

# IMPAK

Issue 1 / 2012



<http://www.doe.gov.my>

Post-Durban: COP17 - Sustaining Planet Earth

## Post-Kyoto (2008-2012) Phase

In this issue of Impak, three writers who have frequently contributed articles to the various issues of the magazine have been invited to give their views on **Post-Durban: COP17**. However, before any attempt is made to discuss and evaluate Post-Durban as a success or failure, our concern is that there should be an indepth analysis of the Kyoto Protocol itself so that all views and opinions expressed may be seen in perspective by our readers. Hence, the publication of the first paper despite the theme being Post-Durban.

Chief Editor

## Examining Gaps and Possible Options



### Background

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992 as a basis for a global response to the effects of climate change.

The UNFCCC Convention aims "to achieve, in accordance with the relevant provisions of the Convention, stabilisation of greenhouse gases (GHG) concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system" (Article 2 of UNFCCC, 1992: 4). The Convention is complemented by the 1997 Kyoto Protocol to achieve its objectives, which came into force in 2005. The protocol establishes legally binding limits for industrialised countries on emissions of carbon dioxide and other GHGs and to slash their GHG emissions by 5% by 2012 relative to 1990 levels. There are, however, some uncertainties in interpreting the meaning of 'dangerous' concentration levels as stated under the UNFCCC (Elzen *et al.* 2005; Oppenheimer & Petsonk, 2005). This is where the assessment reports by the Intergovernmental Panel on Climate Change (IPCC) become useful in providing crucial scientific information on the status of climate warming to enable informed decisions (IPCC, 2010). The Third Assessment Report prepared by the IPCC, for instance, indicated that such stabilisation would require substantial reductions in global GHG emissions of more than 60 % (taking 1990 as baseline) (IPCC, 2001).

The United Nations Climate Change Conference in Durban, South Africa in 2011 negotiated the implementation of the Convention vis-a-vis the Kyoto Protocol, the Bali Action Plan, and the Cancun Agreements. The main outcome included the decision by Parties to adopt a universal legal agreement on

climate change as soon as possible, and no later than 2015. This article hence narrows down the analysis on possibilities available in the post-Kyoto period (2008-2012) and what will constitute a fair differentiation of commitments among countries in addressing the issues more effectively.

### Achievements of the Kyoto Protocol

The 1997 Kyoto Protocol is an important milestone in international climate policy. Built on the structural and institutional components of the UNFCCC, the Kyoto Protocol has over the years expanded and improved the convention's mechanisms in several ways. Among the major achievements include:

- 1** Establishing a negotiation framework that is built on international participation
- 2** Strengthening the nature of commitments to become legally binding
- 3** Involving the private sector into the treaty compliance
- 4** Mandating the development of procedures and mechanisms to address implementation and compliance to the objectives of UNFCCC
- 5** Making allowance for flexibility with respect to Parties' national implementation of commitments
- 6** Allowing the use of emissions trading and other market-based mechanisms to facilitate emission reductions at possibly lower costs.

The Kyoto Protocol is, however, only the first step in efforts undertaken to stabilise GHG concentrations. The increasing levels of GHGs in the atmosphere (especially carbon dioxide) from human activities have prompted numerous discussions towards addressing the issue more effectively. Among the more significant forums include

### Contents

page

Post-Kyoto (2008-2012) Phase: Examining Gaps and Possible Options	1
From the desk of the Director General	2
COP17 - Shifting the Goalposts: Shifting the Responsibility	5
COP17 - Success or Failure?	7
COP17 - Implications for Developing Countries	9
Carbon Trading and Carbon Offsets	11
Understanding Malaysia's Emissions Reduction Pledge	13
Small Islands of Malaysia A Review of Environmental Issues	14
Event Highlights	16

A publication of the  
Department of Environment,  
Malaysia - **FREE copy.**



Continued on page 3

From the desk of the Director General

# Post-Durban: COP17 Sustaining Planet Earth



At one level, Durban COP17 offers much hope. Representatives from both developed and developing countries have come to an agreement to agree. Except Canada. The parties have agreed to have a new agreement/model treaty by 2013-2015. It is a tight schedule but on environmental matters nothing can be early or too soon. This treaty, if successfully negotiated, will come into force around 2020 to usher in the post-Kyoto Protocol world. It is everyone's earnest hope that environmentally speaking, it will pave the way for a 'brave new world'.

But at another level, there are doubts and grave misgivings. If the ever increasing proliferation of environmental acronyms, terms and catch-words used in various negotiations are any indication of the difficulties ahead, there is much to be concerned about. Here is a quick sample for readers who may not be familiar with 'green' jargon: 'constructive ambiguity', 'agreed outcome with legal force', legally binding instruments, legally binding targets, CDM (Clean Development Mechanisms), BAU (Business-as-usual), NAMA (Nationally Appropriate Mitigation Actions), CBDR (Common but Differentiated Responsibilities), SBSTA (Subsidiary Body for Scientific and Technical Advice), AWG-DP (Ad hoc Working Group on Durban Platform), NAPs (National Adaptation Plans), CCS (Carbon Capture and Storage) and MRV (Measurement, Reporting and Verification) are obvious examples. Then there is the complex issue of definitions and interpretations of these terms.

There are also our concerns as a nation on the various decision making processes undertaken in Durban. Transparency and inclusiveness were sacrificed when Malaysian representatives were summarily denied the opportunity to participate in the final and crucial stages of the discussions on grounds of security. We must therefore express our strong reservations on the Presidency adopting decisions at the closing plenary meetings regardless of the various Parties' views that a consensus does not exist. This criticism must be regarded as a constructive one given that developing countries' negotiators, including us, are now doing their utmost to make sense of matters, strictly speaking, we have not agreed to.

Coupled to these misgivings, doubts, definitions, interpretations and difficulties is the realisation that climate change is a multi-level governance problem and not just a matter for negotiation among nation states. Increasingly there is an awareness that top-down universalism embodied in the Kyoto Protocol is fraught with the dangers of non-compliance and requests for exceptional treatment. ASEAN member states including Malaysia are of the view that countries should initiate implementation policies and strategies that suit their particular circumstances at the national level. The salient feature of this approach is that it focuses on what the individual governments, firms and households should and can actually do to reduce their emissions in contrast to target setting that has characterised the various COPs. It must also be noted that almost

all the strategies adopted thus far work on slowing down GHG emissions and very little effort has been directed at prioritising the development of adaptive strategies to cope with the impact of climate change.

Climate change is not a future event. It is already here and upon us! To reinforce this point we include in this issue of IMPAK an interesting feature on the environmental issues and challenges facing the small islands of Malaysia. These islands, Sipidan included, have to contend with the difficulties of deriving a ecotourism model that finds a happy balance between tourism, effective planning, management and environmental control. The problems and challenges faced by these small islands is ample proof that our vision for a new post-Kyoto protocol world must be based on stabilisation of GHGs, sustainable development as well as mitigation and adaptive strategies backed by clear scientific information and financial resources to ensure its successful adoption and implementation. Sadly, these small islands are at the frontline of the climate change battle.

But whatever the difficulties and disagreements, a way forward must be found. We must continue to explore how best we can obtain financial funding to deal with the pressing issues of adaptation. Adaptive counter-measures and mitigative actions are not cheap. They will pose a strain on our financial resources. Sacrifices must be made. Priorities must be identified. We must remind the developed countries constantly of their promises and commitments made to invest and transfer green technologies to developing countries. After all, it is in the best interests of the developed world to assist the less wealthy countries rather than exploit the vulnerabilities of the poor and less able. Given the prohibitively high cost of 'green' R&D, technology transfer modalities and procedures must be worked out. If the pace of this transfer is slow or inadequate, we must be prepared to launch and fund 'green' R&D initiatives. More innovative legislation like the Renewable Energy Act 2010 are required. The Feed in Tariff (FiT) mechanism will surely spearhead 'green' power generation. Also important is the suggestion of a '1 ASEAN Green Policy'. It has the potential of a successful regional policy initiative. Perhaps, it may become the face of the developing countries of ASEAN at COP18 given the commonality of development and environmental issues facing us.

The year ahead will indeed be a challenging one!

Halimah Hassan  
Director General  
Department of Environment, Malaysia

the Bali Conference 2007, COP15 meeting in Copenhagen in 2009, and more recently the COP16 meeting in Cancun, Mexico in 2010 and the COP17 meeting in Durban, South Africa in 2011. These meetings have mainly centered their discussions on commitments from developed countries, possible ways to attain greater participation from the developing countries, as well as on gaining greater support from non-signatory governments especially the United States.

### Issues with the Kyoto Protocol

The Copenhagen Climate Summit in 2009 was supposed to build on the international agreement through a new environmental accord for the post-Kyoto period (2008-2012), including new targets for GHG emissions. Although various options have been suggested since then to address the post-Kyoto Protocol period, no definite agreement has yet been achieved. COP17 in Durban has decided to keep talking by extending the 1997 Kyoto Protocol which expired at the end of 2012 for five years, and aiming at a new treaty by 2015 to take effect by 2020. However, there are a number of gaps and challenges within the existing Protocol that need to be highlighted. The major ones include the following:

**1** The increasing rate of carbon dioxide emissions show that the main objective of the UNFCCC of 'achieving stable GHG concentrations in the atmosphere' is far from achieved (Figure 1). For example, the National Oceanic and Atmospheric Administration (NOAA) recorded a value of 385 parts per million (ppm) in 2007 as compared to the pre-industrial levels of 280 ppm in 1850. It is largely reported that fossil fuel emissions is the main cause for the accelerated increase in carbon dioxide concentrations. An annual increase of two parts per million (ppm) or more has been common since year 2000, compared to 1.5 ppm per year in the 1980s and less than one ppm per year during the 1960s (NOAA, 2008). Besides its lack of success in slowing global warming, the Kyoto Protocol has also failed to come up with alternative policy approaches that could combat climate change and adapt to its consequences (Business Roundtable, 1998). For instance, it was emphasised by Barrett & Stavins (2003) that because the Protocol targets apply only to the short-term period of 2008-2012 and assigned for the developed countries, the agreement will generate only modest short-term benefits, while failing to provide a real solution to the problem.

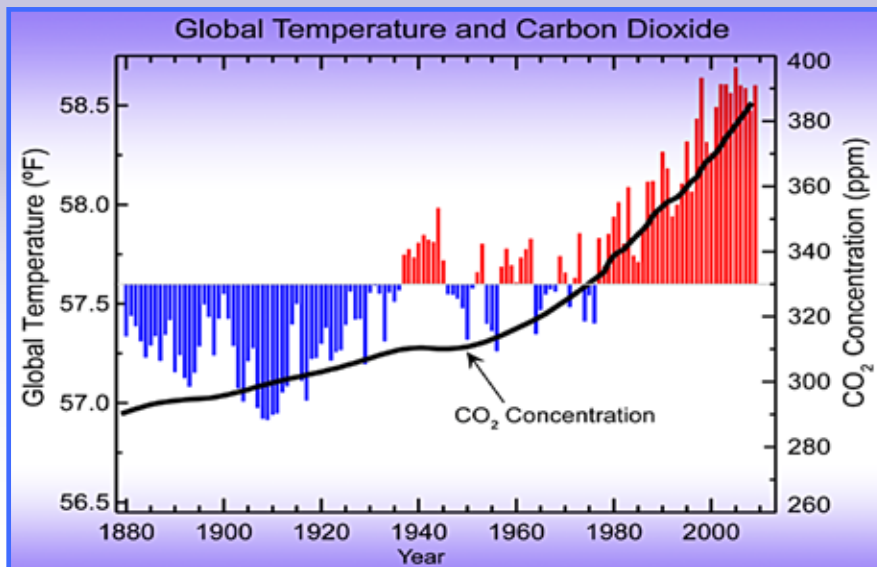


Figure 1. Global annual average temperature measured over land and oceans with the red bars indicating temperatures above and blue bars indicating temperatures below the 1901-2000 average temperature. The black line shows atmospheric carbon dioxide concentration in ppm.

Source: NOAA Satellite and Information Service, available at <http://www.ncdc.noaa.gov/indicators/>

**2** The three flexibility instruments - Emission Trading, Joint Implementation, and Clean Development Mechanism (CDM), are key features of the Protocol to limit the cost of reducing emissions by allowing for flexibility in how parties fulfil their obligations (Hovi *et al.*, 2007). Article 12 of the Protocol, for instance, highlights that CDM can be used as a mechanism, through which emission reductions can be earned within a non-Annex I Party and used towards meeting the Annex I Party's commitments. However, specific rules and mechanisms on monitoring and implementation of these flexibility features are still somewhat vague and need to be further defined.

**3** Supporters of the Kyoto Protocol have often blamed non-signatory governments especially the United States for the failure to reduce GHGs. It is important however, to acknowledge limitations within the Protocol as well. Although seen as an acceptable first step, the Protocol is not sufficient to address the overall challenge of tackling climate change. For example, it would not be possible to eliminate the threat of global warming through developed countries' emission reductions alone. At the current rates of economic development, annual GHG emissions by the developing countries (especially China and India) would match, if not surpass the annual emissions of the Annex I countries in the near future, which would in turn be the bulk of the problem of future emissions control (Vuuren *et al.*, 2003). The whole issue is further made complicated with not only

the developing countries being concerned that stringent commitments would cap their progress but developed countries fearing the possibility of weakening their economies and industries by fulfilling the Protocol's obligations as they would be at a disadvantage vis-a-vis competition from the developing nations.

**4** The Kyoto Protocol includes a system for parties to trade their 'assigned amounts' (i.e. system of tradable permits to achieve national targets). Edmonds *et al.* (1997) emphasised that such a system of international tradable permits if implemented only for the industrialised countries, could reduce costs by 50%. If such a system were to also include major developing countries, the cost would be further lowered to 25% of what it would otherwise be. However, opponents of emissions trading systems refer to this as a potential loophole, arguing that international trade in permit rights may lead to an effective increase in global emissions when signatory countries, whose baseline emissions are below their Kyoto entitlements, sell large amounts of their abundant emission rights.

### Addressing Limitations of the Kyoto Protocol

For a realistic mitigation strategy to be developed, the different contributions to GHGs warming, their vulnerability to climate change, and economic development of the different sectors must be considered. This raises the question of what is the possible level of commitment required post-Kyoto, and what will constitute a fair differentiation of commitments among countries

in addressing the issue more effectively. The key question is connected to the objective of the UNFCCC. The entire regime is designed to meet the objective of stabilising GHG concentrations in the atmosphere. So the resolving question now is: 'how do we actually get there?'

According to Article 17 of the UNFCCC, any new protocol would need to be adopted by consensus, and the text of any proposed protocol would have to be communicated to the Parties by the Secretariat six months before the COP Session (UNFCCC, 1992). With regard to this, Grubb (2004) argued that the Kyoto Protocol has the essential features required, and therefore small changes may increase its effectiveness. This would involve the need to strengthen reduction targets for the Annex I countries. This, however, poses a policy conundrum. On the one hand, for purposes of environmental effectiveness and economic efficiency, key developing countries should participate. On the other hand, for purposes of distributional equity and international political pragmatism, they cannot be expected to incur the consequent costs. Olmstead Stavins (2006) has therefore suggested that a set of growth targets that are set initially at business-as-usual levels be adopted for the respective developing countries, but become more stringent as those countries become more wealthy.

The Kyoto Protocol has always had the notion that emissions mitigation is a global problem and thus requires consensus among as many possible countries. There are perhaps fewer than 20 countries worldwide that are responsible for most of the world's GHG emissions (e.g., China, India, Russia, the United States, and the European Union countries). This consensus approach nevertheless would require participation from both the developed and developing countries regardless of which category of countries they fall into. If existing policies continue, the carbon dioxide emissions are predicted to increase by 57% between 2005 and 2030 with United States, China, India and Russia envisaged to contribute to two-thirds of this increase (World Energy Outlook, 2007).

It is important to acknowledge the fact that climate change is a multi-level governance problem and not just a matter for negotiation among nation states. Rather than just the top-down universalism embodied in the Kyoto Protocol, countries should also initiate implementation policies and strategies that suit their particular circumstances at the national level. The benefit of this approach is that it focuses on what individual governments, firms and households could actually do to reduce their emissions, in contrast to the directive

target setting that has characterised international discussions.

The present strategies are based on slowing GHG emissions over the priority of adapting to the impacts imposed by climate change. It is, however, important that mitigation and adaptation strategies go hand in hand to address the issue more effectively. Developing countries have refused so far, any abatement commitment mainly because they fear negative effects of emissions limitation on their economic growth. There is, however, a need for developing countries to allocate more investments into research and development (R&D) and capacity building to generate alternative energy sources or clean energy technologies. Without investments in R&D, the technologies, upon which a viable emissions reduction strategy would depend on, will not be available.

### From Here to Where?

The current system under Kyoto has left a number of major questions on implementation unanswered: Emissions from which sector should be prioritised? Are there other areas that should be considered as well? Who should be allowed to engage in trading? When should there be trading? What monitoring, certification and verification process would be required to ensure smooth adoption and implementation?

It can be argued on an ethical basis, that industrialised countries should take the first steps since they are responsible for the bulk of anthropogenic concentrations of GHGs in the atmosphere. Nevertheless, broad participation by major industrialised nations and key developing countries is essential to address the problem more effectively. There is however a lack of an agreed-upon mechanism to include new countries and extend the current agreement to new periods (Nordhaus, 2006).

Overall, the vision for a post-Kyoto era must be based on stabilisation of GHGs, sustainable development, as well as mitigation and adaptation strategies that are backed up by clear scientific information and financial resources to ensure its successful adoption and implementation. This should be based on a number of specific criteria, such as ensuring that a stable and credible system evolves over time and caters for the changes in the climate regime. Among these include a broader participation of major emitters including industrialised nations and key developing countries, strengthening of reduction targets for Annex I countries, greater investments by developed countries into R&D and capacity building, more efforts to be introduced at the national levels to move away from the present top-down approach, and

enhanced specification of the market-based instruments in order to fulfil key functions in addressing the issue.

### References

- Elzen, M. N., Lucas, P. & Vuuren, D. V. (2005). Abatement costs of post-Kyoto climate regimes. *Energy Policy* 33: 2138–2151.
- IPCC (2010). Available: [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data.shtml#1](http://www.ipcc.ch/publications_and_data/publications_and_data.shtml#1) [Accessed 29 Jan 2012].
- IPCC (2001). Climate Change 2001: Synthesis Report. Cambridge, UK: Cambridge University Press, 398 pp.
- Oppenheimer, M. & Petsonk, A. (2005). Article 2 of the UNFCCC: Historical origins, recent interpretations. *Climate Change* 73: 195–226.
- Barrett, S. & Stavins, R. (2003). Increasing participation and compliance in international climate change agreements. *International Environmental Agreement: Politics, Law and Economy* 3: 349–376.
- Business Roundtable (1998). The Kyoto Protocol: A Gap Analysis. Washington, D.C.
- Edmonds, J. A., Kim, S. H., MacCracken, C. N., Sands, R. D. & Wise, M. A. (1997). Return to 1990: The Cost of Mitigating United States Carbon Emissions in the Post-2000 Period. Washington DC: Pacific North-west National Laboratory.
- Grubb, M. (2004). Kyoto and the future of international climate change responses: from here to where? *International Rev Environment Strategies* 5 (1): 15–38.
- Hovi, J., Froyn, C. B. & Bang, G. (2007). Enforcing the Kyoto Protocol: can punitive consequences restore compliance? *Review of International Studies* 33: 435–449.
- National Oceanic and Atmospheric Administration (NOAA)(2008). Carbon Dioxide and Methane Rise Sharply in 2007. Available: [http://www.noaaews.noaa.gov/stories2008/20080423\\_methane.html](http://www.noaaews.noaa.gov/stories2008/20080423_methane.html) [Accessed 5 January 2011].
- Nordhaus, W. D. (2006). After Kyoto: alternative mechanisms to control global warming. *The American Economic Review* 96(2): 31–34.
- Olmstead, S. M. & Stavins, R. N. (2006). An international policy architecture for the post-Kyoto era. *The American Economic Review* 96(2): 35–38.
- UNFCCC (1992). United Nations Framework Convention on Climate Change. Available: <http://www.unfccc.int/resources> [Accessed 18 Dec 2011].
- UNFCCC (1995). Report of the Ad Hoc Group on the Berlin Mandate. United Nations Framework Convention on Climate Change (FCCC/AGBM/1995/2), 13pp.
- Vuuren, D. P., Elzen, M. G. J., Berk, M. M., Lucas, P., Eickhout, B., Eerens, H. & Oostenrijk, R. (2003). Regional Costs and Benefits of Alternative Post-Kyoto Climate Regimes: Comparison of Variants of the Multi-stage and Per Capita Convergence Regimes. Study commissioned by European Commission with support from Dutch Ministry of Environment for International Climate Change, 117 pp.
- World Energy Outlook 49 (2007). Executive Summary. Available: <http://www.iea.org/Textbase/npsum/WEO2007SUM.pdf> [Accessed 5 Dec 2011].



# Shifting the Goalposts: Shifting the Responsibility

## Setting the Stage

Coming off the Copenhagen COP15 debacle in 2009 where developing countries were coerced to accept, but instead, rejected, the 'Copenhagen Accord', and the 'gavelled-through' COP16 decisions in Cancun in 2010 in which 'consensus' was achieved and the multilateral process, 'saved', by blithely steamrolling over the Plurinational State of Bolivia, predictions for the outcome of the 17<sup>th</sup> Conference of the Parties were understandably diverse. Some predicted the end of the Kyoto Protocol (KP) of the United Nations Framework Convention on Climate Change (UNFCCC), while others maintained that developing countries would spare no effort to ensure that Durban, South Africa, would not be allowed to become the burial ground of the KP.

The Malaysian delegation had its mandate. According to the two-track Bali Roadmap, the KP needed a second Commitment Period during which Parties should commit to deeper emission reductions cuts under the Protocol; the US, which had an emissions-reductions-free ride during the first commitment period of the KP, should take on comparable legally binding emission reduction commitments under the Convention, and developing countries should undertake Nationally Appropriate Mitigation Actions (NAMAs) under the Convention.

However, Malaysia drew the line at, and would not accept, any future regime that ignored the Convention's key principles of equity and Common but Differentiated Responsibilities (CBDR) and respective capabilities, or that trivialised the important distinctions between developed countries with their historic emissions and developing countries with their need to prioritise poverty reduction and development.

## The Outcome

In the early hours of the morning of Sunday, 11<sup>th</sup> December 2011, more than 36 hours behind schedule, the talks ended with the COP President gaveling through all the documents that were presented to delegates on a 'take it or leave it' basis. All in all, some thirty-six decisions were gavelled. The key outcomes that impact Malaysia and other developing countries include:



**1** An agreement to proceed with a second commitment period of the KP of between five and eight years in length, the details of which remain to be negotiated. A key difference is that Japan and Russia have indicated that they do not wish to be part of the second commitment period of the Protocol while Canada announced shortly thereafter that it would withdraw entirely from the KP. The implications of these actions on the CDM and the other flexibility mechanisms remain unclear. However, from a logical standpoint, the role of the flexibility mechanisms in assisting developed country parties in meeting their legally binding emissions reduction pledges seems redundant if Parties no longer subscribe to and are no longer bound by these pledges.

**2** An agreement to begin talks on a new platform under the Convention, known as the Durban Platform for Enhanced Action. This Platform, which may take the form of a Protocol, a legal instrument or an 'agreed outcome with legal force', is to be negotiated in a new ad hoc working group under the Durban Platform (AWG-DP), and aspires to bring all countries under a mandatory emissions reductions regime. Malaysia remains concerned that in the same way that developed countries diverted progress from the Working Group on the KP (AWG-KP) to the Working Group on Long-Term Cooperative Action (AWG-LCA), work on the two existing ad hoc working groups will suffer as attention is diverted to the new AWG-DP.

**3** Progress under the AWG-LCA in setting up the governance structure of the Green Climate Fund (GCF). Several developed country Parties have already announced initial financial contributions, paving the way to rapid operationalisation of the fund.

**4** Progress on the incentive framework for Reducing Emissions from Deforestation and Forest Degradation (REDD+). Support from many sources and channels, including market-based approaches would be utilised to fund results-based actions. Progress was also achieved in the areas of safeguards, reference levels and emissions reference levels.



**5** Agriculture has been accepted as an agenda item for the Subsidiary Body for Scientific and Technical Advice (SBSTA). Parties have been invited to submit views that will be discussed at the 36<sup>th</sup> session of the SBSTA.

**6** Parties were not able to reach agreement on the definition of Nationally Appropriate Mitigation Actions (NAMAs). However, Parties will continue to discuss the diversity of NAMAs during a series of workshops planned for 2012. In the interim, Parties have agreed to set up a prototype web-based registry to facilitate the matching of actions with support during the first half of 2012 and make it available to Parties on a voluntary basis by the third quarter of the year. Barring problems, the registry is scheduled for full implementation by the 18<sup>th</sup> COP.

**7** Under the registry for NAMAs, developing countries may list proposals for NAMAs seeking support or, alternatively, may list domestically funded NAMAs. While

*Continued on page 6*



Measurement, Reporting and Verification (MRV) will be required for supported NAMAs, it remains unclear whether domestically funded NAMAs, however, they are eventually defined, should be held to a similar standard. Nevertheless, the SBSTA has been directed to develop guidelines for the MRV of domestically funded NAMAs.

8 Guidelines were finally agreed for the development of National Adaptation Plans (NAPs), which should be country-owned and country-driven and non-prescriptive. While NAP development and implementation will be primarily through the Least Developed Countries (LDC) Fund, other sources, including the Green Climate Fund (GCF), bilateral and multilateral channels may be used to expand the scope of adaptation funding to non-LDC developing countries. In this regard, agreement on the composition, financial and technical resources and decision-making processes of the Adaptation Committee were particularly welcome. Nevertheless, due to mounting financial constraints in many developed countries, issues related to the long-term financing for adaptation needs of developing countries continue to challenge negotiators.

### Can an Increasingly Flawed Process Yield Sound Outcomes?

While many developing country Parties have serious reservations about the content of the decisions that were adopted at the 17<sup>th</sup> COP, some, including Malaysia, have even deeper concerns about the process by which the decisions were taken. Allowing the sessions to continue far beyond the allocated time clearly shifts the balance in favour of the developed countries that generally have more resources to draw upon. In spite of repeated pledges by the President of the COP to ensure transparency and inclusiveness, once again, as in previous COPs, representation based on regional grouping was cited as a legitimate reason for security personnel to deny delegates entry into the 'green room' at the critical final juncture of the negotiations. Malaysia was thus summarily denied the opportunity to participate in the final stages of the discussions. The presentation of new and different 'take it or leave it' texts for adoption at the final plenary made the outcome a text decided 'for Parties' rather than 'by Parties'.

Finally, Malaysia has strong reservations concerning the process by which the Presidency adopts decision texts at closing plenary meetings regardless of Parties' views that a consensus does not exist.

### Concluding Thoughts

In many ways, the 17<sup>th</sup> COP seems more like the beginning of a new process rather than the reinforcement of an existing one. Having once shifted the goalposts by stalling the second commitment period of the KP and shifting work to the AWG-LCA, developed countries have, yet again, shifted the goalposts, nullifying years of work on the Bali Mandate in the AWG-LCA to

Parties under a legally-binding emissions reduction instrument under the Convention even as the per capita emissions of the richest and most developed countries far exceed that of the vast majority of developing countries.

As developing country negotiators struggle to make sense of decision texts that they actually never really decided on, and lawyers struggle to decode and interpret the nature of 'an agreed outcome with legal force', what remains painfully clear is the challenging work that lies ahead. Developing country Parties that will, on the one hand, have to fight a rising surge of extreme weather events in a race against time to adapt to climate change, will, on the other hand, be called in 2012 to begin flushing out the details of this



shift the focus to the all-new Durban Platform. By any measure of reality, the timeframes projected for this new exercise are incredulously optimistic. While it took five years to develop and adopt the KP (1992-1997), it was a further eight years (1997-2005) before a sufficient number of countries ratified it, such that it could come into force; an exercise requiring the partitioning of agreed emissions reductions among a scant 40 or so developed country Parties.

In contrast, the Durban Platform seeks a finalised agreement in three years (2012-2015), entering into force in a further five years (2015-2020), expecting to bring nearly two hundred

new negotiating landscape; a landscape that, in many ways, contravenes the Preamble, Article 3 (Principles), and Article 4 (Commitments) of the UNFCCC. In doing so, developing countries will need to honestly reflect on the price they have paid to secure a second commitment period to the KP. It must be remembered that the KP today, as it did eight years ago, merely promises deeper emission cuts by the richest and most technologically advanced countries with the largest collective per capita GHG emissions in the world.

Source  
Dr Gary W. Theseira  
Email: gtheseira@nre.gov.my



# SUCCESS OR FAILURE?

In the past issue of IMPAK in 2010 and 2011, I discussed the failed climate summit in Copenhagen (2009), the optimistic Cancun conference (2010) and the more hopeful Durban summit (2011). Hence, do we consider the Durban summit, the blueprint to “save our planet for the future of our children and our grandchildren to come”, a success or failure for mankind? Is the masterplan merely an “empty shell of a plan that leaves the planet hurtling towards catastrophic climate change”?

The 17<sup>th</sup> Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 7<sup>th</sup> Session of the Conference of the Parties serving as the Meeting of the Parties (CMP7) to the Kyoto Protocol, had a ultimatum convention at the end of last year from 28 November to 9 December 2011 (see Box 1 to understand what is COP and CMP7).

The United Nations Climate Change Conference, Durban 2011, delivered a breakthrough on the international community’s response to climate change. In the second largest meeting of its kind, the negotiations advanced, in a balanced fashion, the implementation of the Convention and the Kyoto Protocol, the Bali Action Plan, and the Cancun Agreements. The outcomes included a decision by Parties to adopt a universal legal agreement on climate change as soon as possible, and no later than 2015. The President of COP17/CMP7, Maite Nkoana-Mashabane said, “What we have achieved in Durban will play a central role in saving tomorrow, today” (see Box 2 on the summary of the key outcomes of the summit).

Thus, do we consider the Durban Summit a success or failure? For most politicians, diplomats and some business leaders, the climate convention is considered a “historic breakthrough”. On the other hand, the green non-governmental organisations (NGOs) consider the mega event to have failed in delivering the aggressive policy measures required for the sustainability of our planet Earth (Murray, 2011a). How much has the meeting assisted or hindered the mobilisation of investment in low carbon and environmentally sustainable infrastructure and technology? This is one way of measuring the success (or failure). Any treaty or declaration that comes

out of events such as this, merely contains commitments, legally binding or otherwise and only represents a statement of intention. How many of these countries (the signatories) are willing to put their international obligations into action? Hence, merely setting emission targets that is difficult to enforce may not be the way forward. Instead, the summit should provide policy direction which is certainly critical to drive global corporate investment in the technology and infrastructure necessary to cut emissions.

Nonetheless, on a positive note, the Durban Summit succeeded in getting the agreement that will ensure all countries (including China and India), to face legally backed climate change obligations. The operationalisation of the Green Climate Fund to help poor countries adapt to unavoidable climate change and develop more sustainable approaches was another key outcome of the summit. Countries have to commit to new, long-term, sources of finance to meet the target of USD 100 billion a year globally by 2020 (Murray, 2011b).

Nonetheless, the loose definition of ‘major economy’ used to set the conditions that major developing countries take for emission-reduction commitments and which are similar to developed nations may be very biased (Khor, 2011a). The United States had insisted on these impossible conditions in order for it to participate in this new treaty. It is quite obvious that developing countries with large populations are being targeted unfairly. Let us take India as an example of this ‘major economy’ as defined by USA. In 2010, by per capita GDP, India is ranked lowly at USD 1,370. USA on the other had recorded USD 46,860 for the same period according to the IMF data. In 2008, India’s per capita carbon dioxide emission level was 1.5 tonnes compared with 17.5 tonnes for the USA. Hence, expecting a ‘major economy’ like India to take the same obligations as other more developed countries (given their low per capita income) may seem unfair based on the population of the country alone. Thus, developing countries like China, India, Pakistan, Brazil and Egypt cannot solely be blamed for not bowing to the pressure of rich countries to maintain their present commitments (Khor, 2011b).

What does it take before the human race can rally their efforts to making serious commitments to safeguard the environment? In the USA,

the ‘climigration’ lawsuit where industries are made responsible for any negative effect that their operations have on local communities is already taking place. The extreme weather that many countries across the globe have been facing is an indicator of major disasters waiting to happen. The threatening changes resulting from extreme climate events are likely to cause untold damage to infrastructure, health and agriculture, not to mention losses and suffering to society as a whole.

Doha in Qatar, will be the host of the next COP summit in 2012. By then, will there be any concrete agreement to bind all the signatories?

## Box 1: What is COP17/CMP7?

Since the United Nations Framework Convention for Climate Change (UNFCCC) entered into force in 1995, the **Conference of the Parties (COP)** to the UNFCCC have been meeting annually to assess progress in dealing with climate change. The COP adopts decisions and resolutions, published in reports of the COP. Successive decisions taken by the COP make up a detailed set of rules for practical and effective implementation of the Convention. The COP serves as the meeting of the Parties to the Kyoto Protocol, which also adopts decisions and resolutions on the implementation of its provisions. This annual meeting is referred to as the **Conference of the Parties** serving as the meeting of the **Parties to the Kyoto Protocol (CMP)**. However, Parties to the Convention that are not Parties to the Protocol are able to participate in the CMP as observers, but without the right to take decisions.

(Source: UNFCCC, 2011)

## References

- Khor, M. (2011a). Global Trends: Gloomy Outlook in Durban. *The Star Publications*, 5 December 2011.
- Khor, M. (2011b). Global Trends: Durban Climate Talks Launched. *The Star*, 12 December 2011.
- Murray, J. (2011a). Durban Summit – success or failure? *Business Green*, 12 December 2011.
- Murray, J. (2011b). Businesses hail ‘great result’ at Durban Summit. *Business Green*, 12 December 2011.
- The Climate Institute (2011). The Durban Climate Summit: Implications for Australia. The Climate Institute, Australia.
- United Nations Framework Convention on Climate Change (UNFCCC) (2011). COP17 / CMP7: United Nations Climate Change Conference 2011. Retrieved from <http://www.cop17-cmp7durban.com> [27 Jan 2012].

Continued on page 8

Box 2: Key Outcomes from the Durban Climate Summit

Key Objectives	<b>Durban Platform for Enhanced Action</b> Note: Progress (✓), Neutral (-), Negative outcome (X)
<b>Pollution reduction commitments and global goals</b>	<ul style="list-style-type: none"> <li>[✓] Reaffirmed the 'below 2°C' global goal and recognition of possibility of needing to strengthen this to 1.5°C.</li> <li>[✓] Noted the 'significant gap' between this goal and the commitments currently on the table.</li> <li>[✓] Commits governments to ensuring commitments are increased from current levels under the new legally binding agreement to be in place by 2015.</li> <li>[X] Parties were unable to agree on a peaking year for global emissions, or a 2050 global goal. This will be the subject of ongoing negotiations.</li> </ul>
<b>Agreement on the legal form of future international climate change agreements</b>	<ul style="list-style-type: none"> <li>[✓] Commitment to negotiate a new legally binding agreement to be in place by 2015 and in force by 2020.</li> <li>[✓] This will ensure that pollution reduction commitments and actions from all major emitting countries (both developed and developing) will be covered by the same legal binding agreement.</li> <li>[✓] This means the US, India, China, Europe and all other major emitters will be covered by the same legally binding agreement.</li> <li>[✓] While there will continue to be some differentiation in the strength of each country's commitment, they will have the same legal effect.</li> </ul>
<b>Kyoto Protocol</b>	<ul style="list-style-type: none"> <li>[✓] Decided that a second commitment period for the Kyoto Protocol would be established, covering the period 2013-2017 or 2013-2020.</li> <li>[✓] Countries – including Australia – have been invited to submit a national target for the second commitment period by May 2012.</li> <li>[–] A number of other decisions on the gases covered and the reporting guidelines were also made. New rules for accounting for land use, land use change and forestry emissions were agreed. These rules include making accounting for emissions from forest management mandatory and capping the amount of credits and debits that countries can use from forest management</li> </ul>
<b>Transparency and accountability</b>	<ul style="list-style-type: none"> <li>[✓] Developed countries agreed to provide more details on their mitigation targets by March 2012, including the assumptions used and gases and sectors covered. This will help to improve the transparency of current pledges. These submissions will be made using a common template to allow comparisons between countries to be made.</li> <li>[✓] Developing countries will also provide further details on their mitigation pledges, through a series of structured workshops. While this is an important step, ideally this information should also be submitted formally using a common template, rather than relying on workshops.</li> <li>[✓] Countries also agreed to establish a 'registry' of mitigation actions in developing countries, which require financial assistance. This will help to link actions with funding.</li> <li>[✓] New biennial reporting of progress on emissions reductions (mandatory for all developed countries and major emitting developing countries)</li> <li>[✓] Establishment of new processes to allow an open assessment of the progress that developed and developing countries are making to reduce emissions.</li> <li>[✓] For developed countries, the review process (known as 'international assessment and review') will focus primarily on checking progress towards their target.</li> <li>[✓] The purpose of the review process for developing countries (known as 'international consultation and analysis') is to provide more transparency and facilitate the implementation of mitigation actions.</li> <li>[X] No framework or process for new common accounting rules was agreed on defining and measuring the progress countries are making towards their targets.</li> </ul>
<b>Finance</b>	<ul style="list-style-type: none"> <li>[✓] Building on the work of the Transitional Committee established in Cancun, in Durban the Green Climate Fund was officially launched and will have its first meeting before April 2012.</li> <li>[✓] The World Bank will act as an interim trustee of the Fund to ensure it is managed in accordance with the highest fiduciary standards.</li> <li>[✓] In an important innovation for this type of fund, provisions have been made to finance private sector pollution reduction efforts. This will help to leverage greater levels of private finance.</li> <li>[✓] Countries also agreed to undertake a work program to analyse options for long-term sources of finance. This remains a key priority for negotiations for 2012 and beyond.</li> </ul>
<b>2013-15 Review</b>	<ul style="list-style-type: none"> <li>[✓] Established a process for this review to take place, beginning in 2013.</li> </ul>
<b>New market mechanisms</b>	<ul style="list-style-type: none"> <li>[✓] An undertaking to maintain and build on existing mechanisms associated with the Kyoto Protocol.</li> <li>[–] No decision to establish new market based mechanism but a work plan that will define a framework for new market based mechanisms to ensure they are credible and deliver real pollution reductions.</li> <li>[✓] Acknowledges that countries can individually or jointly develop new market mechanisms.</li> <li>[X] However, the credibility of new mechanisms rests heavily on the establishment of common accounting rules to measure a country's progress towards meeting its target. Without clear and robust transparency and accountability measures, new unilateral, bilateral, plurilateral or multilateral market mechanisms will not be credible.</li> </ul>
<b>Address emissions from the destruction of tropical forests (REDD)</b>	<ul style="list-style-type: none"> <li>[–] Decisions were made on setting reference levels for deforestation, but concerns remain about the environmental rigour of these processes. Potential loopholes remain.</li> <li>[–] The procedures for safeguarding against unintended social and environmental consequences of strengthening of accounting rules for REDD activities. REDD projects have been decided. Some concerns remain that these are not strong enough.</li> <li>[X] No final decision on financing mechanisms for REDD, including international trade.</li> </ul>
<b>Adaptation</b>	<ul style="list-style-type: none"> <li>[✓] Established an Adaptation Committee to oversee the implementation of the Cancun Adaptation Framework. This will greatly enhance the UN's work on climate change adaptation, particularly its efforts to support the world's poorest and most vulnerable countries.</li> <li>[✓] Durban also saw further progress on the issue of loss and damage, which is expected to be an issue of growing significance in future negotiations. The decision adopted in Durban flagged the possibility of establishing an international mechanism to address loss and damage. This is particularly important to small island countries, which are already experiencing loss and damage from sea level rise.</li> </ul>

Source: The Climate Institute Australia (2011)

Source  
 Assoc Prof Dr Vikneswaran Nair  
 Email: vicky.nair@taylors.edu.my



# Implications for Developing Countries

## INTRODUCTION

It was not the heat that ruffled the well-heeled 194 delegates who gathered at the recently concluded COP17 in Durban, South Africa 2011. They had expected a cool walk in the safari park and glimpses of the African wild. But they were totally unprepared when Canada<sup>1</sup> dropped the bombshell: “We want out”.

## THE DURBAN ANALYSIS

COP17 was not all doom and gloom even if only one key objective has been attained. Representatives from both developed and developing countries met to thrash out an amicable deal on a new agreement/model treaty by 2013-2015 (to come into force around 2020).

It is not clear if the Kyoto Protocol will be dumped in favour of a new Protocol based on the conflicts between developed and developing blocs. This is because the original deadline of 2012<sup>2</sup> had failed to produce satisfactory results under the original carbon emission reduction obligations outlined in the 1<sup>st</sup> Commitment Period. It must be admitted that the Kyoto Protocol laid a critical foundation for inclusive co-operation towards a common global goal to tackle climate change.

## The Agreement to Agree

If COP16 Cancun was all about pitching overriding national imperatives, COP17 reflects a sentiment of oneness: an agreement by all participants to agree. Perhaps it was the weather, or the humidity: after all climate change is what they had in mind. All except Canada.

The timeframe of 2013-2015 is admittedly short, but it is the date by which all delegates agreed to show commitment to reach an agreement to any proposed new terms and conditions of the new climate change draft model.

If an amicable settlement is to be reached by 194 representatives, the new draft model must contain achievable and realistic targets to reduce greenhouse gas concentrations to a level which would avert harmful anthropogenic interference with the global eco-climate system.

One pivotal factor must be seriously considered by ASEAN if this deal is to be considered as a deal for ASEAN as a whole: Legal obligations

encompassing Targets, Timeframe and Funding provisions.

What must be clear is the need to avoid ‘constructive ambiguity’ in the construction of legal obligations and bindingness within the international community by both developed countries and developing countries.<sup>3</sup> The new model must bind parties in some concrete manner to see concrete implementation with regard to Targets, Timeframe and Funding provisions.

For those unfamiliar with the terminology of ‘bindingness’, distinction must be made between a legally binding instrument on one hand and a legally binding target on the other hand. Both are not the same thing. Compliance does not denote legal bindingness. This issue will remain a bone of great contention at the next COP18 meet up.

## Durban COP17 Milestones

To summarise the whole debate, there are merely three milestone achievements:

### 1. Second Commitment period for the Kyoto Protocol from 2013 to 2015

This can be considered as a milestone achieved at Durban 2011 on the basis that parties pledged to hammer out a “protocol, legal instrument, or an agreed outcome with legal force applicable to all Parties” by 2013-2015. In other words, it means the establishment of a clear mandate for drastic carbon emission cuts and clear obligations.

### 2. A mandate to reach a legally binding Treaty for all 194 participants nations by year 2015 (to take effect in 2020)

The 1<sup>st</sup> Commitment Period of the Kyoto Protocol has come to an end effective 2012.<sup>4</sup> The 2<sup>nd</sup> Commitment period must be observed by 2015. And this is a long time for climate change.<sup>5</sup>

### 3. The establishment and operationalisation of the Green Climate Fund<sup>6</sup> decided in COP16 Cancun, Mexico.

The Green Climate Fund, first proposed in Copenhagen, with a proposed funding of USD 100 billion by year 2020, remains an empty shell with no contribution from developed countries. The release of this huge funding and related administrative and approval mechanisms received no clear consensus.

## IMPLICATIONS FOR DEVELOPING COUNTRIES

India, China and the majority of developing countries have contributed tremendously toward the targets set in the 1<sup>st</sup> Commitment Period of the Kyoto Protocol in their own way. But more could be done on the part of developed countries who appear to have adopted policies which neglect the national economic interest and social development of developing countries in the carbon emission reduction paradigm.

This is compounded by developed countries whose performance has not made a significant carbon footprint reduction as pledged in the 1<sup>st</sup> Commitment Period.



The President of COP17/CMP7, Maite Nkoana-Mashabane, made a proclamation that “What we have achieved in Durban will play a central role in saving tomorrow, today.” If carefully analysed, she set a tone that if parties do not reach an agreement by 2013-2015 on the draft and modalities, it could spell disaster for the future of tomorrow.

Not all ASEAN countries have benefitted from the COP regime’s downstream advantages. Controversy remains tense in areas not fully addressed at COP15, COP16 and COP17.

## No Real Adaptation

The first controversy is the issue of adaptation. Focus on adaptation demands financial funding which requires practical attention.

Continued on page 10

This is crucial particularly for Small Island Developing States, Least Developed Countries and the African continent,<sup>7</sup> besides advanced developing countries. Hence the need for operationalising the Adaptation Committee and the formulation of information for the execution of relevant national adaptation plans.

### No Real Transfer of Green Technology

Developed countries are still not forthcoming with their promises to invest and permit transfer of green technologies to developing countries given the exorbitant costs of R&D in green technologies.

There is yet no agreement on the technology transfer modalities and mutual benefit procedures by the Technology Executive Committee in the transfer of green technology and its development in developing blocs.

### Unresolved Issues

Post-COP17 indicates that there are three major areas of concern. One, is the procedures in the Measurement, Reporting and Verification (MRV) of carbon emissions at both developing and developed blocs. Apparently, there are allegations of non-transparency in the reporting, audit and verification mechanisms.

The other issue relates to final acceptance procedures for Carbon Capture and Storage (CCS) implemented under the auspice of the Clean Development Mechanism (CDM).

In relation to CDM, the call to include bunker fuels sourced from shipping and aviation industries into the UNFCCC mechanism saw no consensus. There was also a clarion call for a timely revision to the CDM methodology concerning the appeals process under the CDM project.

### No Substantive Commitment

Although all parties indicated that they will implement the obligations and commitments previously undertaken, their new obligations toward the 2<sup>nd</sup> commitment period is an open question.

Will the world see a more positive approach or 'common but differentiated responsibility' by 2015?

## THE WAY FORWARD

1 ASEAN Green Policy could be the face of developing ASEAN countries at COP18. At this point in time, ASEAN ought to work toward this single-minded goal. This ASEAN initiative could be used by ASEAN to spearhead

consensus in ASEAN capacity building leading up to one ASEAN draft agreement or model for adoption at the next COP18 towards the 2013-2015 deadline. This of course represents some form of clarity.<sup>8</sup> From a Best Practice Compliance analysis, Malaysia has led the way as demonstrated in the recent transformation of FELDA<sup>9</sup> and FELCRA<sup>10</sup> into global green modalities.



General Secretary Ban Ki Moon has upped the ante to get it done latest by 2015, failing which the clock will tick closer toward global disaster.<sup>11</sup>

## CONCLUSION

Malaysia has been vocal in the representation of developing countries in all COP meetings and negotiation. From a domestic compliance perspective, Malaysia has demonstrated conviction to concretise the green revolution through the Renewable Energy Act 2010. The Feed in Tariff (FiT) mechanism will spearhead the green generation of power. This is an exemplary example for adoption by other members in the ASEAN bloc. Malaysia's approach toward a 'common but differentiated responsibility' is rather holistic and in accordance with the ASEAN spirit and ASEAN Charter.

### Footnotes

- 1 Although Canada withdrew from the Kyoto Protocol, Canadian environment minister, Peter Kent, said that he was "cautiously optimistic" that a new climate change treaty would be reached by 2015.
- 2 The draft agreement will provide an alternative solution to carbon-emission limits to the Kyoto Protocol which will come to an end by December 2012.
- 3 China and India shared a similar tone when they said that "...developed countries lack political will to reduce emissions and provide finance and technology transfer to support developing countries."
- 4 See Annexure B of the Kyoto Protocol which obliges that Parties will implement the amendment within national boundaries by the end of 2012.

- 5 UN chief negotiator Christiana Figueres said the Durban agreement was a "critical next step," but admitted that it was "still insufficient."
- 6 The fund will provide for financial assistance for activities such as REDD+CCS, Nationally Appropriate Mitigation Actions (NAMAs), and National Adaptation Plans for Action (NAPAs).
- 7 According to President Jacob Zuma: "The time has come for the world to move away from analysis, study and research, to identifying practical adaptation actions that can be implemented on the ground." See address by President Jacob Zuma at the official opening of the United, Nations Climate Change Conference, COP17/CMP7 High-Level Segment, Durban, 6 December 2011.
- 8 Opening address at the high-level segment by Christiana Figueres, Executive Secretary United Nations Framework Convention on Climate Change, Seventeenth session of the Conference of the Parties (COP17) and the seventh session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP7) Durban, 6 December 2011, at [http://unfccc.int/files/press/news\\_room/statements/application/pdf/111206\\_cop17\\_hls\\_cf.pdf](http://unfccc.int/files/press/news_room/statements/application/pdf/111206_cop17_hls_cf.pdf)
- 9 "FELDA is already a home champion. It is time to be a global champion" as quoted by Deputy Minister Datuk Ahmad Maslan in the PM's Office in "FELDA listing on May 10", *NST*, 14 Feb 2012 at page 1. See also "FELDA Global to join Bursa top 25 Club." *Business Times-NST*, 14 Feb 2012 at page B1.
- 10 "This is another new initiative by FELCRA's board of directors. This is the first step towards FELCRA's transformation to reduce its dependence on estate produce by FELCRA participants..." as quoted by PM Datuk Seri Najib Razak in "FELCRA to pay out RM 914 million", *NST*, 13 Feb 2012 on page 12.
- 11 "The science is clear." The World Meteorological Organisation has reported that carbon emissions are at their highest in history and rising. The Intergovernmental Panel on Climate Change tells us, unequivocally, that greenhouse gas emissions must be reduced by half by 2050, if we are to keep the rise in global temperatures to 2 degrees celcius since pre-industrial times. According to the International Energy Agency, we are nearing the "point of no return," and "we must pull back from the abyss." The secretary-general-remarks to UNFCCC COP17 high level segment, Durban, 6 December 2011 at [http://unfccc.int/files/meetings/durban\\_nov\\_2011/statements/application/pdf/111206\\_cop17\\_hls\\_ban\\_ki\\_moon.pdf](http://unfccc.int/files/meetings/durban_nov_2011/statements/application/pdf/111206_cop17_hls_ban_ki_moon.pdf)

### Source

Jeong Chun phuoc  
Email: cpjeong@mmu.edu.my

# Carbon Trading and Carbon Offsets

The creation of a carbon market was a response to the Kyoto Protocol that calls for its members to reduce GHG emission to 5% below their 1999 level by 2012. Members who have ratified the Kyoto Protocol must meet their target. To achieve this, three-market based mechanisms referred to as carbon market were introduced:

## 1. Emissions Trading (Carbon Trading)

In emissions trading, parties (developed nations) have accepted targets for limiting or reducing emissions. These targets are expressed as levels of allowed emissions, or 'assigned amounts,' over the 2008-2012 period. The allowed emissions are divided into 'assigned amount units' (AAUs). The developed countries are allowed to buy their rights to burn while the other party is allowed to sell their right to burn.

## 2. The Clean Development Mechanism (CDM)

The CDM allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>. These CERs can be traded and sold, and used by developed nations to meet a part of their emission reduction targets under the Kyoto Protocol.

## 3. Joint Implementation (JI)

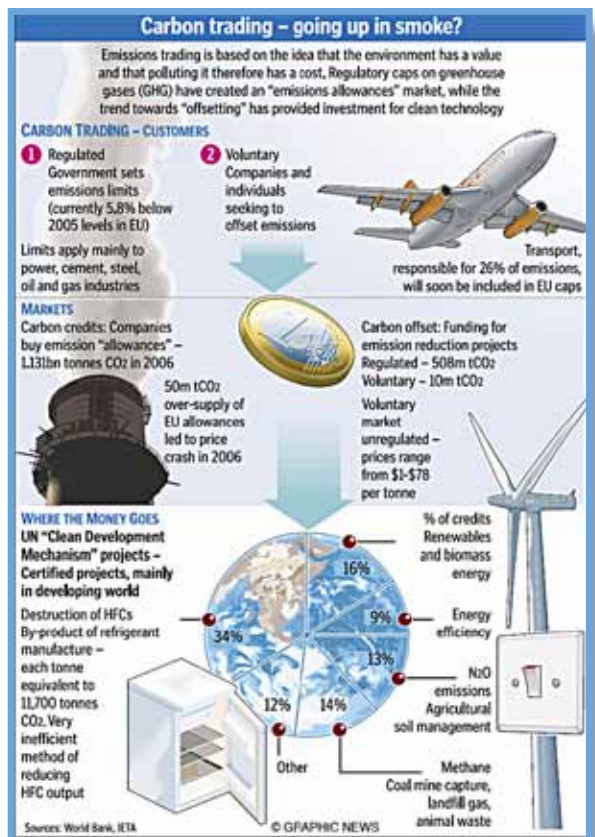
The JI allows a developed nation to earn emission reduction units (ERUs) from an emission-reduction or emission removal project from a developing country.

In 2009, Dato' Seri Najib Tun Abdul Razak announced in Copenhagen that Malaysia is committed to reducing CO<sub>2</sub> by 40% by 2020. He stated that this voluntary emission reduction can only be achieved through technology transfer and adequate financial support from developed countries (UNFCC Report).

This article will only discuss carbon trading and offsets and examine whether it is the solution to reducing global warming.

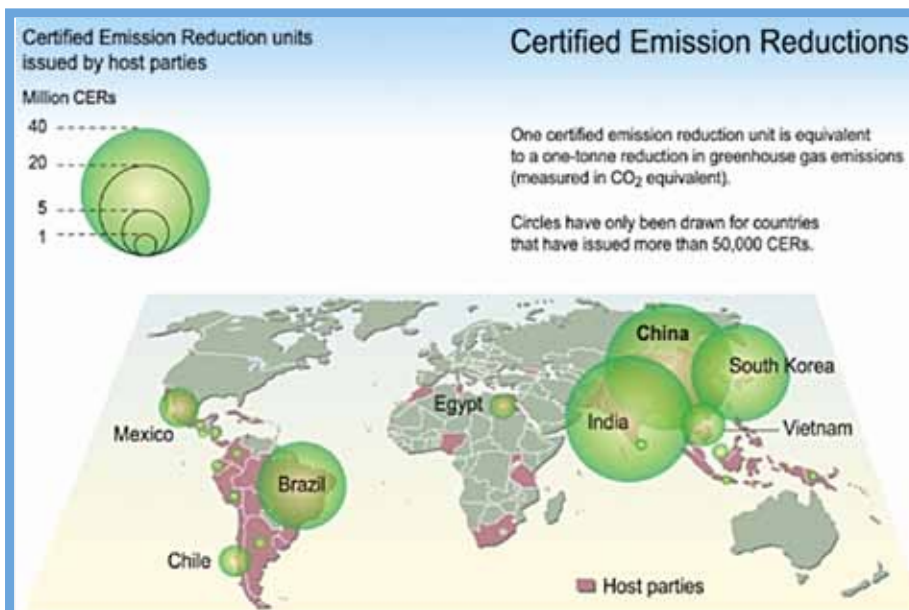
## Carbon Trading

Carbon trading or emissions trading is based on the idea that the environment has a value and, therefore, polluting it has a cost. The regulatory body, such as the government sets a limit or a cap on the greenhouse gases that can be emitted by power plants, iron and steel works, oil and gas refineries and factories such as cement and pulp and paper. Within this cap, companies receive 'emission allowances' which they can sell to or buy from one another as needed. Under Article 17 of the Kyoto Protocol, countries that have not used up their allotted allowances are allowed to sell to countries that are over their target.



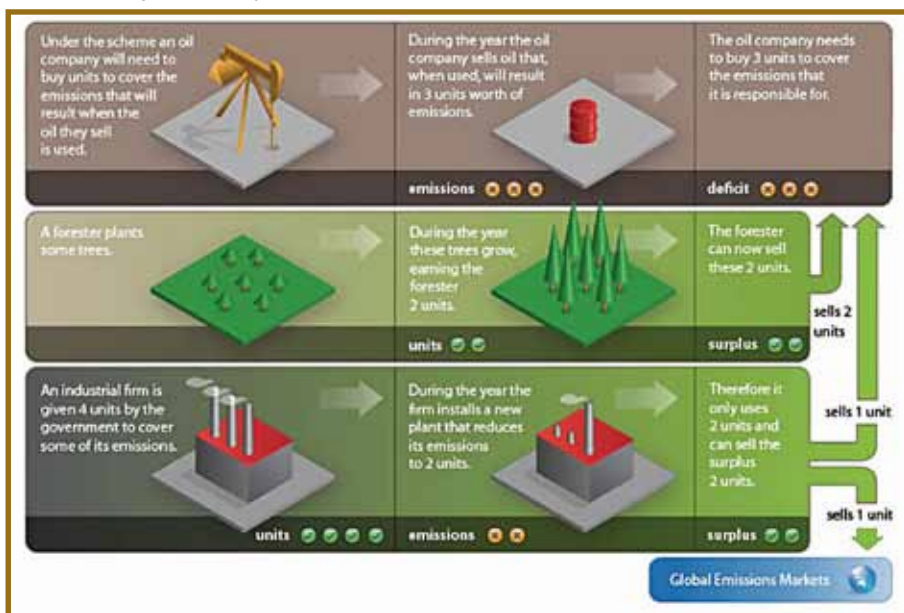
The creation of emission allowances has created a market for the Emission Trading Scheme (ETS) which acts as a tool to reduce industrial greenhouse gases. Carbon dioxide (referred to as carbon, calculated in tonnes of carbon dioxide equivalent (or tCO<sub>2</sub>e) is being traded as a commodity. Trading schemes differ from country to country. The European Union Emissions Trading Scheme (EU ETS) which started in 2005 is the first and the largest carbon trading scheme in the world, operating in 30 countries, whose carbon emissions make up almost 50% of Europe's total. EU accounts for 80% of the global carbon trading market. The current cap will decrease 1.74% annually to achieve a target of reducing emissions in 2020 to 21% below their level in 2005. In June 2011, the price of an allowance was around €16 per tonne (RM 64).

One unique ETS is the New Zealand Emission Trading Scheme (NZ ETS) which started in 2008. NZ ETS deals with emissions from forest and later to be included (2015) is the agriculture sector. About 50% of New Zealand's emission comes from agriculture. The primary emission units are the New Zealand Units (NZU), which are issued by the Government. The price of NZUs is effectively capped at \$12.50 (RM 31) per tonne of CO<sub>2</sub>e.



Sources: United Nations Framework Convention on Climate Change, April 2008

The following is an example of NZ ETS



renewable energy, energy efficiency, GHG destruction, and forestry and agricultural projects. In return, the buyer will buy CER credits to offset emissions.

### Will Carbon Trading or Offsetting Meet the Target that the Scientists Set?

Proponents argue that this system is a win-win situation because developed countries that cannot meet the required target can achieve it by buying the rights to pollute and at the same time developing countries can benefit economically by selling their rights and this meets the objective of reducing GHG emissions. Critics argue that it is a 'lose-lose' situation because it is a wrong source of incentive. The big polluters can delay their action to start structural changes (like switching to green technology) by buying

themselves out. This will not solve the problem of reducing GHG emissions.

### References

Ministry for the Environment. 2011. Emissions Trading Scheme Review 2011: Issues statement and call for written submission. Emissions Trading Scheme Review Panel. Wellington: Ministry for the Environment. GAO.

### Carbon Trading in Malaysia

Carbon trading business in Malaysia is expected to be worth between RM 3.2 billion and RM 6.4 billion in the next five years. Point Carbon, a firm that analyses the international carbon trade, reported that carbon trading has become one of the fastest growing industries, registering a 64% jump in total trade volume in the global carbon market from 1.6 billion tonnes in 2006 to 2.7 billion tonnes in 2007.

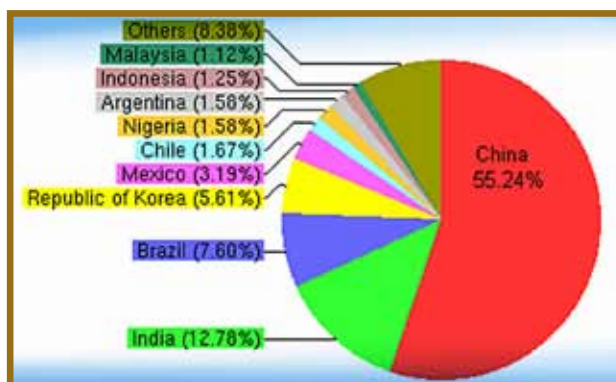
Malaysia Energy Centre reported that Malaysia has potentially 100 million tonnes of carbon credit, and it could benefit from carbon trading, which is now worth USD 60 billion (RM 181 billion) globally but could grow to USD 1 trillion (RM 3 trillion) in a decade.

To date, the single largest carbon market exists in Asia, with China and India heading the pack. Indonesia and Malaysia are emerging significantly in the oil palm, cement, biogas and biofuel sectors.

### Carbon Offsets

A carbon offset is defined as a measurable reduction of greenhouse gas emissions from an activity or project in one location that is used to compensate for emissions occurring elsewhere. For example, a U.S. manufacturer might offset its emissions by funding an external project that captures methane, a greenhouse gas emitted from agricultural sources and landfills. The emissions reduced, avoided, or sequestered by such projects are collectively termed carbon offsets, though they may involve different greenhouse gases

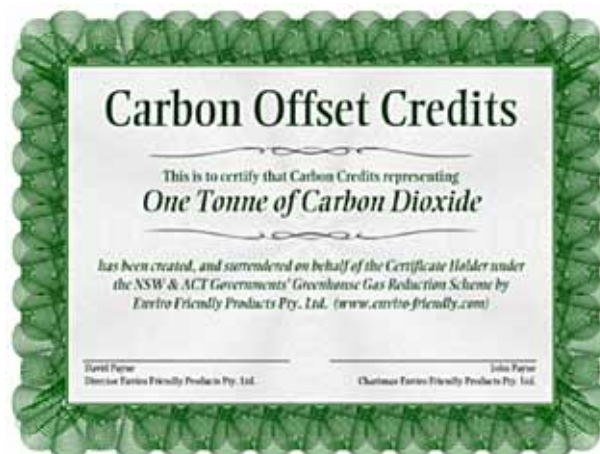
In the offset market, business transaction is handled by the brokerage or exchanger



Expected Average Annual CERs from Registered Carbon Offsets (Document GAO-08-1048)

Carbon Offsets (Document GAO-08-1048)

firm known as the Offset firm. This firm will evaluate the amount of carbon emitted by an industry and offer their client a chance to invest in projects carried out in other (developing) countries. In Europe, the buyers are required to purchase offsets to meet the requirement to reduce emissions. In this case, the market for offsets is referred to as a 'compliance market'. In the United States, it is a 'voluntary market' where buyers are not required to limit their emissions or purchase offsets. The project then either receives CERs or 'voluntary emissions reduction' credits (VERs), depending on whether the project is meant to meet mandatory 'compliance' or the voluntary carbon market.



Offsets are typically achieved through financial support of projects that reduce the emission of GHG. Some common projects include

### Source

Tengku Hanidza Tengku Ismail  
Email: thanidza@env.upm.edu.my

# Understanding Malaysia's Emissions Reduction Pledge

## What the 40% Intensity Reduction Means for Malaysia

In view of the increasing frequency and severity of climate-related catastrophes not just in the Asian region, but worldwide, the Malaysian government believes that all countries should take concrete steps to reduce greenhouse gas (GHG) emissions and pursue sustainable avenues of development. To emphasise the seriousness with which Malaysia views the problem, the Honorable Dato' Seri Najib Tun Razak, at the 13<sup>th</sup> Conference of the Parties (COP13) of the United Nations Convention on Climate Change, announced that Malaysia was adopting a voluntary indicator to reduce emissions intensity of Gross Domestic Production (GDP) by up to 40% compared to 2005 levels by 2020, conditional on financial and technological assistance from developed countries.

Unfortunately, this pledge is easily misunderstood and has frequently been misquoted by the media, by political figures and even the academia. This has led to much confusion among the general public as to what Malaysia has adopted and what the implications are for Malaysia. As such, the Ministry of Natural Resources and Environment believes it is necessary to clarify this pledge. Only with a clear understanding of the pledge, including the principles and policies upon which it is based, can all stakeholders participate actively in measures to facilitate its achievement.

## The Basis of the Quantum

The determination of the up-to 40% intensity reduction quantum is not an arbitrary estimation, but rather, was quantified through an analysis of current and pending policies in all the relevant sectoral areas. These policy initiatives chart the development course that Malaysia aspires to, which depart from 'Business as Usual' (BAU), that will lead to increased resource use efficiency, reduced waste, and considerably greater sustainability compared to BAU practices. Happily, most sustainability initiatives also yield significant co-benefits in the form of greenhouse gas emission reductions.

## The Rationale for Using Emissions Intensity of GDP

The use of emissions intensity of GDP as an indicator to plan, implement and report mitigation actions is not unique to Malaysia. Prior to Malaysia's announcement, China, India and a number of other developing countries also made voluntary mitigation pledges using this indicator. So why use emissions intensity of GDP?

As a developing country, Malaysia is in an active growth phase during which its GHG emissions are also growing rapidly. The majority of the developed countries of the world went through a similar phase on their way to achieving their current GDP and Gross National Income (GNI) levels. The objective of Malaysia is to achieve similar levels of GDP while remaining at or below the per capita emissions levels of the most progressive developed countries, thereby avoiding the traditional high emissions trajectory common to most developed countries. Strong GDP growth is essential for self-financing mitigation measures rather than relying on external funding. Shifting toward a lower and more sustainable emissions trajectory by targeting cost-effective emissions reductions measures (low-hanging fruit) will achieve emission reductions below traditional BAU levels. Ultimately, the goal is to decouple emissions growth from economic growth and generate high GDP without the associated emissions.

## The Meaning of the Indicator

The emissions intensity of GDP is most easily understood as the GHG emissions (in tonnes CO<sub>2</sub> equivalent) divided by the GDP (in thousands of RM), which has units of tonnes CO<sub>2</sub> equivalent per thousand ringgit GDP as follows:

$$\text{Emissions Intensity} = \text{Emissions/GDP}$$

Alternatively, for purposes of comparison to other countries, thousands of Euros, or thousands of US Dollars could be substituted as the denominator. As such, reducing the emissions intensity could involve decreasing emissions, enhancing GDP, or accelerating GDP growth while retarding the growth of emissions.

## Why Specify Conditions?

The specified conditions affirm that Malaysia's indicator is in accordance with the global pledge agreed by all Parties to the UN

Framework Convention on Climate Change or UNFCCC, specifically Article 4.7 of that Convention which states: "The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and over-riding priorities of the developing country Parties."

This has also been done to remind the world of the priorities and needs of developing countries, which are historically responsible for less than a quarter of the GHGs released into the atmosphere since the beginning of the industrial revolution, and the primary responsibility of the developed countries to, firstly, decrease their own emissions, and thereafter, to assist developing countries in decreasing theirs.

## What Might Impede This Initiative?

Achieving the indicator will hinge on a conscious policy shift by the government, the public, and the private sector, to embrace clean, efficient and low-emissions lifestyles and technologies. This initiative could therefore be undermined by factors that discourage change or incentivise the *status quo*. Achieving the indicator also hinges on a healthy growth in GDP that, in growing the denominator, helps reduce the emissions intensity. Conversely, a sluggish GDP growth will increase the intensity and threaten achievement of the indicator within the specified period.

In adopting this voluntary indicator, Malaysia joins the growing number of developing countries willing to implement mitigation measures and to develop more sustainably, even as we battle extreme weather events in efforts to adapt to our changing global climate. But in taking this no-regrets approach, Malaysia is proud to be part of the solution to the threat of climate change, because ultimately, reducing emissions and developing sustainably is good, both, for Malaysia and for the world.

Source  
Dr Gary William Theseira  
Email: [gtheseira@nre.gov.my](mailto:gtheseira@nre.gov.my)

# SMALL ISLANDS OF MALAYSIA

## A Review of Environmental Issues

Small islands in Malaysia are bestowed with attractive features and are outstanding tourist destinations. They play a crucial role in the hospitality and tourism industry. Tourism is now the second largest foreign exchange earner, after manufacturing. In 2005, tourism contributed 7% to the Malaysian economy with revenue increasing from RM 17.40 billion (USD 4.833 billion) in 2000 to RM 32 billion (USD 8.89 billion) in 2005.

However, uncontrolled tourism development will degrade coastal development, threaten the integrity of the near shore landscapes and corals as well as lead to depletion of its groundwater. Small islands face environmental issues that need to be given a focus to shape prospects for sustainable tourism development and ecotourism in Malaysia (Table 1). The limits of acceptable change in terms of inter-related carrying capacities of small islands need to be defined in order to avoid depleting natural resources.

### Natural Challenges

Small islands face challenges from nature which also affects the quality of small islands. The Intergovernmental Panel on Climate Change (IPCC, 1997) elaborated that developing countries including Malaysia are facing vulnerable sea level rise variations due to tropical and extra-tropical cyclones, hurricanes and typhoons. Sea-level rise will impact small islands through increased coastal erosion and saltwater

intrusion into scarce freshwater resources. Coastal erosion will also have an impact on small island ecosystems, reduced island size (due to sea encroachment and coastal erosion), decreased freshwater, increased environmental health hazards and epidemics. The northwestern states of Peninsular Malaysia which were affected by the tsunami of 2004 were Langkawi (Kedah), Kota Kuala Muda (Kedah) and Penang. Tsunami after-effects led to salinisation of groundwater aquifers by seawater intrusion. In addition, inundation of low atolls by waves during tides can salinise shallow groundwater sources of small islands.

Variations in tides have been seen the greatest challenges affecting groundwater of small islands in Malaysia. It was found that the percentage of salinity changes during the high and low tides were 58% and 42% respectively at each station in Sipadan Island, indicating that tides do affect water quality of small islands. Current predictions show that a rise in sea level of approximately 20 cm by the year 2030 will threaten low lying coastal areas especially in small islands (IPCC, 1997). Sea level rise will cause saline intrusion into coastal aquifers, with the amount of intrusion depending on local groundwater gradients where shallow coastal aquifers are at greatest risk especially in low lying small islands. Furthermore, a reduction in precipitation with an accompanying sea-level rise reduces the quantum of freshwater and is also likely to affect freshwater quality in small islands. Droughts also increase salinity and

decrease freshwater as evidenced in Sipadan and Mabul Islands (Sabah).

### Over-Pumping of Water

Several environmental issues facing small islands are mainly associated with human activities. Over-pumping of water is the most critical issue facing our small islands. Groundwater constitutes the only source of water supply for the small island community and tourists. In order to meet water demands posed by tourism and domestic needs, local authorities resort to over-pumping and this has resulted in seawater intrusion into the groundwater of our small islands. An example where this has occurred is Manukan Island, Sabah. Using the numerical model, SEAWAT-2000, the mixing rate of seawater intrusion into low lying areas of the island is about 13%. In the case of Sipadan Island, the numerical model output suggests that seawater intrusion in the interior part of the island is about 14.6%. This largely took place at the bottom of the wells due to over extraction of freshwater resources. Moreover, studies also show that seawater intrusion in Mabul, Sipadan and Turtle Islands (Sabah) are also caused by over-pumping. Similarly in Rawa (Johor) and Banggi islands (Sabah), high chloride concentration has led to poor groundwater quality. Saltwater intrusion into a freshwater aquifer occurs when the pumping of wells occurs at levels lower than the sea level causing seawater to move towards the well by reversal of hydraulic gradients or decrease in freshwater heads (Figure 1).

Table 1: Environmental issues faced by small islands

Environmental issues	Malaysian small islands															
	Manukan Island	Sipadan Island	Tiga Island	Mabul Island	Banggi Island	Turtle Island	Crab Island	Sibu Island	Tinggi Island	Tenggol Island	Redang Island	Perhentian Kecil Island	Rawa Island	Babi Besar Island	Tioman Island	Langkawi Island
<b>Associated with human activities</b>																
Seawater intrusion due to human pressure	•	•	•	•	•	•		•			•	•				
Over-pumping	•	•			•			•				•				
Small island ecological balance upset due to over extraction of groundwater	•	•		•				•				•	•			
Groundwater contamination due to spillage		•	•									•			•	•
Scarcity of resources on island (water, electricity & food)	•	•										•				
Waste management								•		•		•			•	•
Environmental degradation	•	•		•	•		•	•	•	•						
Tourism competition pressure with other islands	•	•	•	•			•	•	•	•		•	•	•		
Conflicts between tourism, development and conservation								•		•	•				•	•
<b>Natural</b>																
Variations in tides, tropical and extra-tropical cyclones, hurricanes and typhoons	•	•			•			•				•				•
Impacts of natural hazards such as drought	•															
Sea level rise	•			•												
Seawater intrusion due to natural pressure	•			•												•
Climate change	•	•			•											

• Present in this small island

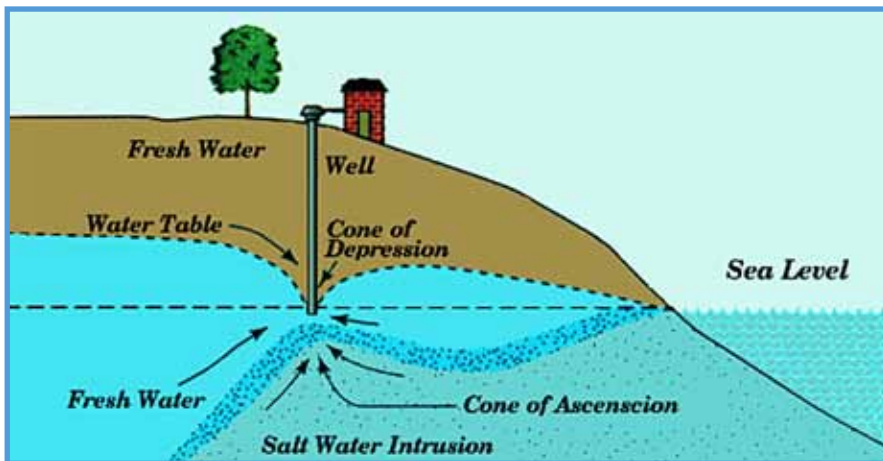


Figure 1: Seawater intrusion

## Environmental Degradation

Environmental degradation in the context of improper disposal of liquid and solid waste generated by the tourism industry has contributed to degradation in a few small islands. The islands affected are Sipadan (Sabah), Perhentian and Tenggol (Trenngganu) and Banggi (Sabah) Islands. An example of environmental degradation resulting in groundwater quality degradation is in Sipadan Island. Uncontrolled tourism activity in Sipadan Island has not only led to water shortages and degradation of water supplies through over-pumping, but also to a large volume of wastewater being generated. This has been a contributing factor to coral reef degradation

In contrast, Rawa Island practices excellent waste management which can be applied in any small island. All waste at Rawa Island is recycled including organic waste. The island has a very successful waste management system in place and could be a good example for other small islands and tourist destinations in Malaysia. Looking at Langkawi Island, the Langkawi Local Authority has expressed the need to pay serious attention to the impact of tourism development and environmental management and perhaps this a good start. Sewage is another common problem on many small islands. Groundwater contamination due to spillage from septic tanks can contaminate groundwater and affect human health. Water contamination was detected in



in Sipadan Island. However, the removal of all resorts from Sipadan Island was a very positive move to allow the island to recover from the exhausting role of playing host to hundreds of visitors over the last 15 years.

Meanwhile in Langkawi (Kedah), Perhentian Kecil (Trenngganu) and Crab Islands (Selangor), ineffective solid waste disposal is the problem that needs immediate attention in these islands.

wells sampled at Banggi, Mabul, Sipadan and Perhentian Islands. Conversely, Manukan, Tiga and Rawa islands showed excellent water quality indicating good sewage and disposal management in these islands.

## Sustainable Groundwater Management in Small Islands

Groundwater resource management in small islands must first enhance the resilience of

socio-ecological systems of small islands. An overview of natural resource management in small islands should be conducted at the highest government level. The institutional framework must ensure that any development, assessment and management of water resources in these islands take place at national-level planning. It is crucial that there is collaboration and cooperation between agencies to manage the natural resources of small islands. Financial allocations play a vital role in natural resources management, research and activities in small islands. International and domestic financial resources for small islands research will be able to transfer technology, promote best practice and support capacity building for small islands' management. Resource management of small islands will benefit vastly from environmental education and such programmes are needed to enhance knowledge and information on small island capacity. Training and environmental education programmes are important in educating the local as well as island managers to share responsibilities.

It must be remembered that tourism is the largest revenue earner in islands but all forms of tourism leave an impact on the environment. A good way to deal with this problem is to define the limits of acceptable change in terms of inter-related carrying capacities of each island. Ecotourism appears to be the pre-eminent step which is capable of minimising or even avoiding most negative effects but to be effective, it requires proper management and a control plan. It is suggested that small-scale development be an essential component of this management plan. In a nutshell, ecotourism draws a meaningful relationship between tourism and effective planning, management and environmental control.

## References

- Intergovernmental Panel on Climate Change, 1997. Impacts, adaptations and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, United Kingdom.
- Praveena, S.M., Abdullah, M.H. & Aris, A.Z. 2010. Groundwater challenges in small islands: a review with examples from Malaysia. *ISESCO Science and Technology Vision* 6: 17-23.
- Praveena, S.M., Lin, C.Y., Aris, A.Z. & Abdullah, M.H. 2010. Groundwater Assessment at Manukan Island, Sabah: multidisciplinary approaches. *Natural Resource Research* 19: 279-291. 10.1007/s11053-010-9124-yb

Source  
Dr Sarva Mangala Praveena  
Email: [smpraveena@gmail.com](mailto:smpraveena@gmail.com)

# Event Highlights

## Department of Environment, Malaysia

February 2012

### Information Requisition Form Workshop: Bandar Lestari – Environment Award 2011/2012

The Department of Environment (DOE), in cooperation with the Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia (UKM), organised the Information Requisition Form Workshop: Sustainable City – Environment Award 2011/2012 for the Eastern region on 21-22 February 2012, and for the Southern region on 28-29 February 2012.

Apart from promoting the Sustainable City program to local authorities, the objective of this workshop was to provide exposure and guidance to local authorities officers on filling out information required in the Information Requisition Form before submission to DOE. Local authorities officers were also provided with information on the criteria and indicators in order to undertake the needs assessment in accordance with assessment guidelines.

The workshop also had invited representatives from the City of Kuching North to share with the local authorities the successful practices of the ASEAN Environmentally Sustainable Cities (ESC) Model Cities Programme. Subsequent workshops will be organised in Sabah on 13-15 March 2012 and in the Northern region on 27-28 March 2012, respectively.



Information Requisition Form Workshop on 21 – 22 February 2012, Kuantan, Pahang



Information Requisition Form Workshop on 27-28 February 2012, Melaka

February 2012

### The Rakan Alam Sekitar (RAS) Programme 2012: Coordination and Enhancement Workshop among Agencies under Ministry of Natural Resources and Environment (NRE)

Held on 22-23 February 2012 in Negeri Sembilan, this workshop was organised by the Department of Environment (DOE) headquarters for officers from all agencies under the Ministry of Natural Resources and Environment (NRE) and

DOE State Officers involved in environmental awareness programmes. The workshop was aimed at providing detailed information on the implementation of the Rakan Alam Sekitar (RAS) Programme and to ensure the proactive involvement of all agencies under NRE. It was attended by 37 officers from all agencies under NRE and DOE State Offices.



## Editorial Board 2011/12

### Advisors

Halimah Hassan  
Dr. Ir. Shamsudin Abd. Latif  
Dr. Zulkifli Abd. Rahman

### Chief Editor

Choong Mei Chun

### Members

Noor Shahniyati Ahmad Shukri  
Ling Ling Chui  
Azlina Omar  
Rosta Harun  
Sumangala Pillai

### Correspondence address:

Chief Editor, IMPAK  
Department of Environment  
Ministry of Natural Resources and Environment  
Level 1 - 4, Podium Block 2 & 3  
Wisma Sumber Asli  
No.25, Persiaran Perdana  
Precinct 4  
62574 Putrajaya

Article contributions and comments are welcomed. They are to be directed to : [lingchui@doe.gov.my](mailto:lingchui@doe.gov.my)  
Tel: 603 8871 2083  
Fax: 603 8889 1042

Views and opinions expressed by the contributors do not necessarily reflect the official stand of DOE.

Quarterly publication of the Department of Environment, Ministry of Natural Resources and Environment