Sri Lanka
State of the Economy Report 2016

Chapter 10
Financing Urbanization

by
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10. Financing Urbanization

10.1 Introduction

Fostering efficient and competitive cities is integral for sustainable development. Resonating this sentiment, the Sri Lankan government plans to develop the entire Western region into a Megapolis under the Western Region Megapolis Project (WRMP). A megapolis is a synonym for a 'great city' in Greek, typically defined as a chain of roughly adjacent metropolitan areas. A megapolis normally has characteristics such as a large population of about 10 million, a high population density, efficient markets, enhanced trade, and fluid transportation to name a few.

The WRMP aims to create a megapolis spanning Colombo, Kalutara and Gampaha by 2030. As noted in literature, such forward thinking projects need massive amounts of funds to provide infrastructure and services that are not fully in demand now, but will become so as urbanization picks up speed.[1] This futuristic vision, coupled with the not yet materialized demand, makes financing the WRMP at an estimated cost of US$ 40 billion a challenge for the exchequer. Generally, there are two different ways governments fund urbanization projects - i.e., use their own revenue or use external financing. Methods of own-revenue financing include user charges and local taxes.[2] A successful user charge project is the Hong Kong

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[1] Mohan, R. (2009), "Global Financial Crisis: Causes, Impact, Policy Responses and Lessons", 7th Annual India Business Forum Conference, London Business School, London, April 23; IBRD (2013), *Planning, Connecting, and Financing Cities: Now Priorities for City Leaders*, International Bank for Reconstruction and Development/The World Bank, Washington, D.C.

[2] Bahl, R.W. and J. Linn (2014), "Governing and Financing Cities in the Developing World Policy", Lincoln Institute of Land Policy, Massachusetts.

Metro which is able to support its own capital and operating costs.[3] Methods of external financing include borrowing from abroad (loans and grants), and PPPs where a private company manages, builds or runs a part of a development project.[4]

Against this backdrop, this chapter aims to examine the fiscal capacity in Sri Lanka and the alternative financing mechanisms for the planned WRMP and recommend best practices from international experiences. The remaining sections of the chapter include the international context of mega cities; the policy context in Sri Lanka; an overview of the WRMP; its budget and cost estimates, and financial situation; possible mechanisms to finance the project and recommendations for its sustainability and overall success.

10.2 The Debate on Mega Cities

With growing populations and greater demand for urban lifestyles, the existence of huge megapolises is becoming prominent around the world. In 1990, the UN estimated that there were 10 megapolises; by 2014, this number had grown to 28.[5] The world's largest megapolis is Tokyo with 38 million inhabitants, followed by New Delhi with 25 million, and Shanghai with 23 million. Other megapolises include Mexico City, Mumbai, São Paulo, Osaka, and New York. Currently, it is estimated that by 2030 there will be 41 megapolises. The rising numbers of megapolises is reflected in the international discourse on the subject, mainly due to their beneficial development opportunities. In many instances, the megapolis is a driver of economic growth for the entire country with a GDP higher than for the rest of the economy. For example, in 2008, it was determined that Mumbai produced 16 per cent of India's overall GDP while only having 1.7 per cent of India's population.[6] There is similar data for other megapolises including Sao Palo and Mexico City where their impact on the country's overall GDP is more than twice their population size.[7] Additionally, well managed megapolises provide economic development opportunities, environment efficiency and cost efficient access to basic services including health care, electricity, and education for a large population; in turn, this can lead to improved quality of life for a critical mass of a population.

Nonetheless, megapolises are also viewed sceptically due to their negative impact on the environment and population.[8] For instance, the WHO determines that residents of Cairo inhale the equivalent of a pack of cigarettes a day due to air pollution.[9] Due to such adverse environmental effects, megapolises are often labelled as 'global risk areas'. In addition, the large population can lead to a burden on transportation networks resulting in vehicular

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3 UN HABITAT (2015), "Municipal Finance" HABITAT III Issue Papers 7, United Nations, New York.

4 Bahl, R.W. and J. Linn (2014), "Governing and Financing Cities in the Developing World Policy", Lincoln Institute of Land Policy, Massachusetts.

5 UN (2014), "World's Population Increasingly Urban with More than Half Living in Urban Areas", available at http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html.

6 Kalan, J. (2014), "Think Again: Megacities", *Foreign Policy,* Issue 206, May/June 2014.

7 Satterthwaite, D. (2008), "Urbanization and Sustainable Development", available at http://www.un.org/en/development/desa/ population/pdf/ commission/2008/keynote/satterthwaite-presentation.pdf6.

8 Guriar, B. *et al*. (2010), "Human Health Risks in Megacities Due to Air Pollution", *Atmospheric Environment*, 44(36).

9 Kalan, J. (2014), "Think Again: Megacities", *Foreign Policy,* Issue 206, May/June 2014.

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traffic congestions causing lower productivity amongst the population, while the existence of urban slums in megacities can lower the quality of life of its residents and raise issues of urban housing and urban crime.[10] Against the backdrop of such mixed potential, megapolises are also considered as development initiative that should be avoided if possible.

10.3 Urban Development in Sri Lanka: Policy Background

A Western Region and Megapolis Plan (Megapolis Plan) was initially mooted in 1991 by the then Minister of Industries, Science and Technology - the current Prime Minister - and revived in 2001-02; an updated version of the concept was included in the election manifesto of the UNP in the run up to Parliamentary elections in 2015. The WRMP became a fully-fledged project proposal under a newly established Ministry of Megapolis and Western Development, aimed to create a megapolis spanning three districts, which would transform the entire Western Province by improving/ developing essential infrastructure, creating a more liveable cosmopolitan modern city with an all 'inclusive development plan' that will position Colombo as the best city in the South Asian region.

Prior to the heightened momentum of the WRMP, the strategy for urban development in Sri Lanka was guided by the National Physical Planning Policy and Plan (NPPP). The NPPP identifies strategies and projects for implementation, and sets out a process for planning and implementing national, regional,

[10] *Ibid*.

Box 10.1
India's Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

In 2005, the government of India enacted one of its most ambitious urbanization projects - the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). The government dedicated INR 50,000 crore (INR 500 billion) for seven years in order to help 60 different cities become "economically productive, efficient, equitable and responsive", placing emphasis on infrastructure projects including water sanitation, sewage, roads, and urban transport systems, as well as providing basic services and amenities to the urban poor. After the 7 year deadline, India had completed 217 of the 539 projects and extended the plan for two more years until 2014 in order to complete the remaining projects. As of 2016, there has been no new information as to the completion of the additional projects. Some of the completed projects include the construction of roads, railways, as well as rehabilitating old pumping stations.

As this was India's first large-scale attempt at urban planning, it cannot be denied that it has made important forward progress. However, the main deficiencies that were identified were a lack of incorporation of different ways of funding and a lack of inclusion of the citizens affected in the urbanization plan.

Source: Government of India, "Jawaharlal Nehru National Urban Renewal Mission Overview", available at http://jnnurm.nic.in/wp-content/uploads/2011/01/PMSpeechOverviewE.pdf; Naik, M. (2012), "Lessons from JNNURM", Context, 9(1).

district and local level plans and projects. Based on the NPPP, the first five year plan focused on urban infrastructure development, urban environment and resource management, and urban governance, as priority areas for urban development.[11] In the subsequent second five year development strategy (2011-16),[12] the urban development policy focused on establishing an effectively linked, systematic network of settlements and cities in the country. To this effect, the policy aimed to develop four metro regions in the Western, Southern, Eastern and North Central Provinces, and several metro cities. Subsequent revisions to the development strategy also involved the development of large cities, strategic cities, secondary cities and urban service centres.[13] By contrast, the current urban development policy relies heavily on the WRMP as a single large scale urban development project.

10.4 Western Region Megapolis Project (WRMP)

The geographic area designated to be considered under the Megapolis Project consists of Gampaha, Colombo and Kalutara, and the Marine Zone which encompasses

[11] NPD (2006), "Mahinda Chintana: Vision for a New Sri Lanka - A Ten Year Horizon Development Framework 2006-2016", Department of National Planning, Colombo.

[12] NPD (2010), "Sri Lanka the Emerging Wonder of Asia: Mahinda Chintana, Vision for the Future", Department of National Planning, Colombo.

[13] NPD (2013), "Unstoppable Sri Lanka 2020: Mahinda Chintana, Vision for the Future", Public Investment Strategy 2014-16, Department of National Planning, Colombo.

marine waters and a landmass bounded by 200m depth contour along the continental shelf. Geographically, the region covers a flat area along the coastline and undulating areas towards the eastern and southern part. Paddy fields, marsh land, coconut and rubber plantations dominate the landscape of the region. Based on 2012 estimates, the Western region is home to a population of 5.8 million residents.

The WRMP aims to achieve twin objectives of spatial transformation of urban agglomerations in the Western region of the country and the structural transformation of the national economy as a whole. By achieving this dual transformation, the plan expects to address three broad national goals: (i) address issues created by congestion pressures exerted on urban physical infrastructure, urban services and amenities, and the environment from 'messy urbanization'; (ii) development and transformation of the physical and institutional infrastructure, and national economic structure to leverage economies of agglomeration; this is with the broad objective of creating an enabling environment to avoid a middle income trap and allow Sri Lanka to reach the status of a high income developed country; and (iii) harness the benefits of a knowledge-based, innovation-driven global economic environment characterized by a 'new industrial revolution' and emergence of 'smart cities'.

The overall development philosophy guiding the conceptualization, planning, and implementation of all specific objectives, strategies, projects and programmes pertaining to the WRMP is based on four fundamental pillars - i.e., economic growth and prosperity; social equity and harmony; environmental sustainability; and individual happiness.

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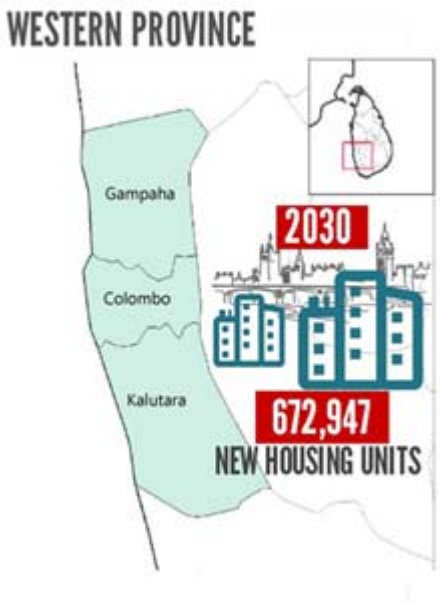
10.4.1 Mega Projects

The basis and framework for detailed planning which will guide the physical development under the WRMP consists of two plans - i.e., the planning area division plan and the structure plan. Planning area division is prepared based on the strength, weaknesses and a specific role of the area in the context of the region. The planning area division thus prepares the different parts of the region to be

planned according to its role and characteristics. The structure plan is a step further to assign broad land uses and density based on the existing land use, the role of different planning areas, and the employment and population distribution.

Due to the large scale of the WRMP and the need for efficient implementation, it is grouped into 10 project components called mega projects. Spanning the 10 mega projects, over 150 individual projects have been identified for which detailed proposals are still being developed. The 10 mega projects are:

- Transport, energy and water: aims to provide an efficient transport connectivity system with easy access to facilities whilst avoiding overcrowding at the Colombo core area; aims to ensure sufficient and reliable power supply to the region; aims to progressively augment the existing water supply system to meet future demand.



- Housing and relocation of administration: the WRMP estimates that by 2030, a total of 672,947 new housing units will be required to meet rising demand due to natural population increase and expected migration into the Western region as a result of planned economic and social development. This mega project aims to address this by developing three categories of housing - underserved, middle class and the luxury housing. At the same time, it also aims to optimize utilization of urban lands and the concentrated infrastructure network, to contain the rising demand for infrastructure within the present magnitude, and improve productivity by relocating government offices and releasing valuable land.

- Environment and waste management: the main scope is to address conservation of wetland, flood control, storm water drainage, reduce mosquito breeding, and improve waste disposal.

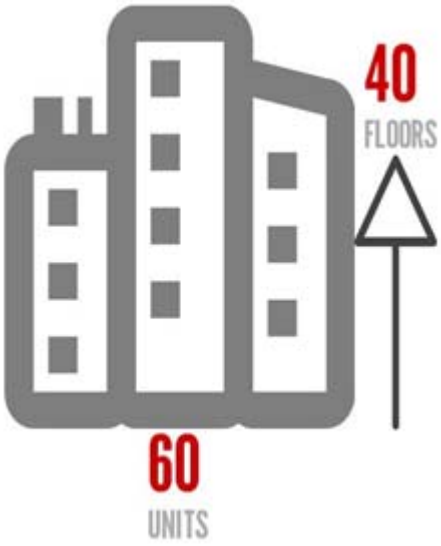
- The aero-maritime trade hub: is aimed to be developed as a unique maritime, aviation, logistics and trade hub of Asia. It will be geographically bi-centric with a maritime city centred on the sea port of Colombo and an aero city centred on the international airport at Katunayake; the two city-centres are to be connected by a proposed 'port-to-airport' highway to be built through the 'Modera bridge' across the Kelani river, extending to the airport expressway. Both the aero and maritime hubs are to be efficiently connected to a 'logistics village' to be set up as part of the plan.

- The 'high rise' central business district: aims to develop a dynamic, vibrant and glamorous central business district which as a hive for international trade, commercial and financial activity, with an attractive environment; the project aims

to develop about 60 new high rise buildings of at least 40 floors.

- Industrial and tourist cities: aims to develop Mirigama and Horana as industrial cities, while Negombo and Aluthgama will be developed as tourist cities. The industrial city at Mirigama is expected to specialize in food processing for export (mainly diverse varieties of Sri Lankan and regional culinary products), while the industrial city at Horana is aimed at promoting both import substitution and export development, and facilitate the concentration of SMEs scattered across the region.

- Science and technology city: aims to provide the necessary structural transformation of the national economy into a knowledge-based, innovation-driven economy with a major high-tech manufacturing and tradable services sector with strong export orientation. The science and technology city is designed to provide a comprehensive all-encompassing eco-system for innovation; it will provide infrastructure for the geographic concentration of all high-tech R&D centres, incubation centres, and high-tech industries with all requisite support services and facilities, including a dedicated technological university among other major technology centres.



- 'Eco habitat' and plantation city: this project covers two distinct and adjacent geographical areas, both abundant with flora and fauna as well as with plantations. The 'Eco Habitat' component will involve the Singharaja forest reserve, while the adjacent zone abounded by plantations will constitute the plantation city. Under this initiative, the Avissawella town will be developed as the commercial hub for value added plantation products, while Matugama will be home to a bio-tech research institute. To enrich tourist experience offered by the plantation city area, an 'eco park' of tropical flora will be developed at Matugama and, a new zoological garden will be developed at Avissawella.

- 'Smart nation'- the smart city development: to ensure efficiency and sustainability of the WRMP in the long-run, appropriate infrastructure is critical. The services and facilities identified to be provided through the smart city infrastructure development project include payments and transport management, government service management, and utility management to facilitate smart citizen services; to facilitate a smart government, facilities such as smart management of travel and public transport, smart enablement of public services, smart interfaces to government services, and smart energy and environmental initiatives are identified.

- 'Tranquility' - spiritual development facilitation: 'Individual happiness' is an important aspect of the WRMP; this mega project include rehabilitation and improvement of buddhist temples, and religious places belonging to all other

main religions within the megapolis; it aims also to establish centres of meditation belonging to each religion; establish 10 centres for the practice, training and education of techniques for holistic development of physical and mental health, such as 'yoga'; develop a comprehensive performing arts centre in Colombo with multiple galleries for different disciplines.

10.4.2 Institutional Framework and Cost Estimates

To carry out the proposed plans for the WRMP, a Ministry of Megapolis and Western Development (MMWD) was established in 2015. The ministry is in charge of macro level planning of the Western megapolis region based on bio-geo-physical and socio-economic aspects. Within the ministry, a specialized division named Western Region Megapolis Planning Project handles all activities related to the project. Additionally, a Western Region Megapolis Development Authority (WRMDA) is also to be established under the purview of the MMWD. As yet, however, the scope and function of the WRMDA is not clear, especially how it will differ from the existing Urban Development Authority (UDA). Nonetheless, the WRMDA is expected to steer the planning and development of the WRMP, with a more regional and integrated approach.

The legal framework for the WRMP - the proposed Megapolis Development Authority Bill - is expected to be formulated based on interactive consultation between the general public, professionals, public and private sectors.

Table 10.1
Budget Estimate for WRMP

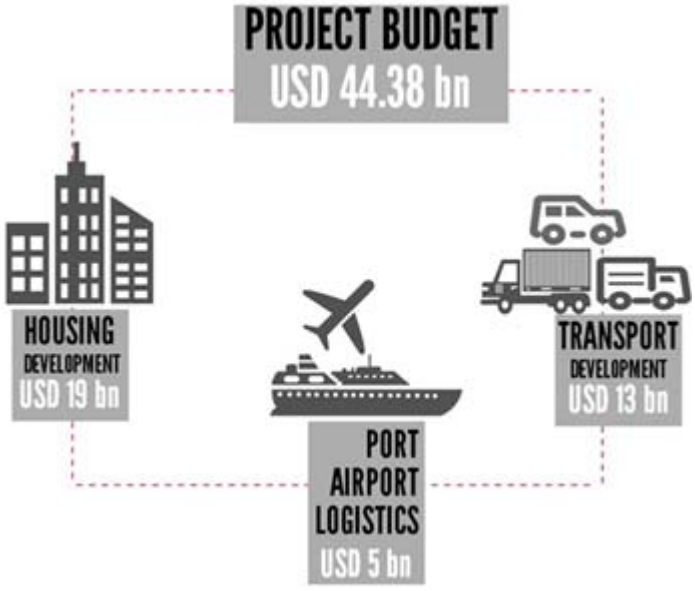
Proposed Projects	Estimated Investment (USD bn), approx.
Townships	0.450
Housing development	18.700
Transport development	12.870
Power and energy	2.000
Water supply	2.900
Solid waste and sewerage	1.200
Coastal and marine	0.031
Port, airport and logistics	5.400
Industrial establishment	0.047
IT technology and education	0.007
Natural environment improvement	0.150
Healthcare	0.200
Archeology and tourism	0.041
Others	0.380
Total	**44.380**

Source: MMWD (2016), "Western Region Megapolis Master Plan: From Island to Continent", Western Region Megapolis Planning Project, Ministry of Megapolis and Western Development.

The proposed project is budgeted to cost US$ 44.4 billion in total, with housing and transport development accounting for the largest chunks at US$ 19 and 13 billion, respectively (Table 10.1).

Despite the availability of detailed plans and information about the mega projects and individual projects, a noticeable limitation of the WRMP is the absence of sufficient focus on financing this massive development initiative. The official document which lays out the master plan consists of 115 pages and 16 chapters. However, the brief hint on financing this initiative is presented only on the last chapter as "project packaging will allow the projects to be offered to local and international investors through direct negotiation or through international tender".[14] Hence, the exact mechanisms of sourcing finances for the project are not adequately focused on as yet, and the project as a whole is deemed to lack "firm financing arrangements".[15]

Moreover, the plan also notes that "most of the catalyst projects identified are proposed based on the assumptions that there is demand and that the land is available for development, although pre-feasibility study has not been done and some of the land for the projects are not yet acquired" (p.98). As such, it is important to be realistic about financing this grandiose project.



The exact mechanisms of sourcing finances for the project is not ad-equately focused in the Megapolis Plan.

[14] MMWD (2016), "Western Region Megapolis Master Plan: From Island to Continent", Western Region Megapolis Planning Project, Ministry of Megapolis and Western Development, pp.98.

[15] Mushtaq, M. (2016), "Sri Lanka's $40bn 'Megapolis' Plan Is Bold — But Achievable?, available at http://asia.nikkei.com/Politics-Economy/Policy-Politics/Sri-Lanka-s-40bn-megapolis-plan-is-bold-but-achievable.

At present, the viability of the entire WRMP is uncertain due to three financing related issues - (i) absence of detailed plans for financing, (ii) the necessity to raise funds up front, and (iii) the budgeted cost of US$ 40 billion far exceeding the budgetary allocations. Specifically, the 2016 Budget allocated only Rs. 10 billion (US$ 70 million) for projects such as township development, urban solid waste management, etc., under the WRMP and another Rs. 2.5 billion (US$ 17 million) to the Ministry of City Planning and Water Supply to improve access to clean water, provision of sewerage, and urban development. Additionally, alternative financing estimates suggest that the total budget could be much higher; for instance, projected investment in the short, medium and long-term are also estimated at US$ 23 billion by 2020, US$ 50 billion in 2025 and US$ 84 billion in 2030, respectively.[16] There is clearly a need to ensure that financing estimates are accurate and credible to avoid risks of actual costs running monumentally over the budgeted cost, which results in interfering with completion dates, repayment schedules, interest payment, and revenue generation forecasts, to name a few.

In this context, the next section examines some potential means of raising funds to finance the WRMP.

10.5 Financing the WRMP

To finance any project, two extreme cases are public sector financing and private sector financing. However, given the scale and cost of the WRMP and public finance constraints,

It is important to be realistic about financing the megapolis project. The viability of the entire project is uncertain due to three financing related issues - (i) absence of detailed plans for financing, (ii) the necessity to raise funds up front, and (iii) the budgeted cost of US$ 40 billion far exceeding the budgetary allocations.

[16] Surbana Jurong (2016), "Review of the Western Region & Megapolis Master Plan- Final Report", Surban Jurong Private Limited, Singapore.

total public sector financing is not a viable option. However, certain specific projects may be able to pursue either public or private sector financing. For instance, the social housing development project in the Colombo core area identified in the detailed project document is earmarked to be a public sector funded project, while the Mirigama town development project is identified to be a private sector funded project. Within the spectrum of public and private sector financing, other available alternatives consist of various combinations in the degree of involvement of these two sectors.

10.5.1 PPPs

There are different types of PPP that can be pursued to raise funds for the WRMP. Depending on the nature of construction, operation, financing and ownership of arrangements, PPPs are categorized as Build Operate Transfer (BOT), Build Own Operate Transfer (BOOT), Rehabilitate Own Operate Transfer (ROOT), Rehabilitate Own Operate (ROT), Build Own Operate (BOO), and Rehabilitate Own Operate (ROO), to name a few (Box 10.2).

Despite having several nuances to PPP arrangements, the benefits, common to all types of PPPs can include risk-sharing by the public and private sector, and an incentive for efficient delivery of a project or service. Moreover, opening up projects for PPPs can also improve project selection, and contribute towards ensuring that selected projects are sustainable mechanisms.[17] In order to reap these benefits,

Box 10.2
PPP Categories

BOT projects are financed by the government and constructed by the private sector. The facility may be operated by a government institution, with the possibility of service or operation and maintenance (O&M) aspects being contracted to a private company. At the end of the O&M concession, the facility is transferred to the government.

BOOT projects are similar to BOT projects, where a private developer builds, owns and operates a facility for a specified period. The difference in BOOT compared to BOT is that the private sector is responsible for financing the project. Similar to BOT projects, at the end of the concession period, the facility is transferred to the government.

BOO projects are similar to BOOT, except that the facility is not transferred to the government and the private company retains ownership of the facility in perpetuity. In BOO projects, the operation and maintenance aspects are typically outsourced to another private company.

ROOT and **ROT** projects are similar to BOOT and BOT, respectively, except for the involvement of the rehabilitation of an existing facility rather than the construction of a new one.

ROO projects also encompass an existing facility being rehabilitated; while similar to BOO, a private company retains ownership of the facility in perpetuity.

[17] World Bank, "PPP Arrangements - Types of Public-Private Partnership Agreements", available at http://ppp.worldbank.org/public-private-partnership/agreements/civil-works-and-service-contracts.

tariff setting and pricing have to be carefully implemented, especially in the context of weak regulatory mechanisms. The literature notes that "when risks are underestimated, feasibility studies overlooked and financial sustainability ignored, failure is the result".[18] Hence, it is important to strengthen public sector capacity, develop an appropriate legal framework, ensure rigorous planning and risk assessment through feasibility studies, introduce transparent and competitive procurement procedures, strengthen monitoring systems, and improve flexibility to adapting to unpredictable events.

Similarly, PPPs require commitments from sustainable cost-covering tariffs or equivalent tax revenues. However, costs of long-term fiscal commitments are difficult to assess because they are a function of volatile variables such as costs, demand, or exchange rates. Similarly, it is hard to estimate the cost of guarantees offered. Hence, such uncertainty may prompt over-commitment from the government and excessive fiscal risk. To avoid such pitfalls, the detailed planning exercises of the WRMP should be meticulously executed and pay adequate attention to international experiences and best practices.[19]

For instance, Columbia underestimated the risk of guaranteeing revenues on toll roads and airports to private companies, which resulted in the government paying US$ 2 million in guarantees in 2005. Similarly, in 1990, the South Korean government guaranteed 90 per cent of forecast revenue for 20 years on a privately financed road that linked Seoul with a new airport in Incheon. However, the demand was lower than expected, which resulted in the government paying tens of millions of dollars as guarantees. On the contrary, Chile was successful in their PPP efforts due to its cautious approach of adhering to clear and transparent procurement processes, focusing on public awareness of the process, and adopting a learning-by doing approach which allowed for adjustments during the process.

Learning from these international experiences, it would be more than prudent for Sri Lanka to emulate Chile and start bidding on smaller projects to facilitate a learning-by doing and maintain leeway for adjustments during the process. This would also enable the government to test the market, while minimizing risks for the private sector. Nonetheless, it is important to note that private participation will not address all challenges in financing the WRMP.

10.5.2 Leveraging Existing Assets

Within the large umbrella of PPPs, capital for financing a large scale development project can also be raised by leveraging land and other existing assets. In the recent past, land based financing has been a popular approach in urban development initiatives in Sri Lanka. For example, in 2011 two large land parcels at prime locations in Colombo were sold to the Hong Kong based Shangri La leisure group and China National Aero Technology Import and Export Corporation (CATIC) to develop luxury hotels. In addition to land sales, leaseholding is another way of leveraging the value of land. Contrary to land sales being a one-time income flow, leasing retains the asset to meet future financing needs. Currently, large

[18] Lall, S.V. *et al*, (2013), *Planning, Connecting and Financing Cities Now: Priorities for City Leaders*, World Bank, Washington, D.C.

[19] *Ibid*.

land parcels in Colombo are open for bidding for 50 or 99 year leases for development purposes. One of the main advantages of leveraging land for financing is its capacity to generate more cash up front than through other means.

However, it is noted that corruption in land sales has two deleterious effects on policy.[20] The first is that corruption generally means that less is paid to the seller, thus siphoning off potential public funds as savings to a private buyer. The second is in the form of misallocation of development potential, where honest developers who offer to pay higher prices are deprived of the chance to develop the land. Additionally, other forms of corruption are those where bidders collude, especially if there are a small number of qualified bidders. As such, for countries like Sri Lanka, where corruption is deemed high, auctioning lends credibility to public land sales.

It is also important to note that land sales and leaseholding as a means of financing urban development also have the capacity to introduce significant fiscal risks, such as diverting proceeds for current expenditure and using land and other hard assets as collateral for debt instruments such as bank loans. As such, it is important to introduce rules to assign and protect property rights; create institutions for the valuation (determine leasing and sales prices or floor prices in land sale auctions, by defining objective land valuation techniques); disseminate information on land values; and create a strong legal framework with a healthy judicial system to handle disputes and oversee the land-based financing process to ensure the success of land based financing. Additionally, in the absence of an integrated system between land use planning and land-based financing, the potential of the latter is limited. As such, land-based financing has to be integrated with urban land use planning into a single planning strategy.

In addition to straight forward sale and lease of land, other ways to generate funds though existing assets include property taxes and levies. For instance, 'betterment levies' are payments made by affected property owners who help fund infrastructure improvements based on the increased value of their property. In Columbia, betterment levies have been very successful in financing local projects. Studies show that as much as half of Bogotá's arterial road network was funded by betterment levies.[21] Other forms of levies include tax increment financing and special assessment taxes. Tax increment financing uses property tax increases from improvements to finance infrastructure investments. Like betterment levies, tax increment financing requires a well-established, functioning property tax regime. Similarly, special assessment taxes collect payments from property owners within a designated area of improvement.

However, property taxes and levies discussed above are hard to collect; as well noted,[22] no one likes to pay taxes, and once a tax is imposed, people change their behaviour to try and avoid paying the tax. This is true in the case

[20] Lozano-Gracia, N., *et al*. (2013), "Leveraging Land to Enable Urban Transformation: Lessons from Global Experience", Policy Research Working Paper 6312, World Bank, Washington, D.C.

[21] Lall, S.V. *et al*, (2013), *Planning, Connecting and Financing Cities Now: Priorities for City Leaders*, World Bank, Washington, D.C.

[22] O'Sullivan, A. (2012), *Urban Economics,* Eighth Edition, McGraw Hill, Irwin.

of Sri Lanka where properties are often undervalued when it comes to taxation purposes and the actual use of properties are shrouded by bogus claims on activities. Nonetheless, along with the roll out of the WRMP, the institutional framework in Sri Lanka has to gear up to address these inconsistencies. The success of financing through taxes and levies hinges upon the strength of institutions to collect taxes and to build project capacity; understanding among taxpayers about how the levy's distribution is defined and how its benefits are calculated; and a positive attitude among taxpayers.

10.5.3 Paying for Infrastructure through Ancillary Services

In many infrastructure development projects such as roads and highways, the developers/ investors cannot recover the full cost in the foreseeable future on user fees alone. For such projects, one way to attract investors for PPP's is to sweeten the deal by offering rights to ancillary services related to the project. For road and highway projects, the government can auction off the full package of rights and obligations to secure the best price for the entire deal. It is noted that such add-ons to basic infrastructure service can make funding possible without resorting to regular government budgets.[23] Moreover, when infrastructure services are independent of fiscal processes, the government is better insulated from undue political influence.

Projects identified in the WRMP include development of multi-modal transport hubs that will connect all major public transport modes in a central city location and function as a transit facility; modernization of railways with track improvements, station upgrades and signal system upgrades; and a new rapid transits system and a new water transit system. For these investment needs, projects can be offered for investment with the right to lease out service concessions for restaurants, stores, gas stations, parking lots, etc. Here the investor has the discretion to lease out the rights to real estate development for all or some areas of the project sites. Such coupling of basic infrastructure services with additional revenue generating opportunities can make funding possible with a minimum burden on regular government budgets.

10.5.4 UDA Debentures/Municipality Bonds

Issuance of sub-sovereign bonds implicitly backed by the government is a popular source of financing for large scale development projects. Municipal bonds serve as a flexible source of financing for local governments to (re)finance high interest, short duration trust loans, and would serve as a critical debt management tool.[24] They are seen not only as debt diversification instruments for local governments, but also as means of improving the alignment between the project life of local government assets (such as bridges, roads, subways, or schools) and the duration of debt instrument liability. For example, long duration assets such as highways may require a decade to produce a positive cash flow, thus a 7 or 10 year municipal bond would lessen the duration

[23] Lozano-Gracia, N., *et al*. (2013), "Leveraging Land to Enable Urban Transformation: Lessons from Global Experience", Policy Research Working Paper 6312, World Bank, Washington, D.C.

[24] Frey, D., *et al*. (2014), "China's Urban Future: Financing a New Era of Urbanization", KPMG Global China Practice, KPMG China.

mismatch, and significantly lower the interest expense obligation.

However, in the case of Sri Lanka, rather than municipal bonds, UDA bonds are a more practical option, given the existing mechanism for UDA bonds under the Urban Development Authority Law No. 41 of 1978, which gives provisions for the issuance of UDA debentures to borrow money to raise the working capital of the UDA. Similar to UDA bonds, the proposed WRMDA may also have provisions for the issuance of similar bonds. However, previous experience of UDA debentures indicate that bonds issued in 2010 which were up for maturity in 2015 did not have funds to repay investors despite Treasury guarantees; as such, the options were to raise money through another debenture issue or a Treasury grant.[25] Similar weak financing management will hamper efforts to attract funds through sub-sovereign instruments.

Nonetheless, international experience offers some guidelines for Sri Lanka to follow. For instance, the large municipality of Ahmedabad in India applied for a credit rating and successfully issued municipal bonds without a state guarantee in 1998. In 2002, Ahmedabad successfully issued its first tax free municipal bonds and raised INR 1 billion through a 10-year tax-free bond with 9 per cent annual interest.[26] Similarly, the state owned municipal development fund in India was converted to the Tamil Nadu Urban Development Fund (TNUDF), which became India's first financial intermediary, with private sector capital and management participation. TNUDF has successfully mobilized financial resources from the capital market, through various innovative financing schemes and helped small municipalities develop PPP projects.

10.5.5 Project Bonds

Project bonds are standardized securities that finance individual stand-alone infrastructure projects. They are issued solely to finance a specific project; hence, the risk of loss to credit holders is higher for any one specific project versus a diversified portfolio of projects. However, it is noted that project bonds are a more viable option for large projects (in excess of US$ 100 million) and when longer duration finance is needed. Project bonds are most appropriate to be issued during the operational phase of an asset - subsequent to the end of construction risk where the asset begins to generate positive cash flow. Studies show that project bonds with maturities of 50 or even 99 years have been completed.[27] Projects bonds can be coupled with BOT type of PPP projects discussed earlier.

10.5.6 Establish Government Creditworthiness

As discussed above, there are a multitude of avenues to raise funds. However, the availability of avenues does not necessarily

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[25] *Daily Mirror* (2015), "UDA's Cash Crunch Pushes Rs.10 billion Debenture Investors into a Quandary", available at http://www.sundaytimes.lk/ 150906/business-times/udas-cash-crunch-pushes-rs-10-bln-debenture-investors-in-a-quandary-162938.html.

[26] Lozano-Gracia, N., *et al*. (2013), "Leveraging Land to Enable Urban Transformation: Lessons from Global Experience", Policy Research Working Paper 6312, World Bank, Washington, D.C.

[27] OECD (2015), "Infrastructure Financing Instruments and Incentives", Organization for Economic Cooperation and Development, Brussels.

guarantee the ability to attract required funds. Attracting investors and funds boils down to the creditworthiness of the government. Sri Lanka has had mixed results recently in this context, most recently being the sovereign credit downgrade in early 2016.

The best way to establish creditworthiness, especially with a focus on raising funds for the WRMP is by securing cash flows from user fees and taxes in the Western region, which reflect the viability of investing in projects in the region. With future cash flows secured, the WRMDA will be better positioned to borrow or attract private investment needed for urban development. This can facilitate a culture of raising funds locally, which is already a widespread practice in developed countries and is beginning to become popular in developing countries too. It is noted that developed country experience suggests "that local credit can work for long-term municipal financing - if regulations are in place to guide the issuance of debt and manage the risks".[28] It is critical to learn from the experiences of other countries about the importance of strong regulations to manage debt and reduce the risk of insolvency involved with local financing. For instance, in the 1990s many countries such as Argentina, Brazil, Colombia, Hungary, Mexico, the Russian Federation, and South Africa, experienced sub-national debt crises due to the absence of a regulatory framework to strengthen sub-national fiscal discipline.[29]

Some key steps to improving creditworthiness is ensuring transparency in the proposed WRMDA or whichever authority is to handle this aspect, and applying for a credit rating from international credit rating agencies. For instance, the Municipality of Lima in Peru obtained donor supported technical assistance to apply for such a credit rating from an international rating agency, which helped Lima to secure long term financing.[30] Other recommended steps to improve credit-worthiness include creating credible accounting mechanisms; creating sound financial management systems; requiring independent auditing of local government finances; and requiring performance evaluations for local government services.

10.6 Summary

As discussed in the foregone sections, the WRMP is a colossal project estimated to cost over US$ 40 billion, spanning a period of 15 years with the aim of transforming Sri Lanka's entire Western region to a megapolis. The WRMP consists of 10 mega projects and over 150 individual projects. Given the country's strained fiscal circumstances, and the magnitude of the proposed project, the government budget cannot finance the entire effort. As such, both the public and the private sectors need to find ways of financing the project. Existing planning documents of the WRMP do not address financing aspects,

[28] Lozano-Gracia, N., *et al*. (2013), "Leveraging Land to Enable Urban Transformation: Lessons from Global Experience", Policy Research Working Paper 6312, World Bank, Washington, D.C.

[29] Liu, L. and M. Waibel (2008), "Managing Sub-national Credit and Default Risks", Policy Research Working Paper 5362, World Bank, Washington, D.C.

[30] Lozano-Gracia, N., *et al*. (2013), "Leveraging Land to Enable Urban Transformation: Lessons from Global Experience", Policy Research Working Paper 6312, World Bank, Washington, D.C.

despite laying out the master plan and detailed proposals for individual projects.

This chapter identifies that one of the main modes of funding the WRMP are PPPs, where the exact type depends on the degree of public and private sector involvement in the construction, operation, financing and ownership of the given specific project. In addition to PPPs, required funds for these projects could also be raised by leveraging existing assets such as land, through ancillary services such as service areas in highways or station conveniences in monorails, and issuance of bonds and debentures. For most of these optional financing methods to work, it is critical to establish the creditworthiness of the government. Successful financing and implementation of the WRMP also depends on an institutional framework that would facilitate such a project. Based on past experience, it is noted that urban planning in Sri Lanka is hampered by the division of responsibilities among many stakeholders such as the UDA, Provincial Councils and Urban Local Authorities.[31] Similarly, the limited coordination among specialized infrastructure development agencies further aggravates the fragmented nature of institutional responsibilities for urban planning in Sri Lanka. Learning from the country's own past experiences and those of others, the WRMP has to be rolled out cautiously to ensure that the objectives of boosting growth through this project is actually achieved in a financially sustainable manner.

[31] UNHABITAT (2015), "The State of Asian and Pacific Cities 2015: Urban Transformation Shifting from Quantity to Quality", United Nations Human Settlements Program (UN-Habitat), New York.