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# APEC STUDY CENTRE CONSORTIUM CONFERENCE REPORT

PNG APEC Study Centre | May 2018



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## Message from The PNG NRI Director Dr. Osborne Sanida

The goal of this two-day event was to generate new ideas, build connections, and inform and influence public policy across APEC. We want to push the limits of research and policy for the benefits of people living in this beautiful, diverse and sometimes challenging region. At the end of the conference we want our participants to be advocates for policy which is first and foremost informed by evidence-based research.

The conference theme supports the overall APEC 2018 theme of ‘Harnessing Inclusive Opportunities, Embracing the Digital Future’. We see this as promoting opportunities for all of our people both in PNG and the broader APEC region, as we embrace a rapidly changing and rapidly connected region.

We’ve been delighted by the level of international and domestic interest in our conference from both the public and private sectors. The 25 papers presented covered emerging and traditional aspects of regional economic integration and connectivity, structural reform and competition, digitisation and innovation and technology.

Hosting this conference represented a significant responsibility – in terms of continuing the deep learning tradition of this annual APEC Study Centres Conference and generating substantive outcomes to inform the APEC policy agenda. It is also an opportunity to highlight PNG’s research expertise and convening power in preparing the APEC 2018 policy agenda. This is an opportunity The PNG National Research Institute is embracing in full.

The post-conference products will be a report to the APEC Senior Officials Meeting 2, and the release of a formal proceedings document in August 2018. The PNG APEC Study Centre will provide a specific brief to the next year APEC host; Chile, as we hand them the baton for the 2019 APEC Study Centres Consortium Conference.

We see value in collaboration within the APEC family, in particular through forming linkages with other Study Centres. We thank the consortium for your technical support and friendship. We look forward to expanding our partnerships with other Study Centres and other institutions beyond APEC 2018.

## Introduction

The 2018 APEC Study Centre Consortium Conference was held from 14-15 May 2018 at the International Convention Centre in Port Moresby. The event was hosted by the PNG APEC Study Centre (PNG ASC) which is part of the PNG National Research Institute (PNG NRI). It brought together academic researchers and development practitioners from across the APEC region to deliver focused research in support of the theme – ‘Inclusive growth opportunities in an increasingly connected region’ – and four sub-themes:

- Innovation and Technology
- Digitalisation
- Regional Economic Integration and Connectivity
- Structural Reform and Competition

These themes are closely aligned to the overall APEC 2018 theme of ‘Harnessing Inclusive Opportunities, Embracing the Digital Future’ and its sub-themes. The research outcomes and recommendations generated from this conference will thus play an important role in guiding officials, policymakers and stakeholders in achieving APEC’s 2018 agenda.

This report provides a summary of the research presentations and panel discussions held during the conference. It begins by highlighting some of the key recommendations discussed for each sub-theme and then provides a summary of the discussion and findings. The views presented in this document are those of the individual presenters and do not necessarily reflect the views of the PNG ASC or the PNG NRI.

## Key Recommendations

### Innovation and Technology

- Promote domestic innovation systems through creating toolkits and technology transfer.
- Ensure appropriate funding for Research and Development (R&D) to boost innovation.
- Address regulatory incompatibility between customs agents. Encourage trade facilitation measures to reduce delivery time and costs. For example digitalisation of customs and trade facilitation.
- Hold a high-level forum to discuss open standards for blockchain based supply chains. For example, this could assist in tracking the purchase of perishable good such as lobster from the primary source and tracking its progress, condition and value on its transportation to the retailer or consumer.
- Explore the potential of 4<sup>th</sup> Industrial Revolution technologies such as Internet of Things (IoTs), artificial intelligence, blockchain, smart contracts and big data analysis to enable the smooth facilitation of goods across borders.
- Create appropriate Information Communication Technology (ICT) policy and telecommunications regulatory frameworks for economic growth. Greater focus required on access to ICT in rural areas.
- Adopt proactive and innovation friendly regulation that promotes the sharing economy in APEC
- Develop local community capacity to utilise technology-based solutions to environmental and sustainability issues.

### Digitalisation

- Utilise digital story-telling tools that develop local solutions through personal stories to enable the most vulnerable to have a say in policy and decision making.
- Create spaces of shared learning for community groups, government and development practitioners to develop policies that are appropriate for the local context.



- Support the use of technology in transforming business models of locally owned agricultural businesses. For example access to mobile banking can boost productivity and growth.
- Promote micro-enterprises and opportunities for women in the formal sector while taking into account the role of social networks, shared values and social commitments that underpin economic activity

### Regional Economic Integration and Connectivity

- APEC must continue its cautious, evolutionary approach in achieving the Bogor Goals post-2020. More funding for APEC projects will enhance regional integration and connectivity
- APEC requires reforms to its decision making processes to ensure that one or two dissenting members do not hinder consensus. Dissenters must be required to state modifications. For example, at a Technical Working Group level this is practical but at Senior Official level the conventions of APEC do not allow debate and implementation of outcomes by economies is voluntary.
- Air connectivity can be enhanced by deregulating the aviation industry, encouraging competition, regionalise airspace management and introduce slot trading to ease capacity constraints.
- Labour regulations for migrant workers must account for sector specific conditions such as seasonal variations and production cycles.
- Regulatory coherence through trade agreements offers the potential for long term integration. For example, The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) has taken a cautious, flexible approach to integration, however its implementation requires relatively few changes in laws and regulations of the developed economies.
- A focus on skills and education is required for APEC to impact PNG's development goals. Universities and technical training institutions should focus on quotas and inter-agency rationalisation of responsibilities which would have a positive impact on skills development.
- As income inequality can re-enforce digital inequality, governments must develop software literacy, access to public Wi-Fi, Public Private Partnerships (PPP) for ICT infrastructure and liberalise trade in technology related goods to enhance competition.

### Structural Reform and Competition

- To boost competitiveness in the short run, prudent fiscal policy is required to maintain public debt at a sustainable level. In the longer term, structural reform of the labour market is required to boost labour productivity.
- As the contribution of the services sector to growth in developing countries is below par, trade in services must be liberalised to boost growth and development. Economies must also promote regulatory co-operation and competition frameworks that consider imbalances between developed and developing economies.
- Geoscience solutions to development challenges must be recognised in policy development
- Energy production in PNG must have an overriding development objective, continue to be vertically integrated with clear responsibilities for overall system planning, implementation, cost accountability and regulation.
- To improve the participation of women in the PNG economy, the legislative framework must be strengthened by better aligning legislation with policy; creating a one stop shop for all laws relating to women; passing a gender equity law; and creating a co-ordinating office.

## Summary of discussion and findings

### Innovation and Technology

In this session, presenters reflected on the importance of the right policy framework to drive innovation and to enable the use of technology to lower costs of communication and trade. Dr. Jeffrey Noro from the

PNG Department of Science and Technology, stressed the importance of domestic innovation systems that establish an inter-connected model of industrial, educational, political and infrastructure elements. He suggested that APEC economies develop and utilise toolkits on innovation systems, facilitate technology transfer, funding for R&D and promote innovation in services.

Dr. Darcy Allen from the Blockchain Innovation Hub and Olga Ismagilova and Karina Kudaeva from the Russian APEC Study Centre each considered the use of technology in facilitating the movement of goods across borders. Dr. Allen focused on the use of blockchain technology to reduce information costs of trade. He called for greater efforts to reduce regulatory incompatibility, create open standards for customs information to be stored on the blockchain and to hold a high level forum for discussion amongst policymakers, regulators, industry bodies and other stakeholders. Ms. Ismagilova and Ms. Kudaeva explained the importance of the digitalisation of customs processes through initiatives such as cross-border paperless trade and APEC Single Window. Participants also highlighted the importance of emerging technologies such as IoT, smart contracts, machine learning, and artificial intelligence in significantly reducing costs by automating the transfer of goods across borders.

Mr. Tony Morisause from PNG DataCo Ltd and Dr Francis Odhuno from PNG NRI each considered the importance of ICT from different perspectives. Mr. Morisause focused on the regulatory framework for telecommunications in PNG. He argued that competition was necessary for open, fair and cost effective wholesale ICT platform. He discussed the impact of the new internet cable which will increase capacity and reduce costs for households and business across PNG. Dr. Odhuno examined a survey of over 1000 SMEs in PNG to determine their use and impact of ICT. He found substantial differences between urban and rural users of mobile, landline and internet technology. He called for greater attention to be placed on access to ICT particularly in rural areas.

Mr. Jovito Jose Katigbak, from the Department of Foreign Affairs, Philippines, explained how the sharing economy offers potential solutions to many socio-economic issues in developing countries though there are also challenges such as high market concentration in some sectors. He called for economies to share and learn best practices in formulating a sharing economy framework/action plan, create an enabling environment, generate trust and partner with the private sector.

Ms. Sheridan Morris, Managing Director of Reef and Rainforest Research Centre, presented on the operation of the Land and Sea Ranger program in the remote area of Daru, PNG. She cautioned against the implementation of technology solutions without understanding the local cultural context. Her programs successfully developed local community capacity to build and maintain community hospitals, use solar panels and remote sensors for early warning of climate events. She called for greater efforts to develop community capacity to utilise technology-based solutions to local problems.

### Digitalisation

Participants in this session reflected on the use of digital technologies in a local rural context. They all emphasised the importance of embedding technology solutions within local cultural norms and traditions.

Mr. Brad Jackson, Managing Director i2i Development, shared his experience of using technology to transform the cocoa agribusiness model in PNG. Introducing a mobile app and web browser to track processes led to an improvement of yields, reduction of risks and increase in transparency. A partnership with a finance provider allowed cheaper access to finance in account of the reduced risk and increased transparency. The technology innovation was coupled with a new business model by establishing a farmer owned company with 20,000 farmer family shareholders thereby giving families greater income to spend on health, education etc.

Dr. Verena Thomas and Dr. Jackie Kauli from the Queensland University of Technology explored how digital technologies can give voice to marginalised communities to have a say in policy and decision making. They documented the use of creative art forms such as digital storytelling to explore challenges faced by

street vendors and those accused of sorcery, for example. They called for the creation of spaces of shared learning for community groups, policy makers and development practitioners to understand local context and harness social relations to address common problems.

Dr. Katherine Lepani of Abt PNG Management Services, noted that women in PNG contribute 80% of food production and marketing yet are highly under-represented in the formal sector. She called for strategies to promote micro-enterprises that take into account value of social networks, shared values, direct trust and relationships. Dr. Lepani suggested that harnessing global consumer demand for ethical and sustainable products may be a viable path to promote the formalisation and expansion of women entrepreneurs and SMEs.

### Regional Economic Integration and Connectivity

In this session participants covered a range of topics including APEC's approach to regional integration, capital mobility, air connectivity, migration and employment conditions, deep trade agreements and digital inclusion.

Dr. Wayne Chen, Director Taiwan Institute of Economic Research, provided suggestions for APEC to improve its decision making processes and implement organizational reforms. He argued that one or two dissenting Members must not be allowed to hinder consensus, dissenters must state modifications and agreements must be for mutual benefit. He called for APEC to continue its cautious, evolutionary approach to regional integration and for additional funding for APEC projects.

Professor Imad Moosa from RMIT conducted an empirical analysis of capital mobility within the APEC region. He found that capital mobility was higher for developing countries than developed ones. He also found presence of capital outflow from developing to developed economies to chase a better risk-return trade off.

Professor Clement Chow of Lingnan University, Hong Kong, China and The APEC Study Centre, Hong Kong (China) and his co-presenter Dr. Cheung-Kwok Law also from The APEC Study Centre, Hong Kong (China), presented analysis of air connectivity in APEC. Using data on flights between economies, an index of connectivity was created and found to be correlated with investment, tourism, income and mobile connectivity. Dr. Chow called for policies that deregulate the aviation industry, encourage competition, regionalise airspace management and introduce slot trading to ease capacity constraints.

Dr. Hwok-Aun Lee from the Institute of Southeast Asian Studies (ISEAS), and the Singapore APEC Study Centre, explored the relationship between immigration status and employment conditions of Indonesian migrant workers in Malaysia. Using qualitative surveys of workers in the oil plantation and construction sectors, the study found high costs and slow processes for formal employment migration, constraints on worker mobility and weak regulation of work conditions. Dr. Lee called for labour regulations that account for the seasonal nature of employment in sectors such as plantations and for the project based nature of work in construction.

Dr. Robert Scollay of the New Zealand APEC Study Centre, University of Auckland, examined the extent to which the CPTPP meets claims that it promotes deep integration. By looking at how many laws and regulations need to be changed to implement the agreement, he finds that only a few changes are required particularly in electronic commerce and cross-border data flows. More significant reforms are required by some developing economies such as Vietnam. He concludes that the CPTPP offers a cautious flexible approach to deep integration and regulatory coherence which offers potential for long-term integration.

Elai Soutai, a researcher with Abt PNG Management Services, examined the impact of hosting APEC on PNG's rural communities and contribution to development goals. He considered short-term benefits to SME's, tourists, contract projects, infrastructure amongst others. Some long-term benefits include



technology, education and gender inclusive policies. He recommended the adoption of APEC policies particularly on skills and education.

Justin Eloriaga from the De La Salle University in the Philippines examined the relationship between income inequality and digital inequality. He documented evidence showing that countries with higher income inequality had lower internet penetration. He recommended governments implement pro-active policies on software literacy, access to public Wi-Fi and trade liberalisation of technology based goods.

### Structural Reform and Competition

Professor Tony Makin, Director APEC Study Centre, Griffith Business School, conveyed the importance of improving international competitiveness through structural reform. Using the case of Australia, he pointed to weaknesses in the inflexible labour market and excessive government regulation as key inhibitors of competitiveness as measured by the World Economic Forum (WEF) ranking. He suggested that competitiveness could be improved through short-term fiscal policies to manage public debt and longer term structural reform on labour market flexibility. He also recommended APEC create its own measurement of competitiveness akin the WEF as well as a diagnostic tool for inclusive growth.

Mr. Alan Oxley, Chair Australian APEC Study Centre, RMIT presented an overview of trends in mining, agriculture, forestry and services in the APEC region. He pointed out that in PNG mining, agriculture and forestry constitute a much higher share of GDP compared with other APEC economies. Services on the other hand constitute a much lower share of GDP. There is therefore a need to liberalise services to boost growth and development of this sector, he argued.

Ms. Dulcie Saroa, Manager at the Mineral Resources Authority, explained the important role geologists and geoscience play in sustainable development. Documenting the history of geoscience in PNG including the creation of a national priority mapping plan, she noted that many legislative and technical barriers remain. While geoscience provides many practical solutions to development challenges such as mining, infrastructure, tourism and agriculture, greater efforts are needed to incorporate geoscience in policymaking.

Mr. John Fallon from Economic Insights Ltd and Mr. Ron Sofo from PNG NRI examined regulatory reforms of the electricity market in PNG. They find that the case for unbundling generation, distribution and retailing is very limited in small markets and requires significant co-ordination and institutional capacity.

They stressed the need for credible regulation and contract enforcement. They recommended that PNG Power Ltd (PPL) must have an overriding development objective and continue to be vertically integrated with greater cost accountability. The National Energy Authority ought to be responsible for overseeing energy policy and planning. While the Independent Competition and Consumer Commission ought to retain regulatory and competition functions.

Dr. Eric Kwa, Secretary for the Constitutional and Law Reform Commission PNG, provided an update on efforts to improve the legal framework to increase participation of women in the economy. After documenting the over 22 laws that currently impact women's participation in the formal economy, he called for efforts to align legislation with existing policy and consolidate existing legislation. The idea of an 'Organic Law' as a one-stop-shop for all women's issues was introduced. A proposed gender equity law, divorce law and disability law were also discussed along with the need for a co-ordinating office.

The issue of trade in services was discussed first by Dr. Wei Luo and Dr. Jiayun Xu from the APEC Study Centre, China. They presented an overview of services trade in the region and results from the Services Trade Competitiveness Index. They found that the intensity of services trade varies by country and sector and that there was a need to consider imbalances between developed and developing members. Dr. Kenneth Sumbuk from James Cook University then focused on services trade in education. He found that six countries in the region were net exporters of higher education and that the net importers struggled to

meet quality standards. He called for greater use of ICT in PNG's education system to help bridge this divide.

Dr. Eugene Ezebilo from the PNG NRI provided an assessment of house rent prices in Port Moresby. He provided a quantitative assessment of the factors that drive house prices including location and dwelling type and highlighted housing affordability issues faced by public sector workers in PNG.

## Wrap-up Session

In the final panel discussion participants reflected on the issues discussed in the previous sessions and shared their thoughts on paths moving forward. In discussing the role of APEC Study Centres Consortium conference, participants felt that it played a vital role in advancing APEC themes. They called for practical steps for policy to influence research and stressed the need to transform ideas into practical outcomes. The importance of sharing ideas internationally and learning from best-practices was also emphasised. Participants also discussed the uncertainty around the current direction of trade policy internationally. Some called for countries to engage in unilateral liberalisation to drive productivity and competitiveness. Participants also reflected on the need for PNG to form partnerships in strategic sectors in services, to account for its particular natural environment when formulating policy and to incorporate science and engineering into its development strategies.

The wrap up session included a passionate reminder that we must help humanity harness new technology for development whilst also building human connections working within important social, economic and political environments. We also learn that policy development is a political process which we must be mindful of when identifying and developing new policy.

Overall, the conference theme examined how each member economy has its own story to tell on economic integration, structural reform, digitalisation, and connectivity. Each has its own journey to make and must leverage its own unique set of resources and skills to promote a competitive and open market in the APEC region.

Connectivity and Digitalisation promises so much across region, and it has the potential to transform the way we live and work. And in parts of the region, this is already happening. With this power though comes great responsibility to ensure as members of APEC we continue to advocate for policies and research which support inclusive and engaged opportunities for all.

## Next Steps - Taking research forward to inform and influence policy

The PNG APEC Study Centre officially hands over this ASCC Conference report to the next ASCCC host: Chile before the APEC Leaders' Summit in November 2018. This report will form part of a continuity of the new ideas, research and key recommendations which have been discussed at the ASCC Conference.

The PNG ASC will continue to offer its support to Chile and assist in moving forward the key recommendations and policy debate at APEC Chile 2019.

In the long-term, The PNG ASC and PNG NRI will continue to push the limits of research and policy, working in partnership with Government of PNG and its national and regional partners to develop research which will have a positive impact on key social and economic issues across APEC.

Stay connected with the PNG APEC Study Centre team



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