



Eye-opener for 'green' envoys

By Marilyn Ten
features.bp@gmail.com

GREATER 'green' awareness promoted through various mediums is creating a cohort of environmentally savvy young Malaysians.

Take for instance Haneesa Zahidah Mohamed Shah Redza, 20, from International Islamic University Malaysia (IIUM) and Jerry Lee Lin Jian, 24, from National University of Malaysia (UKM).

Concerned about the pressing need to 'repair' the deteriorating environment,

Two young Malaysian stewards of the environment to raise awareness of sustainable development by imparting knowledge gained from the Bayer Young Environmental Envoy (BYEE) programme.

they have been actively involved in many environmental initiatives through their universities and were also picked for the Bayer Young Environmental Envoy (BYEE) programme this year.

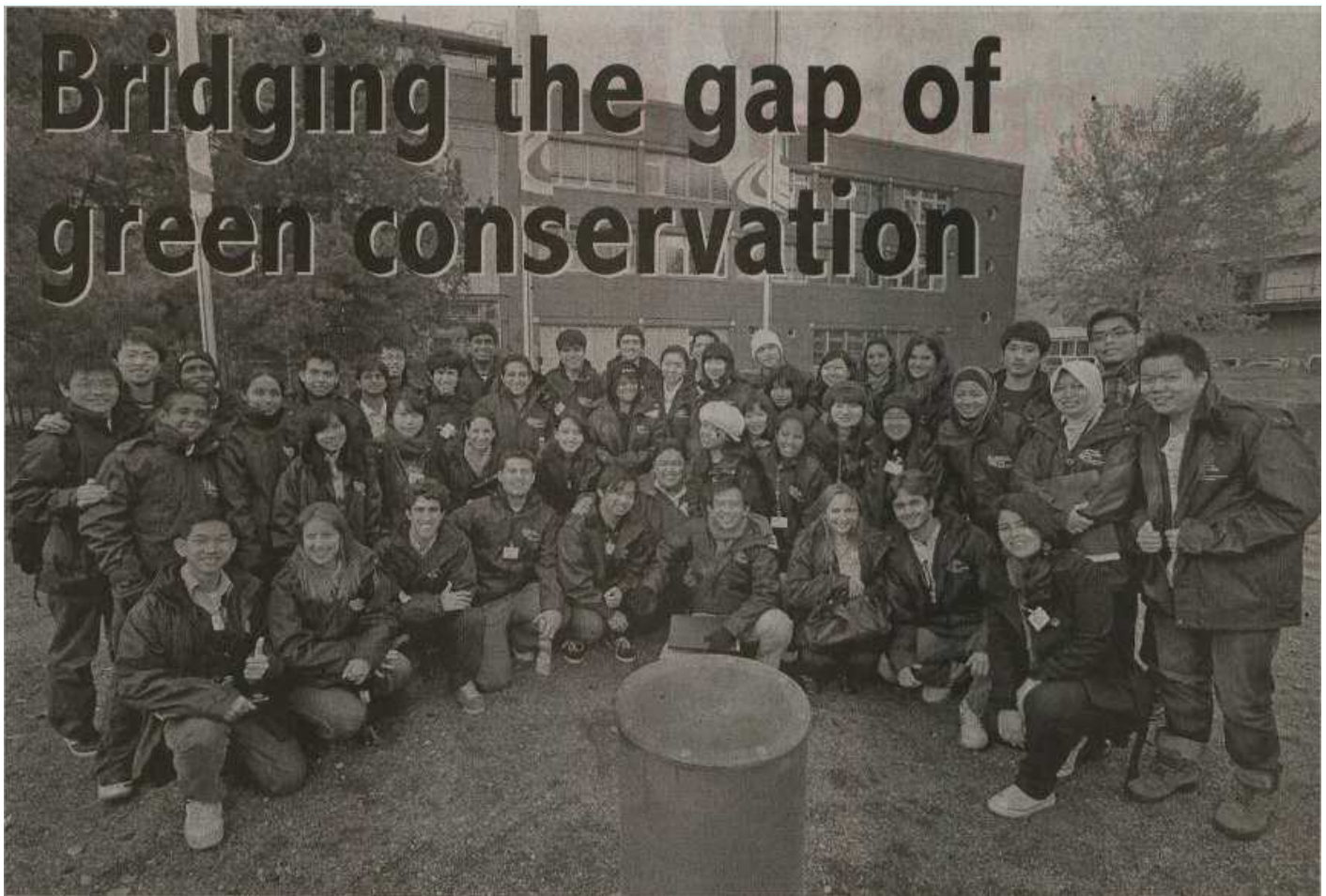
The Global Environment Education Programme for

Youth is organised by Bayer and the United Nations Environment Programme (UNEP) annually to raise environmental awareness among young people and support them in their ecological pursuits.

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CHEMISTRY IS FUN: Lee (right) takes part in a chemistry experiment as chemist Dr Ingrid Fischer looks on.



GREENIES: The 50 envoys from 18 countries at the Emschergerossenschaft Water Treatment Plant

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Applicants from participating countries are required to write about their personal contributions and project ideas on the environment, beginning with an environmental problem in their community and practical solutions that currently address the problem.

From hundreds of applicants, Haneesa, Lee and eight other finalists from Malaysia were selected to become envoys to present their environmental projects to a panel of distinguished judges. Both were picked as the top two envoys with the best projects.

Their prize was a week-long field trip to Cologne, Germany, where 50 envoys from 18 countries around Asia, Latin America and Africa converged at the Bayer headquarters to learn more about environmental protection and sustainable development.

Launched in Asia in 1998, the BYEE programme has received about 11,200 applications from youths all over the world. Around 500 have been invited to visit Germany.

"The programme creates a unique opportunity for sharing ideas and encourages the global exchange of experiences while

underlining Bayer's commitment to a sustainable environment," said Bayer Material Science chairman of the board of management Patrick Thomas when welcoming the envoys.

"We are delighted to see so many young people generating so much creativity to find practical solutions to many of the environmental challenges we face today," he added.

UNEP director of the Division of Communications and Public Information Satinder Bindra noted that many young people worldwide are committed to environmental

protection in their communities.

"They are, in a sense, our guardians for building a sustainable future. Tomorrow's leaders can inspire today's world leaders in building a resource efficient, low carbon and profitable green economy," he said.

Haneesa's winning proposal was introducing an alternative waste management system to her university. It targeted the food and beverage sector at the campus. Cafeteria staff were required to bring their organic waste (kitchen waste made up of vegetable scraps or fruit peels only) to the 'compost farm' at the backyard of the Kuliyyah of Architecture and Environmental Design (KAED) Faculty, where it would be composted by the Green Team, IIUM's environment club, co-founded by Haneesa in 2008.

"A special aspect of our composting project is using the Takakura method, devised by Koji Takakura, an environmental engineer and deputy director of the Wakamatsu Environment Research Institute in Kitakyushu, Japan," she explained.

The second-year English Language & Literature student pointed out that this method, introduced by the Sibu Municipal Council in several residencies and companies, differs from conventional compost method due to its time efficiency, costs saving and less by-products such as foul smell or excess liquid.

"Once the waste has been composted, the soil produced will be used as a landscaping tool for the KAED Faculty's backyard surroundings, which also happen to be where the garbage disposal site is.

"This means the cafe workers need only go a bit out of their way to send the cafe waste to our 'farm' instead of the usual disposal site," she said, adding that there

are plans to market the soil and use it as a source of income for the club.

Reuse of end-products

Lee's project, on the other hand, highlighted the reuse of sewage end-products.

"My aim was to bridge the gap in public information disclosure on the issue of sewage treatment process, its end-products (sewage sludge and treated effluent) and the idea of reusing them for environmental sustainability and conservation."

He said there is now no reuse application for sewage sludge due to public misconception the sludge is foul-smelling, filthy and unhygienic.

"Presently, the sludge is transferred to a landfill site, posing a threat to the forest because a large area of trees were cut down to create new landfill for the sludge.

"The solution is to reuse the sewage sludge by turning or processing it into building materials such as pavement bricks and also into fertilizers with a process called vermicomposting," explained the Master of Philosophy student.

To create awareness on the subject, Lee came up with a communication campaign called the Environmental Conservation Wagon (ECW).

"This is basically a car that fits all our materials needed for our Environmental Conservation Exposition. We need only two-three ECW (one for exposition materials and the others for taking our Green Trooper to facilitate exposition) for our exposition at various venues such as schools around the country."

The field trip was definitely an eye-opener for Haneesa, Lee and the envoys who gained first-hand experience of the principles and applications of modern

environmental protection in Germany through tours of various environmental facilities in Leverkusen such as Leverkusen Municipal Waste Management (AVEA), a waste processing and disposal facility.

"We were given an insight into how every single item of waste from German households was managed with the utmost care for the sake of the environment," said Haneesa, who witnessed all sorts of trash ranging from computers and fridges to blenders and bottle corks, all separated accordingly for recycle or reuse.

"Larger items like computers, for example, were even stripped apart to obtain smaller parts such as precious metals from wires and electrical boards.

"Furthermore, we were made aware of the many laws and policies developed and enforced through the years to maintain the wellness of the environment in Leverkusen," she added.

Leaves for compost

What impressed Haneesa was how leaves swept from the streets of Leverkusen were sent to AVEA to be turned into compost.

As the trip coincided with Autumn in Germany, the collection of leaves was in full force and the compost produced would later be reused as fertiliser. The leaves were dumped into a huge barge within AVEA grounds, mixed together with a large roller before the readied compost or soil is collected in a pile.

"This process was very much related to my project in terms of manpower and proper management as I've learnt that good organisation and thorough knowledge on waste is crucial in maintaining an efficient and environment-friendly waste management system," she said.

Other site visits included a tour



to the Emschergenossenschaft Water Treatment Plant, which operates 65 wastewater treatment plants, 184 pumping stations and other water management devices in the catchment areas of the Emscher River and the lower part of Lippe River as well as the Bürrig Waste Management Center where about 180,000 tonnes of solid waste (that cannot be recycled) were burned in the incinerator.

Apart from tours, the young envoys also attended lectures and dialogues covering various environmental issues such as nature conservation, soil quality, and environment friendly recycling management.

A gratified Lee told **thesundaypost** through the programme, they found there is a big gap in terms of environmental conservation efforts between Germany and Malaysia.

"I personally learned we can act now to ensure our development is environmentally safe and clean in the long run.

"On returning to Malaysia, I want to highlight and incorporate the importance of Precautionary Development — which is develop with care for the environment, not polluting it — instead of Compensatory Development (develop without care to the environment, then try to save it after it is polluted) into my project's second phase," he said.

Self-sustaining

Haneesa observed that although Germany is a highly industrialised country, a lot of projects have been initiated to overcome environmental concerns over the years.

"The visit to The Water Treatment Plant at Bottrop was an eye-opener — the plant is used solely to treat the Emscher River, very badly polluted some 100 to

200 years ago," she said.

In the olden days when the Germans lacked a proper sewage system, the river was used as a means to dispose of human waste from the surrounding city, resulting in badly affected biodiversity, river quality and hygiene within the area.

"I was told efforts to rehabilitate the river were carried out after an outbreak of diseases and the increased awareness of the people in the region.

Said Haneesa: "It was interesting to also learn the water plant itself is highly self-sustaining. A large amount of the electricity is generated by the plant and the remnants from the incineration process are also re-used by construction companies."

Despite their tight schedules, the two Malaysians were grateful to Bayer for the once-in-a-lifetime opportunity.

"It was really a privilege to meet officials from Bayer and UNEP as well as envoys from all over the world with whom we were able to share our ideas to forge lasting friendships," Lee said.

"We got to know the envoys and though English may not be the main language for some, we learned if you put your differences aside, see someone from the inside and just take the time to talk and laugh with them, you can build bridges that link the miles that set you apart," Haneesa added.

She and Lee's green journey as stewards of the environment has only just begun. Armed with much-needed environmental knowledge now, they are able to raise awareness of sustainable development in Malaysia by passing on the impressions, experience and insights they have gained.



**HANEESA ZAHIDAH
MOHAMED SHAH REDZA**

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— Haneesa Zahidah Mohamed Shah Redza, IIUM envoy for BYEE programme

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— Patrick Thomas, board of management chairman, Bayer Material Science



BURN, BURN, BURN: Envoy Aswin Chandrasekharan from India taking a peek into the incinerator at Burrig Waste Management Centre.



FROM THE TOP: Envoys Amanda Neuenfeld Pegoraro (left) and Samuel Gondim Lemos de Oliveira from Brazil enjoying the aerial view of Burrig Waste Management Centre.



Global partnership extended to end of 2013

A GLOBAL partnership on youth and the environment that engages millions of young people worldwide — launched by the United Nations Environment Programme (UNEP) and Bayer AG in 2004 — will be extended to the end of 2013.

Projects implemented under the partnership range from tree planting, development of educational materials and creative competitions to convening of major children and youth conferences and strengthening youth representation at major global events.

Bayer will invest 1.2 million Euros annually in support of projects under the partnership.

“Youth and children represent over 37 per cent of the world’s population. Their future will be shaped by our action to protect the planet. The

partnership with Bayer aims to step up efforts to facilitate young people’s access to vital information on the state of the planet, invest in their initiatives and ensure their voices are heard in the international arena,” said UN under-secretary general and UNEP executive director Achim Steiner.

Sharing the same sentiment, Bayer AG chairman of the board of management Dr Marijn Dekkers added: “We are looking forward to continuing this successful partnership with UNEP that strikes such a chord with young people throughout the world.

“We are committed to initiating constructive dialogue with and supporting young people interested in environmental issues. After all, they can make a valuable contribution

through their justified interest, critical awareness, commitment and passion for environmental protection.”

Through the partnership, UNEP and Bayer create opportunities for young people and children to expand and share their environmental knowledge and skills and put into practice concrete environmental protection ideas. What began as a pioneering project in 2004 has now become a public-private partnership that serves a model for both organisations.

Apart from the BYEE programme, activities under the Bayer-UNEP partnership include the Tunza International Youth/Children’s Conference, Tunza magazine, and children’s painting and photo competitions.



RECYCLABLE WASTE: Trash, including electronic products, are separated for recycling or reuse at the waste processing and disposal facility.