2015 PNG UPDATE

The University of Papua New Guinea

Australian National University

‘DEVELOPMENT CHALLENGES IN THE LNG ERA’

(Jointly organised by School of Business Administration, The University of Papua New Guinea (UPNG) and Development Policy Centre, Australian National University (ANU))

18th and 19th June 2015
Main Lecture Theatre (MLT), University of Papua New Guinea

Program and Abstracts

Sponsored by:

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School of Business Administration, The University of Papua New Guinea and Development Policy Centre, Crawford School of Public Policy, Australian National University.
This publication contains collection of abstracts of research papers presented during 2015 PNG Update conference on “Development Challenges in the LNG Era”, held on Thursday and Friday, 18th and 19th June, 2015 at Main Lecture Theatre, University of Papua New Guinea.

The 2015 PNG Update discussed and debated the contemporary economic and social developments and related issues in Papua New Guinea (PNG). The 2015 PNG Update is multi-disciplinary in nature. The following contemporary issues of Papua New Guinea are themes of the event:

- PNG’s economic outlook
- Strategies to convert the resource boom into development
- Social and gender issues in a growing economy
- Human development challenges and reforms
- Facilitating broad economic development – agriculture, fisheries, tourism etc.
- SMEs, infrastructure and economic competitiveness
- Macro and fiscal management
- Governance and political economy of development

In order to facilitate more debate on issues which have impacts on national interest, all sessions were open to general public, policy makers, bureaucrats, professionals from public sector, private sector and non-governmental sector, students and others.

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2015 PNG Update: Program
Hosted by School of Business Administration, The University of Papua New Guinea;
Development Policy Centre, Crawford School of Public Policy, ANU

Date and Time: Thursday 18 June and Friday 19 June 2015 9am – 5pm
Venue: Main Lecture Theatre, The University of Papua New Guinea, Waigani Campus, Port Moresby, Papua New Guinea

Day one – Thursday 18 June 2015

8.30am Registration and arrival tea and coffee
9.00am Welcome Address
Professor Albert Mellam, Vice Chancellor, University of Papua New Guinea
Professor Veronica Taylor, Dean, College of Asia and the Pacific, Australian National University
Inaugural address
Her Excellency Deborah Stokes, Australian High Commissioner to Papua New Guinea
Opening address
The Hon James Marape, Finance Minister, Government of Papua New Guinea
Master of ceremony: Dr Lawrence Sause, Senior Lecturer of Public Policy Management Division

10.30am Morning tea

11.00am Keynote address
Mail Lecture Theatre - Chairperson - Prof Lekshmi N. Pillai
Keynote address 1: Lessons from reform in Africa and Asia
Jim Adams, Former Vice President for East Asia and the Pacific, World Bank
Keynote address 2:
Dr Gae Kauzi, Assistant Governor, Bank of Papua New Guinea
Keynote address 3: Survey of recent developments
Michael Cornish, Rohan Fox, Win Nicholas, Albert Prabhakar and Ani Rova, Economics Division, UPNG and Stephen Howes, Development Policy Centre, ANU

12.30pm Lunch
1.30 pm – 3.00 pm

**Parallel Session 1 – Migration: domestic and international**
Main Lecture Theatre (MLT) - Chairperson Dr Joyce Rayel
Internal migration in PNG in 2009-2010
**Anthony Swan** and Futua Singirok, ANU

Booming international arrivals in PNG's booming economy
Carmen Voigt-Graf, NRI & ANU

Impacts of migration on the livelihoods of urban settlers: a case of Port Moresby
Londari Yamarak, the Papua New Guinea University of Technology

**Parallel Session 1 – Gender**
Science Lecture Theatre (SLT) - Chairperson Prof Anne Dickson Waiko

The government of PNG for prevention of gender violence and promotion of gender equality through policy development and implementation
**Glenn Davies** and Tau Geno–Hoire, the Economic & Public Sector Program (PNGEPSP)

Social and gender issues in growing economy
**Luwi James**, Yunami Land Consultants

**Parallel Session 1 – Politics and Decentralization**
Arts Lecture Theatre (ALT) - Chairperson Mr Emmanuel Gorea
The challenge of doing development differently in PNG: Towards a politically informed approach to decentralisation reform
**David Ayres** and Ravu Varanagi, Provincial & Local-level Governments Program (PLGP)

The role of strategic governance and decentralised government in the LNG era
**Denise Lokinpa**, UPNG and **Julie Airi**, The Papua New Guinea National Aids Council Secretariat

Peace in Bougainville, the past, the present, the prospects
**Lawrence Sause**, UPNG and Satish Chand, UNSW

Patterns of politics in PNG
**Terence Wood**, ANU

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3.00pm  3:30 Afternoon tea

3.30pm – 5:00 PM

**Parallel Session 2 – Macroeconomic issues**
Main Lecture Theatre (MLT) - Chairperson Mr Jim Adams

Aid to Papua New Guinea
**Matthew Dornan**, ANU

Pathways away from crisis and towards prosperity
**Paul Flanagan**, ANU

Natural resource extraction and Dutch Disease: application to PNG
**Maria Kanari**, Jan Gottschalk and **Nikhil Vellodi**, Bank of Papua New Guinea

The establishment of the Sovereign Wealth Fund of Papua New Guinea: a case study analysis on the threats and opportunities to the governance and institutional framework
**Sent Moke**, UPNG

**Parallel Session 2 – Mining and development**
Arts Lecture Theatre (ALT) - Chairperson Mrs Evelyn Kua

Mining in PNG: lessons from the Watut River
**Charles Roche** and **Gavin Mudd**, Murdoch University

A need for local content & local participation policy in the oil & gas industry in Papua New Guinea
**Bill Rua** and Catherine M. Rua, InfoDev Consultancy Services

Contrasting development approach, context and outcomes in LNG and non-LNG districts
**Priscilla Pius**, CARE International in PNG

The multiplier effects of mining development in PNG and its leakages within the economy
**Sydor Utaeo**, Morobe Mining Joint Ventures
Day Two – Friday 19 June 2015

8.30am Registration and arrival tea and coffee

9.00am Keynote address - Main Lecture Theatre (MLT)
Chairperson – Prof Veronica Taylor
Keynote address 1:
Mr. Michael Uiari, General Manager, Oil Search Limited.
Keynote address 2: From wealth to wellbeing: translating resource revenue into sustainable human development
Dr Glenn Banks, Associate Professor, Massey University and lead author UNDP Papua New Guinea National Human Development Report 2014

10.30am Morning tea

11.00am – 12 30 PM
Parallel Session 3 – Education and human development
Main Lecture Theatre (MLT) - Chairperson Mr Gordon Montoru
Needs theory and employee performance: a case study of employed PNG university graduates
Paul Kaita and Don David, Bank of Papua New Guinea

12.30pm – 1:30 pm Lunch
1.30pm – 3:00pm
Parallel Session 4 - Public-private partnerships
Main Lecture Theatre (MLT) - Chairperson Mr Marsh Kati
The United Church as a service deliverer: can it do more? Profiling the United Church in a PNG islands community
Patrick Kaiku, UPNG
Public-private partnerships in education
Thomas Pillar, Asia Pacific Institute
GoPNG – International NGO partnerships: a case study of CARE International in PNG
Joy Marie Waffi, Bennie Atigini, Helmtrude Sikas, Betty Hinamunimo, CARE International in PNG

Parallel Session 4 - Land
Science Lecture Theatre (SLT) - Chairperson Prof Mange Matui
Customary landowner identification counters studies and registration dilemma's at pre-development stage within LNG impacted area's by affected provincial government
Alexander Karahure, Western Provincial Administration, PNG Government
Special agricultural business leases: where are we at?
Lawrence Saune, UPNG
Melanesian land tenure and management system and its impact on agriculture productivity in PNG
Wilson Thompson, Farmers and Settlers Association Inc and Mawe Bacchi Gonapa, Department of Agriculture and Livestock

Parallel Session 4 - Urban development
Arts Lecture Theatre (ALT) - Chairperson Mr Angi Hayabe
Urban public transport challenge in the LNG era: a case study of the Port Moresby urban public transport
Jack Assa, Clean Green Energy Ltd
Opportunist sector in urban Goroka: a real development challenge
Johnson Ahupa, University of Goroka

Parallel Session 5 – Corruption and governance
Main Lecture Theatre (MLT) - Chairperson Mr. P. Bandara
Governance and political economy of development: a case of PNG media supporting good governance
Nash Sorariba
Engaging PNG's citizens in the fight against corruption
Grant Walton, ANU
Phones against corruption: preliminary findings of user experience research
Amanda Watson, The Economic & Public Sector Program (PNGESP); Tess Wingi and Marina Cvetanovska, Department of Finance; Tito Balboa and Sam Erepan, Provincial Capacity Building and Enhancement Programme (PCaB); Cameron Jackson, Mobimedia

Parallel Session 5 – Development Issues
Science Lecture Theatre (SLT) - Chairperson Prof Stephen Howes
Analysis of asset ownership using 2009-2010 HIES dataset
Francis Odhuno, NRI
Social infrastructure and economic development: regional disparities
Albert Prabhakar, Ani Ila Rova and George Unige, UPNG
Balance of payments of Papua New Guinea: orange signals
Pulapa Subhe Rao, Albert C.Mellam, John Raymond, B. Gabonen-Mellam, Joyce Rayel, and Peter Tulapi, UPNG

3.00pm – 3:30 Pm Afternoon tea

3.30pm – 5:00 Pm
Parallel Session 5 – IT and development
Arts Lecture Theatre (ALT) - Chairperson Dr Anthony Swan
New communication technology, rural development, social networks and hybridity in PNG
Dora Kialo, The Papua New Guinea University of Technology

Role of ICT in human development challenges
Venu Madhav, William H Tapio and Pulapa Subba Rao, UPNG

Status quo and emerging challenges in ICTs for PNG
Joseph Kim Suwamaru, Divine Word University

5.00pm Closing of Conference:
Professor Albert Mellam, Vice Chancellor, University of Papua New Guinea
Professor Stephen Howes, Director, Development Policy Centre, Crawford School of Public Policy, Australian National University

Master of Ceremony: Mr P. Manohar

7.00pm Conference Dinner (by invitation only)
After dinner speaker: Professor Veronica Taylor, Dean, College of Asia and the Pacific, Australian National University.

Master of Ceremony: Mr Herman Moshi

Abstracts

Parallel Session 1 – Migration: domestic and international - Main Lecture Theatre (MLT)

Internal migration in PNG in 2009-2010
Dr Anthony Swan, Research Fellow, Development Policy Centre, ANU & Futua Singirok; Graduate Student, Crawford School of Public Policy, ANU

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We analyse data from the 2009-10 PNG Household Income and Expenditure Survey (PNG HIES) to document the extent and nature of internal migration within Papua New Guinea. Around 14 per cent of all households are classified as internal migrants but in urban areas this share is substantially higher (e.g. over 80 per cent in NCD). The paper develops a range of living standards measures (consumption expenditure, poverty, wealth, income, labour force status, education, health and anthropometrics) and compares how internal migrant households perform relative to non-migrant households. The evidence suggests that in urban areas, internal migrants achieve on average modestly higher living standards compared to non-migrants. In contrast, internal migrants are found to achieve much higher standards of living on average compared to non-migrant households in their home part of PNG. The findings in this paper highlight the incentives for Papua New Guineans to migrate internally, particularly from rural to urban areas, and the need for policy makers to invest in urban development to accommodate increased migration, or improve prospects in rural areas in terms of economic growth and the quality and accessibility of basic services.

Booming international arrivals in PNG’s booming economy
Dr Carmen Voigt-Graf, Fellow, Development Policy Centre, ANU & Senior Research Fellow, Economics Policy Research Programme, NRI - carmen.voigt-graf@anu.edu.au

Papua New Guinea has witnessed a substantial increase in the number of international arrivals, especially since 2007, which is when construction of the LNG project began. This paper discusses international arrivals in PNG with a particular focus on the category of visitors referring to persons entering PNG who are not resident in PNG. The analysis is based on annual statistics released by PNG’s National Statistics Office (NSO) which compiles data on persons entering or leaving PNG recorded on Arrival and Departure Cards.

The number of visitors for the purpose of employment and business has grown particularly rapidly in recent years as a direct result of the resources boom. PNG’s growing economy has attracted an increasing number of highly skilled professional workers and of vocationally and technically skilled workers, both of which are of short supply in PNG. Analysing the source country of visitors, ties between PNG and Australia are enduring and Australia still contributes about half of the total number of visitors. However, Asia has been the fastest growing source region, and, within Asia, the Philippines is the fastest growing source country (and of all countries). This growth has occurred not at the expense of Australia but of other source regions. In contrast to the number of visitors for employment and business reasons growing rapidly, the number of tourists entering PNG has remained stagnant.

After providing an overview of the reasons, source countries, occupational background and length of stay of arriving persons in PNG, some data limitations will also be discussed.
Impacts of migration on the livelihoods of urban settlers: a case of Port Moresby

Londari Yamarrak, Lecturer, Papua New Guinea University of Technology -
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This paper examines the effects of rural-urban migration on the suburban communities of Port Moresby (Gerethu) of Papua New Guinea. Data are obtained using quantitative methods comprising questionnaire surveys. Seven stages of Gerethu are selected based on population size and spatial equity from a population of almost 40 to 50 thousand people. From each of the stages, the households of fifty-six migrants (who have migrated from rural villages) are sampled for the study. Multinomial logit model and cluster analyses are used to estimate and categorise the effects of rural-urban migration. The conceptual framework employed is a modified version of the sustainable livelihoods framework. Measures of household capital are derived using principal component analysis, or directly from survey responses. Six mutually exclusive livelihood strategies are identified using cluster analysis. The regression analysis shows that rural-urban migration significantly impacts on the livelihoods of migrants. There are significant impacts of migration on the choice of livelihood (using multinomial logit model). The choice of “urban mixed” livelihood is 8.7 times more likely than “agriculture” livelihood for those migrating into the urban centers (p = 0.001).

Based on the findings, recommendations follow, such as initiation and strengthening of the informal sector whereby people migrating can easily be engaged in and strengthening of the social safety net (wantok system). Development projects based on the identified needs of each of the urban communities must be implemented to cater for the increase in the migrants.

Parallel Session 1 – Gender - Science Lecture Theatre (SLT)

The Government of PNG for prevention of gender violence and promotion of gender equality through policy development and implementation

Glenn Davies, Whole of Government Gender and Social Inclusion Consultant, The Economic & Public Sector Program (PNGEPSP) & Tau Gne–Hoire, Program Manager, Australian Aid Program

Glenn.Davies@pngepsp.org

The Government of Papua New Guinea (GoPNG) Department of Personnel Management in partnership with DFAT–Australia sponsored Governance Programs, EPSP and PLGP, have developed and implemented a tailored policy and education approach to systemically addressing prevention of gender-based violence and gender inequality for GoPNG employees and mainstreaming equality principles and values into the Government’s delivery of services to its people.

The work is underpinned by the Government’s commitment to human rights of women and recognising that gender inequality is both a consequence and cause of gender-based violence. The work commenced in 2011 but has recently gathered momentum with GoPNG’s Gender Equity and Social Inclusion (GESI) policy, launched in January 2013. This policy’s key focus implementation areas urge government employers’ action towards the theme areas of women’s equality and access to resources and opportunity; progression to leadership; and decision making roles.

The presentation will also examine the development of activities for the prevention of - and response to - workplace sexual harassment and domestic violence. GoPNG staff, working with the program, developed a number of activities, including transformative gender education sessions and mobilisation of government leaders for sponsorship of the program. Agency focal points, a vibrant and engaged male advocacy network, high-level women’s leadership networks and Gender Help Desks were also established. Staff at provincial implementation pilot sites revealed an entrenched workplace culture of sexist behaviour and a lack of access to services, which served to further amplify violence and inequality experienced by women employees. This presentation will discuss the learning outcomes and challenges from the implementation of policy, including pathways and blockages in delivering gender equality and GBV prevention throughout the GoPNG bureaucracy.

The main findings of the paper include:

- The need for accountability to institutional authority instruments such as General Orders, GESI Policy and Executive Instructions and actions, and with results being demonstrated through activities.
- High level agency sponsorship and leadership for effective implementation was key, and therefore incentivising GESI for leaders should be a strong priority.
- Developing a number of coalitions from a diverse group of contributors to plan and develop activities and to embed into organisation’s corporate planning cycle, reporting and budgets (mainstreaming) created a discourse with public service employees which flowed to the community.
- Whilst awareness-raising is a good starting point to gather people together, the real gains for lasting behaviour change is achieved through mainstreaming gender equity initiatives into government processes.
- The recognition of men’s agency was important. Not just as a perpetrator group but also as the “gate keepers” that have access to power for women’s wellbeing, economic independence, pathways to leadership roles, and freedom from GBV.
- Safety and security of women is important for women to begin to make up a critical mass and move into leadership roles. This means strong policy, consequences for perpetrators of Gender Based Violence, and open and responsive complaint pathways.
- A greater focus is needed to give women encouragement, assurance and permission to progress to leadership. The absence of such support sees women defaulting to a place safety away from the limelight, complying with the status quo and without opportunity or responsibility for leadership.

Social and gender issues in the growing economy

Luwi James, Catholic HIV/AIDS Office Goroka & Yunami Land Consultants

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Development brings change as well as problems. Such are the social and gender issues that emanate from the rapid economic growth in Papua New Guinea. The country has experienced an economic boom due to massive revenue generated from the country’s rich resources. However, some problems that stem from these changes seem unavoidable and account for so much depression and sufferings encountered by people in their daily lives.

The effect of economic growth has been the primary cause of many social issues encountered by people - the lack of a fair distribution of goods and services to the people in rural and urban settings is a big issue. The budget allocation for basic services is mainly spend on the development of urban centres and basic services such as roads, health services, electricity and water supply are deteriorating or nonexistent in many rural areas.

Unemployment is another major social issue that is affecting many young people. The Free Education Policy is relieving the majority of the people; however, the government lack the concrete plan and vision to create adequate job opportunities. Those who cannot pursue further studies or find employment often resort to illegal activities to sustain their living.

Meanwhile, gender-based inequality stems from cultural practices but has assumed an unpredictable status in this modern era. Man has historically been considered to be superior over the woman, and this has created great imbalances in the society. Women today encounter
unbearable challenges and struggles. They are given less opportunities to contribute fairly to the
development and prosperity of the country and suffer all forms of gender-based violence; physical,
social and psychological and emotional violence in their homes, work places and in public. It has
become a norm and normal way of life. This issue needs careful research and proper analysis to
minimise this practice.

Parallel Session 1 – Politics and Decentralization - Arts Lecture Theatre (ALT)

The challenge of doing development differently in PNG: Towards a politically informed
approach to decentralisation reform

Dr David Ayres, Senior Manager, Monitoring, Evaluation and Reporting, Provincial & Local-
Level Governments Program (PLGP) & Ravu Varanagi, Deputy Team Leader, Provincial and
Local-Level Governments Program (PLGP)

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The decentralisation challenges confronting Papua New Guinea over the next decade are manifest.
The recent promulgation of the District Development Authority (DDA) Act is the precursor to
substantial changes in the very structural dynamics of decentralisation in PNG. The push to channel
more funding to districts that will stem from the establishment of DDAs will be set against the
backdrop of the likelihood of a more difficult macroeconomic environment. It will also be set
against an environment where politicians have increasingly lost faith in the service delivery
performance of the public service, and are delivering projects and services outside the normal
parameters of the public financial management system. Beyond the shores of PNG, at an
international level, development assistance modalities continue to change, and will further change
as the shift from Millennium Development Goals to Sustainable Development Goals gathers pace.
Extra development assistance funding will not simply address the challenges facing PNG.

The Australian Government is in the process of preparing a new phase of support to governance in
PNG through the establishment of a governance facility. The Provincial and Local-Level
Governments Program (PLGP) is attempting to inform this process through a radical departure
from its previous modalities of support to decentralisation in PNG. The approach being adopted by
the Program is aligned to an emerging international movement towards "Doing Development
Differently". It is an approach that recognises technical solutions alone will not address
development challenges in PNG. It is an approach that recognises international “best-practice”
models may not be appropriate to the PNG context, and which favours politically informed and
politically feasible solutions to real problems. Finally, it is an approach that seeks incremental
"wins" rather than significant, and often unrealistic transformations. Will it work? Put simply,
nobody really knows, but what seems very clear is that 'more of the same' will not be enough to
improve service delivery in PNG.

The role of strategic governance and decentralised government in the LNG era

Denise Lokinap, Lecturer, School of Business Administration, UPNG & Julie Airi, Part-Time
Lecturer, Strategic Management Division, School of Business Administration, UPNG
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The Papua New Guinea (PNG) Liquefied Natural Gas (LNG) Project has been hailed as one of the
most lucrative projects the nation has been involved in. The spinoffs from the project have been
predicted to be economically viable and socially beneficial for the landowner communities as a
whole. While the positive spinoffs from a project of this magnitude are a welcome development in
terms of health, social and economic aspects of the local population, the potential negative impacts
of the same cannot be ignored.

It is these positive, potential spinoffs and negative impacts of the PNG LNG that make the role of
development and its agents - the sub-national units - must be vigilant to ensure that their citizens are
not disadvantaged nor exploited in any way. This makes the role of sub-national units very
important in ensuring the local population enjoys maximum benefits from the project, whilst at the
same time, making sure the local population is not vulnerable and left open to exploitation.

This paper looks at how the impacts of projects like the PNG LNG can be effectively governed and/or managed. The paper aims to do this by comparing the Joint District Planning and Budget Priorities Committees and the recently introduced District Development Authorities. The paper will further look at the effects of this and the project on the areas of health, social and economy of the project province and/or district and population in comparison to non-project areas.

The paper is a qualitative research paper, based on secondary data. It is hoped that the preliminary findings of this paper can be used to justify a more detailed research based on primary data.

Peace in Bougainville: the past, the present, and the prospects

Dr Lawrence Sause, Senior Lecturer, School of Business Administration, UPNG & Satish Chand,
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Bougainville has had a turbulent past, a present that remains perilous, and an uncertain future. A
decade-long war left the provincial government decapitated, the infrastructure destroyed, and
the people deeply divided. The war pushed development back decades from the level reached in 1989
when the conflict commenced. Bougainville fell from being the best performer in terms of access to
basic services amongst the 19 provinces in PNG to the bottom. The provincial government
collapsed during the conflict, public infrastructure was 'cooked', and access to basic services
retracted to the urban centres. Peace was restored with international assistance with a peace
agreement signed by the factions in August 2001. Here we narrate the progress made in terms of
the restoration of civil authority, the return to law and order, and the revival of the economy. The
past continues to haunt the present with patchy progress made on each of the above-mentioned. The
prospects for peace and prosperity depend on the outcome of the forthcoming presidential
elections, and the results of the referendum which is to follow within the five years from the date of
the inauguration of the new president:

Patterns of politics in Papua New Guinea

Dr Terence Wood, Research Fellow, Development Policy Centre, ANU
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Drawing upon a database being compiled at the Australian National University, this paper
highlights changing election result patterns in Papua New Guinea. It identifies key trends such as
the rise in candidate numbers and commensurate declines in winning candidate vote shares. The
paper examines variation, not only over time, but also across the country, attempting to identify
whether particular regions have driven the bulk of the change observed, and explain why electoral
change has been more significant in some parts of the country than in others.

Parallel Session 2 – Macroeconomic issues - Main Lecture Theatre (MLT)

Aid to Papua New Guinea

Dr Matthew Dornan, Research Fellow, Development Policy Centre, ANU
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Papua New Guinea (PNG) is widely regarded as an aid-dependent country, when, in fact, the
development assistance it receives per capita is the lowest in the region. This was not always the
case. The importance of aid in PNG has declined over time, consistent with the objectives of successive PNG governments. The decline in aid to PNG, which reached its lowest point ever in real terms in 2008, has seen PNG’s share of development assistance to the Pacific islands region fall from 90 percent in the 1970s to approximately 30 percent today. This paper examines these trends using data from the OECD Development Assistance Committee and various estimates of assistance from emerging donors.

Pathways away from crisis and towards prosperity
Paul Flanagan, Visiting Fellow, Development Policy Centre, ANU - paul@flanagan.id.au

There are risks that PNG may be heading down a slippery slope towards a crisis. As a major LNG exporter, the recent decline in oil prices exacerbates recent poor policy decisions in areas such as the exchange rate, the budget and asset management. This paper will set out possible pathways away from crisis. These possible pathways will be informed by three sources: international comparisons; basic quantification of alternative policies; and PNG’s economic experiences since Independence. The key suggestion in the paper will be the importance of having a national discussion on how to use the current circumstances as a spring board for substantial economic reform in PNG. Several elements will be outlined as possible starting points for a national discussion. These will include: a discussion on the appropriate role of government in the economy (supported by international comparisons and PNG’s history); quantification of the overall magnitude of the longer-term adjustments in fiscal strategy required to move back onto a credible path; exploration of expenditure and revenue alternatives to meet this fiscal adjustment path; and other economic reforms required to support such adjustments (including on the exchange rate, deficit financing, wages and prices policy, and elements of micro-economic reform, especially for State-Owned Enterprises). The paper will draw on PNG’s own experiences since Independence as well as the experiences of other nations in the region.

Natural resource extraction and Dutch Disease: application to PNG
Maria Kanari, Senior Analyst, Bank of Papua New Guinea; Jan Gottschalk, Macroeconomic Advisor, International Monetary Fund & Nikhil Vellodi, PhD Candidate, New York University
MKanari@bankpng.gov.pg

Natural resource booms are often thought to be an impediment to economic development due to Dutch disease effects, when the local currency significantly appreciates on the back of natural resource inflows, and in the process negatively impacts on the tradable sector of the economy. The latter, if prominent, has the potential to lead to permanent output losses. This paper uses a model based approach to investigate the transmission mechanisms that may give rise to this effect and provides policy options to mitigate them. The paper investigates the possible transmission mechanisms arising spending options available to Government, from an inter-temporal, inter-sectoral, as well as a smoothing spending profile through the use of a Sovereign Wealth Fund, and concludes that the transmission mechanism is driven by the increased spending on non-tradables financed by natural resource inflows. Arising from this, Dutch disease effects can therefore be mitigated by concentrating spending on tradables and public investment, as well as smoothing the spending profile using a Sovereign Wealth Fund.

In attempting to establish the role of monetary policy, if any, the paper concludes that, alone, monetary policy is not effective in mitigating Dutch disease effects, at least not without causing a significant crowding out of the private sector.

The establishment of the Sovereign Wealth Fund of Papua New Guinea: a case study analysis on the threats and opportunities to the governance and institutional framework
Sent Moke, Assistant Lecturer, School of Business Administration, UPNG - smoke@upng.ac.pg

In 2010, the National Government of the Independent State of Papua New Guinea agreed to a joint submission from the Treasury Department and Bank of Papua New Guinea (BPNG) as a Joint Working Group and the Department of Public Enterprises and State Investments on the proposed establishment of Sovereign Wealth Fund (SWF) for the future management of revenues expected from the LNG project and other mineral and petroleum projects. The Working Group consulted with and sought input from PNG Government agencies and relevant domestic and international stakeholders including the International Monetary Fund (IMF), World Bank (WB), Asian Development Bank (ADB) and AusAID.

With massive anticipated foreign currency inflows resulting in increased government revenue, Papua New Guinea’s planned sovereign wealth fund (SWF) provides an important mechanism to mitigate some of the effects of “Dutch Disease” and provide a steady source of income for future generations.

This paper seeks to establish the positive aspects of managing the SWF in a dynamic way for sustainable socioeconomic development. There are internationally recognised principles with which to SWF’s are set up. With the Santiago Principles (Generally Accepted Principles and Practices), the Extractive Industries Transparency Initiative, the Principles for Responsible Investments, Institutional Framework for Sustainable Development and Fayol’s Six (6) Management Functions, this paper will examine and evaluate the SWF to ensure that those principles and practices are accurately applied and complied with. The expected outputs from this case study methodology will shed some light on the future management of the entire Sovereign Wealth Fund of Papua New Guinea.

This case study research methodology encompasses documentary analysis, focus group discussions and interviews. Mainly, the focus is on the SWF of Papua New Guinea. However, the analysis will mainly focus on the threats and opportunities in the areas of governance and institutional framework.

Parallel Session 2 – Mining and development - Arts Lecture Theatre (ALT)
Mining in PNG: lessons from the Watut River
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This presentation seeks to contribute to the debate about Papua New Guinea’s extractive industries and its role in meeting the challenges and development opportunities of PNG. While extractives are often seen as central to the economic development of PNG, it is an industry that seems perpetually poised to transform. However, in reality, it presents predominantly localised opportunities dependent on a rapidly expanding LNG industry and a few large-scale mines, but always with the prospect of more. More LNG trains, and more mines, notably the combination of resource size at Wafi-Golpu and capacity of MMJV, the scale of Frieda - albeit abandoned by Glencore - and the approved, but very small and experimental deep sea mining project Solwara 1.

While the extractive industries represent much of PNG’s exports, there is widespread concern from the village to the Big Haus that benefits of PNG’s resource focused economy have been siphoned, slioed or squandered rather than translated into widespread community-level development. Based on ongoing research conducted from 2012, we explore the impacts of mining at Hidden Valley on...
the environment and community, particularly in the lower Watut, which will also be impacted if the WaI-Golpu site is developed.

Finding significant, rather than the catastrophic environment impacts associated with Porgera or Ok Tedi, we then examine the way mining is conducted and reported that could lead to genuine improvements in policy and/or practice. We also present a strong call for change from the communities in the way extractive development is approached and conducted, where key to achieving better outcomes is a reimagining of development and changes in the decision making process.

Note: The presentation is supported by a publication (51pp) and documentary (23min) shown and distributed along the Watut River in September 2014 but not widely in PNG. These are available at www.watutriver.com

A need for local content & local participation policy in the oil & gas industry in Papua New Guinea
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In resource-rich countries, local content policies have become a growing trend for governments to create sustainable socioeconomic development outcomes from the Oil & Gas sector. Local content policy can play an important role in addressing the issue of increasing employment opportunities, increasing in-country spending through procurement of local goods and services, and technology and skills transfer. Local content policies have emerged as sustainable platforms in some countries for regulating domestic participation in Petroleum Projects. Several studies in developing countries have documented positive outcomes and challenges in their implementation. This paper will review recent research into the implementation of local content policies and provide the understanding of the strategies employed and the different approaches taken in addressing the local content issues.

The presentation will also provide important insights into lessons and experiences in identifying the policy gaps in the Oil & Gas sector and how to better regulate the local content requirements in Papua New Guinea. Due to practical constraints, this paper cannot provide a comprehensive review with in-depth analysis of the subject. This study uses a qualitative case study approach to investigate the experiences of others countries in their implementation. Experiences from the PNG LNG project in the implementation of the local content in the country will provide the lessons to effectively regulate and monitor local content in the Oil & Gas sector in the country. Provision of guidelines and monitoring would provide better direction and encourage local content for effective and sustainable outcomes in development in the Oil & Gas sector.

Contrasting development approach, context and outcomes in LNG and non-LNG districts
Priscilla Pius, Governance Coordinator, Integrated Community Development (ICDP), CARE International in PNG - priscilla.pius@careint.org

The district and LLGs within the LNG areas see improvement on roads, the movement of cargo, the construction of infrastructure, the movement of vehicles and people as positive changes in their environment. Only the people within the affected area, or Project Development Licence (PDL), benefit directly from development. This is seen as their rightful compensation from the company and the GoPNG for extracting oil and gas from their land. However, they treat these developments as secondary to land royalty payments. Partly this is because most of the development initiatives implemented around the PDL area are perceived as unsustainable or are seen being co-opted for personal use. The attitude of entitlement of people within the affected area (or PDL) is understandable, but is in contrast with attitudes of people in remote parts of Menyamya in Lae Province, Gumine in Simbu Province and Obura Wonenara in Eastern Highlands Province where access to development assistance has been limited. People in these areas are more likely to mobilise to facilitate development opportunities offered. People are welcoming of new faces in their community. They participate in ward development planning, organise community members and ward development committees and have been making gradual changes that are empowering women.

In this paper the approaches taken, the operating context, and the development outcomes in a resource development area are contrasted with the approaches, context and outcomes in a non-resource zone.

The multiplier effects of mining development in Papua New Guinea and its leakages within the economy
Sydor Utaeo, Mining Engineer, Morobe Mining Joint Ventures - sydor.utaeo@morobejv.com

The wealth creation through “Multiplier Effects” on a nation’s economy triggered by mining development is attracting substantial attention among policy makers, development financiers and mining companies around the world. In Papua New Guinea (PNG), the economic effects are not fully understood. Henceforth proper policy frameworks are not readily available resulting in economic and employment multiplier effect leakage within the economy.

This article presents a research work recently completed for the Hidden Valley Mine using an Input-Output (IO) model to define multiplier effects generated by the mining development and its impact on the industries that inter-depend on each other to support this development within the mining footprint. It also highlights some of wealth creation activities resulting from direct and indirect impact of Hidden Valley Mine on local economy.

The Hidden Valley Mine case study would utilise IO Multipliers drawn from an IO Model for PNG. Since PNG does not have an up-to-date and official IO Model, the Queensland Regional IO Table 1996-97 for the rural North West Queensland was used to establish the multipliers effects for 13 industries operating within the mining area.

The research points out the success and pitfalls of Hidden Valley Mine in creating wealth for economy through multiplier effects. It also calls for a prudent policy framework to manage leakage within the economy so local social and economic indicators improve.

Parallel Session 2 – Agricultural development - Science Lecture Theatre (SLT)
Agriculture in PNG: a case of cocoa production in the midst of a mineral resource boom
James Aipa; Lecturer, PNG University of Natural Resources and Environment; Herman Valvalu, Smallholder Cocoa Grower, Tobera Agriculture Integrated Project; Ray Roberts, Technical Officer, PNG University of Natural Resources and Environment; Michael Ambrose, Smallholder Cocoa Grower, Gazelle District; Mangue Sombo, Technical Officer, PNG University of Natural Resources and Environment and Kusie Aipa, Teacher, George Brown High School
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The pervasive behaviour of the cocoa pod borer (CPB) makes CPB difficult to eradicate and is a major threat to the cocoa industry in the East New Britain Province. Attempts by both the private and government sectors and now the Productive Partnerships in Agriculture Project (PPAP) to eradicate the pest have made little progress. We carried out this study to evaluate CPB infestation and factors limiting cocoa production in smallholder blocks in the Gazelle districts and parts of the Pomio and Kokopo districts in the East New Britain Province. The results of this study indicate that cocoa pod borer (CPB) remains a major threat to the cocoa industry causing cocoa yield losses of 40–60%. We noted that senility of cocoa trees, lack of transport and marketing facilities, and advisory services as the major contributing factors in the isolated and inaccessible areas. We also assessed family income in local cocoa growing communities and noted that family income declined by 50–70%. Our results on cocoa yield losses and family income amid CPB may suggest that similar declining yield trends and family income are experienced in other tree crops like coffee and coconut. We recommend the establishment of a Local Level Government (LLG) based eco-nucleus estate enterprise model to efficiently manage CPB to ensure long-term cocoa productivity and economic sustainability, and improve the livelihood of cocoa growers in the LNG Era and beyond.
Agriculture research and development challenges for facilitating broad economic development in the LNG Era

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PNG is an agriculture-based country with 85% of the population living and earning their livelihoods in rural areas depending on agriculture for food, income and non-monetary employment. An assessment of the status of welfare of rural communities using food security, income generation, employment and environmental sustainability as indicators shows ongoing threats to food and nutritional security given the increasing population and the declining trend in the per capita agricultural production exacerbated by adverse impacts of climate change.

Rural employment in PNG is characterized by low productivity, underemployment and low wages and it is predicted that the rural skilled and unskilled employment levels in the short-term will decline by 12 and 24% respectively due to LNG project. The current situation of rural communities is clearly linked to the poor performance of the agriculture sector over the decades. Although current and past national development plans recognised the importance of increasing agricultural productivity to address food and nutritional security, income generation, rural employment and environmental sustainability, national food security is under threat with 1% growth rate as against 3% population growth. Poor performance of the agriculture sector highlights the need for reforms in how to approach agricultural development. The challenge is develop innovative approaches and strategies aimed at agricultural research for development (AR4D) that are clearly linked.

Most developing-country investments for agricultural R&D averaged 0.5% of national GDP while developed countries are investing around 0.4% to at least 150 million as it is not adequate for delivering the technology contribution necessary to increase food productivity enough to ensure food security. The LNG era provides excellent opportunity for enhanced investments to invigorate agricultural R&D and meet the aspirations of the Vision 2050.

Smallholder agriculture to facilitate broad economic development

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In Papua New Guinea there are repeated calls for greater investment in agriculture and for more resources to be allocated to the agriculture sector. But there are very few well researched suggestions as to what the existing or additional resources should be spent on, or believable predicted outcomes. The statements and questions that arise, and hence the conclusions of this paper, are based on public documents such as press releases, reviews, conference proceedings and released technologies. Phrases like freeing up the land for agriculture or mobilizing the land are common. These beg questions such as: what do people think has been happening to the land up until now; where is this land that has to be mobilized; what do freeing up or mobilization really mean; what happens to the people currently using the land with increasing intensity; how can any predicted benefits be equitable and sustained? There is a singular excess of wishful thinking and a lack of attention to available published information on land use, productivity and the ways that smallholder farmers are coping with the pressures to change. It is important that attention be paid to the new National Strategy for Responsible Sustainable Development for Papua New Guinea and sensible suggestions for action being developed in consultations such as those promoted by the Fresh Produce Development Authority. Smallholder farmers continue to produce the bulk of the food consumed by the ever increasing population. This cannot change in spite of promotion of the dubious benefits of large scale, mechanized, capital intensive agriculture. But these smallholders are crying for help and so it becomes critical that increasing attention must be paid to making informed decisions about how to spend the riches from oil and gas to support and empower farm families. Three main areas can be identified – Research and Technology Development; the

Day two – Friday 19 June

Parallel Session 3 – Education and human development - Main Lecture Theatre (MLT)

Needs theory and employee performance: a case study of employed PNG university graduates

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Needs influence and motivate people to live a productive life in pursuit of happiness. This study explored the factors that influenced work performance of university graduates and the type of relationships these factors had. Literature reviewed indicated that unmet needs are motivators of human behavior. A fulfilled basic need drives people to achieve the next need and up towards self-actualization. For this research, a causal survey was done and looked at monetary and non-monetary needs and their impact on graduates work performance. Data was analyzed using Pearson’s correlation coefficient method to determine relationships between needs and performance. Cross-tabulation was also used to inquire on other factors that effect relationship of the variables. The study found that: (1) there is a weak negative correlation (r = -.26) between satisfying unmet needs and employee performance of graduates, and (2) cultural and environmental experiences determine how graduates value their monetary and non-monetary needs which affect their performance levels. This concludes that more emphasis is needed to understand graduates in terms of their needs and prior experiences to achieve desired performance levels in organizations.

Teaching sustainable development at University of Papua New Guinea

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If PNG is to develop effective strategies to convert the resource boom into sustainable development we must first understand what sustainable development is and then be able to develop strategies to plan and implement sustainable development. Education for sustainable development is an essential element of that response. It helps us understand and address the needs for change, encourages changes in our attitudes and behaviour and gives us the knowledge and skills to effect that change.

At independence, PNG's founding fathers had the foresight to enshrine environmental and sustainability concerns into our national constitution. But we still rely too heavily on unsustainable extraction of non-renewable resources. PNG needs to move from living off a resource boom and unsustainable sustainability to sustainability. We need diversify into sustainable agriculture, forestry, fisheries and conservation and green and clean industries.

In 2007, Vision 2050 set out a road map for a visionary development strategy. “We will be a Smart, Wise, Fair, Healthy and Happy Society by 2050”. In 2014 PNG's National Strategy for Responsible Sustainable Development (RSD) was launched to re-orientate the country's entire economic and development efforts to that of sustainable development. Ecologically or responsible sustainable development has four pillars all equally important and interactive: economic, social and environmental sustainability and good governance. RSD provides a totally new paradigm for PNG.

The shift is to a new road map built on sustainable development principles, sustainable livelihoods and green growth.
UPNG has chosen to be part of the process and is offering a new four-year degree, a Bachelor of Sustainable Development. Students will be given a new vision and new tools to become active participants along this new road and trained to be catalysts of change.

The curriculum for this new degree is outlined. Core courses emphasise sustainability and development. The degree will produce graduates with the cross-disciplinary skills required to join the rapidly expanding green job sector or to be catalysts for change within both the national and provincial government sectors and the corporate sector.

Sustainable development and sustainability mean very different things to different people across different disciplines and different backgrounds. Students will be exposed to these many varied understandings. Students will come to understand these terms and the difference between weak and strong sustainability. Students will redefine sustainable development in our own PNG way!!

Furthermore students will be introduced to the roles of education, science and technology and research in promoting sustainable development. They will also couple what is learnt to green economic principles and those of ecological economics, strategic environmental assessment and political economy.

Educating for sustainable development will have an impact on consciousness that informs development thought and action.

Enhancing sector governance of tertiary education in PNG

Lisa Larrv, Acting Executive Officer, Department of Higher Education, Research, Science and Technology, David Kavanamur, UPNG; Jeanette Baird, Higher Education Consultant, University of Melbourne, Kaye Eldridge, Education Consultant, University of Queensland k.eldridge@uq.edu.au

Emerging thinking about better delivery of public services in Papua New Guinea is looking to models that emphasise ‘whole of sector’ approaches, inter-agency coordination and partnerships in service delivery. This thinking draws upon strategies for the creation of public value and reforms in other countries such as New Zealand. Its application in PNG will require more collaborative governance mechanisms and significant changes in the attitudes of public service managers at all levels.

The adoption of a whole-of-sector approach for tertiary education in PNG has the potential to ensure that the sector’s limited resources are used in a manner that maximises the possible outcomes for the country. This paper discusses recent initiatives in PNG tertiary education that support a whole-of-sector approach and the further challenges that will need to be addressed if this method of delivery is to be successful.

Currently, the PNG tertiary education sector is fragmented. A range of government agencies have varying levels of responsibility for different types of institutions of higher and technical education, including the new Department of Higher Education, Research, Science and Technology, the Department of Education, the Department of Health, and the National Training Council.

A number of new initiatives have recently been introduced to encourage the tertiary education sector to move towards more collaborative planning and activities in the future. They include implementation of the new Higher Education (General Provisions) Act 2014, the establishment of the new Department of Higher Education, Research, Science and Technology, and the launch of a new 10-year National Higher and Technical Education Plan.

While these initiatives are clearly encouraging signs for the sector, this paper demonstrates that achieving a whole-of-sector approach for PNG tertiary education will take considerable time and require a substantial change in culture and behaviour for all agencies involved in the sector.
more than 100,000 people is springing up. The land ownership issue was a burning issue at an early stage, but the local villagers now say, “We want a share in it because it involves our livelihood.” Three Independent Landowning Groups in the Vidar area are incorporating to share in the benefits of those within a 5km radius from the factories. They took out a court challenge to halt development, and the Chinese investors withheld for two years the loan necessary to begin operations. Now, with the assistance of the Minister of Trade, Commerce and Industry, the first $US90m has been released to begin infrastructural development. How will the villagers proceed despite the fact that they have no ownership control? How will this major international resource be turned into development for PNG?

The paper comes from attending village meetings, personal interviews with stakeholders and provincial and national government personnel, documents of church, village government, research on Special Economic Zones and on draft documents of the impact communities. The paper will illustrate what can happen when villages value unity and begin to manage their own resources in the face of a large international business corporation.

Understanding cooperative societies in PNG: A case study of MUSANAT cooperative in Madang district

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This paper tackles concerns of the MUSANAT Cooperative Society in Madang Province in Papua New Guinea in regards to inadequate government input to commercial production and marketing of agricultural products.

A cooperative society is an autonomous, united and voluntary association of persons, usually with limited resources, that come together to meet their common economic, social and cultural needs and aspirations. The concept of co-operatives is best applicable to the rural populace, which is generally poor and has few resources to get into economic activities (Department of Commerce and Industry 2007). However, after 34 years of independence, much of the rural areas of Papua New Guinea are yet to see any form of economic and social development in their respective villages, Madang District in no exception.

MUSANAT Cooperative Society was formed in 2011 by 2,000 disadvantaged farming communities in Madang District on the values of self-help, equality and solidarity whereby members display honesty, openness, responsibility and care for each other. Since its inception in 2011, it has been struggling to perform its planned activities with effectiveness and efficiency. According to the researcher, pressing factors which are political, economical, social, legal, technological, and environmental in nature are influencing the behavior of MUSANAT Cooperative Society to achieve its desired outputs and results.

Orieleg (2009) argues that the populace is still looking for answers, and asks what the justification and the objectives are of the government reintroducing the cooperative society concept? How has it operated since 2000 and what is its focus and what does it desired to achieve and how?

Parallel Session 3 - Agriculture and forests - Arts Lecture Theatre (ALT)

REDD+ governance in Papua New Guinea

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In the current political economy which seeks to commodify nature and market its services, market-based mitigation measures, like the Reducing Emissions from Deforestation and Forest Degradation (REDD+) program, have become prominent strategies to address climate change. The REDD+ program places an economic value on the carbon stored in forests and offers incentives for developing countries to reduce their emissions from deforestation and forest degradation. REDD+ has been promoted as an effective and cost-efficient solution to climate change that has additional benefits for conservation, economic development and poverty alleviation. However, the development of REDD+ in Papua New Guinea (PNG) highlights some of the governance challenges and inequalities that can arise from market-based mitigation measures. The REDD+ program in PNG has a complex governance system that involves a range of actors across the global, national and local scales. This paper will use a politics of scale perspective to critically analyse the governance of REDD+ in PNG and the inequalities that can emerge from such projects. It will be argued that REDD+ acts as a form of global climate governance which is implemented on a national scale but has the greatest impact on local communities implicated in REDD+ projects. This paper will investigate PNG’s pilot REDD+ projects to illustrate how the current governance system prioritises global mitigation benefits and national economic interests over local livelihoods. While good governance has been identified as a foundational pillar for the success of REDD+, the current governance system has a number of weaknesses that may threaten the legitimacy and effectiveness of REDD+ efforts. A politics of scale perspective allows us to examine the governance challenges and inequalities generated by the REDD+ program in PNG. The REDD+ program offers an important development opportunity for PNG, but significant governance challenges still need to be overcome.

Balancing economic growth and natural resource management when emissions count: experiences in the forestry and land use sector

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From 2000-2012, Madang Province lost approximately 62,000 hectares of forest, resulting in 42 million tons of greenhouse gas (GHG) emissions. While these results are preliminary pending PNG’s first National Forest Inventory, they state a case for action.

The USAID LEAF program is working in PNG at the national, provincial and community levels to achieve sustainable reductions of GHG emissions from the forestry and land use sector and integrate gender into climate change programming. An integrated approach to land use planning is allowing decision makers to evaluate development opportunities while considering GHG emissions.

On the national policy front, USAID LEAF, UN-REDD and key local stakeholders, including OCCD, PNGFA, CLRC, and civil society groups, conducted a comprehensive Review of Forest and REDD+ Related Policy and Legislation to identify opportunities to integrate climate change considerations into existing law and policy. The review found that considerable potential exists to raise forest management standards and reduce emissions from deforestation and degradation by improving implementation of existing laws and regulations.

In Madang province, USAID LEAF supported The Nature Conservancy (TNC) and the Madang Governor’s Office to develop the Madang Sustainable Development: Ridges-to-Reefs Gap and Priority Analysis. The report identified priority conservation areas and helped to visualize implications of future development decisions. Building on this, USAID LEAF and the Madang government are working on a provincial Low Emission Land Use Plan that charts different low emission scenarios. The plan, including an overview of sustainable financing opportunities, is expected to be completed later this year.

TNC continues to support Participatory Land Use Planning and Management in Madang’s Adelebert Range. USAID LEAF’s analysis is showing that this approach to local level conservation and land use planning is reducing the pressure on forests. This bottom-up approach is linking with national policy efforts, and combined are proving enticing for private sector investment.
Would the controversial transgenic crops be beneficial to the economy of PNG? Review of current trends and future implications

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Transgenic crops (Genetically Modified Crops, GMOs) are developed by artificially inserting one or more genes from an unrelated plant or organism to another variety of choice instead of the plant acquiring through pollination. This group of crops are important to improve food nutrition and support the economy in countries where they are cultivated. In PNG, transgenic crops or genetically modified organisms (GMOs) receive little attention and their use induces debate given potential risks on natural environment, human life and agriculture. However, use of GMOs may have potential significance over food supply, better nutrition and country’s economy against rapid growing population and climate change scenarios in the long term. Among improved agricultural technologies, including those of advance breeding approaches, transgenic technology (TT) adopted by some countries had significantly increased food productivity, improved nutrition and economy of cereals and grains (e.g. maize and rice), legumes (e.g. soybean), wool and fibre (e.g. cotton) and other crops of commercial value. Here we review the experiences and lessons learnt from TT adoption in both developed and developing countries to provide an insight into development of local varieties known with persistent production barriers for specific use in the long term given proper strategic planning and amendment of GMOs.

Parallel Session 4 – Public-private partnerships - Main Lecture Theatre (MLT)

The United Church as a service deliverer: can it do more? Profiling the United Church in a PNG Islands community

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Amidst the highly publicized resource boom in Papua New Guinea (PNG), the expectation is that the record period of economic growth needs to be translated into improvements in human development indicators. The reality though is that development continues to decline, most notably in the areas of health and education. The government through its service delivery mechanism is incapacitated and in certain areas of the country, nonexistent. Given these limitations Churches will continue to provide much-needed social services in PNG. Churches operating in PNG consider development as a holistic agenda, hence their heightened sense of calling in some of the neglected communities in the country.

The United Church in PNG (UCPNG) is one of several mainline churches involved in the provision of services to communities in PNG. Emerging complex developmental challenges affect the membership of the United Church in profound ways. Naturally the United Church is reacting through its activities. However, are Church-run institutions capable of sustaining their role in the delivery of services in the communities it operates in? What are some of the challenges the United Church confronts in service delivery activities? Can government do more to assist Churches in implementing developmental priorities?

In this presentation, I profile the United Church in the Hoskins area of the West New Britain Province, looking specifically at the activities of the United Church in the Malalia Circuit. This study argues that government should invest in the capacity of Church workers in service delivery, focusing specifically on the complex tasks of administration. I argue that basic administrative know-how and technical skills for Church workers is needed. The Churches and government can redefine their partnership to ensure that Church workers are attuned to evolving trends in management practices and standards in the performance of their duties.

Public-private partnerships in education

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The education sector is projected to form one of the bases of socioeconomic growth under Papua New Guinea Vision 2050 and this can be achieved through establishing public-private partnership in delivering education (Vision 2050, p.6). The Department of Education is anticipated to achieve 80 percent enrolment by 2015 through emphasis on Universal Basic Education and this approach has created immediate need to build secondary, vocational, college and universities to cater for the increasing number of students. The current enrolment statistics show that the number of students enrolled at primary schools have increased due to increase in population, increase in the development of primary schools, free education policy and increase in investment. This signals the need for colleges and universities to develop strategic approaches and systems to cater for the increasing student numbers and provide quality education. The Public Private Partnership (PPP) policy is an important policy that must be urgently implemented by our Universities and Colleges to minimize the huge gap in terms of the number of students leaving school and those accepted into higher education. Asia Pacific Applied Social, Economic and Technical Institute (APASETI) has developed strategic partnerships with TAFE and Queensland University to deal with critical issues such as; infrastructure needs, management capacity, staff needs, strengthening of linkages and provide quality education. Our institution can arrange similar partnership with our premier University (UPNG) and other universities to implement policies and strategic directions that have been developed by Office of Higher Education and aligned to Vision 2050 (Vision 2050, p.52).

GoPNG – international NGO partnerships: a case study of CARE International in PNG

Joy Marie Waffi, M&E and Emergency Preparedness Manager; Bennie Atigini, Helmtrude Sikas and Betty Hinamunimo, Livelihoods Team Leader, CARE International in PNG joy.waffi@careint.org

Government partnerships with NGOs can bring about more certain and effective development outcomes for remote, highly disadvantaged districts in PNG where the cost of development can be high. Public servants often have limited resources, capacity and incentive to engage with remote area communities. NGOs often have strong working relationships with communities and are able to bridge between community and government. In a changing political economy where more money is now available to districts through District and Provincial Service Improvement Program grants (DSIP and PSIP), remote districts can capitalise on partnerships with NGOs. Such partnerships decrease the risks and costs associated with development. International NGOs would like to reach the most disadvantaged people in developing countries and are open to working in partnership with government for the benefits of greater sustainability. CARE International in Papua New Guinea (CIPNG) has a focus on the most remote and disadvantaged districts in PNG and has been working in the Obura Wonenara District (OWD) in Eastern Highlands Province and more recently in Menyama District in Morobe Province. In OWD, CIPNG managed District and Provincial Service Improvement Program funding for the mobilisation of communities, contracting of a qualified construction company, and construction of four footbridges identified as common priorities in ward planning. CIPNG was the bridge between identified priorities, communities, capital, implementation expertise, and government. This partnership has meant that government has been able to achieve the desired outcomes, based on government mandated bottom up planning processes, within a short timeframe, with community involvement. There is opportunity for international NGOs and the Government of PNG to develop strong partnerships to progress development outcomes with mutual benefit to both parties.
Melanesian land tenure and management system and its impact on agriculture productivity in PNG

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There are two types of land, customary land and alienated land in PNG. The latter represents about 3 percent of all land in the country but includes most significant and prime land, best suited for agricultural production and urban land. Most people produce food for their own subsistence and engage in cash crops to earn income to pay for other food requirements for education, health and other social obligations. Despite people being engaged in agriculture and food production, not everybody is self-sufficient in dietary requirements or food nutrition. The production of crops and livestock is not based on the needs of the market but what they perceive as necessary to be sold. The land area utilised for that purpose and the production volume is subject to availability of land, including the costs of farming inputs such as chemicals, fertilisers and feeds.

Land availability and management is required for productive purposes in agriculture in terms of agricultural research, extension and advisory services and training. Those essential components must be provided to enhance maximum and optimal land utilisation. The objectives of this article are to identify the problems associated with land and its management and utilisation and provide strategies and justifications to assist the agricultural sector to increase and sustain food production which will provide nutrition, food security, income and employment opportunities.

The establishment of increased number of formal market farmers (targeted at households), will be the catalyst to increasing food production in terms of quality and affordable food to meet local and national demand. This will revolve around the utilisation of customary and state land through the land mobilisation models such as standalone or cooperatives or business groups. Those farming groups should be provided with updated capacity building training in project cycle management and finance who are ably supported by technical officers in terms of sustainable advisory, monitoring and extension services backed by the provision of processing facilities and marketing outlets.

Parallel Session 4 – Urban development - Arts Lecture Theatre (ALT)

Urban public transport challenge in the LNG era: a case study of the Port Moresby urban public transport

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Today the cities are residence to half of the world’s population, and, in 2030, 60% of the population will live in a city (UNFPA, 2004). The urban areas have an increasing importance in our society as they are continually growing, along with all the issues related to them. Papua New Guinea (PNG), the host to one of the world’s largest Liquefied Natural Gas (LNG) projects cannot easily escape from urban issues as LNG and other urban-centered developments are partly cause of the issues faced in the urban centers today.

The continuous increase in Port Moresby’s population is putting the urban public transport system in brink of collapsing. This study was conducted in Port Moresby and the researcher applied qualitative research techniques to extract data, analyses and present the data. The purpose of the study was to identify the problems faced in the urban public transport system and how it can be addressed using the right policy.

The study has brought to light some of the problems that are facing the public transport system today. It was identified that majority of the population living in the city depend largely on public transport. Given influx of the population in the cities due to city, the number of public buses
opposing the city cannot meet the high demand for the vital service, to travel from point A to point B. As a result, the bus fare fluctuates at the discretion of the PMV owners.

Apparentley, the older men, women, sick and disabled are left to struggle for bus seats. There are no other alternatives for public transport users. This is equally important to our tourism industry. Urban centres need to have different forms of public transport so that the people can decide and choose one that is comfortable and worth their money.

The study concludes that appropriate policies and strategies be formulated and implemented to address the problems identified. The following are some of the strategies to improve the public transport systems in Port Moresby: (1) integrate various modes of transports; (2) introduce Smart Card System for user confidence and convenient; (3) provide transit services to make public transport more attractive to users; (4) paint the suburb buses for quick recognition; (5) design good-quality public transport infrastructure.

The city provides the first impression to the outside world. Appropriate regulations needs to be introduced to improve the image of the city and provide improved and efficient public transport services.

Opportunist sector in urban Goroka: a real development challenge

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Papua New Guinea has recently been experiencing significant growth in its economy as pointed out in the 2014 Asian Development Bank Outlook. The update affirms that the GDP forecast for 2015 will soar to a record 21%, a marked increase from forecasted 6% GDP in 2014. At this juncture we anticipate a prosperous future ahead as the profits from LNG start pouring in. While the country heads into economic prosperity and is poised to affirm itself in the region as economic powerhouse, the stark reality at the backdrop of the LNG era is the acute disparity that is so prevalent across the cross sections of the country. The age old question remains: how effectively will the country's wealth be translated into gains for all citizens?

The urban areas in the country continue to grapple with social problems. Lack of planning, political indifference and lack of administrative foresight continue to exacerbate social problems in towns and cities. Most towns and cities are continually being stretched in dealing with urbanization issues as more people from rural areas move into town and cities competing for limited resources. Goroka is well placed geographically, prides itself of having a spring-like climate, and a host of institutions and important establishments, and is a sprawling administrative, social and economic hub of the highlands, but is experiencing social dilemmas in a period of growth.

Goroka like any other urban centres in the country struggle daily to maintain order and to ensure general working and living environment is consistent with civic and citizenry standards and practices. Over the last few years, a influx of people from rural areas in the province as well as from other provinces has resulted in what I term the "Opportunist Sector". More generally, it is an informal sector but more precisely it's a sector that provides for residual demands and or services. Quite often, such opportunistic services are provided by those with low self-esteem and lacking basic education in life. The makeup of the sector are ones that reside in settlements and blocks on the margins of the town.

Though there are different research methods, interviews and group discussions were used. Person-to-person interviews in research focus areas, and mostly open-ended question were employed to generate information, understand experiences, meanings and values in the focus areas.

In total, eight interviews and four group discussion were carried out; in both, notes were taken and recording done using the phone. One interview and two group discussions were carried out with women participants in the sector.

Long-term socioeconomic evaluation of the Mt. Hagen market redevelopment

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The redevelopment of the Mt Hagen Market in 2006 replaced informal infrastructure with robust, well-designed structures capable of supporting the growing trade in fresh produce in the Highlands of PNG. A long-term socio-economic study of the redevelopment was undertaken in April 2013. Characteristics of market management and impact on agricultural models, urban women and street youths were assessed. Qualitative and quantitative research included: desktop analysis of documents and reports; interviews with key stakeholders; and analysis of primary and secondary data. The market has produced positive economic and social outcomes for an estimated 1000 farmer-sellers and 1,500 resellers, the majority of whom are women. Resellers, rather than farmers, have become dominant in market selling. There is limited capacity to cater for occasional farmer-sellers as selling benches are fully allocated. As a result, many smallholder farmers now sell to resellers. Vegetable production in the Highlands Region has increased significantly since 2010, largely in response to increased demand for fresh produce from PNG’s booming resource sector. Much of this increased production is now channeled through the Mt Hagen market - the largest fresh produce market in PNG. Concurrent with this increase in production has been an increase in specialization by farmers. The quality of produce entering the market is generally very high. However, there have been no significant improvements in the postharvest handling and transportation of produce. Wamp Nga Holdings, the original market manager, developed well-considered plans for service delivery and governance at the market. The market functioned effectively during its first two years of operation. A take-over of market management in late 2008 commenced a rapid decline in service delivery and community engagement. The planned inclusive board of trustees was abandoned, no sinking fund was established to provide for maintenance and future developments and market staff became predominantly focused on fee collections rather than service provision. The Mt Hagen Market remains a preferred place to buy and sell fresh produce for Highland's communities. The robust market infrastructure endures tenaciously despite its neglect and could be renovated to its former excellence with relatively small investment.

Parallel Session 5 – Corruption and governance - Main Lecture Theatre (MLT)

Governance and political economy of development: a case of PNG media supporting good governance

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PNG is a nation weakened by corruption within government establishments, most public servicing mechanisms and individuals in responsible positions as well as all strata of the society including business houses. Generally, ordinary citizens down to the grassroots now accept that corrupt practices, deals, especially bribery in all forms are becoming a way of getting things done.

The study looks at a case where the media in PNG declared war against corruption. The study traces the effects of a free and unrestricted media fighting against corruption and though its crucial road of giving coverage, as well as its ability to expose could force those in responsible positions to adapt to transparent and accountable practices to ensure good governance (Larmour 1998:3).

Media is regarded as one of the pillars of democracy. It is also seen as a force to drive the citizenry by giving it a voice, to speak out on issues of concern, even against corrupt and deceptive authority and restore open and accountable government. Hence, the issue of governance in Papua New Guinea has been a cause for great concern thereby implicating on the country’s future survival as a viable and governable state.
Has the LNG era changed the situation? Is PNG enjoying the benefits of LNG? What type of development are we witnessing now?

Engaging Papua New Guinea’s citizens in the fight against corruption

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Corruption is a key threat to any gains Papua New Guinea may receive from the projected expansion of its economy. The international literature suggests that both governments and citizens play a crucial role in addressing corruption. While a number of commentators have focused on the effectiveness of government responses to corruption in PNG, there has been little written about the potential for Papua New Guinea citizens to support anti-corruption efforts. This presentation addresses this gap by drawing upon findings from a household survey conducted in nine provinces of the country, involving over 1800 people. It finds that most respondents did not support corruption, but they are reticent to act against it due to social, cultural and economic constraints.

There are also practical constraints facing citizens: few knew how to report corruption and many were wary about the effectiveness of key anti-corruption institutions. Given this, I argue that meaningfully engaging citizens in the fight against corruption in PNG will mean expanding PNG’s anti-corruption infrastructure (laws, and anti-corruption organisations), while engaging with the social, economic and cultural constraints that inhibit collective action against corruption.

Phones against corruption: preliminary findings of user experience research

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There is presently much economic activity and growth in Papua New Guinea (PNG). However, these increasing resources face considerable capacity gaps at national and subnational level in terms of implementation and financial management, which undermine effective delivery of decentralised services and open up spaces for corruption. It is important to minimise the risk of corruption, which can be done through various means, including citizen participation. In the communal societies of PNG, it is often difficult to report corrupt practices. This being said, most citizens do not know how to denounce corruption. Corruption reporting mechanisms need to be expanded across the country, in a context of limited reach of most media and communication technologies, with the exception of widespread mobile phone coverage.

The Department of Finance (DoF) has established, with support from the Provincial Capacity Building & Enhancement Program, an option for DoF staff to anonymously report cases of corruption using mobile phone text messaging. All reported cases are referred to the DoF’s Internal Audit and Compliance Division for further investigation, in collaboration with relevant state bodies. Depending on the success of this project, the SMS service may be opened up to the public.

This paper presents preliminary findings of user experience research conducted with DoF staff. User experience research has been undertaken in order to: determine the effectiveness of the pilot; recommend any changes to the service; and determine whether or not the service should be opened up to the public. Two methodologies have been employed: a quantitative survey of users during a given time period, using additional questions sent via mobile phone text messaging, and a series of focus groups, generating qualitative data. It is intended that the paper would be useful for government departments and organisations with interest in utilising mobile phone technology for strategic purposes and those who view corruption as a human development challenge in a growing economy.

Parallel Session 5 - Development issues - Science Lecture Theatre (SLT)

Analysis of asset ownership using 2009-2010 HIES dataset

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We use the raw data from the 2009/10 Household Income and Expenditure Survey (HIES) to analyse and describe one aspect of the living standards of Papua New Guineans in the National Capital District (NCD): ownership of durable household assets to measure households’ economic status. This is important because, in the survey, households were asked, among other questions, their ownership of a range of consumer durable goods but the National Statistics Office (NSO) never fully analysed the data for policy use. Because material capital accumulation generally occurs in cities than rural places, households in the NCD should, on average, possess most if not all, elements of modern living—motor vehicles, television sets, clothes washer, air conditioning, microwave oven, refrigerator, stove, etc. No household in the entire NCD answered affirmatively to all 16 items in the survey, but some households seem to enjoy the modern way of life with up to 14 assets of convenience. In general, most NCD households, and conspicuously, those living in the settlements—about 45-50% of NCD population live in the settlements—lack these altogether. The median household in the settlements own two assets of convenience, a mobile phone (92%) and one other asset, mostly a radio (36%) or a stove (32%). The median household in non-settlement neighbourhoods own seven but most of them have 8 assets. The general lack of durable household artefacts may be both a symptom and a cause of poverty, although there is no discernible difference in relative inequalities between NCD suburbs. These observations may mislead policymakers into not targeting development projects to suburbs where the levels of relative inequality are low but poverty is severe. To achieve better outcomes, additional indicators, such as the severity of poverty, are necessary for targeting and tailoring development projects to different suburbs in the NCD.

Social infrastructure and economic development: regional disparities

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Globalisation is regarded as a pre-requisite for social progress of any country and at present it is considered as essential for economic growth. But growth by itself may not be enough to guarantee social progress. It must be accompanied by a certain number of social ground rules. Growth depends on the resource base, input use and infrastructure development. Infrastructure has a central role in the development agenda and is a major contribution to growth, poverty reduction etc.

Besides physical infrastructure, social infrastructure is vitally important to the country’s economic future. Strong social infrastructure is the foundation of the strong economy. For sustain economic growth, we need educated, healthy and secure people. For human welfare freedom from ignorance, diseases and fear is as important as freedom from want. Education, health care, water and sanitary services and the environment that promotes health and social safety nets cannot be obtained easily by private action. Thus there is need for public action. These facilities are social infrastructure and they are as important as physical infrastructure for a widely shared inclusive development.

Social infrastructure development is the most strategic and crucial determinant of growth. Abundant and physical resources alone cannot generate growth unless requisite human capabilities to exploit them are generated. Social infrastructure development involves upgradation of skills to achieve technical progress.

An attempt is made in this paper to analyse the disparities in the social infrastructure in terms of education in different regions using secondary data pertaining to different provinces of Papua New Guinea.
Balance of payments of Papua New Guinea: orange signals

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Balance of payments presents an account of comprehensive economic and financial transactions of a country with the rest of the globe. Papua New Guinea (PNG) is rich in gold and copper, oil and natural gas, agricultural and forest resources and maritime fisheries. As such, PNG mostly exports unprocessed mineral products, oil, agricultural products and forest products. The country imports machinery and transport equipment, minerals fuels, oils, distillation products and related products, manufactured products, food and services. This paper examines the impact of PNG exports and imports on the country’s balance of payments position during 1991 to 2013. It is observed that PNG is currently experiencing orange signals in the overall balance of payments. Therefore, it is suggested that PNG should take steps to export value added products and services to avert the possible red signals in the balance of payments in the future.

Parallel Session 5 – IT and development - Arts Lecture Theatre (ALT)

New communication technology, rural development, social networks and hybridity in PNG

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Rural areas are being confronted with the challenge of a constant actualization and adaptation promoted by the presence of digitalization. I wish to define digitalization as “a streamed culture” for my convenience in the era of Liquefied Natural Gas. This is the new rural, which is increasingly intertwined with the urban in the urban hybridism concept (Cimadivevilia 2010). The purpose of this paper is to discuss the results of unigenerational and multigenerational focus groups held in the course of an independent investigation “Digital generations in Papua New Guinea rural areas: the Use of new media in rural daily life of three generations”. The paper is a contribution to the understanding of how the generations living in rural areas appropriate the new media in their daily routines. Generally, “the rural areas continue to be perceived as idyllic, as places dominated by greater stability and security in social relations, as well as a greater moral superiority” (Ferrao 2007, p.3). Nevertheless, when it comes to rural areas, or when policies are defined for this area, there are dimensions that soon become evident, such as the aging population, decrease in productive population as youths get dragged away by the magnetic LNG, low rates of economic activity, high levels of illiteracy, as well as reduced schooling. Those who live in rural areas understand that this is a place where production loses supremacy towards consumption. This requires that the dissemination is made from the inside out, starting with enhancement of the already existent, to create new added value because, initiatives should be created from the knowledge and assessment of the districts and not conducted from outside, whether we are talking about political will and decisions, or the guidance and social needs including economic and technological.

As noted, this investigation is embedded in an investigation that is taking place within the Online PhD in Sociology, information and Communication in Rural Development in the School of Social and Human Studies- Atlantic International University, Hawaii, USA and PNGUOT CDS.

Role of ICT in human development challenges

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The rapid urbanization is leading to an unsteady increase in youth population in metropolitan and urban areas, particularly in developing countries like the Papua New Guinea. The impacts of job

and training availability, and the physical, social and cultural quality of urban environment on young people are huge, and influence their health, life-styles, and well-being. Besides this, globalization and technological developments are affecting youth in urban areas in all parts of the world, both positively and negatively.

The broader aim of this paper is to investigate successful practice principles for the information and communication related training and income generation opportunities for young people to promote youth entrepreneurship. It reviews the role of ICTs for vocational skill development and employability. It discusses the issues surrounding the development of the digital divide and emphasizes types and the importance of developing ICT initiatives targeting young people, and reviews some of the successful policy implementations on ICT-based initiatives from both developed and developing countries that offer opportunities to young people for learning, skill development and employment.

Status quo and emerging challenges in ICTs for PNG

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Papua New Guinea (PNG) is witnessing an onslaught from information and communication technology (ICT) services, courtesy of Digicel, a new and dominant player in the ICT sector. Digicel has a major share of more than eighty per cent combined in PNG’s mobile phone and mobile data market supplied via an extensive network of 1100 towers across the country (Morley, 2014), but has recently moved into other ICT sectors. It has acquired businesses in television broadcasting and narrowcasting sector also with an appetite for fiber-optic infrastructure (O’Brien, 2014). Benefits experienced by citizens since Digicel’s entry into the mobile phone sector in 2007 include market access by citizens, m-banking and electronic payments via SMS messaging among others (Morley, 2014). Given the new monopoly situation, these benefits could be mortgaged by a single network operator, with adverse impacts on development. Moreover, the monopoly status, which looks set to move to other related sectors, gives rise to the question of sustainability of choice in value and price.

This paper discusses emerging challenges in ICTs with respect to interconnection arrangements, infrastructure sharing and number portability between carriers in PNG. These aspects require regulatory diligence to prevent market abuse (Punaha, 2012). Lack of effective regulations may lead to a regulatory vacuum where operators and citizens may be subject to the whims of the incumbent – in this case, Digicel. Each of these items necessarily encapsulates technical as well as economic aspects which may impact on the ultimate quality of services offered to citizens. Notwithstanding the foregoing, this paper recommends regulatory competence building and in-house research initiatives to better understand these and other aspects required to ensure an efficient and competitive market in PNG.