning priorities of ISWM and Eco-Town methodologies. We managed to discuss ISWM action plan to promote the formulation of an action plan to help the government develop Eco-Town and ISWM model.

We have also learned about the e-waste recycling system through the field visit to Nomura Kohsan Co. Ltd. for recycling system of used dry-cell batteries and used fluorescent lamps as well as Panasonic Eco Technology Center (PETEC). As there is no proper recycling facility for used fluorescent lamps in Malaysia, most of the fluorescent lamps were sent to landfill at Bukit Nanas, Negeri Sembilan. It would be great if Penang manage to shift the technology from Japan to solve the fluorescent lamps problem.

Penang State Government is fully committed and actively participating and implementing Eco-Town concepts. Solid Waste Management cannot be an isolating act. All stakeholders should take ownership on the programmes. We are developing a system to collect data of factories on the waste generated as well as the contractor to collect the waste by match-making them under "Generators Pay" Programme.

The training programme contributes in enhancing sustainable urban development and to promote eco-town model and Integrated Solid Waste Management (ISWM) in developing countries in the Asia-Pacific region, particularly least developed countries, such as Philippines, Vietnam, India, Nepal, Pakistan, Mongolia, Thailand and etc.



PGC recently interviewed two corporate companies who supported the Penang State Government's greening efforts during the Penang International Green Carnival 2014.

XOX is a Mobile Virtual Network Operator (MVNO) that uses the prefix 010 and Cradotex is a Fibreglass Reinforced Plastic manufacturer.

UP CLOSE & PERSONAL WITH XOX & CRADOTEX.

>> By Carolyn Khoo



Ms. Joselyn Chew
Assistant Manager/Marketing
XOX Mobile



Mr. Gunn Kean Liang
Quality Manager/DFP
Cradotex (M) Sdn. Bhd.

Question : How does XOX contribute towards greening efforts?



XOX will place recycle bins at both our service centre located at ICT Komtar & Jalan Terengganu. All disposable items shall be reduced to a minimum as we will sort out the recyclable and reusable items from the waste materials.

We have ensured that our marketing materials and product designs are environmentally friendly and we consciously promote waste reduction as part of our corporate social responsibility.



As part of Cradotex's green culture, Cradotex Management have implemented as part of company's ISO Quality System Management, two green policies that are "Cradotex Green Office Policy and Water Conservation Policy" for all employees to follow and we also use them as guidelines for dealings with our suppliers.

Question : Green buildings are the future but the cost of having and maintaining green buildings are high. Do you foresee or have any suggestions on how to balance the high costs with the need to go green?



High costs and lots of effort with determination are required, but the most important of all is still spreading awareness through education and disseminating information towards consumers.



Investing in green building facilities are always incurring high set-up costs and you may not see the immediate savings in the operation costs, therefore the longer period needed for recovery of investment do not make such investment an attractive business to venture into.

However if you are thinking in the direction of building a greener future or our future generation, then look towards the direction like you are now entrusted to look after the earth for mankind future, then the investment is worth the end result of a better greener world for mankind. In this way whatever contribution every company to safe guard towards a greener earth are worth the effort to invest in green technologies which cannot be measured in dollars and cents.

Question : What is the future of green telecommunication?



Although it is tough for telecommunications to go green, we will still make an effort to do so. All aspects of the business process ranging from procurement of materials to waste management and recycling must be viewed from a sustainability perspective.

Question : What is the primary business of Cradotex?



Cradotex Group of companies vision is to be an established Malaysian owned company in offering worldwide business as "One stop centre for total concept in Fibreglass Reinforced Plastic (FRP) quality products and services of worldwide standards and recognition.

NUCLEAR POWER PLANT OR MALAYSIANS' HEALTH & SAFETY?

>> by Chuah Sue Ann

The tragic nuclear disaster in Fukushima in 2011 following the huge earthquake and tsunami, has left tens of thousands of evacuees still living in an environment of fear. Amid the current scare in Japan, the accident triggered many countries to review their pro-nuclear policy paradigm: some governments even pledged to phase out their nuclear policies or simply shut down existing power plants.

Despite the horrific incident, the Malaysian Government announced their plans in 2010 to build two 1,000-megawatt nuclear power plants in Malaysia. Although energy supply is not under the purview of the State Government, we are very concerned about the development of renewable energy. The Penang State Government is responding to the growing public outcry against the excessive and unsustainable costs associated with nuclear power technology and its huge environmental and humanitarian risks.

Please also be reminded that nuclear energy is Not Cheap, Not Clean and Not Safe. The Fukushima disaster has also exposed the safety myth. Highly radioactive waste from nuclear power plants must be stored underground for more than 100,000 years before its radioactivity declines to safe levels. The safe storage of such nuclear waste remains to be an unsolved challenge. The exorbitant environmental risks and financial burden associated with building, maintaining, and decommissioning nuclear power plants would pass on to future generations.

Malaysia is the first country in Southeast Asia to announce a nuclear power plant, a sensitive matter in the Asean grouping which has always espoused a nuclear-free zone.

The potential for Renewable Energy in Malaysia is enormous, so why gamble the health and safety of our people when we have other alternatives? Located near the equator, with other countries in the Southeast Asian region such as Singapore, Thailand, Indonesia, Philippines, Myanmar and so on, Malaysia is blessed with vast renewable sources of energy such as Solar, Mini-Hydro, Wind Power, Biomass and Biogas.

In order to achieve a Green Economy, renewable energy must be in place. We believe that Malaysia will be able to shift to a sustainable energy paradigm without relying on nuclear power plants if the government is willing to invest

on renewable energy projects, diversifies domestic economies and reduces reliance on hydrocarbon resources.

For two consecutive years, the PGC had asked visitors to the Penang Green Expo 2013 to sign two petitions, in support of "Bury Lynas with 1,000,000 signatures" by Himpunan Hijau and the appeal to scrap the proposals to build nuclear power plants in Malaysia - "Support Energy Efficiency & Renewable Energy - No Nuclear Power Plants". And another "Support Renewable Energy Petition" during XOX Penang International Green Carnival 2014.

Penang is the first state that rejected the proposal and we hope that other parts of Malaysia will be safe from the risk of a nuclear power plant. The Penang State Government has taken a firm and uncompromising stand to ensure there will not be any nuclear facility or rare earth mines in the state in the interest of public health and safety.

However, can anyone reassure the health and safety of the people from the other parts of Malaysia?



GLOBAL CLIMATE CHANGE AND LOCAL IMPACTS ON PENANG

>> by Dato' Dr Leong Yueh Kivong

It is now undeniable that the world climate is changing and the main cause is the discharge of man-made greenhouse gases into the atmosphere, notably carbon dioxide. The fifth and latest 2014 report by the International Panel on Climate Change (IPCC), an international group of over 800 climate scientists clearly stated that based on the latest scientific evidence, the temperature of the atmosphere and sea is rising, the ice and glaciers are melting fast and the sea level is rising, and the amount of carbon dioxide in the atmosphere is increasing. The extent of change is even worse that they had earlier predicted. The carbon dioxide level has gone beyond 400 parts per million (PPM) in the atmosphere while the generally accepted "safe level" is 350 ppm for the global temperature to rise below 2 degrees centigrade. Even the conservative World Bank report stated their concern that with a temperature rise above 2 degrees, the environmental and economic impacts will be catastrophic in the coming decades.

However, despite such overwhelming evidence, almost all countries in the world are reluctant to act to drastically reduce the greenhouse gases in their own countries for fear of affecting their economic development. This can be seen in the latest Conference of Parties (COP) in November 2014 in Lima, Peru where all countries do not want to commit to legally reduce their greenhouse gas production though all agreed that there must be urgent steps taken to reduce greenhouse gases.

We can therefore expect that the adverse environmental impacts of climate change will get worse given the lack of political view to act. The impacts of climate change are complex and many. Besides global warming, the other impacts of climate change is the acidification of the sea water and dying off of coral reefs affecting marine productivity. The increase of sea temperature is the increase of frequency and strength of typhoons and other atmospheric events such as tornados. The change in weather patterns would result in droughts in various

continents and severe flooding in others. This would severely affect agriculture.

With such dire projections of the impacts of climate change, why then is Malaysia and Penang not unduly concern and little action taken? One reason the lack of urgency is that Malaysia has so far not felt the impacts that some other countries are already facing. Malaysia is lucky in terms of its location and do not have typhoons that regularly devastate large areas like the Philippines and other South East and East Asia countries. We are not subject to severe droughts that affect countries like China, India and Australia. However, we are now experiencing more floods such as those that struck the East Coast of Peninsular Malaysia in December 2014, but we attribute this to unusual monsoon patterns and the El Nino effect.



What can we expect the impacts of Global Climate Change in the coming years?

We should be experiencing more extreme climatic events, such as greater frequency of bad weather. Already in 2014, we are witnessing more unusual weather events such as mini tornados in Kedah and high winds and increase rainfall in various parts of the country. We should also expect some sea level rise. This should be of great concern to Penang about the impacts of sea water rise as a few centimetres would flood large parts of the World Heritage Areas of Georgetown. Even without sea level rise, there are areas often flooded with heavy rains and high tides. However, there is no clear projection of when and how much the sea water level will rise in the coming years.

Despite the lack of direct impacts, the indirect impacts of global climate change will definitely affect Penang in the future. One likely impact will be food security. Malaysia, despite its favourable climate for agriculture is still very much dependent on imports for a high percentage of its food supply. The self-sufficiency for rice in Malaysia is still about 70% and we depend on imports from our neighbouring countries. We also depend for import of much of the grain for feeding our chicken and other livestock. Should there be major droughts as a result of climate change in the food producing areas of the world like Australia, South America and North America, we would have a food security problem in Malaysia. This is because we import a lot of our food from other countries. Another scenario is if countries with large populations like

China and India have severe droughts and floods and cannot produce enough food, it could deplete the global food reserves as they are now rich enough to buy up all the food reserves in the world if necessary. In anticipation of such a possibility, Penang like other states of Malaysia should strive to increase food supplies for a higher degree of food self-sufficiency for its own sustainability.

The usual response of policy makers to future environmental catastrophic events is that such events are in the future and will not affect us in the immediate future. This is especially so when the time frame for climate change is uncertain. The usual assumption is that the catastrophic impacts will only be around 2050. However, there are now indications that these projections are far too optimistic and that the impacts will come much sooner, with some credible projections indicating that it could be by 2030.

With such a drastic scenario, there has been a call for countries to adopt the precautionary principle and take steps to increase their resilience to such changes. It is therefore necessary for Penang to have a task force to look into the possible scenarios of climate change, ranging from the best case scenario to the worst case scenario. With such scenarios, it can then assess the possible impacts of climate change and devise strategies to prepare for it. There is little doubt that such changes will come.

IS A SUSTAINABLE LIFESTYLE ACHIEVABLE?

by Carolyn Khor



Although sustainable living may be the latest buzzword, the implementation in Malaysia has been poor, with little information regarding the follow-ups on the recommended measures ensuing the initial discussions. Sustainable living can only be achieved with political willpower and determination.

Sustainable living is a choice, a lifestyle and an experience that people adopt to help reduce consumption, wastage and conserve energy. It encourages people to use only what is necessary instead of consuming valuable resources without allowing nature to replenish itself first. The three main factors that affect sustainable living are the environment, social and economy. If two hundred years ago, sustainable living meant improving people's living conditions to include necessities like electricity and water supply or connectivity, then today it means saving the environment.

According to a report by the Environment Protection Society Malaysia, the ecological footprint in the country for 2007 exceeds the biocapacity by about 50 percent at 4.9 global hectares per capita.



1 ENVIRONMENT

More than 70% of the global CO₂ emission is currently attributed to cities, while 50% of the population lives in them. While cities are known to produce the bulk of the carbon footprint, urbanisation can still be balanced so that resources are optimally shared within the population to reduce and lessen wastage.

The high population density in cities provides an opportunity for high-rise residential and commercial buildings to share energy like using centralised air-conditionings, harvesting rainwater and combine waste treatments. In densely populated areas, shorter travelling distances are expected and if public transportation systems are effective, then this would considerably lessen the CO₂ emission by private vehicles.

In environmentally friendly building designs, spaces are created to have natural ventilation and lightings. The Malaysian Green Building Index certifies buildings that are green and environmentally friendly.

2 SOCIAL

The attitude and behaviour of the population towards sustainable living is important. As more and more people become aware of the need to protect the environment from being unsustainable, policy makers move towards this direction in a more structured way.

The Penang Green Council (PGC) initiated the Green Office Project certification scheme and the Penang Green School Award to continuously create awareness about the environment and green living. The Penang State Government also implemented the 'No Plastic Bag' campaign and 'Meatless Monday' besides encouraging Penangites to bring their own food containers to buy food. PGC also conducts house-to-house campaigns to spread awareness on the importance of segregation at source to separate garbage before disposal.

In 2012, several public places in Penang were being designated as non-smoking zones like the Penang Municipal Park, Botanical Garden, Air Itam Dam and the Mengkuang Dam.

The Star Paper reported that the Penang State Executive Councillor for Welfare, Caring Society and Environment YB Tuan Phee Boon Poh hopes that Penang will be the first 'smoke-free' state in the near future.

Planting our own vegetables and cycling are also ways to promote a sustainable lifestyle.

3 ECONOMY

Although sustainable living may be costlier, new technologies are always available to help us achieve the objective of saving the environment and reducing carbon footprint. Renewable energy tops the list for sustainable living.

YB Tuan Yeoh Soon Hin, the State Assemblyman for Paya Terubong said that Penang could be the first state in Malaysia to achieve the low-carbon city' status.

Many parks in Penang are now equipped with solar panels that provide lighting during the night. Some designs combine solar and wind turbine, although, the wind turbine may sometimes be ineffective due to the inconsistent availability of wind and trees have to be properly maintained to ensure that the branches do not overshadow the solar panels.

Everyone plays an important part in ensuring the success of having a sustainable city. If each person took the effort to streamline the process and flow in every level of communication and transaction, practise controlled consumption, proper waste management, proper infrastructure and support renewable energies, then, sustainability could easily be incorporated into our lives effortlessly, with the help of good governance.



EARTH DAY CELEBRATION.

In conjunction with the Earth Day celebrations which lies on the 22nd of April every year, the PGC organises the **Earth Day Barter Trade**. Ongoing for 3 consecutive years now, we started a mini car boot barter trade from 20 cars during the Penang Green Expo 2012.

The objective of the event is to provide a platform for participants to exchange unwanted but usable items such as books, toys, clothes, electrical appliances and so on at their own liberty without involving monetary transactions. The goal of the event is to create awareness on the importance of **3R (reduce, reuse and recycle)** and **zero waste** practices.

The event received an overwhelming response from the participants since then. We were tempted to move the Car Boot Barter Trade to a larger scale in 2013 at Juru, Auto-City. The event was a success when 87 cars sound their vehicle horns, to mark the beginning of the barter trade.

In 2014, the concept modified as participants displayed their goods at allocated spaces instead of car boots in order to fit into the venue at Occupy Beach Street (OBS) in conjunction with 'Car Free Day' on a Sunday.



WORLD ENVIRONMENT DAY CELEBRATION.



PGC has celebrated **World Environment Day** since 2013 to encourage awareness and action for the environment. It is a platform for public outreach and for doing something positive for the environment, galvanizing individual actions into a collective power that generates an exponential positive impact on the planet.

In support of the 2013 UN designated theme – **Think.Eat.Save**, we made WED an opportunity for everyone to realise not only the responsibility of caring for the Earth but to also become agents of change at Occupy Beach Street (OBS). **Think.Eat.Save** is an anti-food waste and food loss campaign that encourages people to reduce environmental footprints.

We had also made our voices heard for the environment in 2014 at Juru, Auto-City when the UN launched the International Year of Small Island Developing States (SIDS), a call to adopt SIDS in the broader context of climate change as its theme. The call is to encourage a greater understanding of the importance of SIDS and of the urgency to help protect the islands in the face of growing risks and vulnerabilities, particularly as a result of climate change. We believe WED is an excellent opportunity to raise a call for solidarity with the islands.

The King of the Green Chef Cooking Competition, environmental-related performances, exhibition, pledges and a display of information based on the theme were created for the celebrations to educate and create awareness. Every action counts. When multiplied by a global chorus, our individual voices and actions become exponential in its impact and the **World Environment Day** relies on you to make it happen!



XOX PENANG INTERNATIONAL GREEN CARNIVAL 2014

XOX Penang International Green Carnival 2014 was held on 13 and 14 September 2014 at Esplanade, Penang. The carnival is a continuation of the annual Green Expo which has been held since 2011 by PGC.

The carnival themed 'Be The Solution. ACCT Now', ACCT is the acronym for Against Climate Change Today. Climate change is the statistics and distribution of weather patterns over the last century and is an attribute to global warming. The greenhouse effect refers to trapped gasses like carbon dioxide and other gas emissions in the atmosphere that induce a rise in global temperature. Although there is no direct and specific studies to support the link, climate change is vaguely associated to natural disasters such as unusually heavy rainfall, prolonged dry spells, heatwaves, storms and even the occurrences of tornados.

The carnival showcased the latest ideas and trends for Green and Sustainable Living. Visitors gets first-hand knowledge on how other communities cope with environmental issues and learned from their best practices, strategies and cost-saving measures.



OBJECTIVES OF THE CARNIVAL

- 1 A family day with great and inspiring educational and awareness programmes and activities – The Green Carnival will not only be an event for traders and experts, but also an inclusive public event for anyone who has a great interest in green knowledge and trends.
- 2 A lively and creative platform to promote green ideas, sustainable strategies and practices, products showcase, technologies and organisations.
- 3 To demonstrate that going green not only saves cost but also serves as an effective value-added edge and branding strategy.

Among the highlights and interesting events lined-up for the carnival are the King of the Green Chef Cooking Competition, Mini Escape Theme Park, Green Power@Chicken Dance, Grab A Free Plant and many more.



Penang International Conference also featured a series of talks and forums, bringing together leading proponents of environment and resources management from around the region with the aim of raising awareness of climate change, discussing its enabling factors and challenges, exchanging their solutions and experiences. The conference covered four sessions, namely Climate Change & Resources, Sustainable Cities, Waste & Energy and Health & Food Security.

XOX Penang International Green Carnival 2014 reflected the growing momentum and cultural dynamics within the community who share the common goal of creating a sustainable future that eventually bring the event to life every year.

APPENDIX 1.

PENANG GREEN SCHOOL AWARD 2014 WINNERS LIST.

State Level >>	Primary Schools	Secondary Schools
CHAMPION	SK Kuban Sneh	SMK Sri Muda Penang
1ST RUNNER-UP	SK Sungai Rusa	SMK LI Methodist
SPECIAL AWARD (RECYCLING)	SJK (C) True Light	SMK Convent Bukit Mertajam
SPECIAL AWARD (INNOVATION AND CREATIVITY)	SJK (C) Joan Beng	SMK Jalan Damai
SPECIAL AWARD (CLEANLINESS AND GREENING)	SK Sungai Rusa	SMK Guar Perahu Indah
SPECIAL AWARD (COMMUNITY INVOLVEMENT)	SK Permatang To Kandu	SMK Dato' Onn

Special Award (MPMA-DQM Plastics Recyclables Collection Competition Award 2014) MPMA - Malaysian Plastics Manufacturers Association DQM - DQM Chemicals	Primary Schools	Secondary Schools
CHAMPION	SJK (C) Chung Shan	
1ST RUNNER-UP	SK Sungai Rusa	
2ND RUNNER-UP	SK Permatang To Kandu	

District Level - MPSP >>	Primary Schools	Secondary Schools
CHAMPION	SK Sungai Rusa	SMK Loklat Methodist
1ST RUNNER-UP	SK Pulau Betong	SMK Perempuan St. George
GOLD AWARD	SJK (C) Perempuan China	SMK Tanjung Bunga
SILVER AWARD	SJK (C) Sri Kang	SMK Jelutong
BRONZE AWARD	SK Bayan Lepas	SMK Padang Peta

Special Award >>	Primary Schools	Secondary Schools
RECYCLING	SK Convent Pulau Tikus	SM Han Chiang
INNOVATION & CREATIVITY	SJK (C) Perempuan China	SMK Convent Lebuhi Light
CLEANLINESS & GREENING	SK Sungai Rusa	SMK Loklat Methodist
COMMUNITY INVOLVEMENT	SJK (C) Chung Shan	SMK Perempuan St. George

District Level - MPSP >>	Primary Schools	Secondary Schools
CHAMPION	SK Kuban Sneh	SMK Sri Muda
1ST RUNNER-UP	SK Jawi	SM Sains Tun Syed Sheh Shahabudin
2ND RUNNER-UP	SJK (C) Kwang Hwa, Butterworth	SMK Convent Bukit Mertajam

Special Award >>	Primary Schools	Secondary Schools
ZERO WASTE	SJK (C) True Light	SMK Convent Bukit Mertajam
INNOVATION & CREATIVITY	SJK (C) Joan Beng	SMK Jalan Damai
CLEANLINESS & GREENING	SK Pulau Tirol	SMK Guar Perahu Indah
COMMUNITY INVOLVEMENT	SK Permatang To Kandu	SMK Dato' Onn

PENANG GREEN SCHOOL AWARD 2013 WINNERS LIST.

State Level >>	Primary Schools	Secondary Schools
CHAMPION	SK Permatang To Kandu	SM Sains Tun Syed Sheh Shahabudin
1ST RUNNER-UP	SK Sungai Rusa	SM Han Chiang
SPECIAL AWARD (RECYCLING)	SK Balik Pulau	SMK Kristal Batai
SPECIAL AWARD (INNOVATION AND CREATIVITY)	SK Jawi	SMK Permatang Tok Labu
SPECIAL AWARD (CLEANLINESS AND GREENING)	SK Sungai Rusa	SMK Gemilang
SPECIAL AWARD (COMMUNITY INVOLVEMENT)	SJK (C) Mah Hua	SMK Seri Nibong

District Level - MPSP >>	Primary Schools	Secondary Schools
CHAMPION	SK Sungai Rusa	SM Han Chiang
1ST RUNNER-UP	SK Seri Rindu	SMK (Perempuan) Methodist
GOLD AWARD	SJK (C) Perempuan China	SMK Jelutong
SILVER AWARD	SK Convent Green Lane	SMK Loklat Methodist
BRONZE AWARD	SJK (C) Chung Shan	SMK Tanjung Bunga

Special Award >>	Primary Schools	Secondary Schools
RECYCLING	SK Balik Pulau	SMK Sg Nibong Pendidikan Rihad
INNOVATION & CREATIVITY	SJK (C) Perempuan China	SM Han Chiang
CLEANLINESS & GREENING	SK Sungai Rusa	SMK Heng Ei
COMMUNITY INVOLVEMENT	SJK (C) Sri Kang	SMK (Perempuan) Methodist

District Level - MPSP >>	Primary Schools	Secondary Schools
CHAMPION	SK Permatang To Kandu	SM Sains Tun Syed Sheh Shahabudin
RECYCLING	SJK (C) Kwang Hwa, Butterworth	SMK Kristal Batai
INNOVATION & CREATIVITY	SK Jawi	SMK Gemilang
CLEANLINESS & GREENING	SK Serohi, Bukit Mertajam	SMK Permatang Tok Labu, Penang
COMMUNITY INVOLVEMENT	SJK (C) Mah Hua	SMK Seri Nibong

PENANG GREEN SCHOOL AWARD 2012 WINNERS LIST.

State Level >>	Primary Schools	Secondary Schools
OUTSTANDING AWARD	SJK (C) True Light	SMK Dato' Onn
CHAMPION	SK Permatang To Kandu	SMK Dato' Onn
1ST RUNNER-UP	SK Sungai Rusa	SMK (Perempuan) Methodist
SPECIAL AWARD (RECYCLING)	SJK (C) Chung Shan	SMK Dato' Onn
SPECIAL AWARD (INNOVATION AND CREATIVITY)	SJK (C) Perempuan China	SMK Dato' Onn
SPECIAL AWARD (CLEANLINESS AND GREENING)	SK Permatang To Kandu	SM Sains Tun Syed Sheh Shahabudin
SPECIAL AWARD (COMMUNITY INVOLVEMENT)	SJK (C) Sri Kang	SMK Convent Bukit Mertajam

District Level - MPSP >>	Primary Schools	Secondary Schools
CHAMPION	SK Sungai Rusa	SMK (Perempuan) Methodist
1ST RUNNER-UP	SJK (C) Perempuan China	SMK Jelutong

Special Award >>	Primary Schools	Secondary Schools
RECYCLING	SJK (C) Chung Shan	SMK Sg Nibong
INNOVATION & CREATIVITY	SJK (C) Perempuan China	
CLEANLINESS & GREENING	SK Seri Rindu	SMK Teuku Kumbang
COMMUNITY INVOLVEMENT	SJK (C) Sri Kang	SMK Tanjung Bunga

District Level - MPSP >>	Primary Schools	Secondary Schools
CHAMPION	SK Permatang To Kandu	SMK Dato' Onn
RECYCLING	SK Permatang To Kandu	SMK Dato' Onn
INNOVATION & CREATIVITY	SJK (C) Kay Sin	SMK Dato' Onn
CLEANLINESS & GREENING	SK Permatang To Kandu	SM Sains Tun Syed Sheh Shahabudin
COMMUNITY INVOLVEMENT	SJK (C) True Light	SMK Convent Bukit Mertajam

PENANG GREEN SCHOOL AWARD 2011 WINNERS LIST.

State Level >>	Primary Schools	Secondary Schools
CHAMPION	SJK (C) True Light	SMK Dato' Onn

District Level - MPPP >>	Primary Schools	Secondary Schools
GOLD AWARD	1. SJK (C) Perempuan Cina 2. SK Sungai Rusa	1. SMK (P) Methodist 2. SMK Jelutong
SILVER AWARD	1. SJK (C) Sri Kang 2. SK Convent Pulau Tikus 3. SK Seri Rindu 4. SJK (C) Chung Shan	1. SMK Jelutong 2. SMK IPS Sri Pulutara 3. SMK Sacred Heart

District Level - MPSP >>	Primary Schools	Secondary Schools
GOLD AWARD	1. SJK (C) True Light 2. SK Jawi	1. SMK Dato' Onn 2. SMK Convent Bukit Mertajam
SILVER AWARD	3. SK Permatang To Kandu 1. SJK (C) Chung Hwa, Butterworth 2. SJK (C) Ah Hooe, Butterworth 3. SJK (C) Kwang Hwa, Butterworth 4. SK Permatang Bantam 5. SJK (C) Kay Sin 6. SK Kuban Sneh	3. SMK Bantam 1. SM Sains Tun Syed Sheh Shahabudin 2. SMK Jalan Damai 3. SMK Taman Sijiliana 4. SMK Seri Nibong 5. SMK Permatang Indah 6. SMK Kampong Selamat

PENANG GREEN SCHOOL AWARD 2010 WINNERS LIST.

Student Level	Primary Schools	Secondary Schools
Champion	SJK ICI True Light	SMK Dato Onn
District Level - MPPP - 20	Primary Schools	Secondary Schools
GOLD AWARD	SK Convent Pulau Tiuas	SMK P1 Huthocit
SILVER AWARD	SK Sungai Batai	SMK P1 Sri Maliana
BRONZE AWARD	SK Pulau Belong	SMK P1 St. George
Conciliation Winners - 20	Primary Schools	Secondary Schools
	1. SJK ICI Sri Klang	1. SMK Jelebuang
	2. SJK ICI Perempunan China	2. SMK Seri Balik Pulau
	3. SJK Convent Green Lane	3. SMK Penang Free School
	4. SJK ICI Hun Bin	4. SM Tawakkul Tunika Abdul Rahman Puhai
	5. SJK ICI Chong Tek	5. SMK Union
District Level - HDSP - 20	Primary Schools	Secondary Schools
CHAMPION	SJK ICI True Light	SMK Dato Onn
1ST RUNNER UP	SJK ICI Kwang Hea	SMK Kg. Kastam
GOLD AWARD	SK Kebun Sreth	SMK Mak Mandin
Conciliation Winners	Primary Schools	Secondary Schools
	1. SK Convent Buterworth	1. SMK Cakuk 14 Ahmad Badawi
	2. SK Bertam Indah	2. SM Sains Tui Syed Sheh Shahabudin
	3. SJK ITI Perai	3. SMK Seri Nibong
	4. SK Pematang Bertam	4. SMK Convent Bukit Mertajam
	5. SK Jwai	5. SMK Jalan Demas
	6. SJK ICI Chung Hea z. Buterworth	6. SMK Chung Ling Buterworth

APPENDIX 2.

PENANG GREEN JOURNALISM AWARD WINNERS LIST.

News Report	2014	2013
EXCELLENT AWARD (BAHASA MELAYU)	Siti Hasliah Ahmad Zamrud (Sinar Harian)	M. Golins a/p Morganan (Sinar Harian)
SPECIAL AWARD (ENGLISH)	Christina Chin Swee Gak (The Star Publications)	Winnie Yeoh Chien Huey (The Star Publications)
EXCELLENT AWARD (ENGLISH)	Tan Sen Chew (The Star Publications)	Oh Chin Eng (The Star Publications)
EXCELLENT AWARD (CHINESE)	Quah Chee Long (Guang Ming Daily)	(Ran Ching TV & News Central)
		Ng Geok Ping Lee Yi Mun Lih Hoi Jit Ang Yong Yang
Features Writing	2014	2013
SPECIAL AWARD (BAHASA MELAYU)	Syganalutha bin Mohamad Rosli (Sinar Harian)	Siti Hasliah Ahmad Zamrud (Sinar Harian)
EXCELLENT AWARD (BAHASA MELAYU)	M. Golins a/p Morganan (Sinar Harian)	M. Golins a/p Morganan (Sinar Harian)
SPECIAL AWARD (ENGLISH)	Carina Lim Ai Li (The Star Publications)	Carina Lim Ai Li (The Star Publications)
EXCELLENT AWARD (ENGLISH)	Christina Chin Swee Gak (The Star Publications)	Christina Chin Swee Gak (The Star Publications)
SPECIAL AWARD (CHINESE)	Oon Huiar Yong (Kwong Wah Yik Pui)	(Nanyang Sang Pau Sun Bhd)
		Lai Thiam Wah Tay Yung Leon Por Lai Yun (Sun Chew Daily)
EXCELLENT AWARD (CHINESE)	Foong Wei Lai (Guang Ming Daily)	
Photjournalism	2014	
CHAMPION	Tang Choon Lee (Guang Ming Daily)	
1ST RUNNER UP	Tah Chin Heoi (Sun Chew Daily)	
2ND RUNNER UP	Yeeq Cheong Wah (Guang Ming Daily)	

PENANG GREEN JOURNALISM AWARD 2012 WINNERS LIST.

News Report	
SPECIAL AWARD (ENGLISH)	Winnie Yeoh (The Star Publications)
EXCELLENT AWARD (ENGLISH)	Christina Chin Swee Gak (The Star Publications)
EXCELLENT AWARD (CHINESE)	Josephine Jiah (The Star Publications)
	Lai Thiam Wah (Nanyang Sang Pau)
Features Writing	
SPECIAL AWARD (BAHASA MELAYU)	M. Golins a/p Morganan (Sinar Harian)
SPECIAL AWARD (ENGLISH)	Christina Chin Swee Gak (The Star Publications)
EXCELLENT AWARD (ENGLISH)	Andrea Filmer (The Star Publications)

PENANG GREEN JOURNALISM AWARD 2011 WINNERS LIST.

SPECIAL AWARD (BAHASA MELAYU)	Siti Hasliah Ahmad Zamrud (Sinar Harian)
EXCELLENT AWARD (BAHASA MELAYU)	M. Golins a/p Morganan (Sinar Harian)
	Muhammad Iskandar Osman (Sinar Harian)
SPECIAL AWARD (ENGLISH)	Syganalutha Rosli (Sinar Harian)
	Gin Pei Long (Inight News Sun Bhd)
	Tan Khoo Yai (The Star Publications)
EXCELLENT AWARD (ENGLISH)	Christina Chin Swee Gak (The Star Publications)
SPECIAL AWARD (CHINESE)	Cybil Chan Shying (Sun Chew Daily)
	Goh Wai Fong (China Press)

APPENDIX 3.

PENANG GREEN VIDEO CONTEST WINNERS LIST.

	2014	2013	2012
CHAMPION	Sim Lee Sen	Jack Ng Wei Kit	Lee Wei Jun
1ST RUNNER UP	Ooi Long Seng	Mohammad Hashif Ashman	Timothy Poy
		bin Mohammad tar	
2ND RUNNER UP	Lim Taw Wan	Chng Bang Chan	Loh Kar Sang

APPENDIX 4.

PENANG GREEN 3A GALA 2014 RECIPIENTS LIST.

- | | |
|--|------------------------------|
| 1 SHANGRI-LA'S RASA SAYANG RESORT & SPA-PENANG | 7 EXXOMAS (PG) SDN BHD. |
| 2 GRIFERIA SANITARIO IMI SDN BHD | 8 FATTY CHEMICAL IMI SDN BHD |
| 3 HOK SOON ENTERPRISE | 9 SMK DATO' ONN, BUTTERWORTH |
| 4 SEQUOIA MARKETING SDN BHD | 10 DR. LIM JIT KANG |
| 5 SHAN POORNAM METALS SDN BHD | 11 LEE WEI QIN |
| 6 MAJLIS PERBANDARAN SEBERANG PERAI | |

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