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late February 2009

Climate Change, Forests and Carbon Trading

Report from the Workshop

Port Moresby, 2 June 2008

Institute of National Affairs
October 2008

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Climate Change, Forests and Carbon Trading Workshop Programme

2nd June 2008

Venue: Crown Plaza Hotel, Port Moresby

8.00-8.30 am	Registration
8.30 am	Session 1: The State of PNG Forests – Session Chairperson: <i>Henry Kila OBE, President Business Council of PNG</i> Welcome Address - <i>Hon Belden Namah, MP, Minister for Forests</i> State of PNG Forests, Report – <i>Phil Shearman, Remote Sensing Unit, UPNG</i> Forest Management Opportunities for Achieving Climate Change Objectives in PNG – <i>Kanawi Pouru, Managing Director, PNGFA</i>
10.15-10.30 am	<i>Coffee/Tea break</i>

10.30 am	<p>Session 2: Climate Change, its Extent, Impact, Mitigation and Adaptation –Session Chairman: L Wilson Kamit CBE, Governor, Bank of Papua New Guinea</p> <p>Keynote Address: <i>Prof Ross Garnaut AO, Chairman, PNGSDP and Head of the Climate Change Review for the Australian Government</i></p> <p>Climate Change and Adaptation Measures in Papua New Guinea - <i>Prof Chalapan Kaluwan, Professor of Geography and Environmental Management, UPNG</i></p> <p>Development Partner Perspective -EU partnership on Climate Change and FLEGT – <i>H.E. Aldo Del’Arriccia, Ambassador and Head of the European Delegation in Papua New Guinea</i></p>
12.15-1.00 pm	<i>Lunch Break</i>
1.00 pm	<p>Session 3: Practical Opportunities for Carbon Trading to support sequestration in Forestry (under CDM and REDD, or other post 2012 Arrangements): Chairman: <i>Prof Ross Hynes, Vice Chancellor, UPNG</i></p> <p>Opportunities of Forest Conservation and Sustainable Forest management - <i>Dr Simon Saulie, Dean, UPNG Centre for Research</i></p> <p>Forests as Green Infrastructure – an Investor’s Perspective - <i>Josh Dowse, Associate Director, Global Climate Change Practice, Macquarie Capital</i></p> <p>Making REDD Work - Some Reflections on TNC Experience with Policy and Practice - <i>David Cassells, Director, TNC Asia Pacific Forest Program & Chief of Party, Responsible Asia Forestry and Trade (RAFT) Project</i></p> <p>Enhancing the Value of the Forest through Carbon Trading and Sustainable Forest Management - <i>Bob Tate, Executive Officer, Forest Industries Association</i></p>
2.45-3.00 pm	<i>Coffee/Tea</i>

3.00 pm	<p>Session 4: Policy in PNG: Chairperson: <i>Dorothy Tekwie, Greenpeace Pacific</i></p> <p>Developing a Regulatory Framework for Climate Change in PNG - <i>Dr Eric Kwa, UPNG, Law Faculty</i></p> <p>The Carbon Trading System for PNG - <i>Hon Mal Kela Smith, Governor of the Eastern Highlands Province (or his nominee)</i></p> <p>Equitable Principles for Carbon Financing - PNGEFF's Perspective - <i>Thomas Paka/Effrey Dademo, Ecoforestry Forum</i></p> <p>Climate change policy – DEC perspective – <i>Gunther Joku, Director, DEC</i></p> <p>International NGO perspective - <i>Dr David Melick, WWF Trans-Fly Programme coordinator and climate change specialist</i></p>
	<p>Concluding Comments – <i>Paul Barker, Director, Institute of National Affairs</i></p>

Foreword, Summary of Discussions and Commentary

In a world experiencing ever growing urbanisation, industrialisation, pollution, pressure upon natural resources and diminishing open space, Papua New Guinea stands out as enjoying a relatively pristine environment, low population pressure, clean air, rich forests and uncontaminated marine and fresh water habitats. Nevertheless, PNG has certainly not been immune to the negative side-effects of development and globalisation, generated by population growth and increased domestic demand, combined with the growing international appetite for raw materials sourced from this country, including timber, agricultural and marine products and mineral resources. Whilst much economic activity, notably in agriculture, has provided broad-based benefits, in terms of improved household incomes and access to associated goods and services, the standard of extraction of some of these resources has been mixed, with the land-use and environmental impact of some operations markedly more damaging than necessary, requiring longer periods for habitat or stock recovery, whilst resource owners and the State have often gained limited or inadequate benefits from the extraction of some resources, including their forests.

Over recent decades there has been growing international awareness of the global ramifications of industrial and household consumption and emissions, with rising demand using prevailing technologies, imposing growing pressure upon, and in some cases depletion of natural resources, including terrestrial and marine stocks and biodiversity. In recent years attention has focussed increasingly upon climate change, notably global warming, with scientific evidence that it is occurring at an escalating rate, and now almost universally accepted as caused by human activity, rather than natural phenomena.

The progressive reports in recent years of the Intergovernmental Panel on Climate Change (IPCC) and the seminal 'Stern report' have highlighted the contributory factors to climate change and its practical, including economic, impact under different scenarios. Generally, drier areas are forecast to become less habitable, weather conditions more unpredictable and extreme, with the poorest countries, particularly the low lying coastal areas and islands, most badly affected. Papua New Guinea and its Pacific neighbours, including Australia, are expected to be hit hard, with even PNG's highlands regions affected badly through longer droughts and geographically extended prevalence of certain tropical diseases, like malaria.

The scientific consensus highlights the inevitability of climate change, which is already occurring, but will invariably increase for some years to come, even if stringent emission control (and emission trading) occurs now. Time has been wasted through lack of international consensus and obfuscation, particularly by some major industrial countries concerned to avoid economic restraint or being disadvantaged in relation to the newly industrialising giants, like China and India. Much of the world's heavier industry has shifted in recent years to these new economic powerhouses, which are not yet subject to mandatory emission targets under the Kyoto Protocol (which expires in 2012). Clearly, to have the necessary impact in reducing global emissions requires addressing all the key

contributory factors and including all countries, notably the high emission developed countries, but also the major emerging economies. One of the major contributory factors to global warming is reported to emanate from the release of carbon, sequestered in the biomass of forests (especially tropical rainforests, including soils), as a result of deforestation, notably for conversion for agricultural production, including rice, soybean or livestock, but also oil palm (often entailing extensive forest burning in Indonesia and the Amazon), and forest degradation (as prevalent with selective logging and lower intensity swidden agriculture or gardening, as in parts of PNG).

Whilst PNG is clearly not a significant producer of greenhouse gases (overall or per capita) from industrial or household usage, it does retain (combined with neighbouring Papua Province on the western side of the island of New Guinea) the largest area of remaining tropical rainforest in the S E Asian/Pacific region (and one of the largest globally). The IPCC has concluded that 20% of global emissions emanate from deforestation and forest degradation. Different definitions of forest cover and deforestation (as well as the preliminary nature of measurements) have undermined assessments of the rate of deforestation over many years, but use of enhanced satellite imagery and more extensive ground-truthing have improved calculations in recent years. Deforestation rates in some countries, such as Brazil, were considered to have reduced, but more detailed analysis of satellite images indicates high rates has been maintained.

In Papua New Guinea forestry has long been notorious for malpractice: - in the awarding of concessions, application of prevailing laws and agreements on those concessions, and the recording of harvest and export quantities, species, grades and value. With the application of the new Forestry Act in mid-1992, requirements for resource allocation have been more demanding, new projects are required to be managed on a sustainable basis, processes theoretically more transparent and export quantities and grades more closely inspected (by an independent surveillance process). Nevertheless, as highlighted in the independent reviews of proposed and ongoing forest projects undertaken for the Government early this decade, breaches remain extensive and sustainable harvesting (by project) not practiced, with little enforcement of rules in practice. The incentives to buck the rules are strong, both for companies operating in the field, remote from any effective supervision, and for some officials and so-called landowner leaders, whilst the rules themselves (and tax rates) have also at times been adjusted favourably for industry (rather than resource owner or even the State's) interests.

A recent rigorous, donor funding, study undertaken by the University of Papua New Guinea's remote sensing unit (Shearman et al), first presented during the June Workshop, has mapped the current state of the country's entire forest resources using a range of satellite imagery to gain nationwide coverage, despite PNG's notoriously cloudy conditions. The study has also made comparisons with previous comprehensive aerial photography of the country (from 1971) to show changing forest coverage. Whilst there will inevitably be some refinements of techniques and interpretations of causes and effects, for example over rates of recovery after drought and fire, and there are invariably some different interpretations of deforestation rates (notably using 1970s and 1990s analysis), the findings of the recent study are that rates of deforestation and degradation

in PNG are well above those hitherto reported by FAO, based largely upon periodically updated historic data, rather than being field-tested. So, whilst the rate of forest clearance in PNG (and neighbouring Papua Province) currently remains well below that prevailing on the nearby islands of Sarawak and Borneo, when combined with degradation, it is substantial and (directly and indirectly) causing significant GHG release.

While PNG is not, therefore, a significant producer of industrial or domestic emissions on either a nationwide or per capita basis, its rainforests (and marine habitats) do make a valuable contribution to the global climate, as a carbon sink, as well as stabilising conditions through steady evapo-transpiration. On the basis of the IPCC's analysis, however, continued or increased rates of deforestation/degradation in PNG over recent years and in future would contribute significantly to global GHG emissions, though probably not yet to the level equivalent to Australia's emissions, as suggested by ANU economist (and former AusAID chief economist), Dr Stephen Howes during an ANU/INA seminar earlier in 2008. Whilst there was international awareness (including in PNG) through the 1990s of the need to provide incentives to safeguard existing forests resources (and the carbon stored therein), the Kyoto protocol only included provision for payments from emission trading for new forest plantings, absorbing additional carbon. Grant funds from other sources, notably GEF, were made available to PNG in the 1990s and early 2000s to support forest conservation and more sustainable forest management, but these pilot initiatives were only launched, and never implemented, with the premature termination of the UNDP-GEF southern New Ireland project (largely as a result of actions by a logging operator), and latterly with the termination of the Forest and Conservation Project (FCP) by the PNG Government and World Bank in 2005, under pressure from the same logging company.

There has been some discussion and awareness of climate change issues in PNG over many years, not least in the remote atolls most immediately affected by inundation during storm surges, such as the Carteret and Mortlock Islands. Papua New Guinea has been an active participant in the international consultations and conventions held under the auspices of the United Nations, addressing climate change and wider environment and development issues, leading up to the 1992 Rio Summit (UNCED), the subsequent Kyoto Protocol on Climate Change and ensuing dialogue under the auspices of the UN Climate Change Convention (UNFCCC). With the growing recognition of the role of rainforests in storing carbon, and the extent to which forest clearance contributes to GHG emission and climate change, Papua New Guinea has also been active in promoting the need to incorporate standing forests under Post-Kyoto arrangements from 2012, (i.e. extending emission trading and other arrangements beyond afforestation, as currently provided for with the CDM arrangements under the Kyoto Protocol-). This position was endorsed at the Climate Change Conference in Bali, intended to lead to a strengthened international deal on climate change at the Climate Change Conference in Copenhagen at the end of 2009, and potentially including the principle of reducing emissions from deforestation and forest degradation (REDD).

There has also been considerable public awareness and concern, particularly from resource owners and human rights and environmental organisations, over governance of

forestry and other natural resources in PNG, going back (and prior) to the Commission of Inquiry into Forestry (Barnett Inquiry) in the late 1980s, and with constant revelations over subsequent reported breaches. The moratorium on new forestry projects introduced in 1999, pending a rigorous compliance review, followed a perception that forest governance had once more declined badly since the reforms of the early 1990s, a perception largely confirmed by the independent, government commissioned, reviews of proposed and ongoing forestry projects undertaken early this decade.

Unfortunately, there has been a considerable apparent contradiction over recent years between the policy stand taken on the global stage (including at Bali) and the reality on the ground with respect to forest resource management, with efforts by some authorities and officials to bring ongoing projects into compliance with the law or agreements apparently being rejected and over-ruled (sometimes without legal mandate), whilst some major new forestry concessions have been granted (with questionable legality) either under the guise of (misnamed) agro-forestry, as project extensions or conversions, or “impact projects”. It is hoped that this only too apparent inconsistency in policy and practise will become something of the past, particularly as land-use options entailing forest resource protection (including potentially through carbon trading) become more financially attractive, notably for resource owners themselves, but also the State. Nevertheless, only back in 2006 the former Forest Minister forbade forestry staff (with doubtful legal entitlement) from participating in dialogue with the private sector and civil society in a workshop on future directions for forestry in PNG, claiming that forest policy was his exclusive preserve, and he was clearly anxious not to have forestry practice examined too closely.

In recent months, although there remains a strong disinclination within government towards open policy dialogue, including over ICT, SOE governance, agricultural planning and climate change, there have been some positive signs of a thawing of this exclusiveness in some fields, and the (new) Forest Minister’s frankness and relative openness when opening the June 2008 Workshop is a case in point, and hopefully indicates a more positive direction for the future. The Deputy Prime Minister, Dr Puka Temu, constantly champions the need for open discourse with the private sector and civil society on key policy issues, including climate change, land-use and resource management, and it is hoped that this view is becoming more widely shared by his colleagues. It is also hoped that a more participatory and transparent approach to policy, will also be reflected in actual implementation and monitoring the application of those policies, including over climate change mitigation and adaptation.

The Institute of National Affairs (INA) hosted a one day workshop on Climate Change, Forests and Carbon Trading with the University of Papua New Guinea on 2nd June 2008, together with the PNG Sustainable Development Company Ltd, which also provided major financial support for staging the event. One of the central roles of the INA is to encourage public awareness and debate on major economic, social and environmental policy issues affecting Papua New Guinea. Over recent years the Institute has commissioned some research, and provided several commentaries and papers, as well as hosting workshops related to natural resource management, including forestry. In 2007 it

co-hosted (with WWF) a seminar on Climate Change and Carbon Trading, with Prof Tim Flannery as guest Speaker, and it was a theme within the 'PNG Update' seminars (with the Crawford School of ANU) held in various centres around the country in April 2008.

The June workshop, attended by over 300 participants and broadcast live nationwide, was aimed at raising awareness amongst sector stakeholders and the wider community in Papua New Guinea, firstly, on climate change and the latest global projections, its causes and prospects and means for mitigation, including emissions restraint and adaptation. Attention was focussed particularly upon the implications for PNG and this region. The workshop also examined the current State of the Forests of PNG and the prevailing rate of deforestation and degradation, both from logging operations or conversion to large or small scale agriculture or other land-use. Finally the workshop sought to examine and clarify what carbon trading is all about, currently under the Kyoto protocol (including the CDM arrangements), but particularly under prospective post-Kyoto arrangements from 2012 (notably including REDD), and using the current growing voluntary market and related international forest-carbon initiatives, as launched by Australia and under the World Bank and UN's auspices. .

The workshop brought together an impressive array of speakers, from the fields of: -

- international and domestic public policy (including Prof. Ross Garnaut, heading the Australian and State Governments' policy response to climate change, Hon Belen Namah, PNG's Minister for Forests, Kanawi Pouru of the PNG Forest Authority and staff of the Environment Department, and Phil Smith, on behalf of Governor Malcolm Smith, on the need for a sound climate change/carbon trading policy, but highlighting the deficiencies in the long deferred policy to date),
- development partners,
- international NGOs with practical experience with carbon trading and conservation initiatives overseas (including Dr David Cassells of TNC on a long established pre-REDD initiative in Bolivia),
- academics and practitioners (including Phil Shearman launching the major report by UPNG/ANU, on the State of PNG's Forests, as well as ecologists, foresters and lawyers from UPNG, and Josh Dowse from Macquarie Bank on the nature of the carbon market),
- local NGOs, and
- landowner groups, interested particularly in the prospects of resource conservation associated with potential carbon trading.

The packed attendance reflected the level of interest, including the nature of and prospects for carbon trading, from a wide range of stakeholders, entailing government, private sector and civil society, including resource owners.

The main observations from the workshop were that climate change is here and will have a major effect on the lives of Papua New Guineans long into the future, and that the whole world, especially the rich nations, but also countries like Papua New Guinea must play their part in seriously and promptly addressing the causes, as well as preparing for (or adapting to) the outcomes. Whilst the developed countries, over a long period, but increasingly also the emerging industrialised economies, are the

major contributors to climate change, Papua New Guinea and other rainforest nations also have a major role to play, by continuing to sequester carbon in their forests and halting or even reversing the deforestation and forest degradation which has been occurring, as a result particularly of logging and forest conversion. Papua New Guinea will be a victim of climate change, but could also be a beneficiary from some of the measures to mitigate change, notably from potentially receiving payments (for the resource owners and the State) for the service of retaining carbon stored in its existing, and perhaps restored and newly planted forests.

To address the challenge of climate change, including the immediate victims, and for these potential benefits to be achieved, the main conclusions from the workshop were, therefore, that the Government, in close consultation with the private sector and civil society (and utilising technical support from development partners where needed and available), must establish credible and transparent policies and mechanisms for addressing climate change and carbon trading, plausible to this country's forest resource owners, development partners, the international (carbon) market (including rigorous auditing/regulatory requirements) and world community, or it will be another lost opportunity, whilst the negative repercussions set in. Early action on mitigation is crucial, but so also is planning for remedial action, for example for farmers facing the prospect of less reliable rains and extended droughts, or other unfamiliar weather patterns. The latter requires suitable agricultural research, preparedness and adjustments, including available of drought resistant varieties and improved water storage and reticulation mechanisms.

The conclusions of the workshop were that, in responding to the challenges of climate change, countering deforestation and degradation and developing a forest carbon market 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 anything 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 land-use 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, notably basic infrastructure and service provision, particularly for rural communities, are perceived to have been forgotten, whilst recent economic growth and increased revenue 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 relatively substantial natural wealth and potential opportunities. PNG will invariably suffer badly from climate change, but also has the potential to make an impact through 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.

PNG 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! Resource owners deserve alternative opportunities to those offered by the logging industry. Whilst they need reasonable legal and practical protection from 'cowboys', some of whom may be operating under the guise of carbon trading, undue restrictions on legitimate traders or efforts by the State to impose excessive carbon taxes, or license privileged monopolistic middlemen, charging excessive fees, must be resisted.

The rapid expansion of mobile phone use, including into rural areas, since competition commenced in mid-2007, and the potential for widespread mobile phone banking, provide opportunities to enhance participation and broad-based decision making, and a fairer mechanism for disseminating service payments to rural households (e.g. from carbon trading), without needing middlemen at the national or landowner level. Enabling greater certainty and reliability (in this Land of the Unexpected) will be valuable for the landowners, and crucial for interesting the international market into emissions trading with PNG. It is therefore essential, in turn, to the objective of mitigating, and where necessary, adapting to climate change.

Paul Barker, June 2008

INA Contributors 2005/2008

Agmark Pacific Ltd	KK Kingston
Air Niugini	KPMG
Airways Hotel and Apartments	Kramer Group Ltd
Allens Arthur Robinson	Lae builders & Contractors Ltd
American Home Assurance Company	Lihir Management Co Pty Ltd
Andersons Foodland	Manufacturers Council of PNG
ANZ Banking Group	Marsh Ltd
Bank of Papua New Guinea	Missionary Aviation Fellowship
Bank of South Pacific	Mobil Oil New Guinea Ltd
Barrick (PNG) Ltd (formerly Placer Dome Ng Ltd)	Monian Ltd
Blake Dawson and Waldron	NASFUND
Bougainville Copper Ltd	National Capital District Commission
Brian Bell & Co Ltd	Nautilus Mineral Resources Ltd
British American Tobacco (PNG) Ltd	New Britain Palm Oil Development Ltd
Business Council of PNG	New Guinea Islands Produce Co Ltd
Chemcare Pharmacies Pty Ltd	New Zealand High Commission
Embassy of Peoples' Republic of China	Oil Search Limited Ltd
Coca Cola Amatil (PNG) Ltd	Ok Tedi Mining Ltd
Coffee Industry Corporation Ltd	Orica PNG Ltd
Coffee Exporters Association	Origin Energy
Colgate Palmolive (PNG) Pty Ltd	Pacific MMI Insurance
CRA Minerals (PNG) Pty Ltd	Pacific Rim Plantations Ltd
Credit Corporation (PNG) Ltd	Paradise Foods Ltd (formerly Arnotts PNG Ltd)
Curtain Brothers PNG Ltd	Peter Mildner Architects
Deloitte Touche Tohmatsu	PNG Institute of Banking and Business
Digicel(PNG) Ltd	PNG Waterboard
East New Britain Provincial Government	Port Moresby Stock Exchange
Express Freight Management Ltd	Price Waterhouse Coopers
Farmset Ltd	POSF (now Nambawan Super Ltd)
Finance Corporation Ltd (Fincorp)	QBE Insurance (PNG) Ltd
Gadens Lawyers	Ramu Sugar Limited
Galley Reach Holdings Ltd	RD Tuna Cannery Ltd
Global Internet Ltd	Rio Tinto Minerals (PNG) Ltd
Goodman Fielder International Ltd	Rural Industries Council
GRM International	Shell (PNG) Pty Ltd
Haginia Builders Ltd	SP Brewery
Hastings Deering (PNG) Pty Ltd	Steamships Ltd
Highlands Pacific Ltd	Steel Industries Ltd
Institute of Business Studies	Telikom PNG Limited
Kambang Holdings Ltd	Trukai Industries Ltd
Kenmore Pty Ltd	W & R Parer
Kina Securities Pty Ltd	W.R Carpenter (PNG) Ltd
KKB	Wamp Nga Group of Companies
	Westpac Bank PNG Ltd
	World Bank Group

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