



NATIONAL ENVIRONMENT CONFERENCE

BRUNEI DARUSSALAM

National Environment Conference 2011

“Green Brunei: New Ideas for a Sustainable Country”

The 2011 National Environment Conference held on June 8 brought together over 250 stakeholders from government, business, academe and civil society in a format that encouraged open forum discussion and interaction between the speakers and the participants. The conference featured a keynote opening address by the Minister of Development followed by two sessions in the morning, a conversation after lunch and an open forum discussion in the afternoon. In conjunction with the conference, a green showcase with more than 20 corporations, SMEs, ministries and educational institutions also took place. The conference saw the recognition and awarding of youth who participated in the Youth Go Green Initiative Awards and ISB-JIS National Schools Eco Video Competition.

The 2011 National Environment Conference was convened by Asia Inc Forum in collaboration with Alcoa, Butra HeidelbergCement, Total and HSBC and supported by Borneo Bulletin and Media Permata.

This paper highlights the key findings/recommendations that arose from the dialogues and a summary of the discussions addressing the priorities for Brunei.

KEY FINDINGS:

Some of the ideas/ recommendations for a Green Brunei that arose throughout the conference from the panel discussion as well as the Q&A sessions are:

- **On a Green Building Council.** Brunei to be part of the green building movement to rate the performance of buildings in Brunei. This will encourage the construction industry and existing buildings to increasingly consider sustainable development.
- **On Environment Management System.** To develop legislation that will push companies to voluntarily adopt and comply with best practice. Will serve as a tool to improve environmental performance and as a framework for identifying and addressing the long-term impacts of an organisation’s activities.
- **On Environmental Impact Assessment.** Holistic understanding (and implementation) of EIA in Brunei that encompass social and health considerations aside from just the environmental aspects of a project or development.
- **On Statistical Data.** Studies on the state of the environment and marine biodiversity to be done and data to be made available to the public as a facilitator of making informed decisions.

Identifying the baseline issue or problem is the first step and with accurate data, we will be in a better position to formulate the solution.

- **On Stakeholders Engagement.** To have more interaction between the stakeholders of the economy and the environment– more dialogue between the government, policy makers, the business and civil society as well as with the general public.
- **On the Power of Small Actions.** Never underestimate the power of small actions as they all add up and make a significant difference and will influence change. An example is the power of consumer – consumers collectively have the ability to influence how supermarkets implement its Environmental Management System.
- **On Youth Empowerment.** Youth to be given more encouragement to take the lead in environmental causes. The creativity and ability of Brunei’s Youth was evident in passion, commitment and excellence of the entries to the Youth Go Green Initiative Awards and the National Schools Eco Video Competition.
- **On a Collaborative Platform for Youth.** There needs to be a national platform created to enable youth to come together to voice their opinion, share ideas, collaborate and work together on the issue of the environment and sustainable development. Such platform may spur up opportunities for businesses and the country going forward. A Facebook page under the name ‘Youth Environment Leaders for Brunei’ was set up following the conference to serve as a platform for discussion.
- **On Measure for Sustainability.** In relation to the no plastic bag weekend campaign – how successful has this been in reducing the use of plastic bags? Proper measurements should be developed to ascertain the effectiveness of this, and other, changes.
- **On Subsidies for Green Products.** Subsidies to be put in place to spark for the development of green business opportunities for example, in green retail i.e. consumer products - environmentally sustainable products are generally more expensive than regular products and the reason for this is the lack of economies of scale.
- **On Recycling Centre.** Build a centre for recycling, which should also be a centre for educating the public on the process of recycling and its significance. This should incorporate the element of creativity that can come from recycling such as a recycling art exhibition.
- **On the Role of Society.** To move away from being part of the problem to being part of the solution that requires getting involved and taking action for the environment.

Key Summary:

1. Keynote Address by the Minister of Development:

- Brunei needs to move from where it currently stands to where it needs to be as a sustainable country by incorporating four elements into this process: measurements, research, civil society and government.

- For us to better plan our journey towards a sustainable country, we need to know where we are now in order to be able to tell how far we have travelled. If we want to talk about marine biodiversity, disaster preparedness, green initiatives or new ideas for a Brunei, baseline and targets are essential to chart our journey and to learn where others have gone before and learn the best practices.
- Brunei has seen notable progress in the R&D area, which saw recent government allocation of \$50million in the current national development plan to support research and development in science. Clusters of research have been identified for prioritisation notably in energy, environment and sustainable development among some.
- Civil society, as consumers and users of products and services, play a leading role in influencing and shaping the consumption of resources like energy, water, land and waste generation. Change in consumption levels can only be effectively promoted with informed engagement and active participation of the civil society.
- The government is currently drafting three environment-related legislations; ***Environment Pollution Control Order, Environmental Impact Assessment Order and Hazardous Waste (Control of Export, Import and Transit) Order*** to support the move to being a more sustainable country.
- As a country with a relatively small resource base, to attain and achieve sustainability both economic and environmental is not a matter of choice or option. We are therefore compelled to attain holistic sustainability in order to push our long-term agenda development goal under Vision 2035.

2. Brunei's marine Biodiversity:

General perspective:

The Ocean is an important part of the eco-system – it supports a significantly greater diversity of life than any other place on earth and therefore can be seen to be our life support system. The main player in the marine eco-system is the sharks - they are the apex predator of the worlds' oceans standing at the very top of the food chain. They act as the natural barometer for the oceans' health by helping to maintain a balanced eco-system. Unfortunately, overfishing of sharks and certain types of fishes, together with pollution, are damaging our oceans at an alarming rate.

25 per cent of the reefs around the world have already perished and the remaining 75 per cent could disappear within a generation. The reefs protect our coastline and support a quarter of all marine life. We too often make the mistake of believing that whatever we take out from the ocean, or whatever we put in, do not have any kind of repercussions.

Humans used to fish with basic instruments such as fishing lines or small nets to support just what was needed to survive; but technology, together with population demands, have made fishing today

overly destructive. For example, the biggest trawl nets used by many fishing vessels around the world today are equivalent in size to thirteen 747 airplanes.

The message is very clear – we need to protect our marine eco-system and the oceans as a lot of life on the planet depends on it to survive.

Industrial Perspective- Alcoa:

- Improper design of large manufacturing facilities that are located near or on the sea can have significant adverse effects on marine bio-diversity. Therefore, companies should manage this carefully – especially those that use the sea to transport materials to their facilities.
- An opportunity for Brunei, which will also be a challenge going forward, is to effectively strike the balance between the environment and economic development. Finding the correct balance between using resources and conserving are never easy questions to answer as they involve making a lot of choices.
- The marine environment is already falling apart – the negative effect around the world is evident in the reports surfacing in the media. If the problems are not addressed, it will destroy this planet. Most people do not understand that our life depends very much on the bio-diversity of our marine – as our source of food, income and trade.
- Corporations have responsibilities to put these resources and their influence to good use –this means finding the balance that will not only benefit them economically, but also that will benefit the environment. It is about bringing responsible development at the same time as protecting the bio-diversity base.
- It is imperative that we do not become so gloomy that we do nothing – it is too easy to get discouraged by negativity. Change can be made –awareness is the first step followed by giving people resources and the education and ability to handle those resources so that they are able to do something about their situation.

Brunei Perspective:

- The Beach Bunch is as an environmental NGO which aims to inform the public about the importance of environmental protection as well as the activity of cleaning Brunei’s beaches. Through active participation, the Beach Bunch is trying to encourage recycling through awareness and education.
- The beach clean ups have been successful at sending the message and changing mindsets on the consequences of littering and improper waste management. A total of 4 tonnes of waste have been collected in less than two years though monthly cleanups with volunteers all over the country.

- Based on the survey done by the Beach Bunch, most of the rubbish in Brunei waters ends up on the river banks. This is a potentially hazardous issue that could affect us as the waste re-circulates in the eco-system – ending up in the stomachs of the marine animals that we eventually consume.
- The Beach Bunch has been looking at Meragang Beach as the site for the Blue Flag certification. It is hoped that this will put Brunei on the map. The initiative involves a lot of partnerships due to the stringent environmental standards set by the Foundation for Environmental Education (FEE), the international agency that runs the Blue Flag program for beaches and marinas.

A key question that arouse during the session:

Q) How does the project that Alcoa tries to do in Brunei Bay ensure that marine biodiversity will be sustained and the balance can be achieved between economic and environmental concerns? What will the effect be on the fisheries at that area?

A) It starts with baseline knowledge. First of all, you need to know what was there before you can do anything to manage the protection. With any project anywhere, you need to know not just the environmental but also the social and economic baseline. An example is the Alcoa project in Northern Brazil that sits on a mangrove area which is also part of a marine national park. The fisheries are in better shape compared to other areas and the reason for that is because the facilities are managed properly and the company also manages the land use on the buffer zone by helping introduce sustainable agriculture on to the buffer zone area to stop the slash burn agriculture that was taking place before the company was established there. The local farmers and fishermen (because there's still a lot of subsistence farming and fishing in that area) realized the yields have gone up and hence they've stopped spoiling their forest reserves through slash burn agriculture and they are using a single plot of land for each of their enterprises and are practicing sustainable farming.

3. Disaster Management:

An Australian Perspective:

- Death, destruction and displacement are the common effects of natural disasters and it is very important to understand what to do should such disaster struck.
- No country is immune to disasters but the kinds of disasters vary by country and location. Therefore, it is important for the risk profile of disasters to be effectively identified and communicated.

- In Australia, the most prevalent disasters are bush fires, drought and flooding. The largest disaster in the history of Australia was the Victorian bushfire in February 2009 that left 173 dead, 500 injured, 2,133 homes destroyed and over 4,000 people displaced. The incident did not only affect human beings but also significantly destroyed community buildings, lands, stock and wildlife.
- As a result of the incident, there has been a strengthening of the strategic framework to include emergency management partners within the community at its core. Issuing relevant community information is also seen as critical to the protection and preservation of life of the emergency workers and community members –the warnings will help people make informed decisions about their safety.
- Disaster management is about co-ordination and integration between all agencies, government departments, corporations and the public.

Perspective from Brunei Authority:

- Despite being located in disaster prone region, Brunei is in a fortunate position. The country only experiences landslides, wildfires and floods – over the last four years, the most frequent emergency situation in Brunei has been floods and landslides. Neighboring countries such as Indonesia and the Philippines face numerous disasters such as earthquakes, volcano eruptions and tsunamis.
- Preparedness is not a product but an ongoing process and there is no metric available to measure preparedness. However, Brunei’s approach towards disasters have changed – in 2006, Brunei introduced a Disaster Management Order that called for a comprehensive disaster management structure, which has propelled the establishment of the Disaster Management Center.
- Brunei has institutionalised its approach to disaster management and changed the paradigm for preparedness and recovery to disaster risk reductions with the authorities looking at a situation of sustainable disaster management.
- The National Disaster Management Centre acts as co-ordination centre at operational level to co-ordinate activities at ground level through: i) enhancing the response mechanism – coordinating a multi sectoral and multi disciplinary approach; ii) forming of an incidence management system to ensure effective and efficient response mechanism – the incidence command system was introduced in 2009; and iii) community based risk management system.
- Resilience can only be developed through partnership and close co-operation with other stakeholders including the private and public sector as well as the community. No agency can work on its own as the management of disaster truly belongs to everyone.

Industrial Perspective:

- The oil and gas industry in Brunei has very solid approaches to the design, construction, operation and maintenance of their plants with the highest regards to the safety of the people in their communities and the environment. However, even with that the industry is in an inherently hazardous business – therefore, accidents are likely to happen.
- Many companies have solid emergency response systems at all levels of the organisation and have procedures and resources in place to identify any potential emergencies. They are therefore able to quickly and effectively respond to emergencies should they happen and have the capacity to contain them, to control them and to reduce the potential of escalation impacts to their facilities, community and the environment.
- Mechanisms are in place to bring together a management team to co-ordinate the overall response to whatever emergency that might befall the company. Importantly, there are also mechanisms in place to alert or work with the government emergency services and the community to ensure an effective response as required.
- There are ongoing liaison mechanisms between companies, the relevant government agencies and the regulators. In recent years, the National Petroleum Company of Brunei has played a powerful role to ensure the prevention of industrial disasters.

4. Youth Initiative on Environmental Conservation:

Mark Cheng, the co-founder and Executive Director of Avelife Foundation of Singapore shared his experience on the kind of environmental initiatives that Avelife Foundation undertakes in Singapore and around Asia. The NGO was founded based on the idea of meeting the needs of the poor while conserving the environment. It was started in Nov 2009, with a group of seven youths and young professionals. Avelife have since grew to have about 7,000 volunteers from all walks of life and regionally have inspired more than 200,000 youths to campaign the cause, of which numerous have gone on to start their impactful socio-environment non-profits. Avelife recently became one of the largest socio-environment movement in Asia.

Among the work he focuses on are community recycling, green education, green social enterprises, and green art advocacy among various others. The approach used in community recycling is the exchange of items to be recycled with basic necessities – such as, rice, which has been a popular concept amongst the community. What started as an incentivised recycling program, people started questioning about the existence of recycling bins in their area and they also started questioning what they could do to help.

Mark stands for the principal of incorporating the 3Ps (people, public, private) into the initiatives simply because it should meet needs while protecting the environment. Based on his observation, much of the environment is socially-related. For example, poor resource management contributes directly to poverty.

“Think globally and act locally..not forgetting the importance of being relevant to society.” Mark Cheng.

5. Ideas for Green Brunei:

The last session was an open forum discussion on ideas for a Green Brunei. It was led off by a presentation on green buildings by Markus Brunner of HeidelbergCement, Germany; was followed by a presentation on the management of Brunei forests by Mahmud Yussof of the Heart of Borneo Centre and a discussion on the power of taking action by Dr Debra Enzenbacher from UBD; and was ended by Lim Boon Teck of HSBC Brunei who spoke about various business and environmental opportunities.

Perspective on Green Building and Construction- ButraHeidelberg Cement:

- In developed countries 40% of energy consumption is related to construction that includes the development and running of buildings.
- The concept of a Green Building starts quite literally from the ground up and is based on an entire life cycle for buildings – including materials and methods of construction, repair and maintenance, demolition and disposal of materials.
- Sustainable construction emphasises on reducing the environmental impacts, such as improving the energy performance through keeping materials within the building cycle rather than letting them be disposed of.
- It is also pertinent to put in place certification that rate the sustainability of buildings, such as the LEED rating which is a global movement led by the U.S Green Building Council in the 1990s

Perspective from the Authority:

- Brunei has been dealing with the idea of being green since 1989, which has led to the publishing of the National Forest Policy in order to make Brunei greener and more sustainable within a protected environment.
- The idea is to support the national economic diversification through bio products industry and niche eco tourism industry; to promote sustainable development through sustainable forest

management of good agricultural and forestry practices to ensure food security as well as to promote sustainable land for sectoral developments.

- The Heart of Borneo Initiative is a shared commitment by the governments of Brunei, Indonesia and Malaysia since 2007 has led Brunei to commit 58 per cent of its forests to this initiative even – which represents only 1.8 per cent of the total percentage area of the Heart of Borneo due to Brunei’s limited land area.

Thought Leader Perspective:

- In thinking about green Brunei, it is important to acknowledge the vast scope of stakeholders that need to be a part of the solution. Environmental policies provide a framework to not only guide laws and the actions of every individual, every business, every government department or NGO; but also to propel people to play a role and go beyond just dialogue to taking action.
- Supermarkets need to start implementing an Environmental Management System specifically on banning the use of plastic bags not just every weekend. In addition they need to put in place full scale recycling programs and more efficient food storage systems.
- In Brunei with so much food imported, people remain unaware of the carbon footprint made to bring products to supermarket shelves. In many ways, the environmental problems are hidden from view and are being stored up for someone else to deal with.
- There is a moral dimension to food consumption and its environmental aspects. Overeating beyond the need to survive takes more of the earth than one needs to; and if everyone does this then the planet is depleted of its resources sooner than it may be able to replenish them.

Perspective from the Financial Sector- HSBC Brunei:

- The driving force for green business anywhere is government policy, climate change, energy security and energy prices.
- Based on the research by HSBC, the global Climate Change related business could be worth USD 2 trillion by 2020. This is a sector with high growth potential. Bruneian businesses and entrepreneurs should become more aware of the significant business opportunities that are associated with low-carbon economy, climate change adaptation and Green technology.
- Businesses can also look to invest in energy efficient technology such as LED lighting system, building insulation etc. Apart from investing in energy saving technology, businesses can review their energy consumption pattern to identify area where wastage can be minimised and efficiency can be improved. In 2008, HSBC Brunei benefited from an energy audit conducted by energy experts from the Ministry of Energy, Prime Minister Office. Many of their efficiency recommendation require little or no financial investment.

A comment from the floor on Environmental Impact Assessment:

Environmental Impact Assessments amongst others convey impacts of a project or development. The impacts may be positive and negative in nature which should also consider spatial and time sensitive impacts. Historically, Environmental Impact Assessments originated as a need to address purely environmental concerns, but in this day and age, to consider environmental impacts alone is no longer adequate, since there are usually social and health impacts. Some regulatory bodies have introduced the term Integrated Impact Assessment (IIA) to effectively differentiate from the historical EIA and encompass social and health considerations.

The information derived from Integrated Impact Assessments can be considered more holistic, but if such Impact Assessments are purely project specific, the cumulative impact of projects may be overlooked. Two separate Impact Assessments that are project specific may not represent the cumulative impacts of the two projects, hence not representing the overall impact of the projects to the surrounding community and environment. Strategic Environmental Assessments (SEA) have been introduced by bodies such as the United Nations Environment Program as a proposal to address such situations. SEA provides an overall picture of the cumulative impacts of different projects.

In summary, subject to the regulators definition, Environmental Impact Assessment should ideally not only consider environmental aspects but also social and health impacts. Effectively, Impact Assessments that have encompassed social and health aspects have been termed Integrated Impact Assessment by certain regulators to differentiate the historical definition of EIAs. Project specific Impact Assessments also have their limitations in that it does not consider cumulative impacts from individual projects. Hence, the introduction of Strategic Environmental Assessments to assess cumulative impacts of individual projects.

There is a potential for the Impact Assessments to provide critical information for policy makers to take measures to achieve targets such as the environmental strategy as stipulated in Wawasan Brunei 2035. This nonetheless needs further research, collaboration and coordination from relevant stakeholders to introduce strategies that are specific, measurable, achievable, reasonable and timely (SMART) consequently allowing policy makers to measure the effectiveness of their policies.

**the comment came from Hj Sofi Hasni bin Sharbini from Petroleum Brunei. His views do not necessarily represent that of Petroleum Brunei*

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