International Cooperation on Climate Change

By Alexandra Woollacott[1]

In 1992 the United Nations reached an agreement on the Framework Convention on Climate Change. Its ultimate objective was to "stabilize greenhouse-gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." (Aldy et al., 2003, p.373- 379) Five years later, diplomats adopted the original framework and negotiated targets and timetables for 38 industrialized countries; launching what is now known as the Kyoto Protocol. Signatories commit their states to lowering emissions to the level allocated in a global effort to stop exploitation of our atmospheric commons. Subsequent conferences have seen commitment by other governments and more importantly, developments in the contract as climate change becomes the new buzz word, and the world draws nearer to crisis mode. Surprisingly though, even after the relentless media attention, proof and confirmation by scientists and even high profile advocates, there are still nations digging in their heels. Those countries who stand alone in the 'coalition of the unwilling' are the U.S., Australia and Japan. Having come under fire for their resistance, the nations responded with an alternative proposal. Unfortunately, the Asia Pacific agreement (AP6) has promised a lot but looks set to fail to deliver, with participants attaching no timetables or figures for reduction of greenhouse gases (GHG). Rather, the world leaders have warmed to euphemisms like "aspirational goal", which alludes to action but smacks of the all too familiar inertia and unwillingness to convert their prattle into tangible steps towards stabilizing emissions. It implies that the objective of the AP6 alternative is to stabilize economic growth as opposed to greenhouse emissions.

The anticipated AP6 climate policy was met with much criticism. Together the six countries that make up the AP6 contribute around half of the world's emissions. So while it is the UN that attempts to drive change in our management of the world's resources, it is these countries who must act in order to achieve the necessary change. These six countries, along with others in the Asia-Pacific rim, have a significant history of co-operation.1989 saw the inauguration of the APEC (Asia Pacific Economic Co-operation) summit, which has now developed into annual meetings, hosted by the nations, and has seen the addition of economic and military heavyweights to the economic forum. Together they develop trade agreements, lowering tariffs and liberalizing the market, also dealing with security threats like terrorism and nuclear proliferation. Everything is discussed in the context of the economy, economic strength and prosperity being the main draw card for actors. Most recently though, we have seen a tentative step towards a more contentious subject for the conservative leaders: that of climate change. With the spotlight on them, the leaders have been under pressure to address the issue. More specifically Japan, Australia and the US who have an obligation, as industrialized nations, to sign the Kyoto international agreement binding them to a target. Their hesitation appears to be rooted in economic loss. Implementing changes to energy sources and developing policy is a costly and drawn out process, and puts them behind the eight ball and their developing competitors, who are free from responsibility. This is undoubtedly the reason behind the development of the AP6. It draws in China and India (who were omitted from Kyoto) and binds them with the same costly targets.

The ambitious vision statement of the AP6 promises to "advance clean development and climate objectives...enhance cooperation to meet our increased energy needs and associated challenges..." The action plan is divided into eight task force summaries, including cleaner fossil energy, renewable energy, power generation and transmission as well as a focus on different exports from the Asia Pacific area. So far there have been 90 project proposals that endeavor to direct the countries towards achieving their objective. Each 'task force' is overseen by two of the AP6 partners: the chair and the co-chair. Each is primarily responsible for one sector and then given a subordinate role in directing another. So, roles have been delegated to ensure responsibility is shared. This distribution of power within the agreement is a significant point of difference. For in the Kyoto, each signatory is bound by the conditions set out in the protocol. While diplomats were initially given a forum to argue their case, usually requesting greater headroom for polluting, it was the UNFCCC that ultimately bound actors with targets, they also have the power to make any amendments in the existing framework. The presence of an international institution (in this case the UN) means that the roles signatories play in combating climate change are governed

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by an external establishment. Whereas, in the case of AP6, the participants are the architects. As architects they design, modify and draw up policy; and as participants, it is their duty to put into practice these projects and act according to the standards set. This will without doubt influence their propensity to take action. Whether they are more inclined to commit to the agreement or more inclined to abandon it given their relationship (as founders) to the pact, is difficult to predict. Another upshot of the shared partnership is that each sector secures funding from two of the AP6 partners as well as any other industry participants. Obviously with greater funding, the prospects for development and change are increased significantly: nothing can be achieved without funding for research and for implementation or retrofitting of technology.

Another factor changing the dynamics of the agreement is the focus on industry. Business is to play a significant role in helping countries achieve cuts to emissions. Where there is opportunity for industry to capitalize on the new projects, they are encouraged to invest. The collaboration between government and business will mean the government provides funding for research (exemplified in the eight million dollars of funding to CSIRO for research into carbon collection), which can then be implemented by businesses. This focus was likely to be inspired by the Stern report, which stressed the importance of public-private relationships in developing new technologies.

The AP6 alternative recognizes the importance of economic growth and allows GHG to increase with strengthening of the economy. The UNFCCC suggested that any action to reduce GHG be "cost effective so as to ensure global benefit at the lowest possible cost", there is certainly no risk of this in the Howard- Bush led proposal, which works toward achieving their commitments without causing too much of a strain on a country's financial circumstances. For this reason it has been approved by some countries around the world and has sparked interest in developing countries, as it is considered economically feasible. This appears to be the most significant feature of the AP6: that any efforts that bolster the struggle against global warming must facilitate economic development. It is also the most destructive. The main sticking point for countries being pressured to ratify the Kyoto Protocol was that developing competitors were under no obligation to make the same costly changes to their technology and industries. Why should they be expected to make economic sacrifices while their competitors, namely China and India continued to progress and advance? Cue the development of the AP6, who ensure any responsibility to curtail global warming would also rest on the shoulders of rising economic heavyweights, China and India. Under their guidelines, changes made to combat climate change were not expected to be too costly, and would definitely not hinder economic growth. Essentially, they are under obligation to implement changes if they prove too costly. This one feature jeopardizes the entire agreement. Because as it is well understood, to make progress in this struggle will cost money. And this is a point well understood by those who ratified Kyoto; all will sacrifice some economic gain in order to thwart the devastating effects of climate change. It seems this point is too great a hurdle for those endorsing the AP6.

Not surprisingly, "an economic rationale lies behind U.S. rejection...it comes from estimates that the U.S. will bear a disproportionate share of the burden" (Nordhaus, 2005, p.7). Most view the AP6 as a way to escape domestic responsibility to reduce emissions and others argue that it simply undermines Kyoto's efforts to reduce emissions on a global scale. As a powerful and influential country, U.S. withdrawal in particular did little to encourage ratification of Kyoto by those more defiant nations. As a model for reducing pollutants that contribute to environmental destruction, Bush's plan fails for a number of reasons. Most importantly, it does not require industry to cap, or even freeze emissions at current levels but rather states that as long as the economy strengthens, GHG emissions are able to rise. So unless we see a repeat of the 1929 crash, we are not likely to see any attempt at controlling the volume of emissions that enter our atmosphere. Equally as disastrous is the voluntary nature of the alternative. It does not require industry to convert to green energy, invest in newer technology or even retrofit old, dirty technology. But, rather, relies on voluntary reductions. One company is unlikely to take the leap while others continue with business as usual. After all, a business' primary objective is to make profit.

On the other hand the Kyoto Protocol, unprecedented in its magnitude, is committed to directing the world towards a sustainable future. Developed by the UNFCCC, who pioneered the fight for emission control, Kyoto does not set in place annual reductions for Annex 1 countries but rather gives them an extended time frame over which they must lower their emissions until they reach

their allocated amount. For all its good intentions- and they are good- the framework is not without its faults. Firstly, as most participants have done little in the early stages to reduce CO2 emissions, they are now required to drastically reduce emissions in order to achieve targets. While the responsibility lies with individual actors, if the framework was more flexible early on and included mechanisms like trading, the idea of emission control would have been more bearable; perhaps countries would have responded differently to the challenge. Pollution control demands investment of time and a lot of money. In Europe, companies are given tax breaks for pouring some of their profits into research for energy alternatives. In other parts of the world, where there is no such incentive, countries are struggling to reach their targets because businesses are not willing to budge. Economies are so finely tuned that as soon the government imposes demands on energy providers, without compensation, the demands manifest adversely elsewhere. Households and big business would be required to spend more on energy consumption. In reality our government's decisions are influenced by short term economic considerations. Those who wish to stay in power for more than a few years would not risk putting in place the necessary changes. Financially and politically, Kyoto is far from palatable.

Secondly, industrialized countries have been the major emitters since the industrial revolution, and so they carry the responsibility for the global warming crisis. However it is projected that if developing countries are left unchecked, even if all Annex 1 countries achieve their target, greenhouse gas (GHG) emissions will rise significantly. "Developing countries contend that, given historical emissions, industrialized countries bear the primary responsibility for the climate change problem and should therefore be first to act." (Kuntsi- Reunanen and Luukkanen, 2006, p.272) As it stands non- industrialized countries are exempt from the protocol. This has been a source of debate at the UNFCCC. Australian and American governments maintain that while there are other countries that carry on business as usual without making costly changes, why should they have to bear the burden? With the knowledge that unfair concessions are made for non- industrialized nations, governments will be less enthusiastic about implementing necessary changes, or in the case of Australia and America, simply refuse to even sign up. "It is clear that the ultimate objective of the UNFCCC can only be met if all countries eventually participate." (Kuntsi-Reunanen and Luukkanen, 2006, p.272) Saving the environment should be a global objective, as it is clear that we will all be affected if this unparalleled phenomenon is left unchecked. But, if we share the burden, and each country makes sacrifices, commitment to GHG reduction will be considered less of a hurdle.

Another shortcoming in Kyoto's architecture is the difficulty in predicting the economic strength of countries years down the track. One criticism of Kyoto is that they 'allocated the atmosphere' based on 1990 C02 levels. In the case of Ukraine, no one could foresee an economic crash and the subsequent reduction in fossil fuel consumption. Because they were allocated a substantial amount and their levels are still dramatically lower than expected, they are now able to capitalize on the market crash and sell their windfall. Reducing GHG can only be seen as positive, whether voluntary or otherwise, but when a country is awarded over generous allocations, it is at the expense of other countries that have unrealistic restrictions demanded of them. Unfair allocation places too much pressure on countries with excessive reduction requirements, as they are expected to carry the burden, while others are awarded ample headroom. Furthermore, countries yet to sign up may be motivated for the wrong reasons. There have been new parties that have expressed interest in Kyoto, possibly with the knowledge that there are ways to exploit the market based mechanisms, in particular emission trading. Kazakhstan, for example, sought binding targets and requested excessive headroom, obviously with the intention of selling surplus credits to countries in deficit later on.

With market based mechanisms like Joint Implementation (JI) and the Clean Development Mechanism (CDM), industrialized countries are encouraged to promote alternative energy in developing countries. There is a foreseeable problem accompanying these options. While the UN (2004) stressed that "the bulk of each Annex I country's emission reductions should be made through its own domestic energy, industry and transport sectors, and not via the international emissions trading system", it was not specified exactly how much of their GHG reduction commitments be fulfilled through participation of other countries. As long as it is cheaper implementing cleaner, greener energy systems in developing or less advanced Annex I countries, why would they sacrifice

millions or even billions on financing abatement projects in their own countries? They will put off making long term changes that are necessary to achieve Kyoto's long term objective. Gradually, the entire world should convert to less polluting energy production processes, not just in those countries where it is economically more viable. It is imperative to our environment's survival.

The Kyoto Protocol, for all its faults, essentially demands that all countries who sign up for it are committed to stabilizing GHG concentrations in our atmosphere. Given that all countries ratify the protocol and there are no unfair concessions given, our world would be well on track to slow global warming. The three market based mechanisms provide flexibility within the framework and allow countries to achieve their emission reductions more cheaply. JI encourages highly industrialized countries to finance abatement projects in countries where it is cheap to do so, and gain credit for it. If it is too expensive to change technology in your own country, a more attractive alternative may be to assist a less advanced Annex I country upgrade their technology to provide a less environmentally destructive means of energy production. This joint effort sees an overall capping of GHG, allowing one country to reduce emissions with little financial loss and the other country to "meet their treaty obligations by purchasing excess reductions at a lower cost than can be achieved domestically" (Chadwick, 2006, p.257). The two countries stand to gain from the agreement and are contributing to a better environment. The CDM is similar to JI, only changes are implemented in developing countries. Those countries not required by the protocol have no desire to cap emissions but are open to retrofitting of technology systems, especially when they come at no cost. Annex I countries can then contribute to the global effort without replacing new and expensive technology with even newer and more expensive technology. It is encouraging to see a change in attitude in industrialized nations and also, to see developing nations build their industries and economies using environmentally sustainable values.

Kyoto was negotiated with little discussion on how commitments would actually be implemented. And though there was early talk of a trading system, all details and discussion of financial implications were put off until a later date. Article 17 now specifies that Annex I countries can obtain units from other Annex I countries and use them for meeting their own emission targets under the protocol. Emission trading works as a reward/ punishment system. Now that countries have been allocated their emissions, based on individual circumstances and current emission levels, they are obligated to achieve the set target. Those who invest in sustainable energy and come under their limits are able to sell surplus to countries in deficit. Those who neglect to achieve targets are forced to buy, at a high price, those emissions from countries who managed the task. In essence, Kyoto encourages the idea that polluting is not a right, as was once thought. Countries are not entitled to pollute the atmosphere, and those who pollute excessively should pay a price, while those who are helping the cause should be rewarded. Having to buy expensive carbon credits acts as an incentive to invest in non polluting energy sources that will be cheaper long term. It is seen to be more beneficial to implement measures and improve efficiency in current technology rather than continuing to buy surplus from other nations.

The Kyoto architecture can be summarized as...ambitious, short term reduction targets for industrialized countries, no emission obligations for developing countries and flexibility through market based mechanisms..." (Aldy et al., 2003, 373-379). The Protocol, for all its shortcomings, is a good starting model to stabilize GHG and reduce the impact of climate change in the medium term. If we wanted a long term solution there would obviously need to be changes made. Committing to Kyoto is a very costly and daunting decision, and while it incorporates market based mechanisms to guide nations in the right direction, it does not tell the government how to implement the commitments made. But as long as it remains flexible and open to change, it is possible to adapt the framework, to make achieving the objective as easy and viable as possible. The other model in place that seeks to address this global crisis is the AP6. While the Australian government claims the AP6 is simply complementing the Kyoto, it is clear that the AP6 is an economically driven alternative; a way for countries of the Asia Pacific rim to circumvent Kyoto. At the APEC summit in Sydney, they spoke of an "aspirational goal", carefully avoiding any talk of reduction figures and any use of the word 'target'. While it arguably offers weighty and potentially successful ways of achieving the objective- it remains vague and non-committal about timetables and targets. And though it acknowledges that industry and businesses have vital roles to play, it

does not impose any rules or requirements and applies neither carrot nor stick to help shape their approach to climate change. It is imperative that we deal with the looming and inevitable concern that threatens our planet, we must act and if that means pouring substantial money into research and new technology then so be it. If all governments created their own Kyoto substitute that was purely in the interest of their economies and industries, the battle would already be lost. But, with international bodies like the UN challenging our leaders to embrace change, the chance for a green, sustainable future is neither hopeless nor lost.

References

Aldy, J.E., Barrett, S. and Stavins, R.N., 2003, 'Thirteen plus one: a comparison of global climate policy architechtures', Climate Policy. Vol. 3, No. 4, pp.373-379.

Australian Government, 13 June 2007, Asia-Pacific Partnership on Clean Development and Climate, available at: http://www.ap6.gov.au/assets/documents/ap6internet/AP6%5Fbooklet%5Fupdate20070613175447%2Epdf

Chadwick, B.P, 2006, 'Transaction costs and the clean development mechanism', Natural Resources Forum. Vol. 30, No. 4, pp.256- 271.

Christoff, P., 2006, 'Post Kyoto? Post Bush? Towards and effective climate coalition of the willing', International Affairs. Vol. 82, No. 5, pp.831-860.

Dagoumas, A.S., 2006, 'An economic assessment of the Kyoto Protocol application', Energy Policy. Vol. 34, No.1, pp. 26-39.

Kuntsi- Reunanen, E. and Luukkanen, J., 2006, 'Greenhouse gas emission reduction in the post Kyoto period: Emission intensity changes required under the 'contraction and convergence' approach', Natural Resources Forum. Vol. 30, pp.272- 279.

Ghanem, S., Lounnas, R., Ghasemzadeh D. and Brennand G., 1998, 'Oil and energy outlook to 2020: Implications of the Kyoto protocol', OPEC Review. Vol. 22, No. 2, pp.73-112.

Russ, P. and Criqui, P., 2007, 'Post Kyoto CO (sub2) emission reduction:The soft landing scenario witth POLES and other world models', Energy Policy. Vol. 35, No. 2, pp.786-796.

Nordhaus, W.D., 2005, 'Life after Kyoto: alternative approaches to global warming policies', American Economic Review. pp. 1-32

Victor, D.G., The collapse of the Kyoto Protocol and the struggle to slow global warming. New Jersey: Princeton University Press, 2001.