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Report on the Asia-Pacific Urban Infrastructure Network (UIN)

ABAC Australia

PURPOSE	For information.
ISSUE	Reporting preliminary findings of the work of the Asia Pacific Urban Infrastructure Network (UIN)
BACKGROUND	<p>In 2014, ABAC recommended the formation of the Asia Pacific Urban Infrastructure Network (UIN) to develop a holistic policy framework and action plans for sustainable urban infrastructure development. The work of the UIN has been categorized into three workstreams on: i) Policy and planning, ii) Program and project development and iii) Infrastructure financing.</p> <p>The report invites ABAC to:</p> <ul style="list-style-type: none">● welcome the preliminary findings of the Asia Pacific Urban Infrastructure Network (UIN) and its progress towards developing a holistic policy framework for urban infrastructure development; and● support the reporting of the preliminary findings by the UIN Secretariat to the upcoming Friends of the Chair meeting on urbanisation at SOM III, as well as the meeting of APEC Ministers and Leaders.
PROPOSAL	N.A.
DECISION POINT	Note and welcome the report.

UIN Policy Framework Report Executive Summary

Background

In its report to APEC Leaders in September 2014, the APEC Business Advisory Council (ABAC) recommended the formation of the Asia Pacific Urban Infrastructure Network (UIN) to develop a holistic policy framework and action plans for sustainable urban infrastructure development. The UIN concept emanated from a biennial Forum on urban infrastructure development organised in September 2014 and sponsored by the Australian Government. The work of the UIN has been categorized into three workstreams on: i) Policy and planning, ii) Program and project development and iii) Infrastructure financing.

Context

Achieving economic growth and development in the Asia Pacific will undoubtedly depend on the ability of the region's cities, which account for 80 per cent of national economic activity in some cases, to develop on a sustainable basis. Current institutional structures are failing to leverage the resources and innovation potential of both the private sector and the community to promote sustainable urban development.

The key outcomes for sustainable urban infrastructure investment and development have been identified as delivering: Integrated transportation and land use development for lower-energy use; Building energy efficiencies, especially through better use of natural capital Promoting infrastructure efficiency, and building a green economy. The focus of each workstream to promote those outcomes are summarised below.

Workstream 1: Policy and Planning for sustainable urban development has focused on assessing the operations of national infrastructure delivery systems. Policy and planning issues affect the cost of 'doing business' and the financial sustainability of businesses in the long run. As such, the contribution of the private sector and the community at large in each of these areas is both important and symbiotic.

A best practice planning and policy framework must include a 'nested' set of implementation strategies between different levels of government, and cross-sectoral reach with guidance on implementation of other strategies. In addition to exhibiting these characteristics, best practice frameworks for planning should also be cross-jurisdictional in reach, nominate appropriate institutions and budgets for implementation and be flexible and responsive to changing circumstances to make them enforceable.

Governments must have a comprehensive national infrastructure strategy that can be relied upon to influence the planning of investments promoting sustainability, as well as its inter-relationship with state/provincial, and in some cases, city strategies. This recommendation also follows through to the sub-national level.

Workstream 2: Preparation of urban infrastructure projects, found there are two main levels of project development. They are: small scale investments to extend or expand existing infrastructure networks in the context of an established urban area and plan; and, large scale

investments that will have a determining impact on the functioning of the infrastructure network and on the form of the urban area.

The contribution of the private sector and the community should be intrinsic to the methodology adopted. The potential for the private sector to contribute cutting-edge approaches, and to develop more efficient systems must be tapped. These processes should also investigate the knowledge base, and elicit the support, of the community in order to achieve a socially sustainable outcome.

Workstream 3: Financing for sustainable urban development, focused on impediments to funding and financing of urban infrastructure delivery. Capital expenditure financing for urban infrastructure is generally derived from three broad sources¹ - transfers from national, state/provincial and local taxes; user charges, and private funding sources (including institutional investors and sovereign wealth funds). The framework for financing urban infrastructure needs to define structures in which these sources of finance are combined most efficiently at the national, state/provincial and local levels.

Given the sizeable funding gap that exists between government capital expenditure and required investments in sustainable development, global private savings must be channeled into green infrastructure investment with a focus upon leveraging such investments.

Conclusion: The UIN counsels that ABAC, on behalf of the private sector, recommend to APEC leaders that concrete national action be taken by member economies to improve the enabling framework and to build institutions in the specific areas set out above in order to improve implementation of sustainable development policies.

APEC should foster partnerships between national governments and cities – both within and among member economies – for this purpose. The private sector, through national chambers of commerce, must be integral to these partnerships.

¹ Which all ultimately derive from the enterprises comprising the urban economy generations

UIN Policy Framework Report

Overview

The APEC Business Advisory Council (ABAC) recommended the formation of the Asia Pacific Urban Infrastructure Network (UIN) in its report to APEC Leaders in September 2014. The UIN concept emanated from a biennial Forum on urban infrastructure development organised in September and sponsored by the Australian Government.

Urbanisation and infrastructure experts who attended the forum proposed developing a holistic policy framework for policymakers at national and sub-national levels of government to meet the challenges of urban infrastructure planning, development and financing. Following the first biennial forum, the UIN was established by grouping experts from across the region into three workstreams focusing on the following areas:

- i) Policy and Planning for sustainable urban development
- ii) Project development, procurement and management
- iii) Financing for Sustainable urban development

The workstreams were tasked with developing a reliable policy framework with practical applications to national, state, provincial and municipal level of governments in APEC economies, as well as more broadly across the Asia Pacific region.

The preliminary findings and recommendations of the three workstreams, which are reported below, will be discussed at an upcoming policy dialogue to be held in Melbourne in August 2015.

These recommendations build on discussions that were held at the first biennial forum. The report of the forum noted that urban infrastructure development should not only focus on addressing economic, financial and environmental challenges posed by rapid urbanisation, but should also take into account the societal and cultural facets of urban infrastructure design, form and use. The following critical factors were identified in the report:

- Contemporary challenges of urbanisation and city growth should have a central place in national policymaking since 80 per cent of national GDP is produced in urban areas.
- Cities are challenged by rapid, unregulated growth often resulting in inefficient spatial layout, which exacerbate the barriers between population groups, labour mobility and access to basic services.
- New systems of urban planning and development are emerging, based on specialisation and competitiveness in economic activity.
- Sustainability and resiliency of cities are important issues to consider in urban design and development due to the rising impact of natural disasters and climate change-related risks.
- Governments need to have a holistic policy framework for urban infrastructure development and delivery.
- Successful planning and delivery requires whole-of-government processes that are integrated, inclusive and appropriately governed.

- Project analysis, development and implementation should be derived from rigorous and inclusive planning methodology.
- The capacity of governments to deliver publicly-funded infrastructure is declining, and different models to channel private savings into infrastructure are needed.

Preliminary findings of the UIN workstreams

In preparing this summary it is relevant to briefly describe the procedures followed by the three workstreams. All three have involved consultation between specialists in the three areas of focus, which was coordinated through a secretariat at the Australian APEC Study Centre at RMIT University.

The workstreams agreed to the development of diagrams to show the relationships between national, state and provincial, and municipal levels of governments in selected APEC and non-APEC economies. Data on governmental organisational structures and the institutional relationships both for control, and less formal influence and coordination, were gathered from public.

In each economy, a city was selected – not necessarily the capital – to illustrate municipal level institutions, and the state or province where that city is located is used to illustrate the middle level of government. Where possible, the funding of illustrative key urban infrastructure assets was also illustrated, together with the respective funding entities such as commercial banks, national and international development agencies, national ministries (e.g. ministries of finance), or, in the case of the US, the tax-exempt municipal bond market.

The diagrams do not purport to present an exact description of each jurisdiction and they do not present a comprehensive overview of financing arrangements. They do, however, provide useful insights for a baseline analysis on interagency relationships and provide some examples of financing arrangements that have been used to deliver urban infrastructure.

Overall, APEC economies' institutional structures for urban infrastructure range from the simple single-level arrangements of Hong Kong, Singapore and Brunei to highly-evolved multi-level systems such as in the US (San Francisco/California) and Australia (Sydney/New South Wales).

One key area of differentiation which is immediately apparent is whether an economy is dependent upon national budget funding for local projects or if it has access to commercial markets offering a variety of project financing modalities. On one hand, there is the example of Brunei, a highly centralised economy where national-level public funding is integral to local infrastructure delivery. On the other hand, San Francisco represents an example of a decentralised LGU with access to a diverse mix of federal, state and local budgetary funding sources, as well as financing from the national municipal (tax-exempt) bond market.

There are also economies between those two ends of the spectrum which have access to predominantly top-down public budgetary funding, supplemented by foreign commercial bank lenders and foreign development finance institution (DFI) financing (e.g. Vietnam and Thailand). Canada, New Zealand, Mexico and China are examples of economies with predominantly commercial bank funding but no project bond market.

Because access to commercial finance is largely a function of an economy's credit rating, the diagrams include the respective economy's sovereign ratings (in the case of San Francisco, each illustrative bond issue is labelled with its particular credit rating).

In addition to analysing the diagrams, the workstreams drew on the specialist knowledge of its members, as well as numerous reports of international and regional organisations, including multilateral development banks, official and commercial sources and the work of think-tanks and academic specialists.

Workstream 1: Policy and Planning for sustainable urban development

1.1 Framework

The workstream assessed the operations of national infrastructure delivery systems. From a policy perspective, it concluded that it is important for governments to have a comprehensive national infrastructure strategy which can be relied upon to influence the planning of investments, as well as its inter-relationship with state and provincial strategies (and in some cases city strategies), if any. At the sub-national level, the same criteria also apply.

When assessing the capacity of governments to implement its national policy and the strategies it may use in implementation, a number of key features are important. They are:

- The strategy *form*, which relates to whether a strategy assigns agency responsibilities with budget allocations, or if the national strategy is merely a set of a guidelines for planning agencies;
- A *nested* strategy, that highlights how well a national strategy complements strategies of other levels of government, and the degree collaboration between agencies in preparing strategies;
- The *cross-sectoral* reach, signifying the comprehensiveness of the national strategy in terms of whether it focuses on just one sector, such as roads, or encompasses all types of infrastructure; and
- *Guidance* on implementation of other strategies, which addresses questions over whether the national strategy has linkages with other specific strategies a government may have on climate change, low carbon development or PPP policies for infrastructure delivery.

The workstream also assessed the capacity of governments to implement an infrastructure plan. It found that the key features for implementing infrastructure plans are similar to what is important in strategies to implement infrastructure policies, in so far as they relate to a plan's *form*, *cross-sectional* and *nesting* features. However, it is also important for an infrastructure plan to have additional features, such as:

- A *cross-jurisdictional* approach, whereby a plan ensures inter-linkages and coordinated provision of infrastructure across administrative jurisdictions
- The appropriate *institutional setup*, to ensure that implementation of coordinated, cross-jurisdictional, and cross-sectoral plans are appropriately mandated and resourced
- *Flexibility*, which enables a plan to be amended and updated in response to changing circumstances; and
- *Enforcement* capacity, which focuses on how well plans can be enforced, and whether effective mechanisms are in place to reconcile any conflicts in planning across communities, agencies, levels of government and different jurisdictions.

Using this framework a review of current practices was carried out by the various resources in the workstream.

1.2 Review of Practice

General

- A key general observation is that infrastructure policy systems are not comprehensive. Where national infrastructure strategies do exist, they consist of general principles and are divorced from specific action in respect to implementing agencies and from funding.
- National strategies are also not nested and coordinated with state and provincial strategies, with the latter often involving notable gaps and having a focus on a few 'trophy projects', which should not be the focus at a strategy level.
 - National strategies were found to rarely have any significant impact on metropolitan urban infrastructure outcomes.
- Furthermore, infrastructure planning systems are found to be 'siloed', whereby various sector agencies develop their own plans largely independent of other sectoral agencies. This applies to agencies at national, state and provincial levels.

Implementation

- National planning and infrastructure ministries were found to be 'aggregators' of projects of national sectoral ministries, or worse, of state and provincial sectoral agencies (Australia). State and provincial infrastructure agencies also often exhibit the same tendency.
- No country was found to have a coherent set of 'nested' national, regional and city infrastructure plans.
 - It should be noted that the intermediate planning level is 'regional' reflecting the boundaries of urban economies and their hinterlands and the national urban hierarchy, not state and provincial jurisdictions.
 - Such jurisdictions are often arbitrary administrative constructs and planning can reflect the need for short-term 'trophy' announcements leading to unnecessary duplication of investments (Vietnam).
- The tendency to focus on 'trophy' announcements is even stronger at the city and local government level, compounded by the fact that many local government units (LGUs) are too small to cover an area sufficient for effective planning of infrastructure and their size allows ready capture by vested interests (Philippines, Australia/NSW).
- National agencies, which are normally not infrastructure agencies and do not report to them, do set guidelines applying to particular infrastructure issues.
 - For example, in relation to PPP projects (in many countries), Low Carbon Cities (China), service standards (Vietnam), national agencies have rarely set standards for coordination of infrastructure planning processes (such as in relation to economic development needs), or coordinated the formulation of their guidelines to integrate into such processes.
- Project preparation processes often require compliance with planning instruments, but in reality the planning process is changed to reflect the project proposal.
- Planning itself is often a purely physical design exercise driven by notional standards, delineating land use extrapolated from current trends – whether or not this makes

economic or environmental sense (China) – and including infrastructure provision which is not grounded either in a solid institutional or financial basis for implementation.

- Enforcement of plans is ineffective (except OECD countries and China). Although the lack of enforcement of inappropriate plans is in essence an advantage, the practice undermines governance.

Metropolitan Issues

- Metropolitan Planning systems are not comprehensive.
 - In the geospatial sense, that they do not cover the area economic hinterland or the component jurisdictions.
 - Sectorally, they do not cover the gamut of infrastructure needed for guiding the development of an urban area in a sustainable direction – transport, water and waste water in particular.
 - Conflict resolution arrangements are often not formalised with the exception, at least in principle, of Australia/ NSW where a Land and Environment Court determines outcomes.

Workstream 2: Preparation of urban infrastructure projects

2.1. Framework

Definition and Assumptions

The term 'project preparation' is used herein to describe the process by which individual urban infrastructure projects are taken from the planning phase through to funding and implementation. This usually is through a series of increasingly detailed studies (e.g. prefeasibility and feasibility studies) which together comprise the extensive documentation and detailed design of a project, through to detailed engineering, architectural and financial designs according to which infrastructure assets are procured and constructed.

The interplay between physical, financial and legal planning (by which is meant the design of contractual relationships among the various parties involved in any major project) is critical, especially in the case of assets to be procured through public-private partnership (PPP) modalities.

Framework

There are two levels of approach used in project development and a distinction needs to be made between them. They are:

- a) small scale investments to extend or expand existing infrastructure networks in the context of an established urban area and plan; and
- b) large scale investments which will have a determining impact on the functioning of the infrastructure network and on the form of the urban area.

The terms 'small scale', 'large scale' and 'determining' are of course relative. 'Small scale' in China is decidedly 'large scale' in the Pacific. This said the approaches to the two types of investments differ and the framework for assessment needs to incorporate both.

Also intrinsic to the project development process for the second type of investment are overarching principles of development which need to be addressed in the framework. These are:

- a) Is the project needed at all? For example, will demand management measures suffice? – intrinsic to such fundamental questions is the need to define the objectives of the project in terms of performance and not in terms of a predetermined technology; and
- b) Is the project structured to maximise the efficiency of use, and leverage, of public funds without compromising long term performance?

In this context, the key framework issues are:

For small scale extensions:

- Is there a *physical plan* into which the project fits?
- Is there an *asset management plan* identifying the investment and a budget for it?

- Has the project been subjected to *cost benefit analysis*?

For ‘determining’ projects:

- Was the *concept development* of the project concept done in the context of a comprehensive assessment of the contribution of the project to the economic functioning of the city?
- Were *performance criteria* for the project developed so investment options could be assessed in a ‘technology agnostic’ manner?
- Was a *prefeasibility study* done to assess investment options and potential implementation and financing structures – the latter including scope for PPP?
- Did the *feasibility study and due diligence* process preserve the potential for options for innovative project solutions from contractors and financiers, including planning for possible future changes in ownership and financing structures post-construction??
- Was a *market sounding and bid preparation* process conducted responsive to market conditions – to establish for the procuring party a reasonable understanding of current market conditions, preferences of potential bidders, and other competing projects in the market?
- Was the *bid process* efficient and effective – ensuring competition but providing incentives for physical and financial innovation?
- Were fair and transparent arrangements made for any required sharing among or recovery from, bidders of preparation costs (e.g. costs of a PPP agency’s work)?
- Was the *bid assessment* based on defined criteria based on the performance measures set out above, include cost benefit analysis, and transparent?

2.2. Review of Practice

Analysis shows that projects can be prepared in four broad ways:

- By the host LGU within its own planning agencies to a standard acceptable to either itself as funder or a provincial or national public funder;
- By the host LGU with the support of a provincial or national project preparation facility (PPF) or project preparation entity (PPE). This practice prevalent in economies where a national or provincial PPP unit has been established to provide the technical support needed to structure project procurement to appeal to private participants;
- By a national body, with input from the host LGU; and
- By a bilateral agency or multilateral development bank, as in the case of project preparation technical assistance (PPTA) by the Asian Development Bank or the World Bank.

A comparison of the APEC economies’ approaches to project preparation yields examples of each of the four types above, with a key differentiator being the presence or absence of a national entity with responsibility for the structuring and oversight of PPP projects.

- The Philippines and Korea are good examples of the first case, with national entities (The Philippines PPP Centre in the National Economic Development Administration, and the Public and Private Infrastructure Management Centre PIMAC, respectively).
- In economies with no such entity, the PPP approach to project preparation is either largely non-existent (e.g. Vietnam, Brunei) or engrained into local planning (e.g. Australia, Canada), obviating the need for a national Centre.

A few countries in the survey have been recipient of large amounts of donor support in the development of their PPP Centres, such as India and the Philippines.

- The Indian Infrastructure Project Development Facility (IIPDF) is housed in the Ministry of Finance. India also has numerous state-level PPP “cells”.

In both countries PPP as a procurement modality for urban infrastructure is common and receives much support, as specialised legal and financial project teams are put together to prepare projects for bidding, paid for with the resources of the facility.

- In the case of India, the facility is an Indian-government-funded revolving fund from which LGUs can borrow to cover up to 75 per cent of project preparation costs. However, its management, projects screening and initial preparatory work is assisted by a consulting team procured by ADB through a technical assistance program.
- The Philippines PPP Centre is donor grant-funded (by Australia and Canada) and receives technical assistance from the ADB to support a Project Development and Management Facility (PDMF).
- The costs of project preparation are added to overall project costs, and repaid to the PDMF upon financial close, when projects are successfully bid out to private bidders.

Areas for Further Investigation

Areas for possible further research and analysis are:

- The relative utility of national vs. regional PDEs and PDFs;
- Optimal design of PPFs and PPEs within the context of a given economy’s existing institutional system;
- Impact of national PPP Centres on the overall implementation rate and success rate of urban infrastructure projects;
- Best practices in the mainstreaming of PPP project preparation approaches into existing LGU planning agencies;
- Methods for recovering or equitable sharing of project preparation costs in the case where projects are prepared for private bidding by either an LGU or by a single private proponent; and
- Approaches for cross-fertilising good practices and high standards in project preparation among APEC economies.

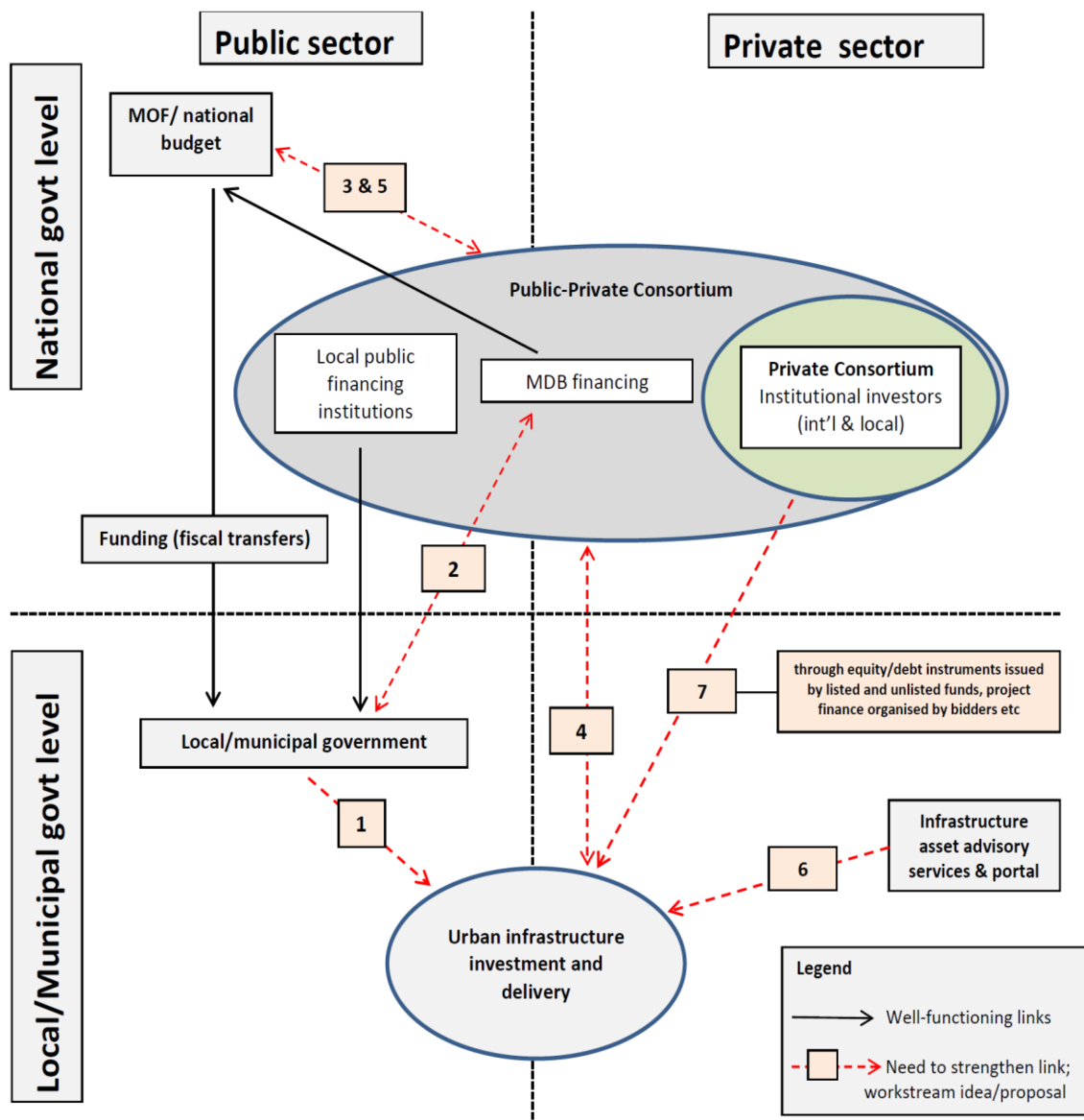
Workstream 3: Financing for sustainable urban development

3.1 Framework

Overview

The workstream analysed current trends in urban infrastructure financing, focusing on the main sources and types of financing available and the policy and regulatory impediments that are affecting the opportunity to finance more urban infrastructure delivery. The needs highlighted by this workstream are reported below, with Figure 1 providing an illustration of the main forms of financing relationships that exist and the needs to strengthen those financing relationships.

Figure 1: Illustration of developing economy financing relationships and needs



Framework

Capital expenditure financing for urban infrastructure derives from three broad sources² - transfers from national, state/ provincial and local taxes, user charges and from private funding sources (including institutions and sovereign wealth funds). The framework for financing urban infrastructure needs to define structures in which these sources of finance are combined most efficiently. These structures can best be described at the national, state/ provincial and local levels.

National level structures fall into two categories.

- National enabling frameworks, which especially relate to:
 - a) *intergovernmental fiscal transfers* which correspond to infrastructure funding needs of each level of government;
 - b) encouraging state/ provincial and local governments to fully utilize their *revenue base* (i.e. collect all taxes due) and to leverage this base by tapping community and private sector resources;
 - c) encouraging the flow of *long term finance* to infrastructure – specifically from pension, insurance and sovereign wealth funds by removing constraints to their activity, through the development of project bond markets and loan pooling mechanisms for weaker local governments, by encouraging debt and equity funds focused on infrastructure investment, and by removing constraints to international capital flows (private and MDB) for urban infrastructure investment.

National financing structures that:

- a) Enable the establishment of *national challenge funds and funding instruments* designed to leverage effective government investment at state/ provincial and city levels, and private investments through the use of grants, loans, equity participation and guarantees;
 - b) Are appropriately '*nested*' with structures below.
- State/ provincial level structures also fall into two similar categories. Enabling frameworks relating to:
 - a) Local government *fiscal transfers* which correspond to infrastructure funding needs and mandates;
 - b) Encouraging local governments to fully utilize their *revenue base* (ie collect all taxes due) and to leverage this base by tapping community and private sector resources;
 - State/ provincial financing structures that:
 - a) Enable the establishment of *challenge funds and funding instruments* designed to leverage effective government investment at state/ provincial and city levels, and private investments through the use of grants, loans, equity participation and guarantees;
 - b) Are appropriately '*nested*' with structures above and below.

² Which all ultimately derive from the citizenry across generations

Local level structures also fall into same two categories.

- Enabling frameworks relating to:
 - a. *Institutional arrangements* at metropolitan level for implementation – metropolitan and sector structures to share revenue and expenses across jurisdictions corresponding to infrastructure funding needs and mandates;
 - b. *Land acquisition and resettlement* cost determination and disbursement;
 - c. Utilize the *revenue base* fully especially in terms of land value capture and leveraging this base by tapping community and private sector resources;
- Financing structures that:
 - a. Enable the establishment of *city funds and funding instruments* designed to leverage government with private investments through the use of grants, loans, equity participation and guarantees, and through contribution/ lease of local government assets;
 - b. Are appropriately '*nested*' with structures above.

3.2 Results from Practice

The key issues relating to the framework are set out below.

Issue 1: Understanding local funding constraints

Economies in the region have varying capacities and mechanisms in place to fund urban infrastructure. Advanced economies undoubtedly have a greater capacity to fund urban infrastructure projects due to well-established local government councils or metropolitan authorities capable of levying charges and fees and raising local tax revenue. Developing economies face greater challenges to fund urban infrastructure due to their weaker economic base, as well as administrative capacity and skills shortages and limited policy options to collect revenues and generate user charges.

Need

- Local governments need to develop tools to capture economic value stemming from urban land development and infrastructure projects.
 - LGUs are often at the forefront of community engagement on infrastructure development plans. Concrete steps to capture economic value from urban infrastructure projects can play a critical role in offsetting the need for high user charges or other forms of revenue collection.

Issue 2: Financing and coordination with MDBs needs to be streamlined

Multilateral development banks (MDBs) have historically played only a limited role in directly financing local governments and municipal authorities. As a result, MDBs have had limited interaction with sub-national levels of government.

The excessive reliance of MDBs on channeling finance through national governments to deliver urban infrastructure has meant that urban infrastructure investment has been affected by bureaucratic inertia and lack of intergovernmental coordination between national and sub-national governments.

Need

- There is a pressing need for streamlining the financing relationship and coordination processes between national, sub-national governments and MDBs over questions related to the funding and financing mix, financial structures and instruments to be used for urban infrastructure projects.
 - Greater interaction between MDBs and sub-national levels of governments will also help MDBs to better understand project transaction capacity and skills constraints within different tiers of government, which they can seek to address through technical assistance programs.
 - Over the long term this is an important developmental need for more effective urban infrastructure delivery.

Issue 3: A national policy framework for sovereign guarantees

In most cases, national governments provide sovereign guarantees for infrastructure projects on a discretionary case-by-case basis, subject to opaque negotiations between government officials and investors. This can lead to market uncertainty over whether a specific project proposal or financing structure will attract a sovereign guarantee.

Need

- A national policy framework for sovereign guarantees and the creation of an independent body to administer policies would provide clear signals to investors on a government's criteria for mitigating and bearing sovereign risks for infrastructure projects.
- It would help address legacy issues around MDBs developing exclusive financing relationships with national governments in order to obtain sovereign guarantees and enable MDBs to provide more direct financing and technical assistance to sub-national governments.

Issue 4: Credit ratings and informatics on infrastructure assets has to be improved

A fundamental rethink of the way in which investors and governments view and use credit ratings of infrastructure projects is needed. Financial market practice of using sovereign bond yields as a proxy for sovereign risk may not be very relevant for assessing the riskiness of an infrastructure investment proposal.

Need

- Governments should play a significant role in addressing information asymmetries that can affect how financing instruments for infrastructure projects are rated.

- A municipal authority that collects and publishes data on the operations of a metro network relative to the entire urban transport network can better facilitate its next municipal bond issue to finance a future transport project.
- Second, rating agencies' credit assessments of an urban infrastructure project should take more account of the idiosyncratic risks.
 - Urban infrastructure projects are intrinsically linked to broader infrastructure networks. Assessing the riskiness of a project proposal relative to the broader infrastructure network is more important than making trivial assumptions of sovereign risks based on sovereign bond yields.

Issue 5: Thinking of cross-border investment in infrastructure as FDI

Governments view often review FDI proposals based on national interest and/or commercial viability tests. Government investment promotion agencies also play a critical role in attracting and facilitating investment and managing stakeholder relations.

The policy regime and discourse on infrastructure investment tends to focus heavily on issues related to portfolio investment and fund flows. Yet from a public policy perspective, it is difficult to argue what the difference is between an investor building a factory to operate for 20 or 30 years and building infrastructure to operate for the same period of time.

Need

- Governments should consider aligning policies to attract infrastructure investment, particularly for Public Private Partnership (PPP) projects, with its broader suite of national policies and incentives to attract foreign direct investment.

Issue 6: Pooling urban infrastructure assets

Challenge

Aggregating small urban infrastructure assets into asset-backed investment vehicles that will be attractive to specialised institutional investors such as small private pension funds or sector-specific investment funds requires innovative approaches to marketing and promoting urban infrastructure investment.

This approach recognises that not all infrastructure projects need be of a scale that attracts only the largest investor groups, but that benefits can arise to communities and investors alike from smaller parcels of infrastructure financing.

Need

- Development of models to aggregate small projects from a metropolitan region, to rate them and to provide confidence to investors about the intrinsic quality and capacity of municipal agencies to collect fees and charges to repay loans, or to make minimum equity investments.
 - Fiscal incentives to attract investors are common in facilitating major infrastructure investments and would be needed for such smaller aggregated investments.

Issue 7: Attracting institutional investment in infrastructure

Work by the OECD shows that there are fundamental differences between asset managers (infrastructure funds) and owners (pension funds). The former often have shorter investment time horizons compared to pension funds, with most infrastructure funds being closed-end funds with a time horizon of 10-15 years and an investment period of 4-5 years.

On the other hand pension funds generally have a time horizon of 15 years or more, with a preference for open-ended funds that allow greater opportunity to match duration of assets with longer-term pension liabilities.

Need

- Greater collaboration between different types of institutional investors is needed to develop more innovative co-investment models and mechanisms for infrastructure investment.

Next Steps

It is recognised that further work will need to be undertaken by the workstreams to support the continuing development of the ideas and proposals in this report. It is also intended that a second biennial Forum of the UIN will be convened in the early 2016 to discuss a holistic policy framework and plans that individual governments might wish to consider in implementing a best practice framework.

The second biennial Forum will also be an occasion to discuss funding opportunities for the continuing the work of the UIN, which could become a major advisory group to assist governments in improving urban infrastructure development, planning and financing.