

A Week of Autumn at Germany
Bayer Young Environmental Envoy Program
7th-13th November, 2009.
Cologne and Leverkusen, Germany

By Titus Loh Wei Ren

Reflecting on the Germany week never fails to render me speechless. I find it difficult, almost impossible to find the appropriate words to describe all that conspired in those few days. The entire experience, both the learning and the touring, was just much more than I ever imagined, or even deserved. Just one of those things that money simply cannot buy.



Inside the Bayer Headquarters at Leverkusen

The Bayer Young Environmental Envoy (BYEE) Program is an environmental competition cum convention that has been running for 4 years, in partnership with the United Nations Environment Programme (UNEP). It is held all around the world - this year in 19 nations – concurrently; where the Bayer Company in every respective nation will hold a competition to choose several young environmental enthusiasts to represent them as an envoy in Germany. This intricate program is done to foster environmental awareness amongst the current generation, and to empower young people with experience, exposure and understanding; and to further enhance their comprehension in the field.

And no doubt, I was truly encouraged and inspired.

Throughout the week, we were treated to various expert talks, discussions and conferences pertaining to the Bayer Corporation, environmental issues and the development of sustainability for the future. All envoys were also required to give short presentations on our respective environmental projects that have been implemented, and our future actions.

Speaking about all events would be cumbersome, so I shall highlight a few significant ones. One that stood out most was a **Panel Discussion on Sustainable Development** that was held in the former plenary hall of the German Parliament. The discussion was graced by globally renowned experts within their respective fields, which included:

- **nutrition and food production** (Dr Achim Dobermann, Deputy Director General Research, International Rice Research Institute)
- **family planning and sexual health** (Dr Kelly Culwell, Senior Advisor, International Planned Parenthood Federation, UK)
- **construction and climate protection** (Prof. Dr. Dr. h.c. Volker Hartkopf, Chair of the UNEP Sustainable Building Construction Initiative)
- **climate policy and international agreements** (Mr. Satinder Bindra, Director of Communications, UNEP)
- **sustainability management and business relevance** (Prof. Dr. Stefan Schaltegger, Head of the Centre of Sustainability Management, Leuphana University, Germany)



Inside the former plenary German parliament



Sustainability talk in session

Each speaker, leaders and expert researchers in their respective fields, were given ample time to answer a pre-set list of questions formulated, which reflected on the future of sustainability. The floor was kindly opened to us envoys to ask questions as well.

Their personal insights and conveying of the topic was eye-opening – as it truly taught me the “real deal” of sustainability, way out of what we could possibly learn within our classrooms. Each expert shared the issue of sustainability in terms of their respective fields, and how it could be achieved with acceptable success.

Just a brief summary of their respective opinions:

1. Family Planning and Sexual Health

- Curbing the increase in human population, especially in Africa.
- Promoting the use and education of contraceptives in tough nations that lack infrastructure and resources

2. Nutrition and Food Production

- The role of rice as a staple food for almost 3 billion of human population
- Briefed about the technologies and advancements in rice crop industries

3. Construction and Climate Protection

- Advancements and technologies in designing “green” buildings
- Zero emission buildings currently developing around the world

4. Climate Policy and International Agreements

- Placing pressure upon politicians to incorporate environmental concern as part of consideration
- “Seal the Deal” campaign organized by UNEP as a call for unity to achieve commendable goals in the upcoming COP15

5. Sustainability Management and Business Relevance

- Can big businesses be sustainable?
- Incorporating Environmental Accounting within businesses

Some of the unanimous opinions shared among them included the issue of **climate change** arguably being the greatest challenge for the future, for 75% of all natural disasters which are occurring and will occur, is caused by climate change. The outcomes of the COP 15 in Copenhagen were also discussed, and how they felt about the current development of this milestone of mankind. In conclusion, of all the intellectual insights gained from this discussion, I felt that their approach can be summed up in what Dr Schaltegger once mentioned – “Think radical in constructive ways”.

On Day 3, all envoys were allowed to attend an official Bayer press conference, where the company publicly displayed and presented their vision and effort towards achieving sustainability within all facets Bayer. The experience was a thrill, as we were witness to exactly how press conferences were carried out professionally, and understood the intense implications of such an event.



The press conference in the BayKomm



Dr Plischke of Bayer presenting his views

Some of the key points of Bayer’s sustainability efforts were:

1. Maintaining their impressive Healthcare development

- Bayer is currently the leading manufacturer in oral contraceptives, and is using this to tackle the issue of population increase
- 400 000 tablets are donated to WHO annually for their discretion
- Offering medical solutions for deadly global diseases such as Tuberculosis, Chagas disease, Malaria and “Sleeping sickness” through Bayer Healthcare advancements

2. Expanding food production development

- Increasing influence and offering technological help to the rice industry in South East Asian countries through Bayer CropScience
- Research on “Pre-germinated rice”, which requires less water for growing, and emits less methane gas into the environment

3. Climate Protection

- Bayer has earmarked 1 billion Euro for investment in their Climate Program for years 2008-2010
- Promised to realise a 10% reduction in all Bayer industries by year 2013
- Bayer is currently the world leader in the Carbon Disclosure Leadership Index
- Heading the Bayer Eco-Commercial building program since 2007 to develop zero emission buildings
- Incorporating extensive education programs under the Climate Program for people from different age groups

A key element of the week was also the field trips; to further expose us to current sustainable practices that are being carried out successfully. Some of the places visited included:

- **Leverkusen Municipal Waste Management Centre (AVEA)**

Here we witnessed, first-hand, how the municipal council handled waste management within the township; from storage, separation, and right up to their recycling and disposal methods. They have successfully implemented a framework which includes tax payments and incentives to ensure that the community was relatively aware and cooperative in their system. The majority of society did their part by first segregating their waste neatly, and properly recycling recyclable materials, as a result of the successful framework.



The AVEA waste management centre

- **Eco-Commercial Building in Monheim**

Being one of the buildings under the Eco-Commercial building program, the Children's Daycare Centre at Monheim achieves emission-neutral energy balance annually, and boasts a zero emission system through a detailed concept of utilizing energy efficiency. It was awarded the prestigious "Energy-Optimized Building 2009" by the German Ministry of Economics, and is a platform for further development. It achieves 55% energy saving compared with German standards. This building utilizes Bayer materials, **climate and energy optimized building concepts, use of renewable energy sources such as photovoltaics, solar and geothermal, and daylight combined with efficient lighting technology.**



Eco-Commercial Building, Monheim

- **Incinerator plant at Burrig**

We obtained greater knowledge of the fundamentals of incineration as the end treatment of waste through a thorough tour of this plant. Managed to witness each process with a guided tour of its detailed descriptions.



Incinerator plant, Burrig

- “Lumbricus” environment bus

This bus is part of the Academy for the Protection of Nature and Environment of Northrhine-Westfalia. It supports nature conservation groups and acts as a mobile classroom for children and adults to learn about environment first-hand; through exciting visual materials and experiments



The Lumbricus

- **Max Pruss Water Quality Boat**

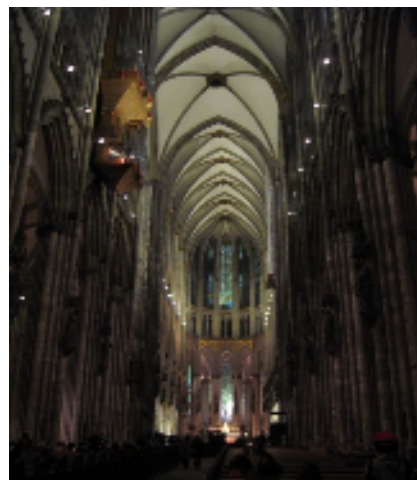
This experimental ship conducts water quality sampling and data collection on the River Rhine continuously in effort to monitor the quality and quantity of pollution.



Max Pruss shining in the sun

On a lighter note, Bayer was kind enough to bring us for leisure visits to several popular tourist locations around Cologne and Leverkusen, such as the:

- **Cologne Cathedral**



- **Schloss Burg Castle**



- **Bayer Leverkusen Football Stadium**



- **and above all, a lovely River Cruise cum dinner along the River Rhine.**



View of the boat and from the boat

The final night of the week ended with a grand dinner celebration in the restaurant of the Bayer Leverkusen Football Stadium itself, where all the envoys were required to don in our national costumes and share a light-hearted performance that defined our respective cultures. It was a night of great fun, great food, extreme laughter, and full of cultural colours.



The Asian envoys in the colours of our nations

All in all, the entire week was a work of art; with a perfect blend of intellectual and technical exposure, leisure and fellowship. However, of all the fruits gained from this trip, it was the friendships and “global network” built that truly left me spellbound. The immense implications of such a bond between nations worldwide and how it may one day benefit us in the future simply cannot be quantified. For this, I am truly grateful beyond measure, for this absolutely priceless experience that I probably never deserved.



Group Picture of all 53 envoys

However, I'm glad to be back at Tokyo, to forge new memories and gain invaluable learning from the great people of ABE Lab. Cheers!

Special thanks to my supervisor from Malaysia, Dr Sumiani Yusoff, for guiding me throughout my time as an undergraduate, and for still guiding me now as a postgraduate student.



ABE Lab members. Ganbatte!