Journal of the Indonesia Infrastructure Initiative

PRAKARSA

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Private Finance

Contents

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Editor's Message

Just six months ago, we wrote in the ***Prakarsa*** Editor's Note that, "Determining the best and most efficient means [to enable private investment in Indonesian infrastructure]…is a subject that is sure to appear again in future issues". The future is here: this edition of ***Prakarsa*** once again addresses the topic of private finance. But careful readers will notice something of a shift in emphasis from our past discussions. Previously, much of the conversation focused on the policy and regulatory environment. This remains a critical concern, as Julian Smith, Agung Wiryawan, and Tim Boothman remind us in "Building Indonesia's Future – Unblocking the Pipeline of Projects" on page 13. They discuss Indonesia's need to stay on course with reforms and the urgency of addressing ongoing problems with land acquisition, procurement, and bureaucracy.

But, as Edward Gustely emphasises in an interview ("How Do Foreign Investors Perceive Opportunities in Indonesian Infrastructure?", page 3), while ensuring a sound policy framework is essential, it's also time to act and innovate. It's time to implement new risk management tools like Performance-Based Annuity Schemes. It's time for State-Owned enterprises to collaborate with the private sector.

It's also time to establish successful Public Private Partnerships – and, as John Cheong-Holdaway tells us in "Learning From Indonesian Best Practice: A Way Forward for Public Private Partnerships in Indonesia" (page 23), the models for doing this right don't have to come from abroad: Indonesia's state-owned power company PLN can lead the way.

David Ray's article, "An Innovative Proposal to Promote Privately Financed Infrastructure" (page 7), offers another approach to staying action-oriented: the creation of a membership-based institute to champion Indonesian infrastructure projects.

Many of these projects will be in the road sector. As John Lee tells us ("Indonesia's Road Infrastructure: Accelerating the Private Sector Contribution", page 30), the national expressway network must be fully joined up and this will require leveraging Rp 400–500 trillion in private sector financing.

Major projects cannot be completed overnight: it will be years before the results of today's efforts will be translated into tangible infrastructure. That is why it is so important to focus on action immediately. John Cheong-Holdaway says it best when he writes, "The nation is now at the point where progress should no longer be measured in the delivery of policies, or the creation of institutions, but in the delivery of projects". • CSW

Infrastructure by the Numbers

87%

Projected increase in total investment in Indonesian infrastructure from 2015 to 2019 over the previous five years.

Rp 4,700–Rp 5,600 trillion

Estimated funding requirement for infrastructure development in Indonesia over the next five years. The State Revenue and Expenditure Budget (APBN) collects only Rp 2,000 trillion.

43

Number of Public Private Partnership projects that the administration of President Joko Widodo said it would offer in 2015, including airports, monorail and light rail projects, toll roads, coal trains, ports, and water supply systems.

USD 4 billion

Investment value of the Public Private Partnership between PLN and PT Bhimasena Power Indonesia for the purpose of developing a steam power plant (PLTU) project in Batang, Central Java. The project is being financed by Japan Bank for International Cooperation (JBIC) and Sumitomo Mitsui Banking Corporation.

1.73

Multiplier effect on economic output of infrastructure investment in road, bridge and port development, as estimated by the Ministry of Public Works and Housing.

9.5%

Expected Compound Annual Growth Rate of investment in the infrastructure sector during the 2014–2019 period.

How Do Foreign Investors Perceive Opportunities in Indonesian Infrastructure?

Courtesy Edward Gustely

Edward Gustely has built a remarkable international career. He is the Co-Founder and Managing Director of Penida Capital Advisors Ltd, and has over USD 30 billion of emerging market experience involving infrastructure and low-carbon investments, capital restructurings and privatisations. Edward has played a pivotal role in building Indonesia's sovereign wealth fund and infrastructure financing agencies, and was the chief architect of the Indonesia Green Investment Fund launched by former President Yudhoyono for supporting the country's low-carbon growth plan. Edward began his professional career with IBM in Germany and the US as a systems engineer and industry executive. His public sector engagements include serving as the cabinet-appointed US Senior Advisor to four Indonesian Finance Ministers and to the US Treasury.

Editor's note: During the recently held Euromoney IJGlobal Indonesia Infrastructure Finance Conference (IIFC) 2015, Edward chaired a panel of international investors and financiers that discussed the topic "What is the perception of overseas investors looking at Indonesia's infrastructure spectrum?" The interview below draws on his own professional experience and also key themes and issues raised in that panel discussion.

Prakarsa: There has been no shortage of infrastructure conferences, seminars and summits over the past decade or so, but with varying degrees of interest and participation by key players such as international financiers, lawyers and contractors. This perhaps reflects the equivocal and non-committal view of foreign investors in Indonesian infrastructure. However, this conference was different: it was well attended by the international banking and investment community. Have we turned the corner and are now seeing some very real interest in investing in Indonesian infrastructure?

Edward Gustely: One would expect that after 10 years of consecutive infrastructure summits, there would be more project results to show for the effort. In fairness, the Government of Indonesia has not been sitting idle – since 2005, it has proactively pursued regulatory and institutional reforms to support the private sector's engagement in underwriting infrastructure. But as the market knows, the

Government remains challenged in terms of coordination and delivery. Investors have been reassured by elected officials that the backlog of showcase infrastructure projects will break ground by year's end. It seems these expectations, combined with investors search for yield, has energised key players to intensify their engagement and focus.

The need to promote the alignment of interests is a key theme drawn from the conference. What do you see as some key fundamentals to align the interests of Government of Indonesia sponsors with those of foreign investors in Indonesian infrastructure?

From my experience, the key fundamental in aligning interests deals with properly managing expectations. As a general rule, Government is process-driven; the private sector is results-driven. Any misalignment of interest starts here, which then leads to market confusion that eventually breeds contempt. Media-savvy Government officials can generate significant attention through their proposed policy initiatives and de-bottlenecking plans that are intended to align with the interests of investors.

For credible alignment to occur, a "results-not-rhetoric" approach to Government communication and policy delivery is paramount. This entails inviting and delivering actionable progress reports on key infrastructure projects and sitting down to review the reports with the private sector. It also entails providing news and media updates on infrastructure delivery, project successes, setbacks, and de-bottlenecking plans for strengthening and deepening investor participation.

At the conference it was repeatedly discussed that one of the key opportunities to align interests across stakeholders is the need to adopt a more realistic approach to risk management at this early stage by pursuing some kind of availability or annuity based arrangements, such as PBAS (Performance Based Annuity Schemes) for roads. Why is this now getting so much attention?

This healthy attention to risk management and the adoption of performance-based arrangements can be linked back to the need to manage expectations. The notion of assigning all of the infrastructure project development, delivery, and financial risk for a public sector good to the private sector, when this risk has traditionally has been the responsibility of the elected Government, seems rather misguided and has few supporters. We are seeing the use of new risk management tools, PBAS and other innovative structures for enabling this much-needed alignment of stakeholders.

Much has been said about the efforts in recent years regarding the ongoing development of the policy and institutional framework for infrastructure. However, we are still hearing investor concerns about regulatory uncertainty, in particular with respect to a number of new regulations such as the recent ruling that mandates the use of Rupiah for all transactions within Indonesia. During your introductory comments, you noted that, "Bad times make for good policy and good times make for bad policy." Indonesia has enjoyed many years of uninterrupted growth. Is this emboldening a more nationalist approach to policy making, to the detriment of foreign interests?

Indonesia is the largest market-oriented democracy after the US, which leads to myriad challenges. In any country with a large, democratic economy, there will be vested interests that hope to influence the policies established by elected officials. From the perspective of foreign investors, this became noticeable in Indonesia around 2012, as preparations for the 2014 elections got underway. During this period, Indonesia was considered a darling among emerging market investors for its returns and growth rates. And in "good times", it is understandably tempting for political parties to use nationalistic rhetoric to get the attention of investors as they seek campaign funding.

The situation in 2015 is different from 2012. Indonesia is now confronted with declining economic growth and purchasing power, along with reduced appetite from foreign investors. The Jokowi Administration seems intent on rectifying the situation by seeking increased foreign investment for underwriting its economic and infrastructure agenda. It's why we hear frequent reporting of new investment and tax incentives geared toward facilitating the required funding and delivery of infrastructure by the private sector. Hence, "bad times make for good policies", at least that's the interpretation among investors.

Another important issue discussed at a number of the IIFC sessions was the expected expanded role of the State-Owned Enterprises (SOEs), given the large capital injections they have recently received from the national budget and the mandate they have to accelerate the delivery of infrastructure in Indonesia. Should investors see this as a threat or as an opportunity? That is, will this lead to cherry picking of viable projects, crowding out private finance? Or is it the case that an expanded role for SOEs will provide opportunities for partnerships, or even downstream asset recycling?

Indonesia requires new infrastructure spend of approximately USD 450 billion over the next five years in order to achieve its economic growth targets. This endeavour is simply too large for its SOEs to prepare, underwrite and deliver by themselves. Naturally, we've seen high-profile and lucrative infrastructure mandates assigned to SOEs, whose role in such cases can be described as the Government's anointed concession-holder. Investors should welcome this in situations where project implementation and counterparty risk is high and where the Ministry of Finance is the sole or largest shareholder of the chosen SOE.

Again, given the scope and breadth of the USD 450 billion infrastructure spend (which the Government acknowledges it can only fund 40 percent of), SOEs have little choice but to solicit, collaborate or partner with the private sector to ensure the required capital financing, project preparation, and delivery of infrastructure on the scale that is needed.

A key takeaway from the conference is that there is an urgent need to develop doable projects. In the opening session, Minister Sofyan Djalil [then Coordinating Minister for Economic Affairs, now Head of Bappenas] joked that there were more financiers in the room than projects on the table. He emphasised that the regulatory and institutional settings were now largely in place, and quite competitive by international standards. However Indonesia lacks a pipeline of projects to put through the system. This point was made by many speakers

and discussants at the conference. Why in a country with a huge infrastructure deficit do we have a dearth of projects? What is needed to mitigate the front-end risks on new project development?

I'll return to the all-important infrastructure theme of a general lack of institutional capacity and capability, among contracting Government agencies charged with accelerating project development and deployment, to develop, prepare and execute. One way of addressing this mismatch is to provide market incentives to infrastructure investors for underwriting a revolving Project Development Facility (PDF) or facilities that can fund and mandate Engineering, Procurement and Construction (EPC) and professional teams in providing the required technical, financial, legal, and project management expertise.

For example, the PDF would underwrite the project development, preparation and execution phases, and recover these costs from a fee charged to the project loan. Any unrecoverable amounts (e.g., a cancelled project tender) would be carried forward and offset against PDF profits. Other potential opportunities would be Public Private Partnership projects involving the Government's guarantee facility (administered by the Indonesia Infrastructure Guarantee Fund). In this scenario, the PDF would recover its pre-funded costs from the guarantee facility (including costs involving a cancelled project tender). Penida Capital is currently spearheading this PDF initiative in partnership with our institutional investors and EPC clients. I compare this to throwing spaghetti against the wall and seeing what eventually sticks. It's been our way of managing expectations here. ■

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An Innovative Proposal to Promote Privately Financed Infrastructure

A gaping hole exists in current institutional arrangements to provide thought leadership, advocacy and de-bottlenecking. This article proposes a new body, the Infrastructure Partnerships Indonesia, to champion Indonesian infrastructure projects and ensure their progress. • By David Ray

Participants discuss options for an infrastructure institute at a seminar in July 2014 at the Hotel Borobudur in Jakarta.
Courtesy of IndII

At a recent infrastructure seminar in Jakarta, the Chairman of the Indonesian Chamber of Commerce and Industry (KADIN), Suryo Bambang Sulisto, noted in his opening remarks that Indonesia's ongoing infrastructure deficit is like a "noose around our necks", constraining and choking growth and development. The infrastructure deficit offers a clear opportunity for the private sector, not only in terms of financing but also in improving delivery. Any announcement by the Government of Indonesia's (GoI)current and future infrastructure needs typically highlights that the public sector can only fund about a third of what is required, with the rest to be somehow provided by the private sector. This should ultimately translate into the private sector (both domestic and foreign) playing a key role in the design, construction, operation and/or maintenance of a broad cross-section of infrastructure – including but not limited to national and local roads, expressways, airports, seaports, water supply, solid waste and wastewater.

The intent to increase private sector engagement in the delivery and financing of infrastructure is nothing new. It has been GoI policy for some time. Notably, the last National Medium Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*) explicitly highlighted the need to promote private investment in infrastructure. There were also high profile summits in the mid 2000s, in which Indonesia – arguably a little prematurely – announced to the world its intention to attract private investment to its infrastructure development. In addition, there were a number of sector-specific laws produced in the same decade with the intent (which was not always explicitly articulated) to at least partly dismantle the legislated monopolisation of key infrastructure sectors by state-owned firms, and to generally promote competition and private sector participation.

So, if the intent and demand are there, why haven't we seen rapid growth in the private provision of infrastructure? To answer that question in a comprehensive manner would require a much longer piece than this one, and could draw upon material found in the pages of many previous ***Prakarsa*** journals and IndII reports. To keep things short, suffice to say that the central problem is that Indonesia has yet to develop the right risk model to attract private investment into infrastructure. If risk settings were correct, millions and potentially billions of dollars of private funds would have been invested already.

To be sure, new regulatory and institutional developments in recent years have improved the landscape. This includes new regulations such as PP no. 38/2015, which allows for availability-based schemes such as PBAS (Performance Based Annuity Scheme), in which demand risk is assumed by the Government. Other initiatives include the establishment of the Indonesia Infrastructure Guarantee Fund (IIGF). However, there are still gaps, and these offer an opportunity for a new initiative, described in the following paragraphs.

A few years ago, a number of independent Indonesian and Australian infrastructure experts formed a team to develop a concept note describing the need for, and potential role of, a proposed "Institute for Indonesia Infrastructure Development Effectiveness" (3IDE). The note called for the establishment of a "new Indonesian institution that is funded by the public and private sectors (national and international) that will assist in a refocus of the national delivery process for infrastructure incorporating evidence-based policy analysis from commissioned research, and capacity building at the national and provincial levels." The concept captured the attention of the IndII Board, and IndII was able to commission the

Key Points:

Infrastructure Partnerships Indonesia (IPI) is a bold idea for a membership-based, action-oriented institute that functions as a peak infrastructure body for industry and Government to provide the necessary thought leadership and advocacy to advance and champion Indonesian infrastructure projects.

Membership will represent a broad range of stakeholders: Government agencies, including state owned enterprises; private sector, both national and international (banks, financiers, legal, contractors, business associations); research and academic institutions; and donors and international financial institutions.

The key functions will include:

- Clearing house to de-bottleneck and advance projects using external/member resources. Work to be prioritised based on urgency and likelihood of success.
- Advocacy for infrastructure project advancement, greater private sector participation
- Intermediation between investors and projects, building national-international partnerships
- Knowledge capture and dissemination: best practice and lessons learnt from infrastructure
- Upskilling through professional development; forums for networking

IPI offers clear benefits to both national and international stakeholders. By participating and offering their expertise, international investors can create an entrée into the Indonesian market while expanding their knowledge and relationships. Domestic investors can build tangible commercial linkages with the outside world, while the Indonesian Government at all levels can engage and interact with the private sector as partners and peers, who share the same collective purpose to promote Indonesian infrastructure projects, rather than as opposing parties.

University of Melbourne to undertake a study to scope out the potential need and role of the proposed institute. The feasibility and appetite for such an institute was tested through a detailed review of the international literature regarding infrastructure-related institutions, various focus group discussions with specific industry groups, a major workshop to solicit input, and a call for submissions.

The key finding from the study was that a new multi-stakeholder institution can indeed play a valuable role – however it should have a very different focus than the one outlined in the initial concept note: that is, it should be based on action, direct engagement and advocacy. A clear and consistent message expressed to the team was that given prevailing circumstances (i.e. a stalled infrastructure program), Indonesia has less immediate need for a centre delivering policy analysis, but greater need for some kind of action-oriented institution that focusses on getting projects moving – the so called "clearing house" concept. This necessarily moved the idea from the initial university-centric concept, to one that focusses on the immediate needs of the private and public sector to work together to accelerate project development. For this reason, we propose that the new institute should be known as **Infrastructure Partnerships Indonesia**, or IPI for short.

Designing the IPI

A literature review of international infrastructure agencies and organisations revealed that there is no single model that could be copied from abroad and transplanted into the Indonesia context. However, the various modalities offer lessons that can be applied. The Committee for the Economic Development of Australia (CEDA) provides an excellent example of a membership-based organisation, run by members for the benefit of its members, although it has a broader focus on economic and social issues, and a greater emphasis upon research and thought leadership than the IPI is expected to have. On the other hand, the Infrastructure Partnerships Australia (IPA), another membership-based organisation, acts as a peak industry body with a strong sectoral focus. Like CEDA, IPA also has an important focus on the implementation and dissemination of independent research on infrastructure policy issues.

The IPI would be membership-based, with members drawn from a broad range of stakeholders, both national and international, including:

- Relevant coordinating and infrastructure sector ministries of GoI, as well as key bodies such as BKPM (the Investment Coordinating Board), KPPIP (Committee for Acceleration of Priority Infrastructure Delivery) and the PPP Center
- State-owned enterprises that deliver or finance infrastructure, or issue guarantees – such as Pelindo, PT Sarana Multi Infrastruktur (SMI), PT Indonesia Infrastructure Finance (IIF), and IIGF
- International and national financial institutions (both bank and non-bank)
- Contractors (engineering and construction firms)
- Specialist infrastructure operators such as ports, airports, and utility operators
- Legal firms and advisory consultants
- Embassies and trade/investment promotion agencies (e.g. Australian state trade/investment offices)
- International donors and multilateral banks

Funding for the IPI would be drawn from stakeholders under an appropriately structured membership model. In kind contributions from the membership would also substantially increase the technical resources of the institute.

The IPI would be entirely independent of Government. Government agencies can and should be members. However, this should not be seen as a Government-sponsored initiative. Government agencies would fund the initiative only through membership contributions, direct or in kind. From the study team's various presentations and discussions of the IPI concept in Jakarta, it is clear that the relevant Indonesian Government agencies are enthusiastic supporters of this concept.

The Board would be drawn from the membership, plus relevant influential players in the infrastructure sector. The CEO and staff would be passionate advocates for infrastructure who can execute efficiently.

Role and Activities

Stakeholders surveyed emphasised that IPI needs a high profile so that policy can be influenced and current project barriers overcome. Along with thought leadership, the objectives of IPI need to include *advocacy*, based on evidence, research and sound communication between Government and the private sector; and *leadership* to move projects forward and provide guidance on achieving appropriate project assurance.

De-bottlenecking and problem solving would be a critical initial focus of IPI, but over time this focus would broaden to include other activities to mitigate upfront risks in the project development cycle, such as assistance with project and partner identification, project preparation, etc. These activities would be performed by either IPI members or external resources, depending on who is best qualified.

Aside from clearing house and advocacy activities, IPI would also deliver and support a range of other functions, including capturing and disseminating knowledge of best practice and lessons learnt; networking to build partnerships both among membership and externally (i.e. with non-members); as well as forums to promote Indonesian infrastructure opportunities. While not part of its immediate focus, in the medium term the commissioning of research should also be an important function of IPI.

Promoting Member Interests

At the core of the IPI concept is the idea that it will be a peak industry body, representing and promoting the interests of all its members with the collective purpose of advancing Indonesian infrastructure projects. Whilst it is not intended to advantage one group over another, it is useful nevertheless to consider a number of different ways in which IPI could assist the various stakeholder groups, and in doing so, improve the risk model for infrastructure investment.

As noted above, advocacy would be a crucial function of IPI, and this would be of particular interest to private sector players, both local and international. At present, he private sector appears to have little voice in the media on infrastructure matters[1]. This could be explained partly by the fact that the number of large domestic corporate players in the infrastructure sector, from which we would expect to see some higher profile spokespeople emerge, is limited. Furthermore there is no peak industry body that could represent the interests of the infrastructure sector, both in the media and behind closed doors.

Benefits for International Investors

For international investors, financiers and infrastructure operators, IPI could play a crucial role in market entry, establishment and consolidation. Given Indonesia's large and expanding economy, its growing population and its ongoing infrastructure deficit, there is considerable international interest in the Indonesian market. However, many remain on the sidelines – they are interested onlookers, but unsure how to take the plunge. Frequently we see foreign players visit Jakarta; they do the usual rounds of meetings with Government and other local infrastructure stakeholders (often including IndII), collect a few business cards, leave a few glossy brochures, and perhaps attend a seminar or a conference if timing permits. Typically, they leave with little to show for their efforts.

A more useful investment of time and scarce business development funds would be to join IPI, and use it as a beachhead for future expansion. IPI offers some useful alternative approaches in this regard. For example, by contributing expertise into the clearing house function, international advisory, legal and engineering firms could provide invaluable assistance that helps unblock or advance projects. And in so doing, these newcomers would generate market knowledge and more importantly, crucial relational capital that can be used to build commercial partnerships. Likewise, using the intermediation and networking functions of IPI, foreign players can identify and assess candidate partners, and also search for and prioritise possible projects.

Advantages for Domestic Players

For Indonesian infrastructure players, IPI provides valuable opportunities to build real and tangible commercial linkages with the outside world. The challenge to address Indonesia's infrastructure deficit is unprecedented and there is a growing awareness that domestically there is not the financing, planning or delivery capacity to provide the large investments in roads, ports, electricity, water, sanitation and other infrastructure necessary to safeguard future living standards. The clearing house, networking and intermediation functions of IPI will be critical to filling this gap.

Finally, for Indonesian Government agencies at both national and the local level, IPI provides an opportunity for the public sector to engage and interact with the private sector in a very different manner. Instead of seeing the private sector as those who line up outside your door waiting to sell you their equipment and services, or as combatants across the negotiating table, IPI provides an opportunity to see the private sector as partners and peers, who share the same collective purpose to promote Indonesian infrastructure projects. Perhaps most importantly, it provides the opportunity for local policy makers and regulators to learn from experience elsewhere on how to establish and maintain appropriate risk settings necessary to attract private finance into Indonesian infrastructure.

So how do we move forward, and turn this from a concept into reality? As is often the case with privately funded infrastructure, we have a first mover problem. All will see the value in the IPI concept and want to be a part of it. However no one will want to be the first to take the plunge and invest funds into the concept, when there is uncertainty that others will do the same. In the

absence of seed-funding from Government and/or donor sources, it is critical for a core group of national and international business with an interest in Indonesian infrastructure to act in a coordinated manner to provide the core funding for the establishment of a small office/secretariat for IPI that could then be expanded once the membership base is broadened. ■

NOTES

1. IndII closely monitors both Indonesian and English language print media on a weekly basis (you can sign up for our free weekly translation of infrastructure-related articles on the IndII website, www.indii.co.id) and it is clear that the general infrastructure narrative is one dominated by the public sector, typically senior Government officials.

About the author:
As the Director of IndII, **David Ray** is responsible for overall technical and strategic leadership. He is an economist with over 10 years experience working in the development context, mainly in Indonesia and Vietnam. Prior to joining IndII in April 2009, David was the Deputy Director of the USAID-funded SENADA project, focussing on Indonesian manufacturing sector competitiveness. Over the 2003-06 period, he worked for The Asia Foundation in Vietnam managing a USAID economic governance program to improve the investment climate at the local level. Prior to this, he was a USAID-funded advisor at the Indonesian Ministry of Industry and Trade working mainly on trade, investment and regulatory reform issues.

David has technical skills and background covering a broad range of areas including regulatory and microeconomic reform, infrastructure policy (particularly transport and water/sanitation), international and domestic trade, decentralisation and Local Government service delivery, research methods and statistics, as well as project management.

David has a number of academic credentials, including a PhD focussing on Indonesia's economic and institutional development. He is the author of a number of refereed journal articles and book chapters on Indonesian development. He is a fluent reader, writer and speaker of Indonesian, and has written and published extensively in Indonesian.

Building Indonesia's Future – Unblocking the Pipeline of Projects

The Government of Indonesia faces a complex challenge as it works toward creating a successful privately financed infrastructure program. This can only be done with an action-oriented strategy to advance the PPP program – one that sets out who will do what by when, and which are the key pilot PPP projects to be used as models for others to follow. • By Julian Smith, Agung Wiryawan and Tim Boothman

Improved coordination among the central, provincial, and regional governments will speed the implementation of projects such as the Kuala Namu International Airport in Medan, North Sumatera, which was postponed due to delays in the construction of the 14 km road linking Medan to the airport.
Courtesy of Kenrick95

PricewaterhouseCoopers has recently prepared, with research support by Oxford Economics, a range of materials that forecast capital project and infrastructure spending by country and sector to 2025 for investors, public officials and companies planning capital investments[1]. These materials provide insight on factors driving the expected investment growth across the world[2]. In August we published "Building Indonesia's Future – unblocking the pipeline of projects" which analyses the expected spend and the risks around the Government's ambitious investment plans.

Outlook for the Economy

The long term outlook for Indonesia remains strong – our study forecasts GDP growth in real terms of 5 percent or more per year in the medium and long term to 2025. But the recent optimism has been checked, leading to downgrades in the growth outlook in 2015 and 2016. Weaker external demand from key export markets such as Japan, China and Singapore, and for Indonesia's main commodity products, has been reflected in disappointing export and industrial production outturns. Business confidence expectations are relatively low and although the trade balance has improved, this is mainly due to weaker imports, including capital goods, indicating implementation issues with public infrastructure spending. The authorities are trying hard to stimulate the economy but have their hands somewhat tied by macroeconomic stability targets for the current account, the public deficits and inflation. New president Joko Widodo's (Jokowi) lack of united support in Parliament and within his own party is also slowing reform.

Key Points:

The long term outlook for Indonesia's GDP growth remains strong, although growth outlooks in 2015 and 2016 have been downgraded. The share of infrastructure spending as a percentage of national GDP and total economy investment and as a share of global and Asia-Pacific infrastructure investment is projected to rise sharply. The biggest sectors are transport, manufacturing and utilities, although education and health may grow at a faster pace.

While the infrastructure outlook is positive, there are important risks as well. Backtracking on fuel subsidies would almost certainly divert fiscal resources away from infrastructure. Political risks have subsided somewhat but could still make it difficult for the Government to fully implement its infrastructure program. Practical procurement bottlenecks and policies that discourage foreign private investment and ownership (such as the recent Rupiah Transactions Regulation) could constrain future private infrastructure spending. PwC projections imply that the Government will fall short of its ambitious targets by around 19 percent – still a huge achievement.

Reasons for the projected shortfall include inherent frictions in the macroeconomy that dictate the maximum speed of investment, specific issues hindering projects in the current pipeline, and bottlenecks in the public and Public-Private Partnership (PPP) procurement process. Bottlenecks are sector-specific, but common issues include land acquisition problems, uncertainty on legal issues such as the right of the private sector to participate, reluctance or inability by State Owned Enterprises to invest, and problems of bureaucracy within and among Government institutions. Many individual projects are not designed, documented and structured in line with international best practices.

About half of the Government's planned expenditure on infrastructure is not likely to be funded from known public, SOE or private sources and so will require additional private investment. PwC believes that finance is available if the projects are presented well to the market.

There are a few successful examples of PPP schemes in the toll road and power sectors but many other projects, for example in the water and public transport sectors, have failed to make progress. Many of the ingredients for a successful privately financed infrastructure program are in place, such as the plan to establish SOE PT Sarana Multi Infrastruktur (PT SMI) as the Government's infrastructure bank. Creation of a mechanism for Performance Based Annuity Schemes offers a clearer framework for accepting unsolicited proposals, and brings the concept of PPP into new sectors such as health. But much remains to be done. The international private sector is excited about opportunities in Indonesia, but deterred by lack of clarity and complexity of regulations.

Delivering the forecast level of spending will require a stable investment climate, leadership, staggering of investment, coordination among various levels of government, capacity-building in the preparation and financing of projects, and a clear national system of land rights to facilitate land acquisition.

The outlook is mixed across sectors and some sectors like roads, airports and power may see investment close to target. Others will fall significantly short (water, oil and gas).

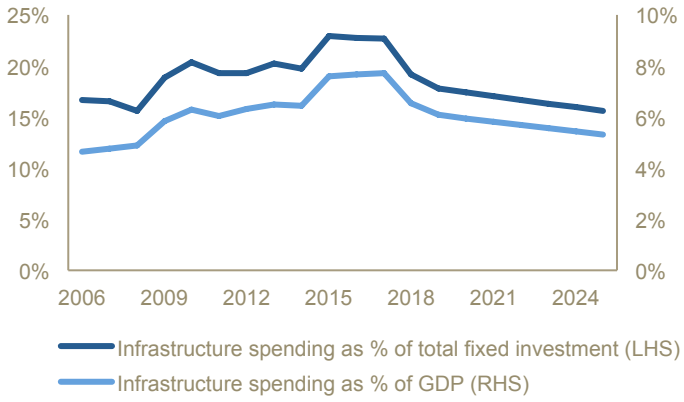
The period 2015 to 2019 is likely to be a game-changing era for Indonesia's infrastructure sector. The sharp decline in global oil prices, and relatively weak rebound to date, prompted Jokowi to largely scrap fuel subsidies in January – a move that should save more than 10 percent of total Government expenditure. Around half of this windfall has been earmarked for addressing the country's considerable infrastructure deficit. The 2015 public investment budget has jumped in comparison with 2014, resulting

in a structural break in forecast infrastructure spend levels. Public investment in the forthcoming years up to 2019 is set to remain high as the Government embarks on an ambitious medium term infrastructure program. However, Government needs to do better than it has done to date to implement its ambitious public infrastructure spending plans with the extra resources that are available to spend.

Infrastructure Spending

These developments are reflected in our infrastructure spend outlook for Indonesia. The share of infrastructure spending as a percentage of national GDP and total economy investment (see Figure 1) and as a share of global and Asia-Pacific infrastructure investment is projected to rise sharply in 2015 and remain at higher levels than previous years until 2019. But benchmarking regionally, Indonesia's infrastructure as a share of national GDP and total economy investment between 2015 and 2019 will still be considerably lower than it was in China during the mid-2000s.

Figure 1: Share of Infrastructure Spending as a Percentage of National GDP and Total Economy Investment

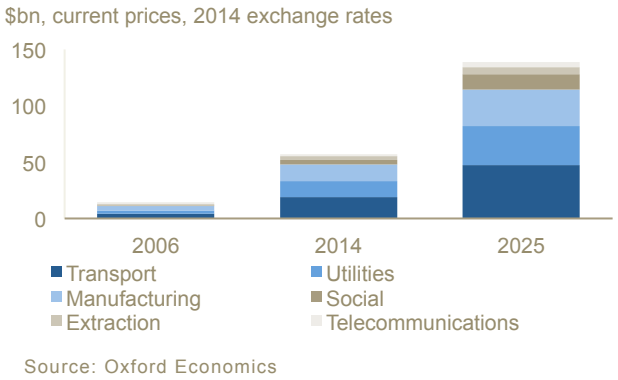


Source: Oxford Economics

Total infrastructure investment between 2015 and 2019, in 2014 constant exchange rate terms, is projected to be around 87 percent higher than in the preceding five-year period. The biggest sectors now and then are transport, manufacturing and utilities (see Figure 2), although education and health may grow at a faster pace.

While the infrastructure outlook is positive for Indonesia, there are important risks as well. Rising oil prices have brought into focus the policy to scrap fuel subsidies, and pump prices are still not fully reflective of market cost. A broader backtrack on subsidies would almost certainly divert fiscal resources away from infrastructure. While political risks have subsided somewhat after the fiercely contested election, a disruptive opposition with a parliamentary majority and internal disagreements within the President's party could make it difficult for the Government to fully implement its infrastructure program.

Figure 2: Infrastructure Spending by Broad Sector



Source: Oxford Economics

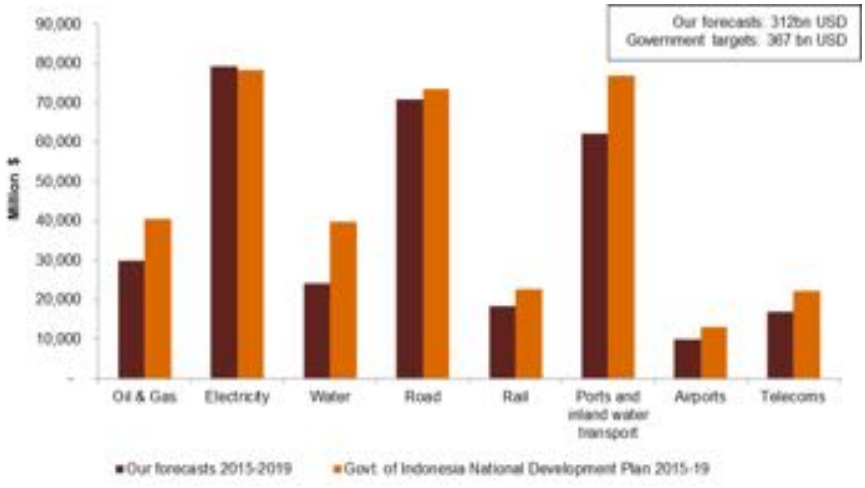
Practical procurement bottlenecks present a potential source of downside risk too. The recent postponement of some power plant tenders in particular could slow down the implementation of the Government's 35GW program.

Lastly, nationalistic Government policies which discourage foreign private investment and ownership could constrain future private infrastructure spending (for example, the recent Rupiah Transactions Regulation, Bank Indonesia Regulation no. 17/3/PBI/2015), which means that some projects will be obliged to charge for services in Rupiah, making them less attractive to foreign investors.

There is particular uncertainty around social infrastructure forecasts as it is not yet clear what priority the Government attaches to social infrastructure investment.

Our projections (see Figure 3) imply that the Government will fall short of its ambitious targets by around 19 percent. Our assessment is influenced by historical patterns of spend, which were at much lower levels than these plans, and recognition of the range of bureaucratic, procurement, land and skills bottlenecks the infrastructure sector will face in managing this ramp-up in activity.

Figure 3: How Do Our Core Infrastructure Forecasts Compare to the Government Budget?



But even achieving our forecasts of USD 312 billion of infrastructure investment would be a huge achievement for Indonesia, and ease a critical constraint on economic development.

There are several reasons for the shortfall. According to our analysis, there are inherent frictions in the macroeconomy that dictate the maximum speed of investment, such as banks' capacity to absorb foreign direct investment and shortages of skilled labour, which are not helped by tightening immigration regulations.

There are also specific issues hindering projects in the pipeline right now, as well as bottlenecks in the public and Public-Private Partnership (PPP) procurement process at large. Notably, almost all of the projects listed as "Ready for Tender" in the Government's 2013 Book of PPP Projects are stalled. As discussed in the following sections, bottlenecks are sector-specific, but common issues include land acquisition problems, uncertainty on legal issues such as the right of the private sector to participate, reluctance or inability by State Owned Enterprises (SOE) to invest and problems of bureaucracy within and among Government institutions. Crucially, many individual projects are not designed, documented and structured in line with international best practices.

Sources of Finance

The Investment Coordinating Board (BKPM) has stated that around half the planned expenditure is not likely to be funded from known public, SOE or private sources and so will require additional private investment. The Committee for Acceleration of Priority Infrastructure Delivery (KPPIP) has also highlighted gaps in SOE and other planned funding sources in the overall targets. Overall, we do not believe that lack of finance is the major issue, but that finance is available if the projects are presented well to the market.

The Indonesian Government has had a pro-PPP policy since the early 2000s, but few projects have been delivered. There are just a few successful examples of such schemes in the toll road and power sectors but many other projects, for example in the water and public transport sectors, have failed to make progress. Even in toll roads, most of the projects have been awarded to state-linked enterprises so cannot really be called PPPs.

So what needs to be done? Many of the ingredients for a successful privately financed infrastructure program are in place, for example the excellent plan to establish SOE PT Sarana Multi Infrastruktur (PT SMI) as the Government's infrastructure bank. The recent Presidential Decree no. 38/2015 on PPPs is a definite step forward. It creates the mechanism for PBAS[3] schemes, offers a clearer framework for accepting unsolicited proposals, and brings the concept of PPP into new sectors such as health, but still does not address all the requirements to make PPP contracts bankable by the private sector. Further detailed guidance on standard PPP contract terms is required. Much remains to be done. The international private sector is getting excited about opportunities in Indonesia, attracted by its great economic potential, but when companies come to survey the market, they are confused by the lack of clarity about which projects will be tendered as PPPs. They are also surprised by the complexity of business regulation in Indonesia, including the restrictions on foreign ownership and immigration.

So, the Government faces a complex challenge and needs a strategy to advance the PPP program. The strategy needs to be action-oriented, setting out who will do what by when, and which are the key pilot PPP projects to be used as models for others to follow.

The strategy needs a senior-level champion with no other responsibilities, who should report directly to the President, in order to make sure s/he has the authority to get public bodies to take the necessary decisions in a coordinated way.

What Needs to Be Done

There are several things that need to be gotten right to deliver the level of spending we forecast:

- **Stable investment climate**: Progress in this area is intermittent, as exemplified by the recent constitutional court ruling rejecting private sector participation in water projects and the lower court ruling questioning the rights of offshore corporate bondholders to vote on restructurings. It remains to be seen what new measures might be taken to promote a more stable investment environment.

- **Leadership**: Strong political will is a critical factor in driving forward bottlenecked projects. President Jokowi's willingness to "get his hands dirty" and drive on-the-ground performance is encouraging, but he cannot do this for all projects. The recent cabinet reshuffle will hopefully inject more drive into lower levels of the Government. If the Government can push through a handful of pilot projects, this will set some useful precedents and boost investor confidence.

- **Phasing investment**: Given procurement bottlenecks and uncertainty over future fiscal resources, staggering or phasing some investment will help minimise wastage of public funds.

- **Government coordination**: There is often a lack of coordination among the central, provincial, and regional governments. For example, the opening of Kuala Namu International Airport in Medan, North Sumatera was postponed due to delays in the construction of the 14 km road linking Medan to the airport. We hope that coordination will improve once KPPIP is properly resourced, but they cannot manage every project so the general approach to relationships between Government entities needs to be changed to encourage collaboration.

- **Capacity-building to prepare and finance projects**: Indonesia would benefit from faster and more transparent procurement as well as better project preparation at the Feasibility Study stage. KPPIP will have an important role to play in finding and training talented managers at the national and regional government level.

- **Land acquisition**: Land acquisition has historically delayed many projects. The new land law is welcome, but it is too soon to tell whether this will solve the problem. The lack of a single recognised map of Indonesia and a clear national system of land rights recognised by national and subnational government agencies as well as the courts will remain an ongoing challenge.

Outlook by Sector

The outlook is mixed across sectors and some sectors like roads, airports and power may see investment close to target. Others will fall significantly short (water, oil and gas). We discuss selected sectors one by one below.

Extraction

It is important for the Government to provide the necessary strategic direction and incentives (tax, supporting infrastructure and a supportive regulatory environment) to encourage the development of key projects that would boost the economy and foreign exchange revenues. It also needs to simplify the process for investment of foreign capital. Smelters are the type of long term capital-intensive investments that the country needs to support the currency and the economy in general, offsetting the volatility of short term foreign investments in the financial markets. But a "one size fits all" policy does not take into account the differing commercial viability of refining different minerals.

Oil and Gas

Many of the sector's challenges are faced upstream (USD 20 billion of our forecast USD 30 billion). Oil production is in decline. And while mature fields will keep pumping regardless of the oil price, new exploration activity has been falling for years. Contract terms commensurate with the risk would catalyse investment, especially for harder-to-explore areas such as Eastern Indonesia[4].

The refining sector has a chequered history and Pertamina, the state-owned oil and gas company, has not built new refining capacity since the 1990s. Our forecasts assume that refining will account for USD 4 billion of new investment between 2015 and 2019, or enough for around 200,000 barrels/day of new capacity at International Energy Agency benchmark construction costs. This is only a third of the Government's target of 600,000 barrels/day. Even with this level of spend on new projects and refinery upgrades, construction periods may be up to five years, making it difficult to tell when the new capacity will come online, or even if any will come online before 2019.

Power Generation

The Government has set an ambitious target of adding 35 GW of capacity within the next five years. The required capital investment (USD 83 billion) is broadly in line with our forecast of USD 79 billion by 2019. It is critical that these forecasts are realised as current black/brown-outs and reliance on diesel generators represent a significant cost to business. The Government also wants to increase household access to a reliable power source, which in remote areas is likely to involve mini-grid and other innovative solutions.

There are challenges for both the State electric company (PLN) and Independent Power Producers (IPPs). Power tariffs do not always reflect the cost of production. Flagship coal-fired PPP projects have stalled due to land acquisition problems. State guarantees are generally restricted to projects listed in the official "PPP Book" and IPP projects which are part of the "Fast Track Program" launched by the previous (Susilo Bambang Yudhoyono) administration. There have also been delays in launching tenders for new projects. Eligibility of projects in the 35 GW program for a Government guarantee is not yet clear, but such guarantees would significantly enhance the bankability of IPP investments and therefore the ease of delivery.

Water

The immediate priority for Government is to clarify the law for private investors. Our forecasts assume, in line with announcements made by the central Government, that a compromise will be found and private investment can resume in some form, albeit with some delay. Over the longer term, the focus should continue to be on making projects commercially viable and restructuring the local water utilities (PDAMs), including consolidation and increases in tariffs to fund capital investment. National Government has an important role to play in addressing capacity limitations and administrative barriers in subnational government (such as the inability to budget across more than one year).

Roads

Although the sector outlook is good, the Government must ensure that the impact of the land acquisition bill is felt on the ground and other steps are taken to encourage private participation (for example, as many open tenders as possible). It will also be important to implement a successful PBAS project.

Rail

The private sector role has been constrained by the unviability of projects due to the lack of public subsidy and the lack of commercial flexibility in the case of Special (freight) Railway concessions. Flexibility could be enhanced by relaxing the restriction that only one customer (the owner or controller) can use a Special Railway and lifting restrictions on the number of stops[5]. For PPP projects such as light rail, which are not normally feasible on a purely commercial basis, Viability Gap Funding is needed. It is also important for the Government to clarify the realistic role of the private sector given a tendency for Mayors and Governors to assume that the private sector can pay for the whole project out of real estate development profits. On the Soekarno-Hatta Airport Rail Link, lack of clarity about PT Kereta Api's role seems to have been the cause of delay and this needs to be resolved to facilitate efficient international business travel.

Ports

Nationwide, it has been estimated that logistics costs account for 24 percent of GDP and it costs three times more to ship a container from Jakarta to Padang, Sumatera than from Jakarta to Singapore[6], despite the two routes being a similar distance. However, given low level of economic activity and limited potential shipping volumes in many parts of the country, it is difficult to attract private sector capital. Some progress is being made, even if our forecast is lower than the Government's plan. The Government is relying heavily on the four state-owned port companies (Pelindos I–IV) and they are working in partnership with the private sector, even though the deals are not classified as PPPs. For example, the new container terminal at Jakarta is close to completion, to be operated by Mitsui and PSA, and a variety of other projects are in progress around the country.

Airports

With double-digit passenger and fleet growth (driven particularly by the low cost carriers), many airport projects should be commercially viable. The priority for the Government should be the acceleration of individual projects, including the preparation of feasibility studies and business cases, as well as the detailed sounding of market views. The two SOEs (Angkasa Pura I and II) have completed a number of airport expansion projects and shown a willingness to partner with foreign operators and Engineering,

Procurement and Construction (EPC) contractors, which may also accelerate progress. Quite a few Memoranda of Understanding have been signed, but no substantial deals have been implemented yet. So the legal framework for PPP-type deals will remain uncertain until one of them actually signs a Joint Venture for a specific enhancement project.

Social Infrastructure

Indonesia is undergoing a dynamic demographic transition with the ratio of children under 14 to citizens over 65 expected to fall from 6:1 to 3½:1 by 2025. So whilst education accounts for a much higher share of infrastructure spend than health today, we expect health spend to grow at a faster pace than education going forward. So far, the Government has understandably focused on economic infrastructure, but it will need to define a strategy to optimise the use of private and public investment in social infrastructure as the expectations of the people for higher quality and levels of service increase.

Conclusion

We forecast significant growth in infrastructure spending in Indonesia as the Government implements its program. The program is ambitious but essential for economic development. Whilst the targets may not be achieved in full, infrastructure delivery is set to beat historic levels and create opportunities for private sector suppliers and investors, as long as the Government can resolve the many challenges we set out in this article. ■

NOTES

1. The results in this report have been estimated using the following underlying data sources: World Health Organisation, UNESCO, World Bank, Annual Capital Expenditures Survey, Oxford Economics.
2. https://www.pwc.se/sv_SE/se/offentlig-sektor/assets/capital-project-and-infrastructure-spending-outlook-to-2025.pdf
3. Performance-Based Annuity Scheme, also known as Availability Payment scheme, under which Government funding is paid as an annual contractual sum dependent on performance/availability of the asset.
4. President of the Indonesian Petroleum Association, May 2015, as quoted in Katadata news.
5. Indonesia Infrastructure Initiative (2011), *Special Railway Guidelines and Regulatory Framework Recommendations Final Report.*
6. Business Monitor International, *Indonesia Infrastructure Report Q1 2015.*

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Tim Boothman is an advisor to PwC Indonesia, based full time in Jakarta. He provides commercial advice on capital projects and infrastructure in the power and transport sectors. Tim joined PwC UK as an economist after university, analysing carbon market and renewables investments, before working in the UAE on energy and economic diversification policy at the federal level. Tim arrived in Jakarta in 2013, and has conducted financial and economic analysis on proposed investments in ground and sea transport, energy and industry across Indonesia. Tim is currently working on a range of commercial infrastructure projects for Indonesian and international clients.

Learning From Indonesian Best Practice: A Way Forward for Public Private Partnerships in Indonesia

To kick-start the PPP program, Indonesia must follow the path blazed by PLN, the state electric company, in the power sector. • By John Cheong-Holdaway

The Kamojang geothermal plant, which is owned and operated by PT Indonesia Power, a subsidiary of PLN. The concession is held by PT Pertamina Geothermal Energy, a subsidiary of the State-Owned Enterprise (SOE) PT Pertamina. While a number of SOEs are active in the power generation business, there is a general perception that when a tender process is run, PLN will award the project to the party that best fits the criteria set out in the request for tender document, without considering whether the winning bidder is state-owned or private.
Courtesy of Geothermal Resources Council

After over a decade of effort, Indonesia has yet to see ground broken on its first Public Private Partnership (PPP) project. Yet, despite the lack of success in delivering projects under the PPP framework, there has been one reliable conduit through which private money has been flowing into Indonesian infrastructure: power projects procured directly by Indonesia's state-owned power company, PT Perusahaan Listrik Negara (Persero), usually referred to as PLN.

Between 1999 and 2014, 44 power projects constructed and operated by Independent Power Producers (IPPs) began operation, representing over 7,500 MW of capacity and tens of billions of dollars of investment. These additions raised Indonesia's proportion of power produced by IPPs from negligible in 1999, to 15 percent as reported in the 2014 PLN Statistics Report (see Figure 1).

Drivers of PLN's Success

The drivers of Indonesia's success in the power sector can be summarised in the following categories:

- Appropriate risk models
- USD tariffs for the private party
- A track record as a reliable offtaker[1] and reasonable contractual counterpart
- Ability and willingness to hire credible professional advisers
- A willingness to let private parties compete on a level playing field with State-Owned Enterprises (SOEs) in the sector
- Sufficient authority and a track record of solving problems

The remainder of this section will set out what each of these phrases means and how they contribute to PLN's success in attracting private investment, and how the PLN situation contrasts with Indonesia's experience in PPP.

Appropriate risk models: PLN's Power Purchase Agreements (PPAs) are structured so that, in most cases, risks are allocated to the party best able to bear them.

In the case of coal-fired and other non-renewable energy plants, payments are split into fixed and variable components, with appropriate indexation formulae[2] that keep the value of each payment broadly in line with the ongoing cost of generation. The payments and indexation formulae are structured so that drivers of uncertainty that are outside the control of the private party – such as variability in demand, cost of fuel, regional minimum wages, and foreign exchange rates – are allocated to Government, while factors within the control of the private party – such as construction and operation costs, fuel supply (in most cases), plant availability, plant efficiency, and so on – stay with the private party.

Key Points:

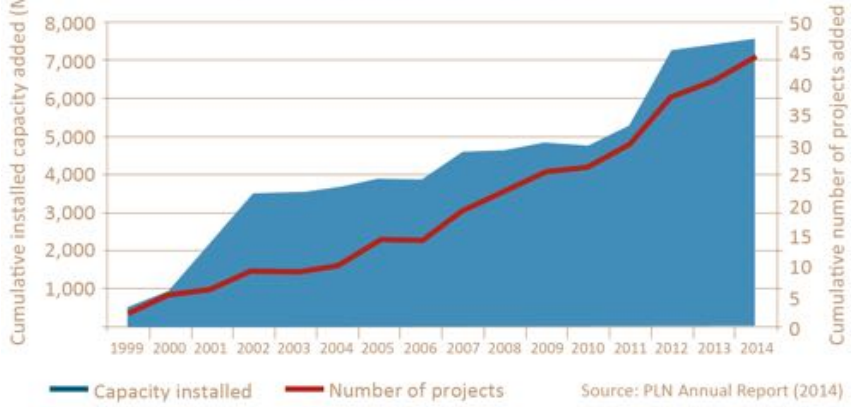
Although Indonesia has yet to experience success in delivering projects under the Public Private Partnership framework, there has been one reliable conduit through which private money has been flowing into Indonesian infrastructure: power projects procured directly by Indonesia's state-owned power company, PT Perusahaan Listrik Negara (Persero), or PLN. The drivers of PLN's success include: appropriate risk models; USD tariffs for the private party; a track record as a reliable offtaker and reasonable contractual counterpart; ability and willingness to hire credible professional advisers; a willingness to let private parties compete on a level playing field with State-Owned Enterprises in the sector; and sufficient authority and a track record of solving problems.

PLN's model does not guarantee the success of every project; there have been cases of failure and delay. But despite occasional problems, PLN is delivering projects on a scale where the delay, or even failure, of a single project does not endanger their ability to deliver service.

Proponents of Indonesia's PPP projects should view themselves as competing with PLN's projects for investors' money. Infrastructure investors tend to care much more about how well a project is structured than which sector it is in. Many of the same investors will bid on transport, power, and water projects in search of a reliable return. Thus, when proposing a project, Government Contracting Agencies and those in the central Government tasked with delivering the PPP agenda should compare their offering against what investors can get from PLN's projects across the six criteria listed above. If the proposed project is deficient in one or two areas, it must be especially attractive in the remaining areas to stand a chance of attracting investors. If the value proposition of the PPP project is not at least competitive with PLN, investors will take their money to PLN or to other countries in the region that are offering attractive investment opportunities.

Indonesia has made some progress in reforming the enabling environment for PPP. The nation is now at the point where progress should no longer be measured in the delivery of policies, or the creation of institutions, but in the delivery of projects.

Figure 1: Cumulative Capacity and Number of IPPs Signed by PLN That Began Operations 1999–2014



The record in renewable energy is a little more mixed, but in most cases, the commercial arrangements require Government to purchase all electricity produced, meaning the Government still bears full demand risk. These models have been seen as sufficiently attractive to drive significant investment in the hydropower sector.

In PPP, project structures have been less attractive to the private sector. Rural toll roads with profoundly uncertain demand have been proposed where the private sector is taking full demand risk. Other toll roads have been proposed in which investors have been asked to accept a "capital subsidy" – meaning that a proportion of the road is constructed for them by Government-supervised contractors, but then the investor must take the risk that the road has been constructed to adequate standards. Non-SOE investors have yet to find these value propositions attractive.

USD tariffs for the private party: Remuneration for the private party in PLN's large power projects is largely denominated in US dollars, meaning that private parties can more safely borrow in dollars, accessing longer tenors and cheaper interest rates than exist in the Indonesian capital market, decreasing financing costs and the resulting cost of generation to PLN[3].

In PPP, most projects tendered have been toll roads and water projects with purely rupiah denominated tariffs being offered to the private sector.

A recent track record as a reliable offtaker and reasonable contractual counterpart: The private sector's assessment of the reputations of PLN and Indonesia took a beating following the financial crisis, when PLN renegotiated 14 IPP contracts, resulting in the private investors taking a haircut. Yet, since then, PLN has largely dealt with its IPP contractors in a manner consistent with good industry practice, honouring its contractual obligations. PLN's good standing is evidenced by the fact that their bonds now hold the same rating as Indonesia's sovereign bonds.

In PPP, the situation has been markedly different. Municipal governments that are intended to be the Government Contracting Agencies (GCAs) for water projects have no track record of dealing fairly (or, at all) with investors over the sorts of timescales required for private parties to cover their investments in infrastructure projects.

Investors in toll roads were recently surprised by a tariff cut during the fasting month of Lebaran (mid-June to mid-July in 2015), the cost of which they were forced to bear with little prior warning. Potential PPP investors will take note of this precedent set by the Indonesian Government.

Ability and willingness to hire credible professional advisers: When PLN needs to deliver a significant IPP transaction, they hire appropriately qualified commercial, legal, and technical advisors from reputable firms to assist them throughout the transaction process. A credible transaction adviser's logo on a feasibility study is a precondition to a successful transaction process.

The only PPP transactions that benefited from similarly qualified advice were those for which the preparation was led by an SOE, or by an international donor. For all other projects, Government entities – constrained by their rigid procurement guidelines – engaged individuals or local firms with no experience structuring a PPP project as their transaction advisers, with no success to date.

A willingness to let private parties compete on a level playing field with SOEs in the sector: A number of SOEs are active in the power generation business, including PLN's subsidiaries, PT Pembangkitan Jawa Bali, and PT Indonesia Power, and also PT Pertamina (Persero), PT Wijaya Karya (Persero) Tbk, PT PP (Persero) Tbk, and others through their subsidiaries. Yet there is a general perception that when a tender process is run, PLN will award the project to the party that best fits the criteria set out in the request for tender document, without considering whether the winning bidder is fully state-owned, fully private, or somewhere in between.

Certain projects have been directly awarded to entities fully- or partially-owned by SOEs, and in other cases consortia involving SOE investors have won tender processes, but sufficient tenders have been won by non-SOE actors that the processes are seen as credible.

In PPP, many projects that were seen as attractive to SOEs were directly awarded to them, even after they had been publicised to the private sector in market soundings and other investment promotion forums[4]. In the case of Kalibaru Port in Jakarta, five bidders had already been prequalified (each likely spending millions of dollars on bid preparation to get to that point) when the tender process was cancelled and the project was directly awarded to PT Pelindo II (Persero). This has created a perception that the Indonesian infrastructure sector is not open to private investors.

Directly awarding projects to SOEs is not always a bad thing. It can work well in some cases, but be profoundly damaging in others. Indonesia needs to strike the right balance. The box on page 27 provides further detail on the pros and cons of this practice.

Sufficient authority and a track record of solving problems: PLN has the authority to plan, tender, and purchase power as and when they need it under a range of regulations. These regulations are clear enough that PLN requires little input from other Government entities when it needs to deliver a project. One major requirement for external approvals is in the area of environmental impacts and land-use. These approvals come from the Ministry of Environment and Forestry (MoEF), but PLN and MoEF have a track record of working to overcome problems when they arise on projects.

Pros and Cons of Directly Awarding Projects to SOEs

When a Government Contracting Agency (GCA) wants to contract for infrastructure services, it must weigh the pros and cons appropriately. This box lists some of the most important pros and cons involved with directly appointing State-Owned Enterprises (SOEs) to implement infrastructure projects.

Pros

- Speed of mobilisation: By being able to skip the tender process, which can take six months to a year at least, the SOE may be able to get to work earlier than a private contractor.

- Higher degree of Government control: If Government decides that it needs to renegotiate some aspect of the contract, perhaps to change the tariff or request a variation in design, these negotiations are typically easier to conclude with an SOE than with a purely private party as both parties view them as *keluar kantong kiri, masuk kantong kanan** to some extent.

Cons

- Lower confidence in efficiency of costs: Subjecting the eventual contractor to a transparent, open tender process provides the GCA with a high degree of certainty that the proposed costs are as close to efficient as possible. There may be another party that could provide a better solution at a lower cost, but direct appointment to an SOE would not reveal that.

- Retained risk: When an SOE undertakes a project, it assumes various risks, including construction and operation risks. If these costs end up much higher than anticipated, historically Government has had to bail the SOE out through cash injections or tariff increases. If a private party inaccurately projects the costs of construction or operation, the private party and its lenders should be the only ones that lose money.

- Delays in development of a large-scale project pipeline: Indonesia needs a replicable model that can deliver dozens of projects per year transparently and efficiently, rather than the handful that are being delivered by SOEs each year at present. PPP provides that model through its transparent tender processes and clear legal framework. Yet the model must be proven, both to private parties that would invest in projects, and GCAs that would propose them, before a pipeline of the magnitude that Indonesia needs can start to form. Appointing every potential project to an SOE may deliver that individual project faster, but delays the whole program from starting.

There is a time and a place to award projects directly to SOEs, but SOE balance sheets are limited, and there is only so long that they can be the infrastructure providers of last resort. GCAs and those responsible for the delivery of infrastructure services to all of Indonesia's citizens should consider carefully the pros and cons before awarding projects directly to SOEs in future.

*In English this roughly translates as "it goes out of the right pocket, and ends up back in the left pocket", describing the fact that value transfers between SOEs and Government are viewed as shuffling money around under the same umbrella.

As many of the most attractive projects were awarded to SOEs, those that were left over for PPP were the most complicated, least financially viable ones. These "leftover" projects required the GCAs to coordinate with and gain approval from a wide variety of parties.

For example, in the case of the Umbulan Bulk Water Supply Project, the Provincial Government of East Java (PGEJ) had to coordinate and divide costs, risks and rights among five kabupaten/kota governments and their drinking water companies, plus gain approval for their viability gap funding from the Ministry of Finance (MoF), a guarantee from the Indonesian Infrastructure Guarantee Fund (IIGF), and a water extraction permit from the Ministry of Public Works and Housing, in addition to coordinating land acquisition and permitting, and environmental impacts across the five different kabupaten/kota. PGEJ had to attempt to coordinate all of these parties who, in many cases, did not see the urgency of addressing the problems.

Unsurprisingly, at present – four years after being tendered – the project is still wending its way through these myriad approvals and no indication has been given of when the process may be complete. This level of complication is the rule rather than the exception in Indonesian PPP projects.

Reality Check

Despite the presence of the six factors above, PLN's model does not guarantee the success of every project. PLN has suffered from failed tenders and delays in the realisation of projects. The two "crash programs" from the mid-2000s are well behind their proposed implementation schedules, and the Central Java Power Plant Project, tendered through the PPP framework, but with the benefit of all of the six criteria above, remains stalled in land acquisition.

But despite these delays and problems, PLN is delivering projects. The delivery of major infrastructure projects is a complex business, and no set of practices will guarantee delivery of every project. PLN's program is now of a scale where the delay, or even failure of a single project does not endanger their ability to deliver service.

Lessons for Indonesia's PPP Agenda

Proponents of Indonesia's PPP projects should view themselves as competing with PLN's projects for investors' money. Infrastructure investors tend to care much more about how well a project is structured than which sector it is in. Many of the same investors will bid on transport, power, and water projects in search of a reliable return.

When proposing a project, GCAs and those in the central Government tasked with delivering the PPP agenda should compare their offering against what investors can get from PLN's projects across the 6 criteria listed above. If the proposed project is deficient in one or two areas, it must be especially attractive in the remaining areas to stand a chance of attracting investors[5]. If the value proposition of the PPP project is not at least competitive with PLN, investors will take their money to PLN, or to other countries in the region that are offering attractive investment opportunities[6].

Indonesia has already made some progress in addressing the constraints above. The latest PPP framework set out in Presidential Regulation no. 38/2015 allows for performance-based annuity schemes that are a more appropriate risk model for many of the projects that Indonesia is proposing as PPPs. The IIGF can bolster GCAs' bankability for those without a track record. The proposed Project Development Facility that will be controlled by the new PPP Unit established

under MoF should solve the issue of non-credible advisers. The establishment of the Committee to Accelerate the Delivery of Priority Infrastructure (Komite Percepatan Penyediaan Infrastruktur Prioritas or KPPIP) is intended to address the lack of a senior driver of the PPP agenda.

Yet all of these reforms are tweaking the enabling environment. Indonesia is now at the point where progress should no longer be measured in the delivery of policies, or the creation of institutions, but in the delivery of projects.

Conclusion

The scale of Indonesia's need for infrastructure is such that the Government and its SOEs alone cannot possibly meet the demand. Indonesia needs to develop replicable systems that can deliver dozens of projects per year. PPP provides a structure that will permit this, but a lack of commitment to the model has continually delayed implementation and harmed the model's credibility with investors and GCAs alike.

Too often policy-makers look overseas for international best practice examples that can help them achieve their policy aims. In this case, we already have an example of Indonesian best practice that is working in delivering needed infrastructure services at competitive cost.

Those that desire PPP for Indonesia must learn from PLN's example of Indonesian best practice to create and deliver the infrastructure projects that Indonesia's citizens need. ■

NOTES

1. An "offtaker" is the purchaser in an offtake agreement. This kind of agreement is made between a resource producer and a buyer. They establish in advance – usually before the construction of a production facility – how much the purchaser will buy of the resource that is being produced and sold and on what terms.
2. Indexation is a technique that uses formulae to adjust payments using a price index that is intended to maintain the absolute value of the payment after inflation.
3. It is not yet clear how Bank Indonesia's BI Regulation no. 17/3/PBI/2015 regarding the Mandatory Use of the Rupiah, which came into effect on 1 July 2015, will impact upon these contracts.
4. Awarding projects directly to SOEs is not inherently a bad thing, but to do it repeatedly to projects that have been publicised to the private sector sends a message that private investment in the sector is not welcome.
5. This has limits. A project with only rupiah tariffs may be bankable if it is exceptionally well-structured. However, it is unlikely that a project not structured by credible transaction advisors will be bankable.
6. The Philippines awarded three PPP contracts worth, in aggregate, USD 1.8 billion in 2014, and had 11 projects worth USD 6.2 billion under procurement at the start of 2015.

About the author:

John Cheong-Holdaway is a Public Asset Use and Infrastructure Policy Adviser to the Government of Indonesia under the Australian Government's Australia Indonesia Partnership for Economic Governance (AIPEG). John has advised governments, private parties, regulators and donors on all aspects of the infrastructure project cycle, from policy to preparation, transaction, and regulation. The majority of John's career has been spent in Indonesia, but he has also worked in infrastructure advisory in Australia, New Zealand, the Philippines, and Timor-Leste. Prior to joining AIPEG, John has split his career between private advisory, investment banking, and work for multilateral and bilateral donor agencies.

Indonesia's Road Infrastructure: Accelerating the Private Sector Contribution

Indonesia faces a growing crisis as the capacity, connectivity, and quality of its transport network is not keeping pace with demand. Traffic growth and congestion are raising costs, eating away at Indonesia's competitiveness, attractiveness to inward investment and future growth prospects. To avoid this, steps must be taken now to double road capacity by 2030. Private sector participation in the financing and delivery of the road network is a crucial part of achieving this goal. • By John Lee

Most of the new spending on roads that is planned by the Government of Indonesia will be used for road rehabilitation and incremental road widening along existing alignments.
Courtesy of IndII

Typically it takes a truck four to five days to make the 810km door-to-door journey between Jakarta and Surabaya, including stops. The reason has less to do with potholes in the road and more to do with traffic congestion, roadside interference (encroachment – by parked vehicles, vendors' kiosks, and similar obstacles – onto road space that should be usable by moving vehicles), low road standards and lack of direct routing. The door-to-door journey is even slower if made by rail or coastal shipping. Logistics costs (of which inventory costs in transit and unreliable delivery schedules comprise a major portion) account for 24 percent of GDP, far higher than China's 15 percent and 8.5 percent in the US. Indonesia's ports and roads are often heavily congested, having lacked investment in the years since the Asian Financial Crisis.

If the nation's economy is to grow to its full potential and compete with regional neighbours, the capacity, connectivity and quality of Indonesia's transport system must be improved. While the Government's strategic focus has turned to needed improvements in maritime and rail transport to improve accessibility, especially for eastern Indonesia, 70 percent of freight and 80 percent of non-urban passenger movements are still carried by road. Road transport will always be the most important transport mode. Ports, factories, distribution centres, airports, markets, towns, cities and consumers are all joined by roads. It is the road sector that most needs attention.

In the 2015–2019 period, the Government plans to spend over Rp 300 trillion on the national road network[1], a substantial increase over 2010–2014. This increased spending, made possible by savings from eliminating the fuel subsidy, is expected to help boost GDP at a time of slowing economic growth and rising unemployment. Part of the money will be spent on expediting some 1,000 km of toll road concessions stalled by land and financing problems, and pushing ahead with links assigned to state-owned contractors. But most of the new spending will be used for road rehabilitation and incremental road widening along existing alignments. These are job-creating projects that are quick to prepare and implement, although they make only a short-lived contribution to the network capacity and connectivity required to meet the long term needs of the economy. There is a very welcome recognition of the need to raise standards of design and construction – adopting the lessons learned from EINRIP[2] – to help avoid the usual expensive rehabilitation-deterioration-reconstruction cycle. But there is arguably too much of a focus on the short term – on individual *projects* – and not enough on the steps that must be taken immediately in order to realise a vision of the network 20 or 30 years in the future.

Key Points:

The capacity, connectivity and quality of Indonesia's transport system must be improved if Indonesia is to fulfil its potential for economic growth. In the 2015–2019 period, the Government of Indonesia plans to spend over Rp 300 trillion on the national road network, which will help boost GDP at a time of slowing economic growth and rising unemployment. But most of the new spending will be used for projects that make only a short-lived contribution to the network capacity and connectivity required to meet the long term needs of the economy.

Much more new capacity is required. The overall capacity of the road network on Java will have to *double* if traffic conditions in 2030 are to improve. Meeting demand throughout the country will require nearly 5,800 km of new expressway, as well as nearly 10,000 km of upgraded arterial roads on new alignments and 18,000 km on existing alignments.

This national expressway network must be fully joined up. The old view of toll roads as a self-financing way of relieving congestion on isolated links needs to be replaced by the concept of a contiguous, high-performance, long-life network. If this is to happen, critical constraints will need to be addressed on planning, land, budget management, delivery capacity, institutional oversight, affordability and private sector contribution.

Delays in securing the land pose the highest risk to timely delivery. Indonesia's road authorities must finalise a master plan for expressway and arterial networks, ensure that it is incorporated into provincial planning, review alternative alignments, and prepare preliminary designs that can be used to initiate the time-consuming task of land acquisition.

By 2030, the total investment needed for expressways and arterial road renewal will amount to over Rp 700 trillion in today's prices. Rp 400–500 trillion could perhaps be leveraged from the private sector if effective financing models were available and the enabling environment were in place. Models such as availability payments (AP) or Performance-Based Annuity Schemes (PBAS), in which the private sector finances design, construction, operation and maintenance in return for regular performance-based Government payments after project opening, are attractive to the private sector under the right governance arrangements. Evidence suggests that a high proportion of the expressway network – particularly in eastern Indonesia where accessibility needs improving to induce economic growth – would not appeal to private investors under the commercial toll road model but is more suited to the AP/PBAS delivery model.

Land aside, procuring a project for commercial toll road or AP/PBAS delivery takes at least two years. In the meantime urgent projects are best implemented quickly through SOE assignment or conventional procurement. But if the private sector is to play its necessary role in delivering the longer-term program that is needed, an urgent start must be made on creating a market-credible regulatory and government environment; finalising and committing to a coordinated program to deliver the needed capacity; carrying out the preliminary engineering and securing land; identifying the projects to be delivered by the private sector; and preparing the first one or two AP/PBAS projects to demonstrate that appropriate market-sensitive risk-allocation and governance arrangements are in place.

Figure 1: Traffic Conditions on Java in 2030 With No New Projects

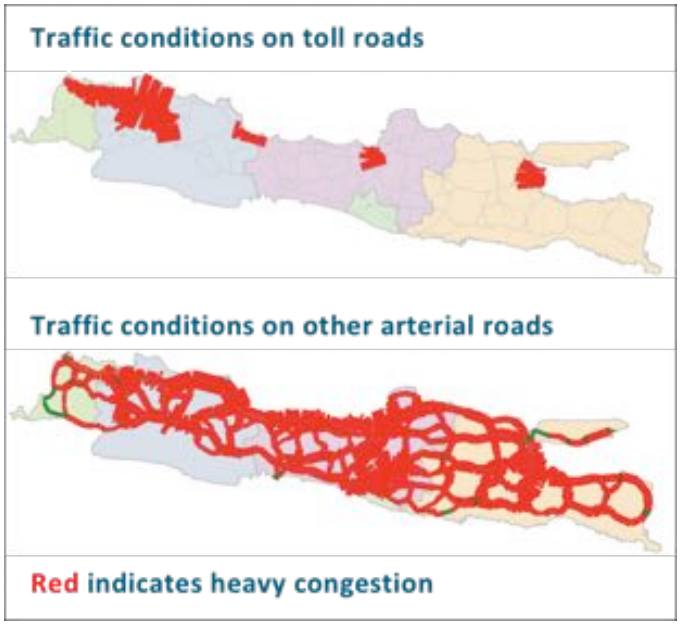


Figure 2: Traffic Conditions on Java in 2030 With Current Toll Road Plans

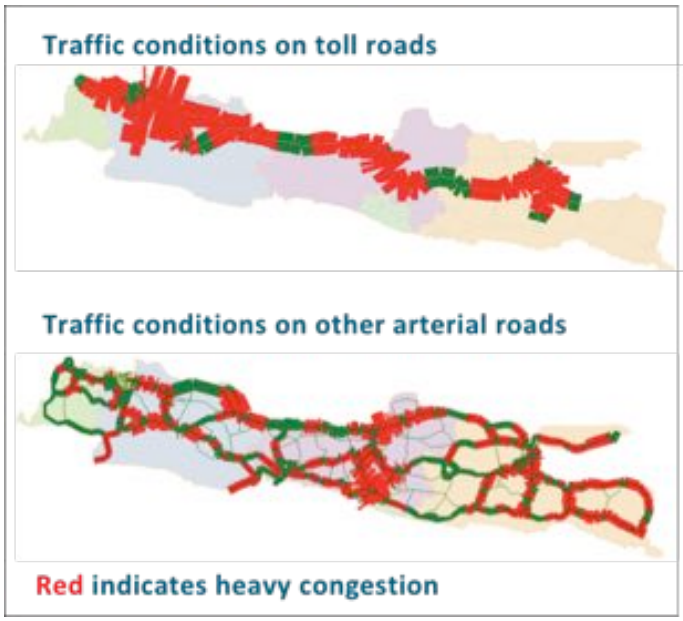
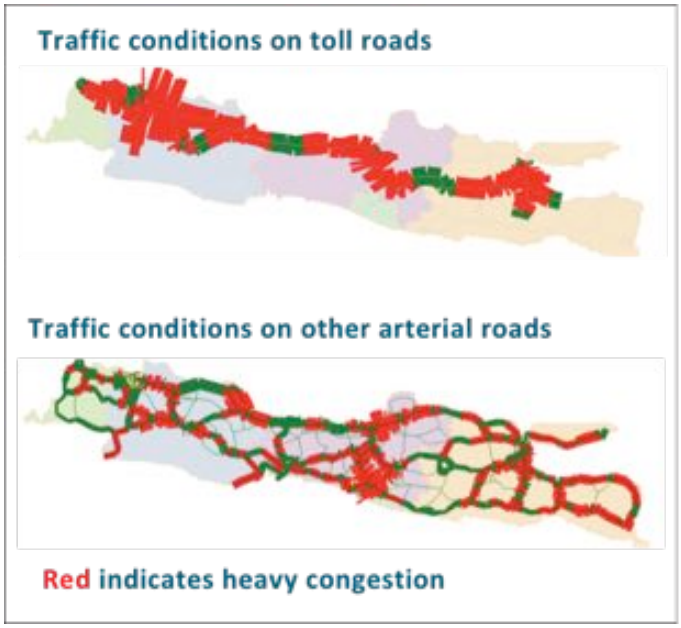


Figure 3: Required Network to Achieve Acceptable Traffic Conditions on Java in 2030



Capacity and Connectivity

Using planning models recently developed by the Australian Government-supported Indonesia Infrastructure Initiative for the Directorate General of Highways (DGH) in the Ministry of Public Works and Housing,[3] it is now possible to simulate the performance of Indonesia's road network under future levels of demand. Figures 1–3 illustrate the results for Java, using forecast traffic for 2030; the picture for Sumatera is broadly similar. In these figures, red indicates heavy congestion; the width of the lines indicates relative volumes of traffic.

By 2030, traffic will have tripled from today's levels, growing at 7–8 percent per annum on most key routes[4]. Conditions in 2030 (shown in Figure 1) will be intolerable without any further network development. That is not surprising: they are already bad enough.

Popular expectations are that completing the Trans-Java toll road will ease traffic conditions considerably. Not so. By 2030 (see Figure 2) the level of congestion on the arterial network will be *worse* than it is today, even with substantial traffic diverted to the new toll roads; these too will be heavily congested. Completing the Trans-Java toll road network alone will not eliminate congestion. Much more new capacity is required.

Based on projections, the overall capacity of the road network on Java will have to *double* if traffic conditions in 2030 are to improve over present levels (Figure 3). Meeting demand on Java will require at least 1,150 km of *additional* expressways[5] beyond what is already planned, plus over 3,000 km of major improvements to existing arterials, mostly involving realignment (Figure 4)[6].

Figure 4: Additional Capacity Required by 2030, Java

Expressways:	
Existing toll roads	550 km
Planned toll roads	870 km
Expanded program	1,150 km
	2,570 km
Other arterials:	
Upgrade to dual 2/4* & new alignment	2,094 km
Upgrade to 7 metres & new alignment	983 km
	3,077 km

*Roads with 2–4 lanes in each direction

For Indonesia as a whole, nearly 5,800 km of new expressway are needed, as well as nearly 10,000 km of upgraded arterial roads on new alignments and 18,000 km on existing alignments (Figure 5)[7]. Improved arterial roads are needed both to accommodate local traffic and to prevent heavy congestion on the expressway network. By providing direct, high-speed connections, the expressway network will significantly reduce travel times between major centres and carry some 40 percent of inter-urban traffic.

Figure 5: Additional Capacity Required by 2030, All Indonesia
(Estimated costs in 2014 prices, excluding preparation costs)

	Length (km)						
Component	**Java**	**SUM**	**KAL**	**SUL**	**Bali, NTB, NTT**	**Papua, Maluku**	**Total km**
Expressway (new alignment)	1,150	2,966	425	1,125	120	-	**5,786**
Renewal (new alignment)	3,077	2,096	1,300	1,330	325	1,837	**9,965**
Renewal (existing alignment)	-	3,761	4,768	3,980	1,266	4,416	**18,191**

		Cost		
Component	**Km**	**Construction Rp bn**	**Land Rp bn**	**Total Rp bn**
Expressway (new alignment)	5,786	352,075	47,657	**399,732**
Renewal (new alignment)	9,965	160,389	22,131	**182,520**

The Delivery Task

Quick, reliable and safe connectivity means a fully joined-up national expressway network. The old view of toll roads as a self-financing way of relieving congestion on isolated links needs to be replaced by the

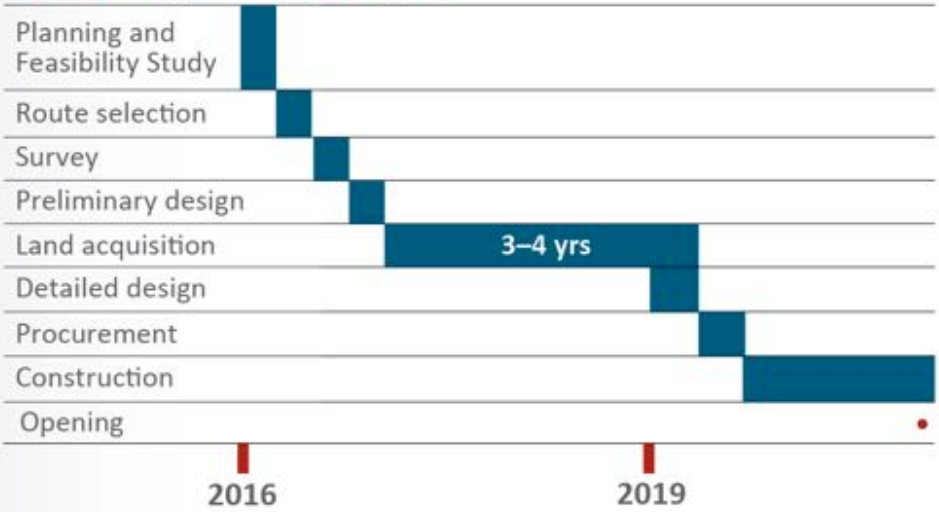
concept of a contiguous, high-performance, long-life network which becomes the essential backbone for trade logistics and the economy.

In the last 20 years, barely 200 km of toll roads were built. National road capacity grew at only 1–2 percent per annum. To meet demand by 2030, production of expressways needs to rise to 500 km per annum and national road capacity by over 5 percent per annum. If this is to happen, critical constraints will need to be addressed on planning, land, budget management, delivery capacity, institutional oversight, affordability and private sector contribution.

Planning, Preparation and Land Acquisition

The land requirements are significant: 50,000 ha for expressways and 20,000 ha for realigning and expanding the arterial network. Delays in securing the land pose the highest risk to timely delivery of the program. Just identifying and acquiring land for a major project takes a minimum of 4–5 years (see Figure 6). If all goes smoothly – and it rarely does – a new expressway or major project would not be open for traffic until at least 2022, even if a start were made tomorrow on the planning task.

Figure 6: Typical Project Cycle



To minimise the risk of delays due to land acquisition, therefore, Indonesia's road authorities should:

- Finalise as soon as possible a master plan for the expressway and arterial networks (IndII is currently helping with this), based on forecasts and tests carried out using IndII's planning models and with projects ranked in order of priority
- Ensure that the master plan is incorporated in provincial spatial plans
- Using terrain modelling tools, review alternative alignments and decide on a preferred corridor for each new link in the network (*all* links, not just those that have the highest priority)
- Prepare urgent preliminary designs for high-priority links, to allow a start on the time-consuming task of land acquisition.

In the rush to expedite immediate projects in 2015 and 2016, this urgent planning task – of securing the corridors for future expressways and upgraded arterials – has taken a back seat. Land for projects is still being acquired on a piecemeal, project-by-project basis. Attention should turn to freezing and securing corridor land well in advance of an agreed project pipeline.

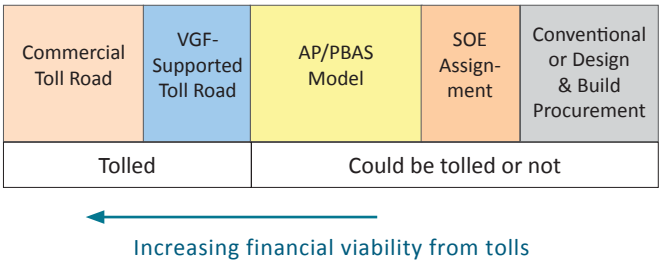
Delivery Capacity

Indonesia's consulting and contracting industries face huge challenges with a program of the size required to meet demand. The expressway program will require 5–10 multi-year packages of Rp 3–5 trillion per annum, and the renewal program about 6–20 multi-year packages of Rp 0.1 to 1.0 trillion per annum. With only the largest national firms capable of managing such large packages – even accounting for the assignment of links in the toll road network to state-owned contractors as an expedient – the market needs to be opened to international players, for both construction works and financing. With the imminent start of the ASEAN open market, all major procurement should be by open international tender, for which credibility and transparency will be crucial. Partnering with international players will help raise the capacity and competitiveness of domestic firms.

Financing and Delivering Through Private Sector Participation

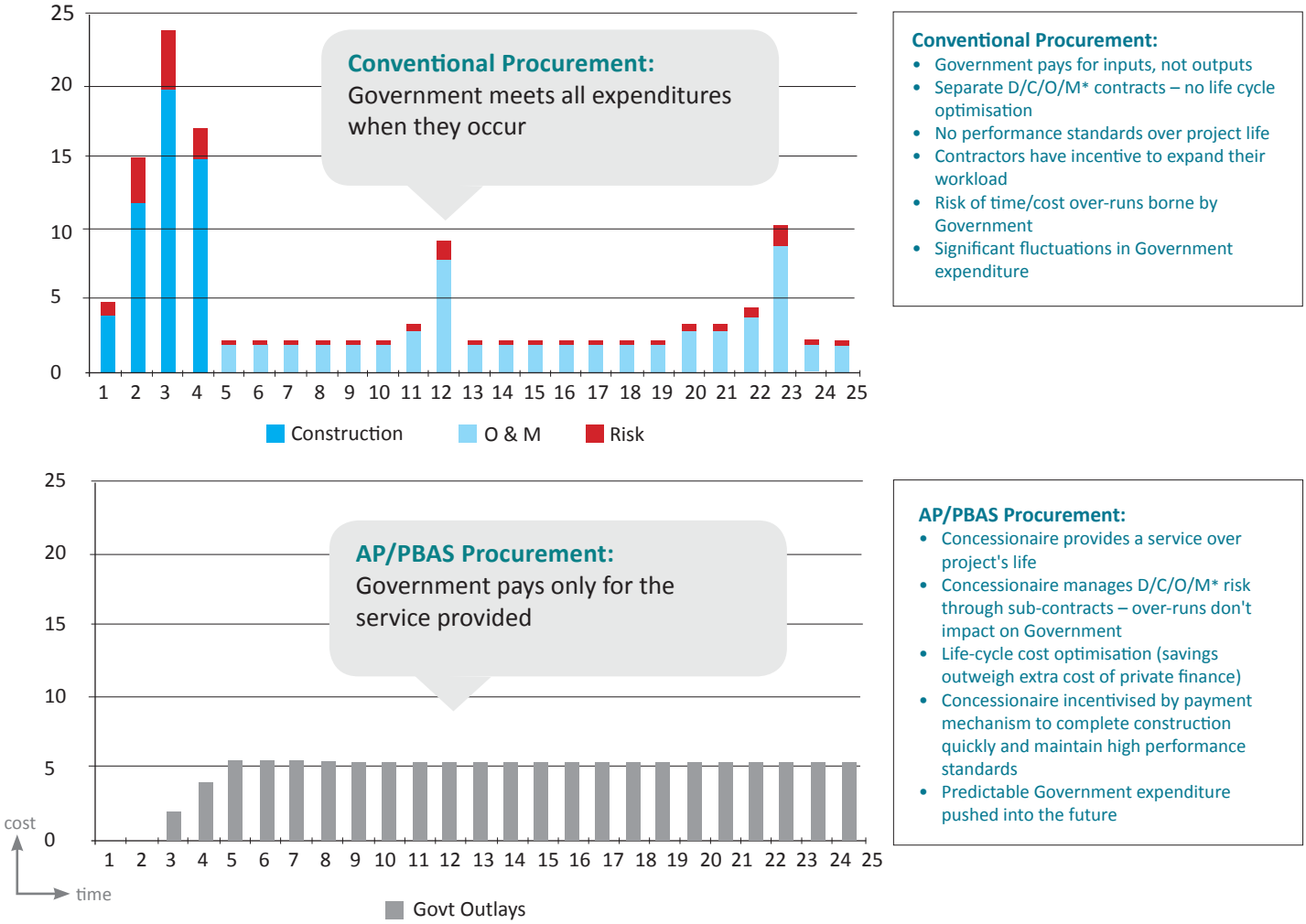
By 2030, the total investment in expressways and arterial road renewal will amount to over Rp 700 trillion in today's prices. Rp 400–500 trillion could perhaps be leveraged from the private sector if effective financing models were available and the enabling environment were in place. The current range of models (tolling, viability-gap financing [VGF], assignment to State-Owned Enterprises [SOE]) needs to be broadened to avoid the impasse of the past 15 years and ensure effective private-sector engagement (see Figure 7). Models such as availability payments (AP) or Performance-Based Annuity Scheme (PBAS), in which the private sector finances design, construction, operation and maintenance in return for regular performance-based Government payments after project opening, are attractive to the private sector – under the right governance arrangements – and have performed well elsewhere. They also defer costs into the future and may be partially offset by tolls when appropriate. Regulatory changes have already been introduced to permit these.

Figure 7: An Expanded Range of Delivery Models



IndII is helping DGH and the toll road authority (Badan Pengatur Jalan Tol) to identify the most suitable financing and delivery model for all links in the expressway network, taking into account life-cycle costs, cost-recovery tolls and traffic risk. An emerging result is that a high proportion of the expressway network – particularly in eastern Indonesia where accessibility needs improving to induce economic growth – would not appeal to private investors under the commercial toll road model but is more suited to the new AP/PBAS delivery model (see Figure 8)[8].

Figure 8: Advantages of the AP/PBAS Model (Figures are illustrative only)



Conventional Procurement:

- Government pays for inputs, not outputs
- Separate D/C/O/M* contracts – no life cycle optimisation
- No performance standards over project life
- Contractors have incentive to expand their workload
- Risk of time/cost over-runs borne by Government
- Significant fluctuations in Government expenditure

AP/PBAS Procurement:

- Concessionaire provides a service over project's life
- Concessionaire manages D/C/O/M* risk through sub-contracts – over-runs don't impact on Government
- Life-cycle cost optimisation (savings outweigh extra cost of private finance)
- Concessionaire incentivised by payment mechanism to complete construction quickly and maintain high performance standards
- Predictable Government expenditure pushed into the future

* D/C/O/M = Design/Construct/Operate/Maintain

Land aside, procuring a project for commercial toll road or AP/PBAS delivery takes at least two years. In the meantime urgent projects are best implemented quickly through SOE assignment or conventional procurement. But if the private sector is to play its necessary role in delivering the longer-term program that is needed, an urgent start must be made on:

- Putting in place a market-credible regulatory and governance environment (already underway)
- Finalising and committing to a forward program that would deliver the network capacity required (and not just a shopping list of isolated projects)
- Carrying out preliminary engineering and securing the land in advance of procurement
- Confirming the pipeline of links expected to be delivered by the private sector, taking into account market capacity and appetite
- Preparing, as soon as possible, the first one or two AP/PBAS projects to demonstrate that appropriate market-sensitive risk-allocation and governance arrangements are in place.

Striking a Balance Between Short and Long Term

While a focus on immediate job-creating projects is fully appropriate at a time when the economy is slowing and public sector spending will help lift growth, the elephant remains in the room: long term traffic growth and its associated congestion will add exponentially to the future costs of transport, eating away at Indonesia's competitiveness, attractiveness to inward investment and future growth prospects. If this is to be avoided, an urgent start must be made now on the steps needed to double road capacity by 2030: agreeing on and legalising a network master plan, defining the corridors required for new alignments, carrying out preliminary engineering and beginning the land-acquisition task, defining the pipeline of links expected to be delivered by the private sector, and preparing one or two demonstration projects to show that best practice now replaces business-as-usual. This involves a switch in mentality: from a short term, project-specific view of road development to adopting a longer-term vision of the network as a whole, its critical role in the economy, and the role to be played by the private sector. ■

NOTES

1. The national road network comprises roughly 50,000 km out of the 480,000 km of roads, including subnational roads, throughout the country.
2. EINRIP stands for the Eastern Indonesia National Road Improvement Project, which was funded with Australian loan assistance. Recently EINRIP won the International Road Federation's Global Achievement Award in the Program Management category (see article on page 41).
3. The models were developed under IndII's National Roads Planning activity with the assistance of consultants from Cardno.
4. Traffic growth on each route varies depending on population and economic growth in the origin and destination zones of the traffic it carries.
5. These should be high-speed, high-capacity highways, though not necessarily with tolls.
6. Uncontrolled ribbon development limits opportunities for all but minor widening along existing alignments.
7. The precise details need further testing using the planning model. The figures quoted are from one scenario among several that would achieve conditions better than those at present. But the quantum increase in capacity needed is beyond doubt.
8. Note that one of the most important benefits of the AP/PBAS model is that it incentivises life cycle quality in service delivery.

About the author:

John Lee has over 40 years' experience as a transport sector specialist, including 15 years working in Indonesia. He has managed a wide variety of transport policy and planning projects, dealing with all modes of transport, national and regional, throughout Asia, Africa, the Middle East and the Pacific. He is familiar with the requirements of all the major international aid agencies. Prior to joining IndII, John was Advisor to the new Department of Transport in Abu Dhabi, where he helped build the Highways and Public Transport Divisions from scratch. John has expertise in institutional development, investment feasibility studies, multimodal transport planning, performance-based project delivery (including Public Private Partnerships) and asset management.

Australia-Indonesia Partnership Project for Road Improvement Wins Prestigious Award

The 2015 Global Road Achievement Award in the category of Program Management acknowledges the results achieved by the Eastern Indonesia National Road Improvement Project.

Proprietors of a roadside enterprise pose in front of their newly renovated store. When the road in front of the shop was improved by EINRIP, businesses prospered thanks to the increase in customers. *Courtesy of Teguh Wiyono*

The Australian Department of Foreign Affairs and Trade (DFAT) and the Indonesian Directorate General of Highways (DGH) jointly won the 2015 Global Road Achievement Award, in the category of Program Management, from the International Road Federation (IRF). IRF is a nongovernmental, nonprofit organisation that promotes the development and maintenance of better, safer and more sustainable roads and road networks. The Global Road Achievement Awards are designed "to recognise innovative road projects and exemplary people that place the road industry at the forefront of worldwide social and economic development."

The award was bestowed in recognition of the Eastern Indonesia National Road Improvement Project (EINRIP). EINRIP is a flagship component of the Australia-Indonesia Partnership for Reconstruction and Development resulting from the A$ 1 billion assistance package announced by the Australian Government after the 2004 tsunami. A loan of A$ 300 million and A$ 40 million in grant-funded technical assistance has helped rehabilitate 400 kilometres of vital national road links and bridges across Eastern Indonesia.

The roads improved through EINRIP have made it easier, safer, and less costly for road users to conduct economic activities, attend school, and participate in community life. But the real achievement of EINRIP lies in the way it identified and addressed challenges through carefully targeted strengthening of contract and project management practices for better road construction. Because of EINRIP, Indonesia's Directorate General of Highways is now working to adopt standards and processes that will lead to higher quality and longer lasting roads.

EINRIP was designed to demonstrate the application of international management practices to existing Government systems. Management of the loan project is handled by DGH. DGH management of this complex program was bolstered by assistance to:

- Plan and prepare final engineering designs for all 20 road projects
- Provide a full-time monitoring unit delivering daily advice on implementation issues
- Deliver a program of independent technical and financial audits to recommend improvements to construction quality and practices
- Undertake road safety audits of all projects at both the design stage and during construction
- Establish a long term monitoring and evaluation program to assess the impact of the investment on the local economy and community, and build an evidence base for repeated application of improved construction practices.

DGH managed EINRIP activities using a FIDIC-based contract, thereby adopting new, world-class standards. (FIDIC is the International Federation of Consulting Engineers, an international standards agency for the construction industry.)

The program has been extremely effective, with completed projects achieving very high quality standards and promoting an awareness of the importance of quality and high supervision standards.

Monitoring and evaluation of the program indicates that EINRIP resulted in significant impacts for road users and the surrounding community. Vehicle speeds have increased by over 30 per cent against a baseline, halving long distance journeys in some road corridors. Improved road and traffic conditions have led to significant growth in local economic activities, with communities reporting improved access to goods and services, and evidence showing a sharp drop in vehicle operating costs.

As stated in the IRF awards announcement, “the partnership built between DFAT and DGH has facilitated the leveraging of changes in ingrained past practices, and the integration of new ideas is greatly strengthening ongoing management and renewal of Indonesia’s national road network. By incorporating new approaches, EINRIP implementation cultivated improvements in the way roads are provided. EINRIP demonstrates that more effective program management can help deliver better roads and provide long term benefits.” ■

THE EXPERT VIEW

Question: *What initiatives does the Government need to undertake immediately to facilitate a greater role for the private sector in the planning and delivery of Indonesia's infrastructure?*

Mesra Eza
Global Project Finance Division, Asia Department
Mizuho Bank, Ltd.

"With strong support from the Government, Indonesia has been able to successfully attract private investors to deliver power projects. Among the key success factors for power projects from a lender's point of view are availability of off-take agreements, credibility of off-takers, and ability to offset key risks such as foreign exchange risk and legal uncertainty. When these success factors are present in the Power Purchase Agreement (PPA), projects have the ability to attract Export Credit Agency financing and to make use of overseas investment and buyers' credits, which then significantly improves bankability.

In the transport and water sectors, unlike in the power sector, there is usually no off-take agreement or credible off-taker available. As a result, the project (and lenders) are heavily exposed to market risk. Therefore, in order to have successful projects in the future, the Government needs to make a facility available for transport and water projects that would mitigate market risks, similar to what power projects now enjoy in the form of a bankable PPA. Depending upon the nature of the project, availability payments, minimum traffic guarantees and performance-based contracts are among the schemes that Government needs to provide to facilitate a greater role for the private sector in transport projects. In water sector, to facilitate a greater role for the private sector, it is important that there be further Government undertakings to increase the credibility of PDAMs.

In addition to those issues described above, certainty of land availability remains important. Lenders expect there to be more certainty on land availability under the new law on land acquisition. Last but not least, an effective hedging mechanism for currency risks needs to be considered, given that the size of infrastructure projects in the Government project pipeline necessitates off-shore funding.

In regard to the project planning and preparation stage, once the above-mentioned facilities are made available, there will be more demand from the private sector to participate in project preparation on a success fee basis. This will significantly reduce Government expenses required for project preparation, not to mention that the quality of project preparation documentation should also improve."

Darwin T. Djajawinata
Director for Project Development and Advisory
PT Sarana Multi Infrastruktur (Persero)

"Emphasis should be given to developing a comprehensive business that is agreed by all stakeholders, so that there are no sharp differences in perception that would cause delays in the project planning.

To achieve that, strong coordination and a champion are the keys to effective decision-making and providing certainty for enterprises investing in infrastructure."

Bambang Irwanto
Manager, PT KPMG Infrastructure Advisory

"Despite the establishment over the past decade of a sound regulatory environment for the procurement and delivery of infrastructure, Indonesia has yet to fully realise its infrastructure development potential. In our experience, one of the key inhibitors to progressing the infrastructure project pipeline is a lack of formal communication between project owners and their partners in the upfront project planning and structuring phase. One consequence is a misalignment between the type of projects and project structures released to the market and those deemed acceptable by financiers. Equally, many financiers may have a high-level understanding of the regulatory environment, but lack an understanding of detailed aspects of the Government regulations. Although no country can claim to have both Government and investor requirements completely satisfied, the strong desire of both local and foreign companies to invest in Indonesian infrastructure means that the Government of Indonesia has an opportunity to engage further with potential financiers to enhance the attractiveness of the infrastructure pipeline and the structure of projects released to market.

One practical approach to increasing the role of the private sector in the delivery of infrastructure is to establish a formal expert panel consisting of representatives from key Government stakeholders (both ministries and State-Owned Enterprises) and the private sector (both investors and advisors). The expert panel would be engaged early in the project identification and planning stage, to discuss and provide feedback from all perspectives on shaping the projects and structures. Feedback would be enforced via inclusion as a formal part of the project preparation requirement. Membership of the group could be rotated periodically to ensure a manageable size of participants while maintaining fresh perspectives from industry. This engagement would work both ways: in giving the Government a formal platform to engage investors directly to better understand their commercial requirements, and in helping investors to better understand Government regulations and requirements. Early involvement of the private sector in developing a financeable pipeline of projects hand-in-hand with the Government would benefit all parties and help drive economic growth in Indonesia by realising a strong pipeline of potential projects."

Outcomes:
Stakeholders Commit to Reforming Non-BRT Bus System

Jakarta's Rapid Transit (BRT) system accounts for only 7 percent of the trips people make in the city using public transport. The remaining trips are made using 14,000 *angkot* (minivans) and 2,200 minibuses owned by individuals, loosely organised into cooperatives, and 1,600 larger buses owned by companies. Non-BRT safety and service standards are very poor. To address this, one of IndII's activities is helping the Jakarta Transport Agency (DisHub) to prepare for a restructuring of the non-BRT bus system using performance-based contracts (administered by PT Transportasi Jakarta (TransJakarta) to achieve better regulated, safer, more efficient, scheduled services. The reforms are being implemented as a pilot project on Route S66. At a signing ceremony on 18 September 2015, a Memorandum of Understanding (MoU) was signed by the Head of Dishub, the CEO of TransJakarta, and the Head of Kopaja (the Jakarta Transport Cooperative). The MoU lays out the scope of work, scheme, period, conditionalities, expected outputs, and roles and responsibilities. The Head of Dishub also requested that IndII continue to support its revitalisation program, not only on the pilot route but throughout the entire non-BRT bus public transport system. Dishub has recently started discussions to implement the proposed revitalisation measures to medium bus operators and has again requested the IndII team's continued involvement and support.

In our Next Issue:
New Research in Water and Sanitation

Over the past two years, the Australia-Indonesia Infrastructure Research Awards program (AIIRA) has awarded grants to partnerships between Indonesian and international institutions who conducted research, approved by Government of Indonesia (GoI) agencies and related to IndII's mission, that offers sustainable outcomes and benefits for GoI. Grantees completed a number of outstanding research projects, particularly in the water and sanitation sector. Topics addressed included developing measures of Social Return on Investment for watsan projects, strengthening legal frameworks for community water supply, improving Local Government water supply through social "contracts", and strengthening governance arrangements for small city and town sanitation. The January 2016 edition of ***Prakarsa*** will feature highlights from the most innovative and high-impact research efforts in the water and sanitation sector that were completed under the auspices of AIIRA.