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## **OP-ED/DOCUMENTS**

### ***Time Is Running Short For A Post-Kyoto Protocol Deal***

By Liz Bossley

*Liz Bossley of CEAG Ltd examines the issues to be resolved before the December 2009 Meeting of Parties to the Kyoto Protocol in Copenhagen, the deadline for a post-Kyoto Protocol agreement, and considers a possible way to break the deadlock. CEAG organizes courses on carbon emissions trading, and Ms Bossley has recently published the second 2007 edition of her book Climate Change and Emissions Trading: What Every Business Needs to Know. For further information see page 26.*

Instead of trying to force rapidly developing economies such as China and India to accept a cap on their greenhouse gas emissions from 2013, the UN negotiators should be pushing for such countries to meet a quota of green development projects. These economies are going to grow, regardless of attempts to constrain them: it may be more realistic to incentivize them to expand in the most environmentally friendly way possible. Furthermore, regulatory restrictions placed on the use of credits from green projects in developing countries are skewing the economics of mitigating climate change at least cost.

The world has set itself a target date of December 2009 to reach agreement on what will happen after the Kyoto Protocol expires in 2012. The big issue is whether or not the US will join the international agreement and cap its greenhouse gas (GHG) emissions at a level witnessed during a historic period. The US is the

largest GHG emitter in the world, although China is catching up fast. And therein lies the problem. The US did not ratify the first version of the Kyoto Protocol because it did not include in its 'cap-and-trade' system a limit on the growth of GHG emissions from rapidly expanding economies such as China and India. The US senate is unlikely to approve a new 2013+ agreement that continues to exclude developing countries. The developing economies are equally unlikely to sign a post-2012 agreement that involves a perceived cap on their economic growth. Some radical thinking will be required by the negotiators if this deadlock is to be broken.

### **Two Categories**

The root of problem is that the Kyoto Protocol only recognizes two categories of country: those that have accepted a cap on their emissions; and those that have not. But the economic and political reality is that not all countries can fit easily into one category or the other. China and India, for example, cannot realistically be expected to accept the constraint on their economic growth that an emissions cap implies while so many of their population live in poverty. Carbon intensity is a proxy measure of economic development. The World Resources Institute reports that in 2000 the average per capita emissions of GHG in developed countries was 14 tons whereas in developing countries the comparable figure was three tons.

But developing countries are as worried about the environmental consequences of their development as the rest of the world and are not hostile to cap-and-trade in principle. Together, China and India have hosted 50% of the Kyoto Clean Development Mechanism Projects (CDMs) registered to date. CDMs are one of three key planks of the Kyoto Protocol designed to promote sustainable development, reduce GHG emissions and help developed countries meet their Kyoto commitments cost-effectively. CDMs are rewarded by the UN with Certified Emissions Reduction (CERs) allowances, each of which is equivalent to 1 tCO<sub>2</sub>e. CERs can be traded in the market for cash. A developed country can buy and surrender CERs to the UN in compliance with its GHG cap as an alternative to reducing its emissions by domestic action.

Instead of accepting a cap on their emissions and constraining their growth, CEAG strongly recommends that developing countries should accept a quota of CDM projects to be completed during each environmental compliance period. If the country were to fail to fill its quota domestically it would have the option of buying the shortfall of allowances in the international market. Such a quota could not be mistaken for a limitation on economic growth and would ensure that every unit of investment would be tested for its environmental integrity.

When a CDM project is proposed the host government developing country negotiates a share of the CER reward with the project investors. If the host country had a CER quota to fill it would concentrate its attention on proving the 'additionality' of each project, ie how many tons of emissions the project saved compared with a 'business as usual' scenario. The quota could either be set in relation to the CERs retained by the host government from each project or by the total number of CERs generated by the project.

Emissions caps fit more easily on countries that have already achieved a certain minimum standard of living. A combination of developed country caps and developing country CDM quotas would be one way of achieving the common objective of cutting GHG emissions compared with a business as usual scenario. With both developed and developing countries competing to buy allowances in the market their price would rise, making more projects economic and justifying investment in green technologies that are not currently cost effective.

Whether or not this or any other suggested revision to the Kyoto model would do enough to encourage the USA to agree a realistic cap is difficult to judge in the run-up to the US election when the front-running candidates are competing to out-do each other in green rhetoric. All three have expressed a willingness to adopt the cap-and-trade model, but that falls far short of supporting a robust UN cap that will engender emissions prices high enough to affect US businesses and modify the behavior of the average US consumer.

### **Bali Background**

At the Meeting Of Parties to the Kyoto Protocol, COP 13/ MOP 3,<sup>1</sup> in December 2007 the so-called 'Bali roadmap' was agreed. A key component of it was a commitment made by an Ad Hoc Working Group to reach a post-2012 agreement for adoption at COP 15/MOP 5 in December 2009 in Copenhagen. The Kyoto Protocol committed 37 countries, 38 if the US had agreed, to cut their greenhouse gas emissions by an average of approximately 5.2% below their 1990 levels during the period 2008-12. It is silent on what happens after that.

Post-2012 Ad Hoc Working Group Meetings	
31 Mar – 4 Apr 2008	Bangkok, Thailand
Jun 2008	-
Aug/Sep 2008	-
1-12 Dec 2008	Interim Report to COP 14 in Poznan, Poland
Dec 2009	Outcome Report, COP 15 in Copenhagen, Denmark

### What Is Cap-And-Trade?

The concept of cap-and-trade is simple. A central authority, in the case of the Kyoto Protocol the UN, sets a limit on level of GHG emissions that it will permit during a specified period, ie 5.2% below the level seen in 1990. The central authority grants a number of allowances, ie rights to emit, to the capped countries that is intended to be below their *current* emissions levels, thereby creating a shortage of allowances. The emitters, in this case the 37 capped, or so-called Annex B, countries must have sufficient allowances to cover their actual emissions levels over the target period, in this case 2008-12. They must surrender to the UN by 2015, the Kyoto accounting or 'true-up' period, enough allowances to cover what they actually emitted during 2008-12. The emitter, faced with an allowance shortage, can cut its production, invest in cleaner technology that emits less carbon per unit of production, or buy in the market sufficient allowances to cover its shortfall.

For Kyoto to achieve anything there must be a shortage of allowances such that their traded price is high enough to incentivize change. A positive allowance price will encourage countries that can cut their emissions cheaply to do so in order to generate a surplus of allowances to sell to those countries for which emissions cuts are less easy or more expensive.

So far, so good, except that George W Bush would not accept the 2008-12 emissions cap conceded for it by Bill Clinton in Kyoto negotiations – 7% below 1990 levels – because it saw this as potentially damaging to its economy. Furthermore the fact that the fastest growing economies, like China, India and South Korea, are not capped Annex B countries was seen by the US as giving those countries a competitive carbon cost advantage in international trade.

### Alternative To Cap And Trade

The statement issued by the UN after the Bali meeting in December 2007 was carefully worded not to limit discussions to the cap-and-trade concept or to mention the need for the US, China and India to accept caps. It simply referred to "enhanced national/international action on mitigation of climate change, including, inter alia, consideration of... various approaches, *including opportunities for using markets*, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries."

Cap-and trade is not the only model for a post-2012 deal. For example, in July 2005 the US, Australia, China, India, Japan, and South Korea created a new Asia-Pacific Partnership (APP) on clean development, energy security and climate change. Canada joined the partnership in October 2007. These seven countries account for about 50% of global GHG emissions. Australia, Canada and Japan are Kyoto Annex B, or capped, countries. China, India and South Korea are Kyoto non-Annex B, or uncapped, countries.

The APP is not a cap-and-trade system. The vision statement of the APP said that "the partnership will collaborate to promote and create an enabling environment for the development, diffusion, deployment and transfer of existing and emerging cost-effective, cleaner technologies and practices, through concrete and substantial cooperation so as to achieve practical results." In practice, this statement is translated into action by eight private-public task forces that have so far announced 110 collaborative projects.

The current objective of the post-2012 discussions is to bring the USA, China and India into the Kyoto capped Annex B group. Unless the negotiating stand-off can be resolved, the new deal for 2013+ might not be a cap-and trade scheme at all. It may instead build on the APP model. It is debatable if this would be a better outcome than buying the agreement of the US, China and India to become Annex B capped countries at the cost of caps that are set unrealistically high. That would lead to a surplus of allowances on the market and a carbon price that was too low to incentivize change or support the adoption of new low-emission technologies.

The first Kyoto commitment period is under threat from a surplus of allowances in Russian hands. This surplus is larger than the expected shortages of all the other capped countries put together. This is because of the choice of 1990 as the base year against which emissions caps were set: in 1990 the USSR's economy was

much larger than that of the countries that emerged when it broke up. This surplus will exert downward pressure on prices during 2008-12. Russia can choose to carry forward some of its surplus into 2013 and beyond, if a new post-Kyoto deal is agreed, when caps should be set lower. Furthermore the countries that are short, notably Canada and Japan, have said they will not buy 'hot air' from Russia, ie surplus allowances that have been generated without any effort to cut emissions levels. Nevertheless, the existence of the Russian surplus should put a psychological ceiling on prices in the first commitment period.

The longer it takes to reach a 2013+ agreement the more likely it is that Russia will sell its surplus in the first commitment period: if the second commitment period looks uncertain, or veers towards a solution other than cap-and-trade, the more likely it is that Russia will take what price it can get to sell its surplus now. This would lead to a price collapse and give ammunition to those who argue that cap-and-trade is an unworkable model.

### **CDM Slowdown**

Already the delay in agreeing a post-2012 deal is undermining the Kyoto cap-and-trade principles. After an initial rush to register CDM projects the stream of new ones has slowed to a trickle. This is because the concept of CDM relies on the ability to sell the CERs given as a reward to green project investors over the life of the project to achieve payback on the extra cost of making a project environmentally friendly. If Kyoto comes to a full-stop in 2012 projects undertaken now would have to achieve payback in an unrealistically short period of time.

The slowdown in CDM registrations also reflects the fact that all the 'easy' projects were done first and new projects require higher CER prices to make them economic. CERs that have already been issued by the UN's CDM executive board, and are therefore no longer subject to project delivery risk, trade at about a €5/ton discount to comparable European emissions allowances (EUAs). This is because EUAs are guaranteed to continue to trade under the EU emissions trading scheme after 2012, even if a new Kyoto deal is not agreed. The fate of CERs after 2012 is questionable. There is a limit on the number of unused CERs that can be 'banked' or carried over for use post-2012, even if a new international cap-and-trade deal is achieved. That too depresses the relative price of CERs.

Furthermore, CERs are second class allowances under the Kyoto and European schemes. There is a so-called supplementarity limit under the Kyoto Protocol that restricts the number of CERs or other project-based allowances that can be used by countries in compliance with their Kyoto cap. This is designed to ensure that capped countries are obliged to undertake green investment at home as well as in cheaper locations abroad. Phase 2 of the EU emissions trading scheme places specific supplementarity limits on the use of CERs on a country-by-country basis.

The concept of supplementarity is unhelpful. While the scientists may not agree on everything concerning climate change, there is no argument over the fact that there is no difference between the global warming effect of a ton of carbon dioxide emitted in China or India and one emitted in the US or Europe. So by placing a limit on the use of CERs the Kyoto Protocol obliges developed countries to undertake domestic projects that may be less economic than those undertaken overseas. If we have a high carbon price the projects will all get done. If the successor to the Kyoto Protocol were to permit the unrestricted use of foreign project credits like CERs then the same number of global projects would still be undertaken, but strictly in order of economic merit.

The deadlock in post-2012 negotiations must be broken. This is why CEAG is recommending the introduction of a CER quota system. If the CDM project flow continues to dwindle as the post-2012 negotiations drag on, as it inevitably must as the payback period shortens by the day, more ammunition will be placed in the hands of the anti-cap-and-trade lobby.

1. COP stands for 'Conference of Parties' to the UN Framework Convention on Climate Change, a meeting which takes place in December each year. Since 2005 the COP has coincided with an annual Meeting of Parties, or MOP, to the Kyoto Protocol.

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