

Climate Change, Forests and Carbon Trading

The recent workshop on Climate Change, Forests and Carbon Trading argued the need for government to establish credible and transparent policies and mechanisms for addressing climate change and carbon trading, and plausible to this country's forest resource owners, the international market and world community, or it will be another lost opportunity.

The world's climate, upon which life on earth depends (except a few deep sea organisms), has always been changing. Currently temperate regions have formerly been tropical, whilst for periods large portions of the planet have been covered in ice. The climate is in a state of constant flux resulting from various natural causes. Except when major calamitous events occurred, such as massive volcanic eruptions or meteor strikes, major climatic shifts normally took thousands of years, whilst minor warming and cooling cycles occurred over shorter periods. The current climate change, however, is man-made and occurring rapidly, resulting from the massive increase in greenhouse gases (GHGs) emissions into the atmosphere over recent decades, as the world industrialised, populations grew and consumed more, and particularly burnt fossil fuels (notably coal and oil) to power industries and transport, and heat or cool homes. Whilst GHGs are essential for creating a habitable planet, when their level becomes excessive (blanketing solar heat within the atmosphere) global warming occurs. Triggered by man, it can likewise be halted and reversed, given enough commitment and time, unless various chain climatic reactions occur.

A very minor temperature rise might be problematic for populations, agriculture and biodiversity in warmer parts of the world, but appealing in some colder regions, but with higher apparent emission rates scientists are now forecasting greater temperature increases than hitherto envisaged, perhaps worse than the worst earlier scenario of the Inter-governmental Panel on Climate Change (IPCC), perhaps exceeding 4°C by 2100. Some climate change is inevitable now, even if we cut GHGs dramatically. Countries with warmer climates and large populations living near sea level, such as PNG, will suffer worse, with extensive impacts upon agricultural capacity, fisheries (notably with reefs destroyed by coral bleaching) and health. Higher frequency and intensity of extreme weather conditions (including cyclones), El Niño (droughts) would also impose greater uncertainty and stress.

Hitherto, there was considerable disagreement amongst scientists, with climate forecasts still relatively crude. Now, forecasting is more refined and there is almost universal agreement on causes and effects, although knowledge of secondary effects remains relatively crude, such as potential changes to ocean currents from massive quantities of melted fresh water, potentially triggering rapid global cooling.

The argument has moved on partly to economics, to what society can and is prepared to do in response to this major challenge. Clearly the majority of accumulated emissions has been provided by developed countries with the highest per capita emission rate, including the US and Australia. These countries are also financially more capable to slash GHG

emissions (directly or indirectly – including through trading their emissions). The Kyoto Protocol was targeted particularly at these developed nations (although some were tardy in signing up and committing themselves to mandatory targets). Now much of the world's dirty industry has shifted to newly industrialised countries, notably China and India, with China having perhaps overtaken the US as the major GHG producer, reportedly with a new polluting coal-fired power station launched weekly. Understandably these latter countries, with much lower per capita emission levels than countries like the US, feel aggrieved the idea bearing undue costs of mitigation and potentially restraining economic growth when still remaining relatively poor.

Ultimately, however, even if richer countries succeed in slashing emission levels through carbon taxes, “cap and trading” arrangements and more appropriate technology and lifestyles, it will be impossible to restrain GHG growth worldwide unless the developing countries, like China, but also PNG, actively participate. Making the world uninhabitable for everyone whilst blaming others may satisfy one's pride, would be of little ultimate value! It must be recognised that economic growth must proceed, particularly in developing countries, where growth must be achieved with much lower emission levels, requiring the right national and international policy signals and incentives, for example to select lower GHG-emission power supplies or technology (such as fridges), lower energy technology and the storage (sequestering) of emitted carbon in “sinks”, such as forests and possibly subterranean.

High prices, set by the market, or stimulated by the imposition of carbon taxes are perhaps the most effective mechanisms for behaviour change to bring down emission levels, combined with adequate resources for research and development into appropriate technologies. Some subsidies may be justified to pursue public policy objectives, when affordable (as applied by the German Government to stimulate solar and wind-power), or for social assistance to vulnerable households or communities unduly suffering from high energy or transport costs. Mandatory rules may also be applied, such as emission ceilings, or, as in PNG from the early 1980s, when low energy fluorescent rather than incandescent lighting was required, and solar panels favoured for public housing, long before Australia widely used this readily available energy source.

It is estimated that 20 percent of emissions worldwide come from deforestation and forest degradation, particularly tropical rainforests which, with their scale and density of biomass, provide a major living storehouse for carbon, together with the soil in which they grow, which is readily degraded when forests are disturbed.

PNG has one of the world's largest areas of standing tropical rainforest, therefore playing a major role in storing carbon. Under proposed new rules, post 2012 (when the current Kyoto protocol concludes), it is intended that emission trading under existing mechanisms (including the Clean Development Mechanism- CDM) will be extended to preventing emissions from Deforestation and forest Degradation (REDD). There is already a voluntary market supporting REDD-type projects, in effect paying for areas to be conserved and restored, with some projects, notably a major one in Bolivia, having been successfully implemented since the early 1990s.

During the recent Climate Change, Forests and Carbon Trading Workshop in Port Moresby, hosted by INA, with UPNG and PNGSDP, the results of a major study of PNG's forests was presented, highlighting that deforestation and degradation of PNG's lowland and upland forests was proceeding at a much faster rate than hitherto indicated (from logging and landuse conversion), with carbon release rates therefore much higher than estimated.

During extensive presentations and discussion in the workshop, including from public and private sector, international, domestic and NGO speakers, it was clear that carbon trading could play a significant and valuable role for PNG, contributing tangibly to the objective of restraining global warming, but only under certain conditions. Despite the fanfare expectations must be realistic. There is significant market interest, but this will evaporate rapidly unless those conditions are fulfilled (*Shearman et al, UPNG, 2008*).

The initial international enthusiasm for forest-based carbon trading with PNG is currently on hold. An apparent reticence within government, or by some of its agents, to play in accordance with internationally accepted norms and accounting standards and an apparent inclination, as with the recent ICT policy, for government to be secretive over policy, has resulted in growing distrust both internationally and within the private sector and civil society. For carbon trading to really influence long term rural decision-making over resources, requires that resource owners receive the benefits directly. Rumours of proposed monopoly trading arrangements, with excessive cuts for the State and middlemen, will reiterate fears that carbon trading will be the next victim of the tendency to suck the proceeds of the nation's resources away from the rural areas into the hands of a privileged few urban inhabitants.

The conclusions of the recent workshop were that, for the challenges of climate change, countering deforestation and degradation and a forest carbon market to operate in PNG, the following are required: -

- **Concern** over the issues, and the Forest Minister's opening statement to the workshop clearly demonstrated his genuine concern with respect to addressing long standing poor forest governance;
- **Commitment** and leadership to seriously address these issues, and not be diverted by opportunities for personal benefit;
- **Credibility** – that the mechanisms, notably for carbon trading, must have international credibility. No business (or country) will give something for nothing. PNG authorities and institutional arrangements must be plausible. There have been some CDM projects worldwide providing no net emission reductions, but oversight will become tougher and businesses and the international community will require fully accountable mechanisms, ensuring their trade and investment has tangible and sustained outcomes;
- **Calculations** and science –scientific and independent verification will be required;

- **Consultation, communication and confidence**– that open dialogue occurs with all stakeholders, landowners, private sector and the international community on policy and operational issues, including potential resource management;
- **Consent** – that genuine consent is provided by resource owners with respect to long term landuse commitments;
- **Cooperation and Capacity** – that we secure the active support from the international community, to be able to apply standards and best practice, and access technical support where available. With climate change and carbon trading, the blind may be leading the blind, but some international experience has been established in some institutions and markets, which PNG must access not avoid;
- **Community fairness and Transparency** –our policies and mechanisms must be open to public scrutiny, and the proceeds from carbon trading must be fairly distributed, transparent and acceptable.

The credibility of government and public institutions with the PNG community has sadly reached a low ebb, as core obligations of the State to the community, particularly rural communities, are perceived to have been forgotten, whilst recent economic growth has barely filtered away from elite urban enclaves. PNG's international standing is low, with high levels of corruption in public institutions and poor social indicators, despite the country's relative natural wealth and potential opportunities. PNG will invariably suffer badly from climate change, but also has the potential to make an impact in its mitigation, whilst gaining benefits for the suffering rural population and, indirectly, for biodiversity conservation. PNG must not waste another opportunity by letting its interests be undermined through pursuing any ill-considered policies or mechanisms which cannot meet credible governance standards for addressing climate change and carbon trading.

This may be called the Land of the Unexpected, but for many it's also the land of the continually wasted opportunity, where great ideas and sound prospects are regularly undermined by some carpet-baggers hopping out of the woodwork, hijacking the initiative with aspirations of quick gain, but destroying the prospects for everyone else....many such cases come to mind!

Paul Barker
17th June 2008