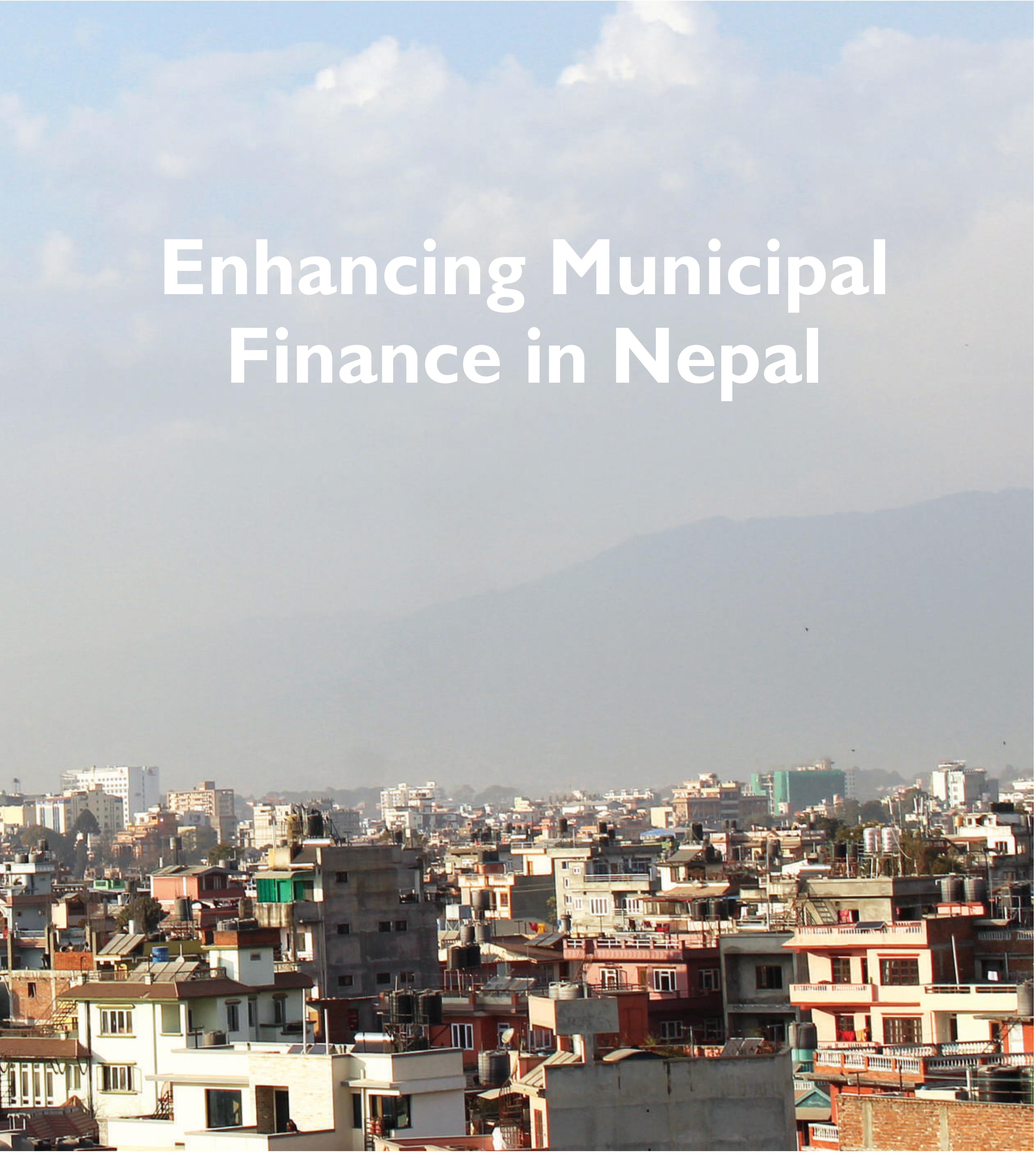
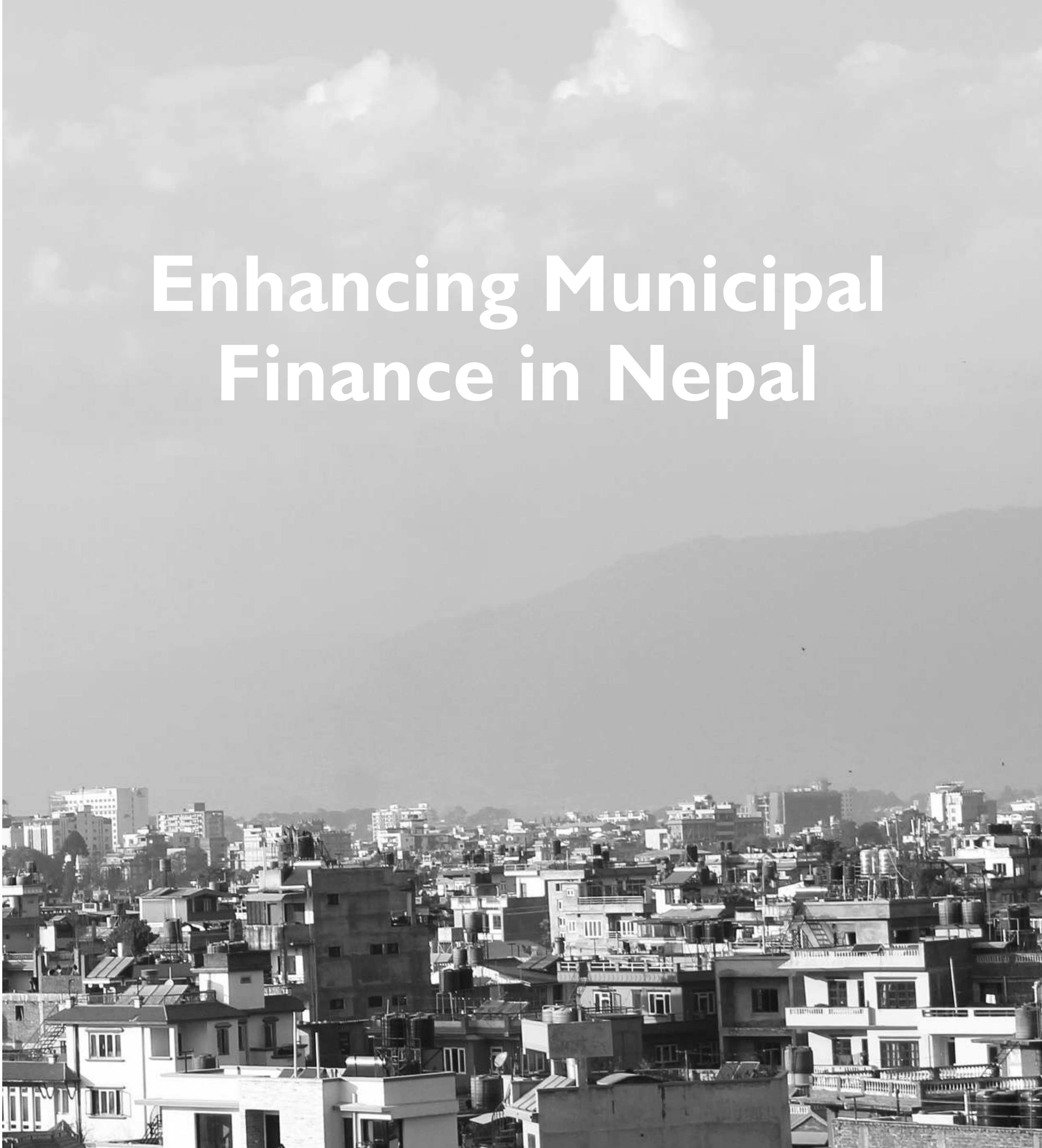
Enhancing Municipal Finance in Nepal



TOWN DEVELOPMENT FUND

Enhancing Municipal Finance in Nepal



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Message

I am pleased to know that Town Development Fund (TDF) is publishing a book on 'Enhancing Municipal Finance in Nepal'.

While the Government of Nepal is going through a paradigm shift from rural to urban focus with increasing priority for urban development as growth engines, sub national borrowing through TDF has become more crucial. Currently, more than 60% of the national population lives in 293 municipalities, where the infrastructure is relatively poor and financing needs are tremendously high.

The Urban Financing Framework worked out while preparing 'The National Urban Development Strategy of Nepal' estimated that Nepal's municipalities need NPR 1.23 trillion for infrastructure development during the period 2016 to 2031. However, there is high dependency on capital grants, coming from federal government to finance urban infrastructure projects in municipalities. As such grants are inadequate, non-grant financing options that include borrowing from TDF, municipal bond issue and building Public Private Partnerships could be innovative avenues for municipalities.

The Government is committed to enhance financing to the municipalities by streamlining inter-governmental fiscal transfers, assigning clear mandates on expenditures right of sub-national governments, supporting own source revenue mobilization of municipalities and transforming TDF into a strong financial intermediary for enhanced sub- national borrowing.

This publication, I believe will bring valuable insights among the readers regarding exploring of non-grant financing in municipalities of Nepal.

Ishtiyaq

Mohammad Ishtiyaq Rayi
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Ministry of Urban Development, Nepal

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Foreword

I am delighted to learn of this publication which incorporates the papers presented during the National Conference on Municipal Finance in Nepal which was held on 20 December 2016 in Kathmandu.

This publication, *Enhancing Municipal Finance in Nepal*, is both relevant and timely, as Nepal is implementing fiscal federalism after the promulgation of constitution of Nepal and is going through a paradigm shift from rural to with urban economy now touching a high percentage of Nepal's population. However, Nepal's under-performing urban infrastructure is hindering economic growth and social and environmental progress. It is vital for Nepal to excel in the area of urban infrastructure development, making it more efficient and effective towards achieving the Sustainable Development Goals (SDGs) by 2030.

This publication effectively captures the principles, ideas, and best practices of municipal finance, including intergovernmental fiscal transfers, municipal own-source revenues, and innovative financing tools, such as public private partnerships (PPPs), public community partnerships (PCPs), land value capture, blended financing and consortium financing.

I congratulate the TDF team for their commendable task in publishing this book. Similarly, I would like to extend my sincere thanks to each of the authors whose papers have been included in this book.

Last but not the least, I would like to thank Prof. Roy Kelly for his valuable contribution in editing this publication.

It is my firm belief that this publication will serve as a valuable reference for all related policy makers, academics, students and professionals alike working in the field of municipal finance in Nepal.

Dr. Ramesh Prasad Singh
Secretary
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Message

It gives me immense pleasure to know that TDF is publishing the book on 'Enhancing Municipal Finance in Nepal', which is a milestone of knowledge management in the area of urban infrastructure finance in Nepal.

Town Development Fund (TDF) has been successful in developing local borrowing culture in the country through its loan and grant financing instruments to municipalities and small towns. More importantly, projects financed by TDF have proved to be sustainable since loan financing instruments follow the asset management plans to make the facility operationally efficient and effective. This has often created conducive environment for facility users to pay the required tariff and lead towards making projects sustainable.

This publication attempts to explore the possibilities of sustainable financing other than the grant financing, which I believe, will be useful for officials working in the municipal level, development partners, academia and general readers at large.

I take this opportunity to thank TDF management, UNCDF, GiZ and writers of the book for making this publication possible.

Dhruba Rijal
Chairperson
Town Development Fund

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Preface

Nepal is currently undergoing a phase of rapid urbanization and struggling with under-performing infrastructure that is hindering economic growth and social and environmental progress. This has prompted the Government of Nepal (GoN) to prioritize the filling of the wide gap in urban infrastructure and services. To address this challenge and deliver sustainable and affordable infrastructure, scarce public resources need to be judiciously applied along with alternative and innovative financing methods.

Nepalese municipalities require annual financing of about NPR 1.9 trillion to address the urban infrastructure demand, as per the current status, but have managed annually only about NPR 70 billion. Rapid urbanization, while posing many challenges, also indicates the possibility of prosperity, since urban centers are engines of economic growth. Strengthening municipal finance is particularly relevant in realizing the goals of the National Urban Development Strategy of Nepal for 2030, which aim to "make cities and human settlements inclusive, safe, resilient and sustainable". Well-planned urbanization would help municipalities address the aspirations of its citizens and help Nepal transform itself from a Least Development Country (LDC) to a "developing country" status within the next 4 to 5 years.

The new Constitution of Nepal has devolved greater expenditure rights to subnational level governments (provinces and local governments). This devolution of public service responsibilities must be accompanied by adequate financial resources, including locally-generated own-source revenues. A sound public financial management system at the local level is also a prerequisite for achieving sustainable fiscal decentralization and achieving the 2030 Sustainable Development Goals (SDGs). Enhancing the four tenets of financial management (i.e. budgeting, accounting, reporting and auditing) is critical to realizing these objectives.

In light of the above concerns, a national conference on "Municipal Finance in Nepal" was jointly organized by the Ministry of Federal Affairs and Local Development (MoFALD) and the Town Development Fund (TDF), with technical support from UNCDF. The conference brought together policy makers and a gamut of experts (academicians, practitioners, and regulators) from across the country to discuss their recent works and good practices on municipal finance, particularly with respect to local taxes, user fees, inter-governmental fiscal transfers and subnational borrowing, including municipal bonds and PPP financing arrangements.

This publication aimed to share knowledge among stakeholders on how to draw upon both internal revenue streams (e.g., taxes, user fees, land value capture) and external revenue streams (e.g., intergovernmental transfers, borrowing, bonds, PPPs) to finance sustainable development within urban and rural municipalities. The private sector, despite much skepticism, has an important role to play in infrastructure financing in Nepal. Attracting private sector attention and interest to partner with and invest in infrastructure calls for a strong initiative from both central and local governments.

The conference, attended by over 135 participants, included a series of key note addresses, paper presentations and workshop deliberation sessions which focused on contemporary issues of municipal finance. These interactive sessions enabled the participants to formulate options for moving forward in the context of mobilizing resources to help finance urban infrastructures and improve services at the municipal level.

I would like to thank the UNCDF team for their technical support, UNCDF and GIZ for their financial support, the participants for their invaluable inputs during the conference, and finally the writers who made commendable contributions to the conference through their written papers and presentations of their valuable research work.

Last but not least, I would like to thank Dr. Roy Kelly for his meticulous work in editing the conference volume.

I strongly believe that this publication, will benefit policy makers, experts, academia, students and experts working at the subnational governments at large.

Maniram Singh Mahat
Executive Director
Town Development Fund

Message

Suresh Balakrishnan, United Nations Capital Development Fund (UNCDF)

The 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda on Financing for Development and New Urban Agenda, adopted at the Habitat III Conference in Quito in October 2016 have set in motion far reaching changes in the manner in which urban local governments are going to operate, across the world. Given the ambitious agenda of these global initiatives, it is no surprise that they have challenged thinkers and implementers in equal measure, as well as the communities which want to see change for the better. UNCDF has committed to help partner cities and governments to prepare for the paradigm shift in a manner that is well grounded and draws on lessons from local initiatives. I am very pleased that the National Conference on Municipal Finance brought together academia and practitioners to share their experiences and propose frameworks to address the rapidly changing landscape and of cities and small towns across Nepal.

The range of issues that have been addressed in this publication is noteworthy. While some have gone into the issues underlying the current challenges that confront municipal finance, others have drawn lessons from the pathbreaking initiatives that have taken place in Nepal. Some of the recommendations are very specific to Nepal, but offer insights that are relevant for other countries that face the challenge of delivering appropriate municipal finance solutions. The organizers of the conference and the editors have done well to blend these dimensions to come up with an inciteful volume. Practitioners and academia, policy makers and development partners, will all benefit from this array of papers, and the synthesis by Prof. Kelly in introducing the papers.

The insights shared in this document also bring in lessons and good practices from Nepal's neighboring countries, Bangladesh and India. The cross fertilization of ideas that this publication encourages, is a testimony to the growing role of South – South Cooperation in generating a body of knowledge that can accelerate innovation during the transition of many countries out of the Least Developed Countries status. I commend the contributors, the TDF, GiZ and UNCDF teams, and Prof. Roy Kelly for their efforts in preparing this publication. This has been a first step to bring together such information in Nepal, and needs to be followed up with similar initiatives to document and share lessons from Nepal's journey in transforming the arena of municipal finance.

Suresh Balakrishan
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Acknowledgments

This volume was edited by Dr. Roy Kelly, with the assistance of Mr. Dean Storelli and Ms. Elena Storelli. The editor wishes to acknowledge the strong support and assistance of Mr. Suresh Balakrishnan and Ms. Pragyan Joshi from the UNCDF Kathmandu office, Mr. Maniram Singh Mahat, Executive Director, Town Development Fund (TDF) and each of the contributing authors.

The editor would like to emphasize that the views expressed in the individual chapters are purely those of the writers and may not, in any circumstances, be interpreted as stating an official position of the Government of Nepal, the United Nations Capital Development Fund (UNCDF) and/or the German Cooperation Agency (Gesellschaft fur Internationale Zusammenarbeit (GiZ)). The Government of Nepal does not guarantee the accuracy of the information included in this volume, nor do they accept any responsibility for any use thereof.

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Hemanta Bashyal is the Managing Director, Bashyal and Company Pvt. Ltd., an investment and risk consulting firm. His work focuses on investment management, financial risk management, municipal financing, assets management, financial planning, financial engineering, drafting investment policy statement. Mr. Bashyal has extensive experience in the field of investment, financial risk management, policy making, financial product development. He received his Master degree in finance (MBS) and LLB from Tribhuvan University, Nepal. Mr. Bashyal has received Chartered Financial Analyst (CFA) designation from CFA Institute, US, has certified as Financial Risk Manager from Global Association of Risk Professionals, US and is also a student member of the Institute and Faculty of Actuaries, UK.

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Hem Raj Lamichhane is a freelance consultant and previously worked as a Fiscal Decentralization Specialist in the Local Body Fiscal Commission (Nepal) under the Local Governance and Community Development Programme (LGCDP). He also served as Executive Secretary General at the Association of District Development Committees of Nepal (ADDCN) where he was involved in various research and studies on fiscal decentralization, local government finance, local service delivery and participatory planning. He received his M.Phil. in Economics from Tribhuvan University, Nepal.

Anand Madhavan is Director Infrastructure and Public Finance, CRISIL Limited, India. He is responsible for developing the infrastructure finance, public finance and public-private partnership practice, while bringing complementary competencies in urban infrastructure, energy and transportation sectors. Previously he worked for ICRA Management Consulting Services on similar issues of infrastructure finance. Mr. Madhavan is a Chemical Engineer trained at the Birla Institute of Technology and Science, Pilani, India, with additional management training from the TA Pai Management Institute (TAPMI).

Maniram Singh Mahat is Executive Director, Town Development Fund (TDF), Nepal. He has worked extensively in the areas of urban policy making, investment decision making, urban development, municipal finance and property tax management, PPP, project development, conflict and development, local economic development, and planning, monitoring and evaluation. He has conducted research in urban finance, conflict and development, fiscal federalism, housing, property taxation, subnational governance, and infrastructure financing. He previously served as Director, Planning, Monitoring and Evaluation at the TDF and in various capacities with the UDLE/GiZ program, Nepal and with the Subnational Governance Program of GIZ, Nepal. He received his MA in Geography from Tribhuvan University, Nepal, and his post graduate diploma in Urban Development Finance from International Housing Studies, Erasmus University Rotterdam.

Achyut Nepal is a free-lance consultant who has worked as a finance specialist for more than 30 years in insurance, hydropower, urban infrastructure finance, project finance and sexual and reproductive health in Nepal. He started his service career with the National Insurance Corporation, Nepal and also served in different positions with the Nepal Electricity Authority including as a Finance Chief of various Departments and donor-funded power projects as well as in the DUDBC/MoUD, TDF and CLPIU/MoE of the Government of Nepal. Mr. Nepal has an MBA (Finance) and an MA (Rural Development) from Tribhuvan University, Nepal. He has training in Financial Management from Concordia University, Montreal, Canada and Diploma in Service Vision Management, Innovation Management and Social Entrepreneurship from Fil. Dr. Jan-U. Sandal Institute, Norway.

Dhruba Purkayastha is an Advisor and the Head of Strategy and Business Development, ICRA Management Consulting Services Limited, India. In this capacity, he leads strategy and business development for advisory and analytics business in risk management, financial advisory services and infrastructure advisory. Mr. Purkayastha previously served as Program Manager (India), IFC Advisory Services, World Bank Group on issues of infrastructure financing, among others. He is a Mechanical Engineer from Birla Institute of Technology, and received his MBA/PGDM from the Indian Institute of Management, Calcutta.

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Abbreviations

ADB	Asian Development Bank
BIT	Business Income Tax
BMDF	Bangladesh Municipal Development Fund (BMDF)
BOOT	Build Own Operate Transfer
CFMIP	Comprehensive Financial Management and Improvement Plan
CIT	Corporate Income Tax
CIT	Citizen Investment Trust
CMO	Collateralized Mortgage Obligation
DEA	Department of Economic Affairs
DDC	District Development Committees
DEO	District Education Office
DFI	Direct Foreign Investment
EPF	Employee Provident Fund
FCA	Full Cost Accounting
FI	Financial Institution
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
GCF	Green Climate Fund
GRF	Guarantee Redemption Fund
GSE	Government Sponsored Enterprises
GDP	Gross Domestic Product
GIIN	Global Impact Investing Network
GIZ	German Technical Cooperation
GoN	Government of Nepal
HALT	House and Land Tax
HUDCO	Housing and Urban Development Corporation
ICRA	Indian Credit Rating Agency
IGFT	Intergovernmental Fiscal Transfer
IPT	Integrated Property Tax
INR	Indian Rupees
IRO	Internal Revenue Office

IS LM	Investment and Saving, and Liquidity and Money Supply
ISP	Internet Service Providers
IUDP	Integrated Urban Development Project
JICA	Japan International Cooperation Agency
PM	Prime Minister
KfW	German Development Bank
LB	Local Body
LBFAR	Local Body Financial Administration Rules, 2007
LBFC	Local Body Fiscal Commission
LDC	Least Developed Country
LG	Local Government
LGD	Local Government Division (Bangladesh)
LGCDP	Local Governance and Community Development Programme
LGOA	Local Government Operational Act, 2017
LMDA	Low Middle Income Country
LSGA	Local Self Governance Act, 1999
LSGR	Local Self Governance Rules, 2000
MCPM	Minimum Conditions and Performance Measures
MDF	Municipal Development Fund
MIDC	Middle Income Developing Country
MoF	Ministry of Finance
MoFALD	Ministry of Federal Affairs and Local Development
MoUD	Ministry of Urban Development
NBFI	Non-Banking Financial Institutions
NEPSE	Nepal Stock Exchange
NEU	New Urban Agenda
NNRFC	National Natural Resources and Fiscal Commission
NPR	Nepalese Rupees
NRB	Nepal Rastra Bank (Central Bank of Nepal)
NUDS	National Urban Development Strategy
OPMCM	Office of the Prime Minister and Council of Ministers
OSR	Own-Source Revenues
PCP	Public Community Partnership

PPI	Private Participation Infrastructure
PPP	Public Private Partnership
RIAP	Revenue Improvement Action Plan
ROT	Rehabilitate Operate and Transfer
SEBON	Security Board of Nepal
SDGs	Sustainable Development Goals
SNGs	Subnational Governments
SMC	Security Market Centre
STIUEIP	Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP)
SWOT	Strength Weakness Opportunity and Threat
TDF	Town Development Fund
TNUDF	Tamil Nadu Urban Development Fund
TVA	Tennessee Valley Authority
ULB	Urban Local Body
UNCDF	United Nations Capital Development Fund
US	United State of America
VAT	Value Added Tax
VDC	Village Development Committees
WCF	Ward Citizen Forum
WSPF	Water and Sanitation Pooled Fund

Introduction: **Enhancing Municipal Finance in Nepal**

– Roy Kelly

This book is based on papers presented at the *National Conference on Municipal Finance* held in Kathmandu, Nepal on 20 December, 2016. The conference was jointly organized by the Government of Nepal's Ministry of Urban Development and the Government of Nepal's Ministry of Federal Affairs and Local Development and the Town Development Fund (Nepal). Sponsorship support was provided by the United Nations Capital Development Fund (UNCDF) and the German Development Cooperation (Gesellschaft fur Internationale Zusammenarbeit (GiZ)).

Attended by over 135 participants, the conference brought together policy makers, development practitioners, academics and regulators from across Nepal, along with international experts from India, Bangladesh, Italy and the United States, to discuss the analytical framework, good practice and recent research on municipal finance. Specific focus was placed on how to fund and finance the tremendous demand for urban infrastructure and services resulting from rapid urbanization. Various presentations and discussion sessions focused on municipal own-source revenues (e.g., local taxes, user fees), intergovernmental fiscal transfers and options for subnational borrowing and capital development financing (e.g., loans from banks and non-banking financial institutions, municipal bonds and private equity capital/PPPs).

The conference focused on challenges and opportunities to improve municipal financing in Nepal. From 2011 to 2015, Nepal's urban population swelled from 23% to 42%, creating tremendous demand for urban infrastructure and services. The annual financing gap to deliver the necessary urban facilities and services has been estimated at NPR 1.23 trillion (National Financing Strategy (draft), 2016), presenting a major funding and financing challenge for Nepal. Meeting this challenge will require a multifaceted strategy to strengthen municipal revenue mobilization while exploring new options on how best to leverage those municipal revenues to access long-term capital financing for urban infrastructure.

Such a strategy must be implemented within an enabling intergovernmental framework which comprehensively integrates the political, administrative and fiscal components needed to support and sustain governance, administration and financing at the municipality level (Bahl, 2008). The 2015 Constitution lays out such an enabling framework, including detailed articulation on the four pillars of fiscal decentralization, namely, providing a clear division of expenditure as well as revenue responsibilities, a mechanism for delivering intergovernmental fiscal transfers and a framework for subnational borrowing. The Government of Nepal (GoN) is now placing priority on designing the laws, regulations and procedures, as well as the institutional framework and capacity to operationalize the new federal system and empower municipalities to deliver their governance and service delivery responsibilities.

Within such an intergovernmental enabling framework, municipalities must be empowered with the legitimacy, authority, capacity and resources to meet their mandated responsibilities in a responsive, efficient and accountable manner. As articulated in the National Urban Development Strategy (NUDS) of Nepal for 2030, systems and procedures must be put into place to improve municipal planning, budgeting and urban service delivery in order to meet the SDG Goal No 11 of making "cities and human settlements inclusive, safe, resilient and sustainable" and to ensure that city development plans adequately respond to and address aspirations of citizens (GoN, 2015).

Of immediate concern is ensuring that municipalities have sufficient revenue to match their expenditure mandates as articulated in the 2015 Constitution. Those municipal revenues typically come from a combination of own-source revenues (OSR) and intergovernmental fiscal transfers or revenue sharing. The dominant municipal OSR in Nepal, as in most countries, come from property taxation. Other taxes as identified in the Constitution include taxes on businesses, vehicles, entertainment and advertisements. Nontax revenues include penalties and fines as well as user fees and charges typically levied on markets, bus and taxi parks, water and other municipal services as well as tourism fees. Each of these revenue instruments must be designed taking into account revenue, efficiency, equity, administration and political acceptability considerations. And these instruments must be adapted to the unique legal, regulatory and institutional situations within each individual country/municipal situation.

International experience confirms that improving own-source revenue mobilization will require visionary leadership, an appropriate policy framework, strong administrative capacity and appropriate incentives to mobilize the political, administrative and popular support needed to enhance sustained local revenues. Any such reform should be structured as a demand-driven reform integrated into broader reforms such as public sector management, intergovernmental governance or, in this case, reforms focusing on urban development and urban service delivery.

Although municipal OSR from taxes and non-tax revenues can be expanded, international experience confirms that these municipal-level OSR are typically not sufficient to fully fund the delivery of required municipal services. Therefore, to complement OSR, countries everywhere put in place intergovernmental revenue sharing and fiscal transfer systems in order to address vertical and horizontal imbalance, fund national priority merit goods and offset inter-jurisdictional externalities. To be effective, these intergovernmental transfers should be stable, reliable and transparent. In addition to own-source revenues and intergovernmental fiscal transfers, countries typically put in place options for municipal borrowing to finance long-term urban infrastructure investments.

Before exploring options for municipal financing, it is important to distinguish between funding and financing. These terms are often used interchangeably, but they are in fact quite distinct. *Financing* refers to the raising of the up-front capital to build infrastructure, while the term *funding* refers to the underlying revenue streams (user charges, taxes and grants) needed to repay those up-front costs. In other words, financing typically refers to those mechanisms which allow a government to leverage their underlying revenue streams in advance (e.g., through borrowing and PPPs), while the concept of funding refers to those revenue instruments (e.g., taxes, fees & charges, asset disposal, unencumbered grants) which can raise monies available for repaying the upfront financing received (Kim, 2016).

Although significant attention is being placed on identifying and marketing creative financing instruments for urban infrastructure development, it is critical to recognize that the ability to leverage those financing instruments is contingent on the underlying strength and quality of a municipality's broader funding structure. All successful urban infrastructure financing, whether through traditional debt financing or public-private partnerships, is dependent on the availability of an underlying funding resource to repay that initial infrastructure financing, either in the form of interest payments or in the form of a return on equity.

This means that while initial priority must focus on strengthening the underlying funding resources which can be used and/or leveraged to meet the current and future urban development and urban service delivery needs, the GoN should explore how best to structure long-term capital financing and develop the laws and regulatory framework needed to support such borrowing. Throughout the world, significant effort is focused on identifying financing mechanisms to meet the existing backlog and the ever-growing demand for new urban infrastructure generated from rapid urbanization. Creative use of government debt in the form of loans from banks or non-banking financial institutions, such as the Town Development Fund (TDF), bonds and private equity financing and public-private partnerships, in addition to land-based value capture, are actively being explored throughout the world to address these pressing financial needs (Eichler, et al, 2012; Kim 2016).

Exploring each of these important municipal funding and financing issues, this book has been divided into 9 chapters.

Chapters 1 and 2 highlight the urbanization trends and the need to improve urban infrastructure and municipal services, identifying funding and financing options for meeting the tremendous need for urban infrastructure and improved urban services.

In **Chapter 1**, Vito Intini explores the relationship between municipal finance and the recently adopted New Urban Agenda (NUA). After reviewing the rationale for improving public funding and market based financial tools to fund urban infrastructure. Intini then discusses the key NUA components linked to intergovernmental transfers, mobilization of own-source revenues, innovative financing instruments, borrowing and financing mechanisms such as syndicated loans, infrastructure project and corporate bonds, equity capital sources and PPPs, infrastructure funds and securities, impact investing and climate change and resilience finance.

For each key NUA component, Intini reviews the challenges and opportunities for funding sustainable urban development, recognizing the mismatch between municipal infrastructure needs and the availability of financial resources. To address this funding gap, he argues the need for strengthening legal and institutional frameworks for regulating the banking capital markets, deepening financial markets and improving local government creditworthiness to borrow. Intini concludes that while the most important areas of intervention are clear, the challenge remains in its implementation.

In Chapter 2, Dhruba Purkayastha and Anand Madhavan, drawing upon relevant and successful practices from the region, India in particular, illustrate the importance of phasing in sustainable municipal financing in Nepal. They stress the need to facilitate (i) improved borrowing capacities at the local level, (ii) effective engagement with investors and the private sector to raise commercial finance from capital markets and (iii) efficient deployment of these resources for impactful service delivery.

The authors recommend early adoption of a credit assessment framework to measure the status and progress of municipalities in Nepal, while recognizing the need to build upon (i) a scaled-up version of the Town Development Fund at the national level to provide municipalities with access to long-term concessional lines of credit and non-guaranteed financing, (ii) harmonized accounting, auditing and disclosure protocols at the municipal level, (iii) improved financial capacity, managerial efficiency and project implementation capabilities at the local level and (iv) regulatory clarity through well-established legislation, regulations and policies.

Chapters 3 to 5 then focus on the important role and need for municipal own-source tax and non-tax revenue in Nepal, arguing their critical role in expanding fiscal space to enable municipalities to improve urban service delivery, improving budgeting revenue-expenditure efficiency and enhancing government-to-citizen accountability.

In **Chapter 3**, Ganga Datta Awasthi focuses on the importance of strengthening municipal own-source revenues (OSR) in Nepal. While OSR represented 1.45% of GDP and 6.87% of total government revenue in 2013, they have been declining in relative importance over recent years. Following an overview of the current OSR policy and administration structure, the author identifies a number of revenue administration improvements needed to enhance the relative performance of municipal own-source revenues. While some of the recommendations fall under the direct control of municipalities, others require central level intervention.

The author concludes by focusing on key activities needing to be undertaken under the 2015 Constitution to further enable municipal revenue enhancement. Although the Constitution has clearly assigned revenue responsibilities, Awasthi stresses the need to revise current laws and regulations, develop new administrative and operational procedures and systems, and strengthen the capacity of municipalities. The chapter closes by recommending the establishment of the National Natural Resource and Fiscal Commission (NNRFC) and stressing the need to ensure that the overall fiscal decentralization framework will operate in an efficient, equitable, accountable and sustainable manner to support improved municipal OSR mobilization.

In **Chapter 4**, Hem Raj Lemichhane and Khagendra Khatiwada focus on the role of property taxation in municipal financing. In Nepal, property taxes are collected by municipalities, either as an Integrated Property Tax (IPT) or a House and Land Tax (HALT). Of the total 58 original municipalities, 46 have implemented IPT, while the remaining collect property taxes under the HALT. These two property taxes make up roughly 27 percent of the total own-source revenues for municipalities in Nepal. The authors discuss the challenges and opportunities for enhancing property tax revenues. Some of the specific challenges in Nepal are identified as the absence of elected local leaders, low local level human capacity, low voluntary taxpayer compliance, a lack of incentives and the problem of public land encroachment.

The authors identify a number of issues in need of consideration in order to strengthen the role of the property tax in Nepal. These include questions of tax base definitions (what to include and exclude from the taxes); identification of taxpayer as owner, occupant or beneficiary; clarification of tax relief frameworks (concessions and preferential treatment); how to best measure the tax base (area or ad valorem, current use or highest and best use) and setting the tax rate level and structure. The authors conclude by arguing for the systematic need to improve property tax coverage, the accuracy of valuations and collection efficiency, along with taxpayer service.

In **Chapter 5**, Achyut Nepal argues the need for rationalization of user fees and charges to assist in municipal revenue mobilization and to improve the efficient and accountable delivery of municipal services. Following an overview on the general rationale for user charges, he focuses on the rationale and structure for solid waste management fees and charges, providing a number of international examples. The author then reviews the experience of solid waste management (SWM) in Nepal, pointing out that most municipalities in Nepal do not charge for this service at all or may only charge an ad hoc amount, far below the cost of those services, resulting in overconsumption of SWM services and a lack of municipality-generated revenues needed to pay for those services.

Using examples from the IUDP/STIUEIP infrastructure projects, the author shows the importance of charging appropriate SWM fees and charges, not only to improve the efficiency of service delivery but also to generate important revenues needed to pay for the possible loans to finance SWM-related projects. The author points out that while Nepal has a SWM policy, including pricing principles, the challenge is to encourage municipalities in Nepal to follow those policies and effectively implement the application of user fees and charges for SWM.

Chapter 6 then focuses on the important role of intergovernmental fiscal transfers and revenue sharing in addressing the challenges of vertical and horizontal fiscal imbalances, equity and efficiency concerns as well as performance incentives for accountable municipal governance and service delivery. In this chapter, Gopi K. Khanal focuses on the current system of intergovernmental fiscal transfers to municipalities in Nepal, discussing their role in achieving equity, efficiency and performance accountability. Nepal has a range of conditional and unconditional transfers, including formula and performance-based block grants known as MCPM (minimum condition performance measures), recurrent grants for staffing and administrative purposes, donor-funded project financing, participatory infrastructure grants and a number of smaller miscellaneous grants. The author discusses the pros and cons of the existing system and argues that a well-structured mix of intergovernmental transfers can safeguard the interests of the central government, while also providing policy coherence and stability to municipal planning and budgeting.

The 2015 Constitution brought in a federal government structure, with a revised assignment of expenditures and revenues across three tiers of federal, provincial and local government. The Constitution has provided for the establishment of the National Natural Resources and Fiscal Commission, which has the power, among others, to determine the basis for redistributing public revenues between the three tiers, to make recommendations for equalization grants from the Federal Consolidated Fund and to determine the basis and modalities for revenue sharing between provincial and local governments from the State Consolidated Fund and other funds. Chapter 6 concludes by identifying the many challenges facing the GoN, as it seeks to operationalize the new federal system.

Chapter 7 and 8 shift the focus to exploring the important role of leveraging municipal funding sources into long-term capital financing of urban infrastructure services. While Chapter 7 focuses specifically on the challenges and prospects of transforming the Town Development Fund (TDF) into a strong and viable financial intermediary institution, Chapter 8 focuses on broader options to build a financial market in Nepal

In **Chapter 7**, Maniram Singh Mahat and Nawa Raj Koirala analyze the issues, challenges and prospects for transforming the Town Development Fund (TDF) into a strong and sustainable financial intermediary institution. Following a review of the historical development of the TDF, highlighting its structure, system and processes, the authors highlight the escalating demand for urban infrastructure and the challenges and opportunities of meeting those financial demands through a well-designed lending framework.

To address these challenges, Mahat and Koirala emphasize the need for strengthening municipal own-source revenue, rationalizing the intergovernmental transfer system and enabling TDF to evolve into a strong financial intermediary that functions as an open-access criteria-based lender for municipal infrastructure development. The authors further argue that the development of proper debt policies can help reduce the fiscal gap at the subnational level by leveraging municipal own-source revenues and the existing intergovernmental fiscal transfers.

In **Chapter 8** Hemanta Bashyal and Resta Jha provide a brief global overview of fixed income security markets, before then turning their focus to the role of the Town Development Fund (TDF) as a mechanism for delivering long-term financing in Nepal. Following a review of the legal framework for the financial markets and the Town Development Fund (TDF), the authors discuss the pros and cons of the TDF serving as either (i) a servicer and custodian for the bond issue process or (ii) as the bond issuer (with or without government guarantees). They point to the importance of risk sharing, risk management and the need for credit enhancement mechanisms in the early stages of building a sustainable financial market in Nepal.

The authors recognize the tremendous annual demand for municipal infrastructure financing in Nepal, which has been estimated at more than NPR 1.23 trillion. They argue that the current local financial market has significant funds available for investing in fixed income securities. However, there needs to be action taken to improve municipal creditworthiness and upgrade the market mechanisms to tap into those resources. The authors conclude that the TDF is in an ideal position to issue and/or act as servicer for issuing development bonds on economically-viable projects in domestic as well as international markets on behalf of Nepal's local governments. This could be done by using their own resources or by using their Special Purpose Vehicle as a corporate body.

Chapter 9 brings in the Bangladesh experience in developing a sustainable urban infrastructure financing mechanism and suggests the adoption of a Non-Grant Investment Financing Strategy, which would pilot and phase in financing alternatives for the Urban Local Bodies (ULBs) in Bangladesh.

In this chapter, Iqbal Abdullah Harun reviews the existing legal and administrative frameworks, current financing options and creditworthiness of Urban Local Bodies (ULBs) in Bangladesh. His analysis suggests that legal provisions are restricting borrowing by ULBs, thereby hindering planned urban growth. To overcome these capacity constraints and legal barriers, Abdullah Harun suggests adopting a Non-Grant Municipal Investment Financing Strategy (NGMIFS) to provide a framework for piloting and scaling up possible alternatives for urban infrastructure investment.

Harun then discusses the financing options which could be used to establish greater control of the ULBs over resources and its planning in the long term. In addition to discussing the Bangladesh Municipal Development Fund (BMDF), the author briefly touches on other financing alternatives, such as public-private partnerships, pooled debt financing through privately-placed bonds, borrowing from banks and specialized non-bank financial institutions and climate resilient funds.

In the long run, to be able to directly access the financial markets, the ULBs will need to strengthen their financial management and credit worthiness. In the meantime, the author suggests that a well-functioning Bangladesh Municipal Development Fund could serve as the financial intermediary for ULBs to access the financing required for urban development needs.

This edited conference volume has been designed to capture the key components necessary for strengthening municipal financing in Nepal. It is hoped that these chapters will stimulate further discussion on these important topics to help guide the establishment of a sustainable municipal financing system within the new federal structure in Nepal.

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1. Understanding Infrastructure Financing in Asia in Light of the New Urban Agenda

– Vito Intini

1.1 Introduction[1]

This chapter focuses on the potential relationship between the New Urban Agenda recently approved in Quito and Municipal Finance, particularly in public infrastructure financing at the subnational levels in least developed countries (LDCs) in Asia. The reference countries are the (i) Least Developed Countries of Afghanistan, Bangladesh, Bhutan, Nepal, East Timor, Cambodia, Lao PRD, and Myanmar and (ii) the Lower Middle Income Countries (Indonesia, Philippines, Pakistan, and India).

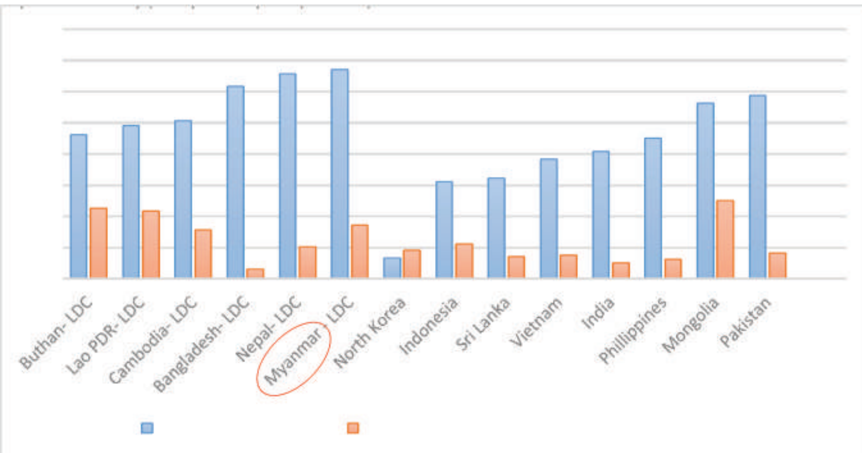
The chapter also presents different instruments and infrastructure financing tools which could be improved upon and implemented in light of the New Urban Agenda. Overall, the chapter shows that municipalities play a relatively minor role in financing public infrastructure but that there is scope for further development of municipal financial instruments as promoted by the New Urban Agenda, all the while recognizing that the appropriate mix of financing tools may vary by each country.

1.2 Infrastructure Financing Needs

The infrastructure situation varies across Asia. According to the World Economic Forum's Global Competitiveness Index on Infrastructure in 140 economies, Asian LDCs fall between the 5th and 34th percentiles in infrastructure development, Myanmar being the least developed. Populous countries such as Mongolia, Bhutan, Lao and Cambodia rank between 100 and 120 in infrastructure ranking (Figures 1.1 and 1.2).

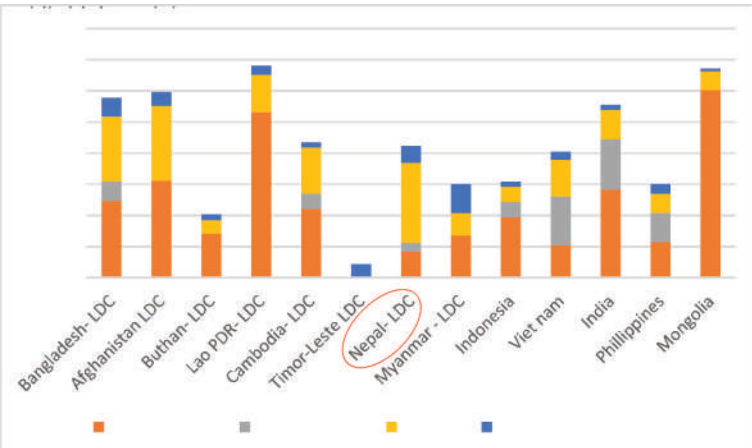
1 The author would like to acknowledge the research assistance of Leyla Cuevas Lopez (UNCDF).

Figure 1.1 Country Infrastructure Ranking 2015



Source:*The World Economic Forum's Global Competitiveness Index on Infrastructure, 2015 (From 1 being the best to 140 being the worst).*

Figure 1.2 Country Investment as Percent of GDP



Source: *the World Economic Forum's Global Competitiveness Index on Infrastructure, 2015*

The need for infrastructure investment is well documented. The Asian Development Bank (ADB) estimated that, during the 2010-2020 period, the 32 ADB developing member countries are expected to need almost USD 8.22 trillion (in 2008 USD) for infrastructure investment (Battacharya, et al, 2012). These funds are 68 percent needed for new capacity investments (greenfield projects) and 32 percent needed for maintenance or replacement of existing assets (brownfield projects). The Peoples Republic of China, India and Indonesia are the top three countries in terms of the amount of infrastructure investment needed. ADB has also mentioned that the total projected infrastructure investment is equal to about 6.5 percent of the estimated Asian 2010-2020 GDP where transport and ICT infrastructure investment dominate.

The above analysis confirms the incredible need for infrastructure in LDCs overall. For instance, according to the World Bank, LDCs in South Asia, such as Afghanistan, Nepal and Bangladesh, have the worst infrastructure access rates (Billar and Drape, 2014). The number of telephone lines per 100 people in Nepal (47) is behind Afghanistan (54). In Afghanistan, only 30 percent of the population can rely on electricity powered lighting at night. For total road networks (km), only 29 percent of Afghanistan's and 10 percent of Bangladesh's roads are paved.

There is substantial demand for infrastructure and getting the funding for those projects would provide a boost to the GDP and growth in the region in the medium term. From an economic perspective, increasing infrastructure in LDCs and MIDCs will lead to a reduction in production and transaction costs and, thus, raise profitability and employment levels (Egler and Frazao, 2016). Likewise, fostering economic growth, contributing to increasing quality of life and reducing the inequality and poverty levels are included in the Sustainable Development Goals (SDGs). Specifically, SDG indicators 9, 10 and 11 address sustained investment in infrastructure and innovation, reduced inequality and sustainable cities, respectively.

1.3 The Global Agenda on Local Finance

With the adoption of the 2030 Agenda for Sustainable Development, the Addis Ababa Action Agenda (Addis Agenda), and the 2015 Paris Agreement, the international community has laid out a clear vision and roadmap for achieving sustainable development in all three of its dimensions—economic, social and environmental (UNCDF, FFDO/UN-DESA, 2016). In the Addis Agenda, member states committed to fully engage local authorities in their implementation efforts. Furthermore, the Addis Agenda promotes greater international cooperation "to strengthen capacities of municipalities and other local authorities" (paragraph 34). Yet, while the 2030 Agenda is global, most of its implementation will ultimately happen at the local level, with the participation of subnational governments and local stakeholders. The importance of the local dimension has been recognized by world leaders. All landmark agreements of 2015 recognized the imperative to work with local authorities and at the local level. Sustainable Development Goal 11 calls for cities and human settlements to be "inclusive, safe, resilient and sustainable".

Localizing the New Global Development Agenda

Former Secretary-General of the United Nations, Mr. Ban Ki-moon, has emphasized that "our struggle for global sustainability will be won or lost in cities". How to win that struggle and "localize" the 2030 Agenda and other landmark UN agreements of recent years were at the heart of the deliberations leading up to the Third United Nations Conference on Housing and Sustainable Urban Development (UN Habitat III, 17-20 October 2016). The outcome document of UN Habitat III, "The New Urban Agenda", is envisaged to promote a new model of urban development.

The New Urban Agenda

Around 36,000 representatives from local and regional authorities, civil society, the private sector and national governments gathered in Quito, Ecuador for Habitat III to explore solutions to urbanization challenges such as poverty, unemployment, inequality and climate change. The conference, which takes place once every 20 years, adopted the New Urban Agenda, a global non-binding 20-year framework, which aims to make cities safe, sustainable and resilient in line with SDG 11. However, the New Urban Agenda aligns with many other SDGs as well and calls for effective linkages with the 2030 Agenda for Sustainable Development.

During Habitat III, UN Secretary-General Ban Ki-moon stressed that "cities and towns have an immense role to play in ending poverty and building inclusive societies that promote participation".

This was echoed by Joan Clos, the Executive Director of UN-Habitat and Habitat III Secretary-General. Many other high-level speakers focused their intervention on the critical importance of cities to achieve SDGs and human rights.

The New Urban Agenda is composed of the Quito Declaration on Sustainable Cities and Human Settlements for All and the Quito Implementation Plan for the New Urban Agenda. The New Urban Agenda calls on the UN Agencies, Funds and Programs to support its implementation.

The vision expressed in the Declaration is guided by three interlinked principles:

- Leave no one behind by ending poverty in all its forms and dimensions, including the eradication of extreme poverty by ensuring equal rights and opportunities, socio-economic and cultural diversity and providing equal access to physical and social infrastructure and basic services as well as to adequate and affordable housing.
- Maintain sustainable and inclusive urban economies by leveraging the agglomeration benefits from well-planned urbanization, high productivity, competitiveness, and innovation; promote full and productive employment and decent work for all by ensuring decent job creation and equal access to economic and productive resources and opportunities; prevent land speculation and promote secure land tenure and manage urban shrinking where appropriate.
- Environmental sustainability, by promoting clean energy, sustainable use of land and resources in urban development as well as protecting ecosystems and biodiversity, including adopting healthy lifestyles in harmony with nature; promoting sustainable consumption and production patterns; building urban resilience; reducing disaster risks; and mitigating and adapting to climate change.

These principles are expected to be achieved through three sets of policy implementation:

- Strengthening urban governance with sound institutions and mechanisms that empower and include urban stakeholders, providing appropriate checks and balances to foster predictability and coherence in urban development plans so as to enable social inclusion as well as sustained, inclusive and sustainable economic growth and environmental protection.
- Reinvigorating long-term, integrated urban and territorial planning and design to optimize the spatial dimension of urban form and deliver positive urbanization outcomes.
- Supporting effective, innovative and sustainable financing frameworks and instruments which can enable the strengthening of municipal finance and local fiscal systems in order to create, sustain and share the value generated by sustainable urban development in an inclusive manner.

Taken together, the Addis Ababa Action Agenda, the 2030 Agenda, COP22, the midterm review of the Istanbul Program of Action and Habitat III provide very important legislative imperatives for work on blended finance, making finance work for the poor, financial inclusion and local development finance.

The New Urban Agenda provides impetus for empowering municipalities to achieve the SDGs and take advantage of the potential of urbanization. Additionally, one key outcome from Habitat III is that viable financing mechanisms are critical to making the New Urban Agenda the foundation for inclusive and sustainable urban development.

Indeed, the New Urban Agenda commits member states to work towards "supporting effective, innovative, and sustainable financing frameworks and instruments, enabling strengthened municipal finance and local fiscal systems in order to create, sustain, and share the value generated by sustainable urban development in an inclusive manner". An important outcome is that it provides an agreed international framework to promote municipal finance, including innovative financial mechanisms for infrastructure investments, as a key component of sustainable urban development in LDC's secondary cities.

Financing Challenges at the Local Level

To meet the financing challenge, the Addis Agenda and the New Urban Agenda highlight the need to draw upon all sources of finance (public, private, national and international) and put forward a policy framework that realigns financial flows with public goals. The agendas call for an enabling environment comprising the appropriate public policies and regulatory frameworks that help unlock the transformative potential of people and incentivize policy changes and actions in support of sustainable development.

The comprehensive approach of these various events that took place in the last year or so translates well to the local level. For local authorities, drawing upon all sources of finance implies the need to more effectively mobilizing internal (e.g., local taxes, user fees, land value capture) and external revenue streams (e.g., intergovernmental transfers, donor support) in order to provide public goods and services as well as finance large-scale capital investments. A policy framework that realigns local financial flows with local public goals implies a well-coordinated fiscal, political and administrative decentralization effort where local expenditure responsibilities are backed by reliable intergovernmental transfers and fiscal empowerment (e.g., the legal and technical capacity to levy taxes).

We now analyze the critical aspects of municipal finance needed to achieve the above objectives in the Asian LDCs and link them to specific recommendations laid out in the New Urban Agenda.

1.4 Intergovernmental Fiscal Transfers[2]

*"We will promote sound and transparent systems of financial transfers from national governments to subnational and local governments based on the latter's needs, priorities, functions, mandates and performance-based incentives, as appropriate, in order to provide them with adequate, timely and predictable resources and enhance their ability to raise revenue and manage expenditures." (**Source**: Para 135 of the New Urban Agenda)*

There are no subnational governments that can fully function without a certain level of intergovernmental support. However, in practice, finance often does not follow function as central governments across the globe give local authorities more expenditure responsibilities than they can finance from their own revenue sources. This is even more true for LDCs. Resource flows from higher to lower tiers of governments make up an average of 70-72 percent of local government funding in developing countries and 38-39 percent in developed countries (Alam, 2014).

2 [2] Parts of this section are excerpts taken from the joint UNCDF-DESA regional study on "Strengthening Subnational Finance in LDCs" prepared for the Asian EGM that took place in Bangkok in September 2016.

The traditional rationale for intergovernmental transfers is for government to maximize welfare and reallocate resources between richer and poorer jurisdictions in order to reduce both horizontal (same tiers of government) and vertical (different tiers of government) imbalances and to correct for externalities. However, the actual drivers for intergovernmental transfers can vary. Frequently, electoral concerns determine the distribution of fiscal resources to local jurisdictions (Boex and Martinez-Vazquez, 2005). There is robust empirical evidence that local governments with higher political representation benefit from greater intergovernmental transfers (Wright, 1974, Porto and Sanguinetti, 2001, Khemani, 2007, Caldeira, 2011).

Such a capacity is highly constrained in LDCs. In many LDCs, local governments are frequently dependent on central government approval for taxes, fees and charges they wish to impose. Smoke (2015) argues that intergovernmental transfers make sense as part of the smart division of responsibilities between the central and local government based on their core advantages and competencies. Smoke highlights that "central governments have inherent advantages in generating revenues and local and regional governments have inherent advantages in providing certain key services, invariably necessitating intergovernmental transfers." (Smoke, 2015).

In Nepal, one of the main features of fiscal decentralization system is that there has been a re-assigning of sector-related functions to local governments without a corresponding increase in unconditional funding and revenue sources to lower tiers of government to cater for these functions. Though expenditure functions are, in principle, a local government responsibility, they continue to be controlled and funded through central government programs and grants.

The enactment of the Local Self Government Act (LSGA) of 1999 was an important milestone for local governance in Nepal. It empowered local governments to enhance capital expenditures in a range of social and economic sectors and deliver social services at the local level but often through de-concentrated central government ministries. This can have a positive influence on district economic growth, especially with capital investment in socio-economic sectors and augmenting basic service delivery. But, the areas of capital expenditures of District Development Committees (DDCs) seem to be imbalanced and driven not by local priorities but by central ministry priorities. This is evidenced through the greater portion of capital expenditure on roads. A smaller portion of expenditures goes to other sectors like education, health and agriculture. Greater local discretion over the allocation of grants would ensure a better balance between all sectors and encourage investment based on local demands. The LSGA has provided the DDCs and municipalities, as well as Village Development Committees (VDCs) to a lesser degree, with many financial powers which they are not utilizing properly. As a result, dependency on central grants and central government transfers is increasing. Reforms have tried to encourage more own-source revenue generation in DDCs and municipalities.

Municipalities are largely autonomous of DDCs, while VDCs are more closely subordinate to DDCs by law and in practice. This can be seen by the fact that the disbursement of fiscal transfers to VDCs is subject to DDC authorization while disbursement to municipalities is not.

1.5 Public Financial Management (PFM)

"130. We recognize that sustainable urban development, guided by prevailing urban policies and strategies, as appropriate, can benefit from integrated financing frameworks that are supported by an enabling environment at all levels. We acknowledge the importance of ensuring that all financial means of implementation are firmly embedded in coherent policy frameworks and fiscal decentralization processes, where available, and that adequate capacities are developed at all levels.

131. We support context-sensitive approaches to financing urbanization and enhancing financial management capacities at all levels of government through the adoption of specific instruments and mechanisms necessary to achieve sustainable urban development, recognizing that each country has the primary responsibility for its own economic and social development.

*138. We will support subnational and local governments in their efforts to implement transparent and accountable expenditure control instruments for assessing the necessity and impact of local investment and projects, based on legislative control and public participation, as appropriate, in support of open and fair tendering processes, procurement mechanisms and reliable budget execution, as well as preventive anti-corruption measures to promote integrity, accountability, effective management, and access to public property and land, in line with national policies." (**Source**: paras 130, 131, 138 of the New Urban Agenda)*

The purpose of a good PFM system is to ensure that government policies are being implemented to achieve their specific objectives. An efficient and effective PFM system relies on the following enabling elements:

- Fiscal discipline: effective control of the total budget and management of fiscal risks
- Transparent, efficient, and effective strategic allocation of resources: planning and executing the budget in line with local government priorities aimed at achieving policy objectives
- Efficient and effective service delivery: capacity to use budgeted revenues to achieve the best level of public services with the available resources

In Nepal, VDC internal audits are carried out by DDCs, which also play a role in approving the selection of VDC external auditors. Municipal internal and external audits are not subject to any involvement on the part of DDCs.

1.6 Mobilizing Endogenous Resources[3]

"132. We will mobilize endogenous resources and revenues generated through the capture of benefits of urbanization, as well as the catalysing effects and maximized impact of public and private investments, in order to improve the financial conditions for urban development and open access to additional sources, recognizing that, for all countries, public policies and the mobilization and effective use of domestic resources, underpinned by the principle of national ownership, are central to our common pursuit of sustainable urban development, including implementation of the New Urban Agenda.

3 [3] This section relies heavily and includes excerpts taken from the joint UNCDF-DESA regional study on "Strengthening Subnational Finance in LDCs" prepared for the Asian EGM Bangkok, Thailand, September 2016.

134. We will support appropriate policies and capacities that enable subnational and local governments to register and expand their potential revenue base, for example, through multipurpose cadastres, local taxes, fees and service charges, in line with national policies, while ensuring that women and girls, children and youth, older persons, persons with disabilities, indigenous peoples and local communities, and poor households are not disproportionately affected.

137. We will promote best practices to capture and share the increase in land and property value generated as a result of urban development processes, infrastructure projects and public investments. Measures such as gains-related fiscal policies could be put in place, as appropriate, to prevent its solely private capture, as well as land and real estate speculation. We will reinforce the link between fiscal systems and urban planning, as well as urban management tools, including land market regulations. We will work to ensure that efforts to generate land-based finance do not result in unsustainable land use and consumption." (***Source**: paras 132, 134, 137 of the New Urban Agenda*)

The level of local revenue and expenditures in comparison to the total revenue and expenditures varies among regions (Table 1.1). Countries in South-East Asia show slightly higher rates for local revenue and expenditures than South Asia.

Local government own-source revenues in LDCs include user fees and charges as well as taxes/levies. These sources may be supplemented by investment income, property sales and licenses. User charges and fees are mostly levied for benefits and utilities (e.g. water supply, sanitation, energy, parking space). At the same time, a municipality typically provides a range of public goods (i.e. police, ambulance, firefighters, streetlights, etc.) whose consumption is not exclusive and whose benefits cannot be directly assigned to individual consumers. In such cases, taxes are the more appropriate tool, as they target the entire community that stands to benefit from the service. In general, revenue mobilization and management are very challenging in LDCs both at the national level and subnational levels due to narrow tax bases. Moreover, revenue mobilization at the local level is often constrained by central government controls over all local revenue rates (e.g. Afghanistan and Bhutan).

Table 1.1 Local Revenues/Expenditures as Share of Total Revenues/Expenditures by Global Regions, 2010

	Local revenues as percentage of total revenues	Local expenditures as percentage of total expenditures
Africa	3.2	7.9
South Asia	1.5	16.0
East Asia	20.0	40.0
South-East Asia	5.3	15.5
Europe (2008)	13.0	23.9
Latin America	4.0	11.1
Middle East & Western Asia	N/A	4.6
Eurasia	N/A	26.5
North America	17.8	26.8

***Source**: United Cities and Local Governments, 2010.*

Taxes, User Charges, Fees and Licenses

User charges and fees include service charges (water, sewerage and parking), administrative fees (building permits, registration) and business license fees. User charges are typically defined per unit of consumption. They can promote an optimal level of consumption when the price equals the cost of providing an additional unit of the service, also referred to as marginal cost pricing. However, getting prices right is easier said than done as the infrastructure and capacity to set prices, measure usage and collect fees is heavily constrained and many users live in abject poverty. Indeed, in LDCs, user charges are frequently set below costs, infrequently revised and inefficiently billed.

When setting their tariff structures, local governments typically try to take social justice concerns into consideration and facilitate access to low-income households. Cross-subsidies, where richer segments of the population subsidize access to services for the poor, have been effective in some countries. One popular mechanism to implement cross-subsidies is a pricing system whereby the per unit price of consuming a municipal service, e.g. electricity, increases as more of it is consumed and may even be provided for free up to the poor. Cross-subsidies are also possible between sectors. For example, cross-subsidies are frequently used to reduce or eliminate user charges for health services since they tend to have a particular detrimental effect on the poor (Lagarde and Palmer, 2008).

More practical methods include average cost pricing, where expenditures required for providing a service are divided by the number of consumers or the volume sold, and average incremental pricing, which calculates how much it would cost to serve an additional consumer based on the average cost. There may also be multipart tariffs which could include fixed charges for basic consumption and higher charges for greater consumption, effectively cross-subsidizing the consumption of low-income customers.

Surcharges are a form of subnational "piggybacking" on national or regional taxes similar to income taxes. For local surcharges, a higher level of government defines the tax base, collects both the tax and the surcharge set by subnational governments and remits the surcharge revenue to the local government. This approach avoids the problems that occur when subnational jurisdictions define their tax base in conflicting ways, use different apportionment formulas and administer the tax in different ways. However, surcharges are not a substitute for but rather a complement to intergovernmental transfers since they do not provide for vertical or horizontal redistribution between subnational jurisdictions. Looking ahead, more data and research is needed on how and to what extent local surcharges are used effectively in Asian LDCs.

Evidence suggests that, in general, there is a positive correlation between the size of the local government and the role of own-source revenue. The fact that larger local entities have more institutional capacity to raise revenue is not surprising all other things being equal. But, in countries facing severe institutional constraints at all tiers of government, as is the case in most LDCs, the positive correlation often may not hold. Indeed, even many large cities in LDCs are struggling with generating more than 10 percent of their revenue through user fees and taxes (World Bank, 2006).

The choice of which taxes to impose, how much to charge and how to structure them depends on a wide range of factors such as the size, level of economic development and demographic composition of the local authority. Across LDCs, there is a wide array of local taxes at both the national and local levels (Table 1.2). Their suitability can be assessed against a common set of criteria including revenue adequacy, a broad base, accountability, compliance and administrative costs and progressivity.

Table 1.2 Taxes Assigned to/Levied by Different Levels of Selected Asian LDCs

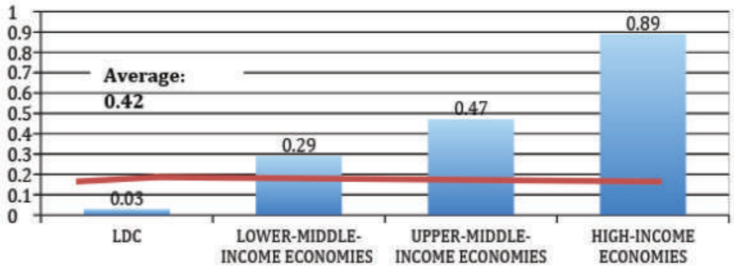
Country	Tier of Government	Tax Authority
Afghanistan	National	Customs Duties, Withholding Tax, Business Receipts & Corporate Income Tax (CIT), Personal Income Tax, Capital Gains Tax
	Local	Vehicle Registration Tax, Toll Tax, Advertisement Tax, Property Tax, Road Tax
Bangladesh	National	Customs Duties, Excise Duties, Supplementary Duties, Personal Income Tax, CIT, Value Added Tax, Capital Gains Tax
	Local	Tolls, Lighting Rates, Conservancy Rates, Holding Tax, Vehicle Tax, Animal Tax, Marriage Tax
Bhutan	National	Customs Duties, Excise Duties, Personal Income Tax, Business Income Tax (BIT), CIT, Sales Tax
	Local	Property Taxes, Property Transfer Tax, Land Taxes, Cattle Tax, Grazing Tax, Advertisement Tax
Cambodia	National	Customs Duties, Excise Duties, Value Added Tax, CIT, Personal Income Tax, Stamp Duties
	Local	Property Taxes, Administrative Fees (civil registry functions), User Fees and Charges, Land Taxes
Lao PDR	National	Customs duties, Excise Duties, Value Added Tax, CIT, Personal Income Tax, Stamp Duties
	Local	Property Taxes, Vehicle Taxes, Fuel Taxes, fees and Administrative Charges
Myanmar	National	Customs Duties, Excise Duties, CIT, Personal Income Tax, Stamp Duties, Capital Gains Tax
	Local	Property Taxes, Land Taxes, Development Affairs Organization fees (public services including water, sewerage and trash collection), Wheel Tax
Nepal	National	Customs Duties, Excise Duties, CIT, Value Added Tax, Capital Gains Tax
	Local	Property Taxes, Municipal Business Tax, Municipal Tax on Vehicles, Local Development Fees
Timor-Leste	National	Customs Duties, Excise Duties, CIT, Personal Income Tax, Petroleum Tax
	Local	NA

Sources: *Khadka (2015), Urban Management Centre (2010), World Bank (2015), IMF (2013), IMF (2010), Huda (2009), Taliercio (2005), Crowe Horwath International (2015), Dickenson-Jones (2015), Shrestha (2002), Romeo (2015).*

Levying Property Taxes

Property taxes are among the most frequently levied taxes at the local level due to their sound economic principles. However, their revenue potential remains underutilized in LDCs (Figure 1.3).

Figure 1.3 Recurrent Property Tax Revenue as Percent of GDP



***Source**: IMF Government Finance Statistics Database, accessed August 2016.*

One of the major challenges with levying property taxes in LDCs is the lack of proper titles for residential premises and tax exemptions for low-value properties. Moreover, given the lack of suitably qualified staff and resources for local governments in many LDCs, rising land values are not regularly assessed leading to substantial revenue shortfalls as old property values remain on the books. Consequently, where property taxes are levied, they often do not keep pace with economic development. Property taxes also suffer from broader challenges that affect other types of national taxes such as low nominal tax rates and low collection rates.

Where title registration systems and fiscal *cadastres* (i.e. comprehensive and perpetual inventories that describe and assess the value of landholdings) are not well developed, 'Street addressing' (i.e. giving streets names and/or numbers) is a constructive first step towards identifying the tax base and increasing tax revenues. Street addressing helps locate residents and greatly facilitates municipal service provision. It also helps enforce the collection of user fees for water and electrical utilities. It is important to see the building of fiscal *cadastres* and street addressing as complementary practices. Indeed, the reconciling of street indices with fiscal registers can lead to substantial local revenue increases (Habitat III, 2015).

Business Taxes

In economic theory, local level business taxes are often seen as inefficient mechanisms of own-source revenue generation. It is argued that such taxes may discourage business formation, have adverse effects on growth and investment and lead to distorted capital allocation. At the same time, subnational entities may compete in lowering their business taxes in a "race to the bottom" that erodes the tax base and revenues.

However, there is no solid empirical evidence that business taxes have implications on growth and, in practice, virtually every country imposes some sort of business tax either at the national or local level. Bird (2006) notes that, to a certain extent, there are efficiency, equity and political arguments that support local business taxes. Local business taxes are also easier to administer and more elastic than property taxes and, therefore, are a crucial source for expanding infrastructure and local services.

Examples of Subnational Revenue Composition in Nepal

As shown in Figure 1.4, one third of municipal income in Nepal comes from central government grants and revenue sharing. The second largest source of municipal income in Nepal is the Local Development Fee collected by the central government at a rate of 1 percent on certain imported goods (Lamichhane, 2012).

Figure 1.4 Source of Municipality Income in Nepal, 2006/07

***Source**: Lamichhane (2012).*

1.7 Innovative Financing

“139. We will support the creation of robust legal and regulatory frameworks for sustainable national and municipal borrowing, on the basis of sustainable debt management, supported by adequate revenues and capacities, by means of local creditworthiness as well as expanded sustainable municipal debt markets when appropriate. We will consider the establishment of appropriate financial intermediaries for urban financing, such as regional, national, subnational and local development funds or development banks, and including pooled financing mechanisms, which can catalyse public and private, national and international financing. We will work to promote risk mitigation mechanisms such as the Multilateral Investment Guarantee Agency, while managing currency risk, to reduce the cost of capital and to stimulate the private sector and households to participate in sustainable urban development and resilience-building efforts, including access to risk transfer mechanisms.

140. We will support the development of appropriate and affordable housing finance products and encourage the participation of a diverse range of multilateral financial institutions, regional development banks and development finance institutions, cooperation agencies, private-sector lenders and investors, cooperatives, moneylenders and microfinance banks to invest in affordable and incremental housing in all its forms.

141. We will also consider establishing urban and territorial transport infrastructure and service funds at the national level, based on a variety of funding sources ranging from public grants to contributions from other public entities and the private sector, ensuring coordination among actors and interventions as well as accountability.

142. We invite international multilateral financial institutions, regional development banks, development finance institutions and cooperation agencies to provide financial support, including through innovative financial mechanisms, to programmes and projects for implementing the New Urban Agenda, particularly in developing countries.

*145. We support the use of international public finance, including official development assistance, among others, to catalyse additional resource mobilization from all available sources, public and private, for sustainable urban and territorial development. This may include the mitigation of risks for potential investors, in recognition of the fact that international public finance plays an important role in complementing the efforts of countries to mobilize public resources domestically, especially in the poorest and most vulnerable countries with limited domestic resources." (**Source**: paras 139, 140, 141, 142, 145 of the New Urban Agenda)*

Cities have historically funded most infrastructure development. This public capital usually comes from local taxes, user charges and intergovernmental transfers (de Vera and Kim, 2003). Nevertheless, because of fiscal constraints and because public institutions are prone to facing serious debt capacity issues, their ability to finance infrastructure investment has declined.

The private sector can play a fundamental role in helping to overcome the gap between infrastructure demand and projected public spending. Generally, private sector participation in infrastructure reduces the traditional role of government and increases the role of private institutions in providing necessary infrastructure to serve the public interest (Kim, 2016).

It has been estimated that, in general, the public sector makes up nearly 70 percent of infrastructure expenditures, the private sector around 20 percent and development banks and agencies make up the rest (Hansakul, et al, 2016). For example, Goldman Sachs estimates a government share in infrastructure of 90% and 65% in the Philippines and Indonesia, respectively. Both countries are classified as LMICs (Inderst, 2016).

Private financing for infrastructure projects are funded by a combination of equity capital and debt that comes from commercial bank loans, mezzanine debt, bonds, and funds, among others. Table 1.3 gives an overview of the main investment instruments that are used globally. These are not replicated totally in either LDCs or LMICs. One of the reasons that may explain this is that private debt typically carries short maturity profiles and is more expensive than official debt.

Table 1.3 Taxonomy of Instruments and Vehicles for Infrastructure Investing.

Asset Category	Instrument	Direct	Indirect	Market Vehicles
Equity	Listed	- Shares or transport, energy, water, utility companies, etc.	- Listed infrastructure funds - Investment trust - Indices, ETFs, derivatives	- Listed infrastructure equity funds, indices, trusts, ETFs
	Unlisted	- Direct investment in private companies/ projects. Co-investment - Investor platforms, alliances (crowdfunding)	- Unlisted infrastructure funds, closed-end, open-end funds -Public-Private Partnership funds - Funds of funds	-Unlisted infrastructure funds
Fixed Income	Bonds	- Corporate bonds - Project bonds - Government infra bonds - Sub-Sovereign, municipal bonds - Green bonds, Sukuk	- Infrastructure bond funds - Trust structure - Bond indices	Bond indices, bond funds, ETFs
	Loans	- Private infrastructure debt - Syndicated project loans	- Infrastructure debt funds	- Debt funds - Loan indices, loan funds.

***Sources**:ADB Institute. Inderst Georg (2016) and OECD analysis drawing on OECD (2015b)*

It is important to mention that a typical infrastructure project goes through different stages such as planning, construction and operation. Each phase exhibits different risk and return characteristics and, therefore, each phase requires a different mix of financing tools, targeting different kinds of investors (commercial banks, insurance, pension funds). For instance, The Bank for International Settlements has mentioned that government and private sector enterprises typically finance planning and construction, while bonds are usually used for refinancing infrastructure projects during the operational phase due to the low risk tolerance of institutional investors (Ehlers, 2014).

This chapter will now discuss some of the typical infrastructure financing instruments.

Loans

Commercial banks have played an important role in financing infrastructure. Consistent with the worldwide finding that up to 90% of project finance is composed of bank loans (ADB, 2015), according to the ADBI, Asian financial markets are characterized by the predominance of banks (Ray, 2015). The vast majority of credit is given by banks and other intermediaries and the bond market has developed, only slowly.

Nevertheless, the banking sector is currently cautious about making long-term loans for infrastructure financing due to a combination of impediments. These impediments include concerns about regulatory and legal frameworks such as strict Basel capital adequacy requirements[4] and the asset-liability or maturity mismatch.

According to the principle of "congruent maturities" (Eichler, et al, 2012), long term investments should be financed in the long term. In economies where inflation is high, money left in banks decreases in value, making short term deposits preponderant. Banks are reluctant to provide long term loans for infrastructure projects with short term deposits because that could expose the financial institution to an asset-liability or maturity mismatch. As a matter of fact, when short term funding runs out, this mismatch may have negative implications, making institutions susceptible to a liquidity crisis (Yoshino, 2012).

Hence, local governments cannot repay their loans according to schedule terms from infrastructure project revenue that is projected in the long term. Local governments are forced to roll over their debt into new-debt with the inherent risk of future market conditions.

Such conditions require local governments to seek infrastructure financing alternatives through a securitization process in which the bank can package a bundle of project finance loans and sell them as securitized debt in institutional markets. By this means, banks may be able to obtain liquidity and translate the risk of the project and institutional investor, avoiding maturity mismatch (Kim, 2003).

Subnational Borrowing–Statutory Limitations[5]

Local government borrowing is often discouraged by the national government. In some countries, limitations are placed on the amount of funds that can be borrowed and on debt charges against a specific percentage of expenditures. Local governments are also sometimes restricted to a certain kind of authorization from national authorities.

According to the Municipalities Law (2000) in Afghanistan, for example, municipalities can just borrow from the Central Government through the Ministry of Finance's sources. In Bhutan, only a certain kind of local government (*thromdes*) may borrow through or with the approval of the Ministry of Finance. Municipalities in Nepal and Sri Lanka, as well as metropolitan corporations in Pakistan, also required approval from the Ministry of Finance. Central government approval or guarantee is also required in Bangladesh, Nepal, Pakistan and Sri Lanka (Ellis and Roberts, 2016). Box 1.1 includes examples on borrowing statutory limitations for local governments.

4 [4] It is expected that full implementation of Basel III regime (deadline 2019) would make it more difficult for banks to extend long-term loans in order to finance mega infrastructure projects.

5 [5] This section draws heavily from Ellis and Roberts (2016).

Box 1.1 Limitations on Local Government Borrowing Ability

* Afghanistan: Cities can only borrow from the Central Government
* Bangladesh: Local Government borrowing from external sources is allowed with central government approval. Urban Local governments can and do borrow from the Bangladesh Municipal Development Fund
* Bhutan: Local Governments may borrow funds through the Ministry of Finance or with its approval
* India: Local Government borrowing is governed by the Local Authorities Loans Act (1914) and increasingly accessed from multiple sources, including bonds. Urban Local Governments can borrow from the market without federal or state guarantee if they meet specific criteria. A Pool Finance Development Fund is intended for smaller LGs, and some states have their own mechanisms. Urban Local Governments dominate local borrowing. Additionally, the Income Tax Act was amended to allow Urban Local Governments to issue tax-free bonds
* Nepal: Municipalities can borrow using collateral or CG guarantees
* Pakistan: Provinces are allowed to borrow with informal Central Government monitoring. Metropolitan corporations can borrow with Central Government approval.

***Source**: Ellis and Roberts, 2016*

Syndicated Loans

In order to protect the safety and soundness of a bank's financial regulation, banks typically require limits on a single party-exposure. Thus, in order to have enough financing and comply with the mentioned risk management policy, loans more often are provided by a syndicated group of lenders who work together to provide the required funds to the single borrower.

According to Deutsche Bank Research (Hansakul, 2016) syndicated loans for key infrastructure sectors in Asia have amounted to a total of USD 649 billion over the period from 1993-2015. Despite Local Governments being limited by statutory limitations, syndicated loans are often used in project finance. Box 1.2 elaborates on subnational borrowing in Indonesia.

Box 1.2 Subnational Borrowing in Indonesia

Indonesia, with a lower middle income socio-economic level, had a total population of around 258 million people by 2015 with a population growth of 1.2 percent per annum and an urban population growth of 2.6 percent per annum (Public-Private Partnership Knowledge Lab, no date). The country is established as a multi-tier state, with 34 provinces below the central government, cities, districts and villages. Even so, most authority is concentrated in the central government (Alm, 2010)

Regarding subnational government's ability to borrow, at first it was strictly limited by statutory regulations (Law No 4/ 1974). Regional governments were only permitted to borrow with the approval of the central government for specific cases or under limited circumstances with a limited extent of borrowing. Subsequently, in principle, the Government of Indonesia gave local governments the freedom to borrow from domestic and foreign sources (the latter via the central government).

However, because of the presence of enormous public debt, recurrent macroeconomic shocks (e.g., the tsunami of 2004, earthquakes) and ongoing concerns about local government capacity to manage their budgets, the central government in practice has maintained strict limitations on subnational borrowing.

For example, regulation requires that the maximum accumulated debt must be less than 75 percent of the general revenue from the previous budget year, the debt service coverage ratio must be at least 2.5, the maximum short term borrowing cannot exceed 1/6 of current spending, borrowing must be approved by either the central government or the local parliament and commercial/private borrowings are not allowed (Alm, 2010).

Indonesia's experience illustrates that the passage of legislation does not automatically lead to the establishment of the conditions under which local governments can actually borrow for infrastructure. Despite the apparent permission for local government to borrow, central government controls have remained to deal with central-level macroeconomic considerations.

Alm and Indrawati (2004) argue that the central government must design a transition strategy to shift from the current reliance on direct administrative control over local borrowing to one with a greater reliance on market discipline policies. The long-term goal should be to create a viable market-oriented framework in which local governments face hard budget constraints but still have access to credit markets.

***Source**: Alm, James, 2010.*

Bonds

The bond capital market in Asia, especially in LDCs, tends to be illiquid and shallow. As a consequence, local infrastructure funding is limited and expensive. According to ADBI, local currency bond markets across Asia reached over USD 10 trillion in 2015, out of which 40% was accounted for by corporate bonds.

The bond market needs to be strengthened. There are financing needs for infrastructure projects and an appetite in the private sector for long-term investment. Bond market financing would help to match long-term assets to long-term investments in infrastructure, eliminating the maturity mismatch concern. In other words, bond funding could be used by banks for long-term loans (ADB, 2015). Box 1.3 provides information on the Asian Bond Markets Initiative.

Box 1.3 Asian Bond Markets Initiative (ABMI)

The ABMI is supported by ADB. Launched in 2003, it aims to develop efficient and liquid local-currency bond markets in Asia which would be able to channel funds from institutions / people who have excess or available funds (surplus) to those who have a shortage. The ABMI aims to mitigate maturity mismatch by transforming long-term savings into long term investments.

Recent outcomes under the ABMI include the establishment of the Asia Bond Online (ABO) which provides the latest information about bond markets, the Credit Guarantee and Investment Facility (CGIF) that supports the issuance of local currency denominated corporate bonds by providing credit enhancement and the Asian+3 Bond Market Forum (ABMF) as a common platform to foster standardization of market practices and regulations.

The ADB has been guaranteeing project bonds issued in India since 2012 and, in cooperation with the Indian Infrastructure Finance Company Limited, has established a credit enhancement facility for rupee-denominated bonds.

Source*: Asian Development Bank Blog. September 2015. Asia Bonds Online: asianbondsonline.adb.org/about.php.*

Infrastructure Project Bonds

Project bonds are debt instruments with a specific maturity at a variable or fixed interest rate, through which investors provide money to a specific infrastructure project. Those instruments are less risky than equity, but are riskier than sovereign bonds because the funds for bond repayment come from the project cash flows rather than being based the creditworthiness of the bond issuer. Those are often used during the operational phase because, in this stage, the project has stable underlying cash flows (Ehlers, 2014).

The volume of issued infrastructure project bonds is really small, at USD1-3 billion a year in 2014 (Kitano, 2015) This can be explained by three things. First, bonds are rated lower even through these project-based bonds are high risk. If this is the case, either equity investment by project sponsors or credit enhancements by credit guarantors may be needed. These options would turn the issuance of project bonds into an expensive tool for funding, making funding through bank debt preferable. Second, there is an absence of interested institutional investors in the region such as the insurance, pension and funds management sector. Third, there is a lack of expertise in infrastructure investment by issuers, specifically on how to present an attractive investment to institutional investors (e.g., pension funds, insurance companies, among others) with an understanding of project bond's risks.

Corporate Bonds – Infrastructure Related Companies

These are usually bonds issued by infrastructure-related companies for general corporate purposes and differ from project bonds because their repayment does not depend on the cash flow of the specific project entity. Thus, holders of these have a claim to the corporate revenue. Publicly traded infrastructure companies and utilities are the main issuers of this kind of debt. Indonesia, the Philippines and Vietnam have 7.3, 19.8 and 18.0 percent of the total national corporate bond market in infrastructure-related issuer bonds, respectively (ADB, 2015).

Equity Capital Sources

Private equity plays an important role in private financing. Equity capital sources refer to all financial resources that are provided to firms in return for an ownership interest (OECD, 2015). It is used as leverage to raise the debt capital necessary for infrastructure projects. Investors may participate indirectly through infrastructure funds or directly through infrastructure securities.

Infrastructure Funds

Collective investment vehicles listed or unlisted on the market (most closed-end funds) take part in funding infrastructure principally via capital contributions. The capital source for those funds principally comes from institutional investors. These funds are more attractive for investors rather than investing directly in the infrastructure project because of the portfolio risk dispersion effect offered by the fund's assets. These would have a low correlation with other assets included in the fund portfolio such as securities (Kitano, 2015).

As they are typically leveraged to secure larger debt financing, these infrastructure funds have a small presence in Asia. According to the Prequin Quarterly Update, 10% of the total unlisted infrastructure funds in Q1 2016 are invested in infrastructure such as the renewable energy, power and transportation sectors (Prequin Quarterly, 2016). One of the largest deals in 2016 was Sembcorp Industries' USD 3 billion launch of the Sembcorp Gayatri Power Complex in February consisting of two 1,320 MW coal-fired power plants in India.

Infrastructure funds in Least developed countries (LDCs) are not developed.[6] However, some countries are implementing solutions, such as the Philippine Investment Alliance for Infrastructure, as outlined in Box 1.4.

6 [6] The Macquarie Asia Infrastructure Fund (Macquarie Infrastructure and Real Assets – MIA), with a size of USD 3,100 million, is one of the five largest unlisted infrastructure funds closed in Q1 2016. (See https://www.preqin.com/docs/quarterly/inf/Preqin-Quarterly-Infrastructure-Update-Q1-2016.pdf

Box 1.4 Philippine Investment Alliance for Infrastructure (PINAI)

PINAI is a 10-year, closed-end private equity fund investing in unlisted equity and equity-linked infrastructure projects in the Philippines including Public-Private Partnerships, water and waste, railroads and other mass transit systems, ports and airports, power generation & transmission and renewable energy, gas distribution and telecommunication infrastructure. The fund had its first and final close in July 2012, reaching its PHP 26 billion (approximately USD 625 million) target.

PINAI projects include an 81MW wind farm in Caparispisan, llocos Norte; a storage and pipeline facilities in Subic Bay Freeport Zone, Olongapo City; operation and extension of Light Rail Transit 1; a 414 MW coal-fired power plant in Kauwagan, Lanao Norte and a 45 MW solar plant in San Carlos, Negros Occidental.

PINAI's investors include the Government Service Insurance System (GSIS), Asian development Bank (ADB), APG Asset Management (APG) and Macquarie.

PINAI plays an important role in supporting the delivery of infrastructure projects in the Philippines. This private equity fund provides the market with an example of financial intermediation and the mobilization of new institutional capital and expertise in the infrastructure sector.

Source: *Asian Development Bank (ADB) and Asia-Pacific Economic Cooperation (APEC).*

Infrastructure Securities

Infrastructure securities are an investment tool which companies that own infrastructure assets list on public exchanges, either acting as developers and operators of projects or as infrastructure service providers. Additionally, infrastructure equity indices are designed to measure performance of the infrastructure sector. There are differences between indices depending on country, sectors covered, number and size of the stocks included, and the particular index methodology used.

Infrastructure equity indices have not been developed in LDCs. However, India, an LMDC has the S&P BSE India infrastructure index designed to measure the performance of the top 30 Indian companies involved in infrastructure and related operations that meet investability requirements and which reflect a total market capital of INR 8,630,665 million.[7] Also, the FTSE IDFC India infrastructure index has 69 stocks and a capital market of 60 billion (Inderst, 2016).

Impact Investing

The impact investing model has been defined as "investments made into companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return" (Global Impact Investing Network, 2015). This type of investment has been deployed in sectors such as information and communication technology (ICT), energy, financial services and manufacturing as these sectors are likely to provide financial returns, generate jobs and contribute to economic growth.

7 [8] S&P Dow Jones Indices LLC: http:www.us.spindices.com/indices/equity/sp-bse-india-infrastructure-index.

Across the region, the majority of capital deployed by impact investors, qualified as Non-Development Finance Institutions, has been through equity. India has the most well-established impact investment model, and Bangladesh has the third most active impact investing market in South Asia after India and Pakistan. According to research done by the Global Impact Investing Network (GIIN), by 2015, there were at least 15 impact investors with more than 50 investments and a total of USD 955 million in deployed capital (Global Impact Investing Network, 2015).:

- Nine private equity and venture capital funds
- Four development finance institutions (DFIs)
- Two foundations)

Nepal is considered to have the second smallest impact investing market measured by capital deployed after Myanmar. This can be explained by its small population, low GDP and political instability.

Public-Private Partnerships (PPP)

Local governments can use Public-Private Partnerships (PPP) as a mode of financing sustainable development (Kitano, 2015). Public-Private Partnerships involve new assets (Greenfield) or existing assets (Brownfield) and, depending on the asset or service involved, private parties can be responsible for different functions including design, construction or rehabilitation, financing, maintenance and operation.[8] A few PPP examples of these are Build, Own, Operate, Transfer (BOOT) contracts which make private partners responsible for the design, construction, operation and financing of the capital asset; Rehabilitate Operate-Transfer (ROT) contracts which make private partners responsible for rehabilitating, upgrading or extending existing assets and Private Finance Initiatives (PFI) which typically use PPP as a way to finance, build and manage new infrastructure.

According to the World Bank's Private Participation Infrastructure (PPI) database, East Asian and Pacific and South Asia represented 12% and 5% respectively of infrastructure projects with private participation in 2015. Lao PDR, despite its limited number of PPP deals, has produced a sizeable amount of private investment despite having closed less projects compared to other comparators such as Bangladesh and Nepal.[9] Table 1.4 provides further information on the PPPs in Asia.

Table 1.4 Public-Private Partnership Projects – Country Data as of June 2015

Country	Active PPP Projects (# Under construction or operation)	Private Investment (Total Investment Committed to PPPs since 1990) (USD million)	PPP Projects (# Reaching Financial Closure since 1990)
Cambodia	24	3,146	24
East Timor	1	N/A	2
Myanmar	6	1,495	6
Lao PDR	27	15,618	28

8 [9] For more information, see Public-Private Partnerships Reference Guide version 2.0. The World Bank, Asian Development Bank, and Inter-American Development Bank 2014

9 [10] The World Bank. Global PPI (Private Participation Infrastructure). http://ppi.worldbank.org/~/media/GIAWB/PPI/Documents/Global-Notes/Global2015-PPI-Update.pdf

Afghanistan	N/A	2	1
Pakistan	75	15,068	76
Bangladesh	49	4,531	55
Bhutan	1	201	1
Nepal	32	2,886	33
Yemen	2	461	6
Vietnam	78	11,302	81
Philippines	81	38,848	106
Indonesia	83	34,042	99
India	783	228,952	824
Total LDCs	140	27,879	150
Total SEA and SA	1,242	356,552	1,342

***Source**: Public-Private Partnership Knowledge Lab. https://pppknowledgelab.org. Note: countries highlighted in grey are LDCs. SEA: South-East Asia; SA: South Asia.*

Some countries have issued regulations, recommendations, guidelines, laws and others measures in order to regulate the participation of the private sector in public infrastructure. Without them, PPPs run into difficulties such as high-priced bids, long transactions and negotiation phases and sometimes litigation (CDIA, 2010). However, PPPs with a clear and transparent national framework are more bankable and effective. The status of PPP framework development in some LDCs and LMDCs is summarized in Annex 1.1.

Experience with PPPs has been mixed. When implemented well, PPPs can help overcome challenges such as mobilizing infrastructure financing, improving project selection, improving decision making and governance, and improving regulation. In India, for instance, PPPs have a long history of support, making it the world's largest PPP market. Infrastructure demand is expected to go up to USD 1 trillion under India's 12th five-year plan (2012-2017).[10]

There are also experiences of PPP failures. This phenomenon can be attributed in part to situations related with the architecture of PPPs, the government environment and the project itself.[11] Table 1.5 further outlines possible causes for these failures.

10 [11] Asian Development Bank. Mainstreaming Public- Private Partnership in India. Available in: http://www.adb.org/countries/india/public-private-partnerships.

11 [12] **Sources**: Cuttaree Vickram. Successes and failures of Public-Private Partnership projects. The World Bank Europe & Central Asia Region. PPT Warsaw-June 17, 2008; Straub, Stephane. Governance Challenges in Infrastructure and urban investments. International Conference "Foreign Sustainability and innovation in cities through public private partnerships", 2015

Table 1.5 Possible Causes of Public-Private Partnership Failures

Challenges related to the architecture of PPPs	Challenges related with features of PPPs	Challenges related to local governments
- Poor Projects Pipeline (inadequate or non-existent feasibility studies) - Unrealistic revenue and cost estimations - Lack of thorough financial and economic analysis - Poor revenue models - Non transparent Bid Processes - End user protest - Lack of private interest - Lack of adequate contract management	- Poorly-structured PPPs - Inappropriate risk sharing - High frequency of renegotiation	- Poor legal framework and enforcement - Very poor understanding by local governments on Public-Private Partnerships and reform - Lack of regulatory oversight and monitoring capabilities - Politician's conflict of interest - Bad design of regulatory agencies - Corruption

The following proposals have been recommended to overcome these PPP challenges: PPP units, project development funds and transaction advisory panels for problems associated PPP projects institutions and facilities and constructing a solid legislative basis and solid institutional framework (Khabarova, nd).

1.8 Climate Change and Resilience Finance

"143. We support access to different multilateral funds, including the Green Climate Fund, the Global Environment Facility, the Adaptation Fund and the Climate Investment Funds, among others, to secure resources for climate change adaptation and mitigation plans, policies, programmes and actions for subnational and local governments, within the framework of agreed procedures. We will collaborate with subnational and local financial institutions, as appropriate, to develop climate finance infrastructure solutions and to create appropriate mechanisms for identifying catalytic financial instruments, consistent with any national framework in place to ensure fiscal and debt sustainability at all levels of government.

144. We will explore and develop feasible solutions for climate and disaster risks in cities and human settlements, including through collaborating with insurance and reinsurance institutions and other relevant actors, with regard to investments in urban and metropolitan infrastructure, buildings and other urban assets, as well as for local populations to secure their shelter and economic needs."
*(**Source**: paras 143, 144 of the New Urban Agenda)*

Governments and development stakeholders have developed mandatory policies for projects aimed at implementing actions to mitigate the risk of negative environmental and social impacts (IDB, 2006, 2011e). Recent studies by Mechler (2005); Moench, Mecheler and Stapleton (2007); Godschalk et al. (2009) and Michel-Kerjan et al. (2012) show that incorporation of disaster risk management from the planning state yields a high return, reducing disaster losses by four dollars for every dollar invested in disaster risk management.

There are many win-win infrastructure projects that do not necessarily entail trade-offs between growth and environmental protection (World Bank, 2012). For example, expanding the public transportation systems coverage with buses operating with clean technologies can improve access to schools and hospitals for the poor while cutting commuting times to work, alleviating traffic congestion and reducing emissions. Access to quality electrical services can allow businesses to reduce use of fossil fuel-based generators resulting in cost savings and better overall air quality. Providing access to improved sanitation can lead to less polluted drinking water sources such as lakes and rivers. Other examples include a modal transportation shift to encourage use of river or rail transportation instead of roads. The incorporation of intelligent design elements can facilitate optimization of infrastructure design. Some examples include intelligent transmission networks which anticipate energy demand, public transit systems that react to demand by adjusting vehicles in circulation and water meters that measure consumption.

Climate change means that new forms of urbanization and construction are necessary to limit temperature growth to within 1.5 degrees. Not only that, but increased agricultural productivity and natural population growth are creating rapid urbanization. Regions of Africa and Asia that are still largely rural are catching up with the Americas, Europe and other parts of Asia that have reached 80% urbanization—the level at which urbanization seems to stabilize. Yet, without the necessary per capita investment already achieved elsewhere, secondary cities in developing countries (including LDCs) will not be able to provide jobs and a decent standard of living. Hence, municipal finance for secondary cities is a challenge that effects all of us.

The form of financing will to some extent determine the form of the city. Indeed, effective engagement with the private sector requires a strong public sector, something that is not always present in secondary cities in developing countries. Additionally, private infrastructure finance and weak municipal capacity may not always deliver sustainable and livable results.

Linking the New Urban Agenda closely with the commitments in the Paris Agreement and the Sendai Agreement on Disaster Risk Reduction is important. This provides internationally agreed upon standards and an M&E framework comprised of the nationally determined contributions of the member states that comprise both mitigation (building materials, etc.) and adaptation. This will ensure that infrastructure management modalities, such as PPPs, are rooted in global goals.

A further advantage is that, when necessary, concessional finance from the implementation mechanisms of Paris can be available to co-finance investments, enticing domestic capital markets, particularly institutional finance and pension funds, into the long-term arrangements required. The concessional nature will be linked to the verifiable progress against the nationally determined contribution, providing some safeguards and assurance on the quality of the outcome.

Green Climate Fund

The Green Climate Fund (GGF) was recently established with the mission to finance low-emission and climate-resilient investments in order to keep the temperature growth within 2 degrees Celsius. It also aims to help people living in developing countries adapt to the escalating impacts of climate change. LDCs are a primary target for the GCF support. However, the local dimension is still not being fully capitalized because the fund was meant to primarily support central governments.

Green Bonds

Using green bonds as fixed income debt instruments is a new stage of development in the Asian region's financial system. The difference between a green bond and a regular bond is that the issuer states that the bond proceeds will be used to fund green infrastructure, assets or enterprise development activities with environmental benefits such as renewable energy, low carbon transport, climate-resilient solutions, risk mitigation (or adaptation related infrastructure projects), forestry or others that mitigate climate change (Egler and Frazao, 2016). A clear standard is needed for what to label "green" efforts such as the Climate Bonds Standard (Climate Bonds Initiative) or the Green Bond Principles (Capital Markets Association).

Green bonds offer a number of benefits that regular bonds do not. For issuers, green bonds (i) provide access to a broader range of investors than regular bonds or other asset classes including the ability to offer institutional and other investors with environmental, social and governance (ESG) investment policy requirements, (ii) enhance an issuer's reputation and (iii) serve in an effective way to demonstrate commitment to the environment and improve its own environmental performance. For investors, bond repayment can be tied to the issuer rather than to the success of the "green" project.

Green bonds also have some drawbacks: (i) the processing and other administrative costs associated with a green bond could be greater and (ii) there are not standardized criteria for what makes a bond green and (iii) there are no strict requirements for tracking or reporting proceeds. There is also a problem with "greenwashing", entities accessing the green bond market without proper credentials.

According to the climate bonds initiative, USD41.8 billion of green bonds were issued in 2015 (Egler and Frazao, 2016). So far, no green bonds have been issued to specifically finance local infrastructure projects in Asian low-income countries.

1.9 Conclusions

Infrastructure financing instruments available for cities have not gone forward with the same impetus of demand for services from the population. Cities are stuck with a cycle of limited resources, and establishing the conditions under which municipal borrowing occur is a difficult challenge.

To summarize the regional experience, the following challenges should be mentioned:

- Legal and institutional frameworks to regulate banking and capital markets may be inadequate
- Local financial markets are insufficiently developed to meet the demands of local governments
- Banks and capital markets may not see local governments as potential clients and may not be familiar with local government's needs
- There is not enough information to assess credit risk
- There is asset–liability or maturity mismatch generated by infrastructure projects
- In economies with high inflation, money left in banks decreases in value. In this sense, deposits are short-term. Because of that, banks are reluctant to do long-term loans so they can avoid being exposed to an asset- liability mismatch

To face these challenges, the following solutions are proposed:

- Focus attention on institutional investors who are willing to venture in long-term investments
- Promote the insurance, pension and fund management sector across the region as institutional investors. It would have positive effects on the demand for local currency bonds
- Regulate bond markets having in mind both developmental and debt sustainability needs
- Create tax incentives to promote a sustainable bond market, such as special tax treatment of municipal debt, to contribute to the growth of bond market geared for infrastructure financing. This will keep borrowing cost low for municipalities and projects

The international community has become increasingly aware of the dire need of local governments in LDCs to improve their service delivery and infrastructure requirements in order to achieve the new SDGs. It remains to be seen how this clear agenda will translate into practical actions, programs and policies.

LDC cities should not wait for support that will never be able to properly address their needs. The areas in need of intervention are clear. Hence, it is time for central and local governments to start a new deal whereby the SDG targets will be their impact indicators not only at the national level, but also at the local level.

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1.11 Annexes

Annex 1.1 State of Public-Private Partnership Frameworks in selected LDCs and LMDCs

Country	Framework
Cambodia	- 2007: Law on Concessions (LOC), is an important prerequisite for project structures to attract financing. It defines power, road, bridges, rail, airport, seaport, canal transportation facilities, water, agriculture, waste management, health, education, and telecommunication facilities as eligible for concessions. - 2006: The government established the Private Sector Development Steering Committee (PSDSC). It acts as a sub-steering committee on decisions related to private participation in infrastructure and sets out a policy framework for developing PPPs
East Timor	- 2012: PPP statute. First effort at a statutory framework for the implementation and development of PPP projects. - Country's PPP unit in the Ministry of Finance is responsible for assessing and implementing PPP contracts. It analyzes the value-for-money of PPPs versus public procurement and assesses the bankability of projects, supports the negotiation of contractual terms, leads the procurement process and monitors the implementation of PPPs.
Myanmar	- Currently there is not a PPP law or PPP unit in place at the national or local levels, but the government of Myanmar has taken steps toward creation of an adequate environment to forge private investment infrastructure.
Lao PDR	- The Investment Promotion Department of the Ministry of Planning and Investment (MPI) is working to design a policy and legislative framework, guidelines and manuals. It aims to promote and govern PPPs. In addition, a task force unit called the PPP unit has been established within the department of investment promotion (IPD). This task force is primarily responsible for initiating policy and legislation development.
Afghanistan	- The Ministry of Finance (MOF) established a PPP unit to serve as the coordinating body and central champion for PPPs. Since 2014, the MOF and the PPP unit have been working on a draft of PPP regulations.
Pakistan	- The government launched its PPP program in the power generation sector in early 1990s. The government independent power producer program is managed by The Private Power and Infrastructure Board (PPIB). An Alternate Energy Development Board (AEDB) has been set up to promote IPPs in the renewable energy sector. - The National Ports Authority (NPA) and the National Highway Authority (NHA) are responsible for PPPs in their respective areas. - 2006: The Ministry of Finance established the Infrastructure Project Development Facility (IPDF) to develop policy and promote implementation in all tiers of the government. - 2010: 2007 policy was revised in 2010. It facilitates PPPs across all infrastructure sectors at both the Federal and Provincial levels. Provinces of Sindh and Punjab, approved their PPP legislation in 2009 and 2014, respectively. Also, Sindh established a PPP unit in the provincial finance department and Punjab established it in the Planning Department.
Bangladesh	- 2010: Government introduced policy and strategies for PPPs and established a PPP office under the Prime Minister's Office in Dhaka. Another Public-Private Partnership unit under the Ministry of Finance assesses the financial viability of those projects and determines the level of government support to offer. - 2015: PPP law was enacted to establish a framework aiming to formulate and execute PPP projects.

Bhutan	- 2010: Government issued a framework for private participation in infrastructure. It provided a regulatory framework for private participation in infrastructure. Based on this framework, the government developed a draft of Public-Private Partnership related legislation. It includes a PPP Agency (P3A) in the Ministry of Economic Affairs, project committees in each implementing agency and a multisector PPP steering committee.
Nepal	- 2006: Government enacted Nepal's PPP legislation. Under the BOOT policy, a privatization cell in the Ministry of Physical Planning was established, responsible for developing documentation for concession agreements, guidelines, technical specifications and feasibility studies. In addition, a project coordination committee under the Chairmanship of the Vice-Chairman of the National Planning Commission was created and is responsible for coordinating and monitoring project implementation as well as identifying and determining priority projects. - 1992: The Build, Own, Operate and Transfer (BOOT) model for infrastructure development was incorporated.
India	- No central government legislation governing PPPs - Local Governments have established related laws in line with national guidelines. - 2011: The Department of Economic Affairs (DEA) produced guidelines and policies targeting the standardization of PPP procedures specifically regarding the formulation, appraisal and approval of PPP projects. - Central coordination of PPPs is provided by a PPP cell in the DEA under the Ministry of Finance. Also, a PPP Appraisal Committee was created and is responsible for PPP project appraisal at the central level.
Indonesia	- 2005: Legislation governing PPPs making the Ministry of National Development and the Investment Coordinating Board entities responsible for PPPs. - 2009: Established Indonesia Infrastructure Guarantee Fund (IIGF) to provide government guarantees (political risk for instance). - 2009: Established Sarana Multi Infrastructure (SMI) as a public company providing infrastructure financing via equity capital and loans (including mezzanine financing). - 2010: SMI in turn established Indonesia Infrastructure Finance as a joint venture with Municipal Development Banks. - Passed land procurement law in 2012 to support land acquisition by infrastructure project companies.
Philippines	- The Government of the Philippines has used PPPs since the 1980s. - 1990: Build Operate Transfer (BOT) law providing a legal framework for Public-Private Partnerships. - 1994: Implemented the Main PPP law, Republic Act (RA) 7718. - Introduced a system of incentives to compensate for regulatory risk (incentives including bearing part of project costs, credit enhancements and subsidies). - 2010: Established a PPP center under National Economic and Development Authority (NEDA) to handle PPP matters.
Vietnam	- 1993: Established legislation governing BOTs. - 2006: A new investment law was enacted to provide a framework. - Decree 108/2009 and decision 71/2010 defined procedures, rights and responsibilities relating to BOT projects. Also established new institutional roles on PPP governance (Ministry of Planning & Investment responsible for PPP matters including coordinating among agencies, technical support, capability development and drafting of relevant legislation). - Decree 15/2015: Vietnamese government enacted new regulation for PPP. This regulation provides a private investment framework for public infrastructure sectors such as transportation infrastructure, electricity, health care and education. It provides a list of projects eligible for PPPs including power plants and transmission lines.

2. Municipal Credit Ratings and the Path to Making Municipalities Creditworthy

– *Dhruba Purkayastha and Anand Madhavan*

2.1 Introduction

South Asia is one of the fastest urbanising regions globally. South Asia's urban population grew by over 130 million during 2001-11 and is set to rise by over 250 million over the next 15 years (Ellis and Roberts, 2016). This should be generally viewed as a positive, in view of the strong correlation between urbanisation and economic prosperity globally. Yet, rapid urbanisation as is happening in South Asia brings its own attendant challenges due to amplified service level gaps as inability to raise investment levels constrains provision of commensurate infrastructure. Countries in South Asia are fast recognising the urgent need to undertake reforms in spatial planning, governance and financing to realise positive development impacts that urbanisation can potentially unleash.

Nepal, which has traditionally had low levels of urbanisation, is urbanising rapidly in recent times. With the recent conversion of Village Development Committees into municipalities, Nepal's urbanisation levels have increased to a reported 42% of its population. With urbanisation growth rate of over 3% annually, Nepal could cross 50% urbanisation within the next decade or so. Yet as observed in most of South Asia, most municipalities face severe infrastructure deficits in roads, water supply & sewerage, municipal solid waste and other urban services while having inadequate financial and managerial capacity to deal with these issues in a meaningful and impactful manner.

The GoN's National Urban Development Strategy (NUDS) recognises these deficiencies and seeks to provide a framework to enable municipalities to embark on a reform program to plan, design, implement and finance multi-year investments in infrastructure development (GoN, 2015). The strategy rightly recognises urban financing as a critical element and identifies the elements of a comprehensive multi-faceted financing framework built on four pillars of (i) local creation of municipal infrastructure, (ii) rational predictable and untied fiscal transfers, (iii) modernisation of own revenue sources and (iv) creation of the Town Development Fund as a financial intermediary to catalyse and drive lending-based urban financing.

This chapter explores the prerequisite actions for municipalities to emerge as credit worthy, secure better credit ratings and mobilize resources from capital markets in a sustainable and consistent manner. Specifically, it seeks to:

- Summarize the challenges faced by municipalities in accessing capital markets, tapping commercial lending and attracting private investment.

- Discuss a roadmap and pillars of municipal reform required to address these challenges and to tap capital markets, and
- Proposes using a credit assessment framework to monitor and track reform progress, which can potentially help municipalities prepare for and secure threshold credit ratings needed to access bond financing in the medium-to-long term.

The chapter seeks to contribute to the research relating to transitioning municipalities from being financially dependent on grants and inter-government transfers to becoming fully capable credit-worthy entities. Specific contributions will be made to the ongoing policy dialogue for Nepal's urban financing framework and provide a roadmap for the same.

2.2 Challenges to Accessing External Finance

Nepal's municipal finance system seems to operate under a number of constraints.

Firstly, its local bodies have a relatively low own-source revenue (OSR) capacity. OSR make up less than 30% of total local revenue income. Municipal OSR potential in Nepal is constrained by weaknesses in tax administration, billing and collection systems, lack of processes for timely update and revision of the revenue records, and over-reliance on intergovernmental grants.

Secondly, there are multiple and complex arrangements for fiscal transfers to municipalities. Nearly half of fiscal transfers are conditional and tied in nature, and the periodicity and timeliness for the release of transfer resources is uncertain. Further a number of expenditure functions have been devolved to local bodies without commensurate financial resources, implying unfunded mandates.

Thirdly, rigor in accounting, audit and disclosure practices appear inadequate. Where reporting of income and expenditures are a pre-condition, a comprehensive accounting framework built on accrual accounting principles appears to be missing. Further, an effective borrowing framework is not in place, notwithstanding the operation of the Town Development Fund.

Finally, institutional and capacity weaknesses are reported to be fairly large given the weak electoral processes at local levels, and there is inadequate local level organizational capacity to conceptualize, prepare and implement projects.

The National Urban Development Strategy (NUDS) estimates a need for NPR 372 billion in urban investment to meet the existing infrastructure deficit in 58 municipalities in 15 years' time (GoN, 2015). But municipal income from OSR is a mere NPR 3 billion, although the municipal finance framework suggests that this income could grow to NPR 130 billion by FY 2030-31. The imperative to embark on a comprehensive and multi-faceted urban financial reform and transformation arises from this context.

2.3 Roadmap to Nurture Creditworthy Municipalities

The path to nurture municipalities into creditworthy entities will require actions along four pre-requisite pillars namely, (i) creating a scaled-up version of the Town Development Fund at the national level to access long-term concessional lines of credit and to extend non-guaranteed financing in municipalities, (ii) implementing a harmonized accounting, audit and disclosure protocol at the municipality level, (iii) improving local level financial capacity, managerial efficiency and project implementation capabilities, (iv) facilitating regulatory clarity through well-established legislation, regulations and policies, and (v) helping undertake pilot project transactions to establish bond financing/commercial financing and public-private partnerships in urban infrastructure at the municipality level. Actions relating to each of these pillars of reform are discussed below.

Scaled-Up National Nodal Urban Fund and Development Agency

As shown in Box 2.1, Urban Infrastructure Funds (UIFs) globally have contributed immensely to scaling up and expediting the process of urban reforms through

- Quickly acquiring and building focused expertise in project concept development, procurement of services for project preparation and putting up 'bankable' projects,
- Enabling and providing a mechanism for enabling municipalities to access lines of long-term development credit (greater than 15-year tenure) as well as capital markets (through equity, bond financing and pooled financing),
- Catalyzing greater private participation through bringing capacity to drive appropriate models of engagement, risk assessment and allocation, and
- Facilitating development and implementation of 'demonstration projects' that can catalyze reform momentum towards greater private participation.

Box 2.1 Role and Evolution of Urban Infrastructure Funds (UIFs)

Urban Infrastructure Funds (UIFs) are generally set up as intermediaries to provide credit for investing in local infrastructure and to act as transient institutions until market based credit mechanisms can be used by local governments. Operationally, UIFs would (i) raise capital, (ii) on-lend to local bodies and (iii) collect debt service payments. UIFs would also need to be able to handle complementary activities including capacity building, urban reform, enabling regulation, project development and accounting systems.

Nearly 60 countries have established UIFs with larger countries such as Brazil and India setting up federal or state level UIFs. In developing countries, UIFs typically provide capital at below-market rates, often combining subsidized loans with grant. They tend to have a monopoly in lending to municipal sector and incorporate national / provincial government investment priorities while determining projects to be funded.

While UIFs are generally structured as transient institutions to address the needs of development finance, and could be phased out as market mechanisms develop, UIFs that have compiled strong records of municipal loan repayment have had no difficulty in accessing global capital markets for funds. However, to operate in a market environment, rules need to be defined to create a level playing field, by gradually weaning parastatal UIFs from their dependence on government capital and exclusive ability to blend state capital subsidies with loan funds.

Western European Experience (Municipal Bank of Netherland, Credit Local de France and Credit Communal Belgique) suggests a gradual strategy for accessing the private capital market for municipal lending. By developing a strong municipal bond market as in the case of the United States, UIFs can also potentially morph into Bond Banks. The core idea here is pooling of loans to municipalities and thus, enjoying the associated economies of scale and risk diversification.

The state of Tamil Nadu in India has been successful in scaling up an Urban Development Fund, the Tamil Nadu Urban Infrastructure Fund (TNUDF). Set up in 1996 through an innovative public private partnership as a Fund-Asset Management Company structure, the TNUDF has disbursed over USD 250 million in loans in non-guaranteed mode with a nearly 100% repayment track record (see Box 2.2)

Box 2.2 Tamil Nadu Urban Development Fund

The Tamil Nadu Urban Development Fund (TNUDF) was created in 1996, as a public-private partnership to provide long-term debt for civic infrastructure on a non-guarantee mode. The Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) was established as the Fund Manager of TNUDF and the project development vehicle for the fund.

Since its inception, loans of over USD 250 million have been disbursed under TNUDF, catalyzing over USD 425 million of urban investments in a sustainable manner till FY 2015. TNUDF also pioneered the first pooled finance initiative in India with USAID (USD 6.3 million) and the first revenue bond in India for Madurai ring road (USD 6 million) and has to date raised over USD 18 million in bond financing. TNUDF has demonstrated good repayment performance on sub-loans with a near 100% recovery rate from municipalities. TNUIFSL, the fund manager of TNUDF, pioneered innovations in the urban financing space during TNUDP-II including the following:

a) The first pooled finance initiative in India for water supply projects
b) The first revenue bond in India for a ring road - Madurai Ring Road
c) Private Sector Participation (PSP) in municipal solid waste management
d) Build-Operate-Transfer (BOT) approach for toll bridge and underground sewerage projects

The global and Indian experience of municipal development funds suggests the following lessons for Nepal as they consider scaling up its Town Development Fund (TDF).

- There must be commitment to over-arching urban reforms.
- There must be transparent rules and safeguards in project selection, development and financing.
- Capacity building challenges have to be tackled 'upfront and head-on'.
- 'Viability gaps' must be addressed and capital grants must be extended 'smartly'.
- For long-term sustainability, there must be a path created to access capital markets.

Harmonized Accounting, Audit and Disclosure Practices in Municipalities

Financial discipline and disclosure is an essential feature of the capital markets. For instance, capacities to raise funds from the private sector are directly linked to the quality of municipal accounting and financial reporting systems. Investors tend to be demanding with respect to accounting discipline, quality and credibility of financial information reporting.

Municipal accounting reform is a critical pillar for overall financial discipline and effective financial management and is crucial to enable improved (i) asset-liability traceability and management, (ii) expenditure management and (iii) revenue stability and buoyancy. It helps overcome inherent limitations of cash-based accounting systems, including lack of recognizing timing of cash flow events, weak distinction between revenue and capital items and inadequate rigor in tracking and managing assets and liabilities.

To meet the stakeholder expectation, an accounting system must (i) be accurate in capturing the underlying transactions, (ii) enhance transparency, and (iii) be user-friendly to facilitate understanding of the accounting statements by most users. To this end, India implemented accrual accounting in municipalities (Box 2.3).

Box 2.3 Accrual Accounting Reforms in India

In 2004, the Government of India through its Ministry of Urban Development prepared the National Municipal Accounting Manual (NMAM) and followed it up with other guiding documents including the National Municipal Accounts Training Manual (NMATM) and the National Municipal Asset Valuation Methodology Manual (NMAVM) to enable states and municipalities to transition to accrual accounting. Following this, many state governments adopted State-level Accounting Manuals to enable Urban Local Bodies to transition to accrual accounting. The Government of India also mandated implementation of municipality-level accrual accounting as a critical urban reform under its flagship urban development schemes.

While many municipalities in India have initiated municipal accounting reforms and do prepare and audit their accounting statements as per the NMAM or equivalent state manual, this reform in many cases have stopped with implementing NMAM compliant formats. There are efforts to complement the implementation of NMAM with a strong financial management improvement program (to enable revenue buoyance and expenditure control) along with implementation of e-governance architecture (to enable a seamless citizen interface and improved information disclosure). While some municipalities have managed to take this reform initiated forward, comprehensive accounting reforms can still be considered work in progress

Audits of municipal accounts need to be undertaken in a timely manner to ensure integrity of the accounting process and systems. With the adoption of double entry accounting, the auditor's capacity also needs to be enhanced. Delay in finalization of accounts and backlogs in completion of audits are viewed unfavorably by investors, rating agencies and other stakeholders creating a uncertainty and doubts about the veracity of the information put out by the municipality.

Disclosure on financial performance (Income and Expenditure, Balance sheet and Cash flow statements) and underlying drivers for financial performance such as (cost recovery levels, collection efficiency are critical. Additionally, information pertaining to procurement, service levels, details of grants released, etc., should also be ideally disclosed. All relevant information should be available for public access on a dynamically updated website by the municipality.

Strengthening Municipal Finances and Capacity

The municipal finance framework under Nepal's NUDS covers the imperatives and actions related to improving municipal revenue buoyancy and borrowing capacity in great detail. These identified municipal reforms and recommendations should be carefully considered.

There is a need to ensure that streamlining and improving stability, buoyancy and certainty of fiscal transfers, with an increasing shift towards unconditional transfers. At the same time, municipalities will need to improve systems and processes for improving OSR mobilization. The NUDS calls for increasing capital spending on urban infrastructure to more than 2% of GDP and this is a useful benchmark to shoot for.

Policy, Legal and Regulatory Clarity

It is understood that all the municipalities in Nepal are guided, regulated and controlled by the Local Self Governance Act (LSGA) of 1999. Municipal governments in Nepal are autonomous in the sense that they can formulate separate policy regarding local resource mobilization and management within their jurisdiction, but all within the constraints set by the national government.

Nepal 2015 Constitution describes the assignment of expenditure and revenue functions to the federal, provincial and local governments. Moreover, the Constitution defines the mechanism for intergovernmental fiscal transfers and municipal borrowing. The Constitution has established an independent body named the National Natural Resources and Fiscal Commission (NNRFC) for administering fiscal transfers and revenue sharing systems, among others. The Constitution also allows for concurrent functions between the local bodies and the federal and provincial governments on some key revenue and expenditure assignments.

The municipal finance framework (Town Development Fund, 2015) notes that functions have not been clearly defined, and recommends that the constitutional arrangement needs to be carefully detailed in order to avoid confusion, overlaps and duplication in the allocation of functions between the federal, provincial and local governments. To address these concerns it might be useful to have review and enact an over-arching municipal legislation that protects, nurtures and clarifies policy direction on governance, functional and financial autonomy of municipalities in Nepal.

Municipal legislation should have enabling provisions to facilitate borrowings by municipalities including powers to municipalities to be able to securitise receivables/assets and raise loans within clear borrowing limits and administrative procedures. Municipal legislation should also have enabling clauses for investor protection.

Implementing these crucial reforms, along the four pillars mentioned earlier, are crucial pre-requisites needed to facilitate creation of an enabling environment for sustainable municipal borrowings.

Issuance of Municipal Bond and Credit Ratings

Municipal Bonds

A bond is a marketable debt instrument in which one party, the issuer, borrows funds for a defined period of time at a variable or fixed interest rate from another party, the investor. It is a contract between an issuer and the investor whereby an issuer promises to pay a definite sum of money (as interest and principal) against borrowing from the issuer. Municipal bonds are marketable debt instruments issued by municipalities. The funds raised may be utilized towards implementing capital projects, refinancing existing loans, and meeting working capital requirements, depending on the powers vested with municipalities under respective national level municipal legislation.

Credit Ratings

Any bond issuance by a municipality has to be rated by a credit rating agency before accessing the market. Additionally, rating agencies shall also undertake regular surveillance of credit profile of issues and review the credit rating on outstanding bonds every year after issuance. Credit ratings reflect the likelihood of default of a proposed bond and therefore are crucial to pricing of bonds. The rating of a bond is correlated to the risk premium associated with a particular bond and the required bond yield/coupon interest. Ultimately the risk ratings will affect the eligible investors willing to buy the bond issue. Ratings nomenclature for long-term debt ratings are alphabetical with the best credit quality being typically denoted as "AAA" down to a classification of "C", denoting substantial risk and "D" denoting a defaulted security. See Box 2.5 below for a summary of frameworks and key indicators identified in municipal bond rating approaches of select rating agencies.

The rating agency will assign a rating to the bonds issued by a municipality. The issuer of the bond is typically the municipality, which seeks to deploy the proceeds of the bond issuance to a municipal capital project. Rating for municipal bonds will be driven by the following:

- **The credit quality, diversity and concentration of municipal loans**. The credit quality of the loans is essentially the credit quality of the municipalities, which are the underlying and eventual obligors.
- **The underlying loan documents that provide for a structured payment mechanism envisaged for securing the loan repayment by the municipality**. These mechanisms typically include (i) possible grant intercepts by the national government and (ii) escrow mechanisms to ring fence municipal level cash flows necessary for repaying the underlying loan.
- **The credit structure**. This structure provides for credit enhancements to the bond issue in such various forms as senior-subordinate bond structures, third party guarantees, escrow, and intercept mechanisms in aid of the bonds.

A Good Credit Rating is a Pre-Requisite for Bond Issuance

Assessment of the credit quality of the borrowing municipality is the starting point. In Nepal, municipalities are heavily dependent on the GoN as their responsibilities (and hence, expenditure commitments) flow from GoN legislation. Ratings for municipalities therefore depend heavily on the credit rating/assessment of the national government. A municipality's rating is also influenced by its standalone strengths as reflected in their own-source revenues and overall revenue balance.

When bond markets are not very deep as they tend to be in countries like Nepal, a very high investment grade credit rating becomes necessary to access capital markets. In India, for instance, notwithstanding a fairly deep bond market, more than 90% of bond issuances are in bonds that have a credit rating of AA and above. Therefore, by implication, municipalities will need to be taken through a period of reforms as earlier discussed before seeking to access capital markets.

Credit Assessment as a Diagnostic and Reform Monitoring Measure

Given this scenario, it may be a good idea to pilot credit assessment and issuer ratings as a way to diagnose and monitor reform. Recently, for example, Bangladesh, with the UN Capital Development Fund (UNCDF), created a framework for undertaking credit assessment of municipalities. The framework assesses performance of municipalities against 36 parameters, across five dimensions, to track performance of municipalities (Box 2.4). The GoN could initiate a similar exercise as a pre-cursor to credit ratings and bond issuances by municipalities

Box 2.4 UNCDF Framework for Credit Assessment of Municipalities in Bangladesh

Policy and instutional framework	Economic base and potential	Financial strength	Operating performance	Management efficiency

Piloting Municipal Bond Transactions and Pooled Bond Issuances

One way to overcome credit capacity limitations of municipalities is to create a nodal financing vehicle at the national level which has the capacity to undertake pooled bond transactions. Such a financing vehicle could deploy proceeds from a bond issue not only to one municipality, but into a diversified pool of municipalities and projects. This approach could help risk diversification. Coupled with credit enhancements by the national government, such issues could be able to secure a relatively better credit rating and improve access to capital markets.

Pooled bonds have been successfully tried in India by the State Governments of Karnataka and Tamil Nadu. **Box 2.5** provides a short summary of the pooled bond experience of the Government of Karnataka which accessed the bond market through a state-level nodal financing agency, Karnataka Urban Infrastructure Finance Development Corporation (KUIDFC), for the Greater Bangalore Water Supply Project. Similarly, building on the success of its pooled bond issues through the Water and Sanitation Pooled Fund Trust (WSPF), the Government of Tamil Nadu has since then designated the Trust as a master financing indenture for issuing pooled bonds on a regular basis. To date over USD 18 million has been accessed by the WSPF by Government of Tamil Nadu through pooled bond issues.

Box 2.5 Pooled Bond Issuance by KUIDFC Karnataka India

In 2005, the Government of Karnataka (GoK) accessed market borrowings through the pooled finance mechanism for the Greater Bangalore Water and Sewerage Project proposed to be implemented across seven city management councils (CMCs) and one town management council (TMC) adjoining the Bangalore Municipal limits. These CMCs and TMC have since been merged with the Bangalore Mahanagar Palike. The overall cost of the project was approximately Rs 3.4 billion, which was proposed to be funded by a variety of sources including a pooled bond issue of Rs 1 billion.

In order to access the municipal bond market, the GoK constituted the Karnataka Water and Sanitation Pooled Fund (KWSPF) as a special purpose vehicle (SPV), specifically created to tap the market borrowings. The KWSPF was constituted as a trust under the Indian Trusts Act, 1882. The Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC), which is the nodal agency for implementation of externally aided projects, acted as the asset management company for the trust.

The KWSPF (the issuer) issued INR 1 billion of fixed coupon tax-free pooled finance bonds in July 2005. The bond issue was rated LAA (SO), by the rating agency known as ICRA, indicating high credit quality, and was fully subscribed. The issue had a tenor of 15 years with a 3-year moratorium and did not carry any put/call option. Repayment would start from the fourth year with the principal redeemed in twelve equal instalments. The bonds carried a coupon rate of 5.95%.

Timely repayment is being ensured through a structured payment mechanism monitored by Canara Bank, appointed as an independent trustee to the bond holders. The KWSPF structure incorporates many credit enhancements. The KWSPF Trust issued loans out of the pooled bond proceeds, each backed by a structured payment mechanism whereby the erstwhile city municipal corporations (CMCs) concerned will fund 1/10th of their annual repayment instalment by depositing equivalent funds in a designated bank account. These balances will then be pooled to fund an escrow account opened in the name of the KWSPF trust. The bond holders will be serviced from this account. Such an arrangement reduces the risks associated with a large annual repayment having to be funded at one time by the CMCs. Further, well before the bond holders due date, the independent trustee will check the adequacy of funds in the escrow account and issue notice to the GoK to top up the deficit, if any.

GoK will be obliged to top it up to the extent of deficit. If there is a deficit after this top up, the WSPF trustee will utilize a bond service fund (BSF), sized at INR 255 million, which will be topped up within 60 days of utilization by a combination of a USAID guarantee (50% of bond principal) and the GoK. The BSF was sized by the rating agency (ICRA) at INR 255 million in order to achieve the target LAA (SO) rating. It was funded upfront and hence acted as a source of credit enhancement, along with the guarantee from USAID.

2.4 Conclusion

The GoN Municipal Finance Framework provides a useful starting point to embark on municipal reforms. The actions recommended in this chapter are critical pre-requisites in this direction, and it would be useful to incorporate these actions into the national urban reform priorities. Implementation of municipal credit assessment and possibly pooled bond issues, anchored through a national nodal level intermediary such as the Town Development Fund, should be seriously considered for implementation by the GoN. In addition, municipalities must focus on reforms to make themselves independent, autonomous and financially sustainable and vibrant.

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3. Strengthening Municipal Own-Source Revenue in Nepal

– *Ganga Datta Awasthi*

3.1 Introduction

The enactment of the Local Self Governance Act of 1999 (LSGA) provides a legal and institutional framework for the devolution of functions, funds and functionaries to Local Bodies (LBs). LBs are entrusted and authorized as the closest units of local citizens and have their roles and responsibilities defined for each level. The LSGA is committed to devolution as per the principle of subsidiarity and to deliver services by promoting the maximum participation of local people.

The LGSA gave a fiscal framework which provides financial authority to LBs to mobilize local revenues, laid out mechanisms for intergovernmental fiscal transfers and revenue sharing and conferred borrowing provisions. Autonomy was also given to LBs to invest their resources in prioritized projects recommended by local people identified through the inclusive participatory planning process at the settlement level. LBs are also entrusted to mobilize resources and technical support through Public-Private Partnerships (PPP) as well as policies and procedures to systematize it at the local level. However, despite the authority and power devolved, LBs remain heavily dependent on central transfers, receiving more than 2/3 of their overall resources from central transfers (LBFC, 2016).

On September 20, 2015, Nepal promulgated the long-awaited Constitution of Nepal through the Constituent Assembly. The new Constitution has provisioned a federal system of governance and departed from the unitary system. Naturally, the subnational governments should enjoy more responsibilities and autonomy guaranteed by the Constitution. The Constitution has provisioned governments at three levels: federal, provincial and local, with each level assigned functional responsibilities (both expenditure and revenue assignments) The Constitution specifies that the relationship between the three levels of governments will be based on cooperation, coexistence and coordination (Nepal Constitution, 2015).

The existing municipalities suffer a lot from infrastructural deficit. Municipalities lack paved roads, drainage, public transport systems, vehicle parking facilities, safe drinking water and sewerage, public parks and greeneries, and solid waste management systems. Most municipalities are too financially weak to create such infrastructure on their own. Thus, the urban economy operates under severe constraints supporting by very limited urban infrastructure in most cities and towns. In recognition of this need, the Government of Nepal (GoN) prepared a National Urban Development Strategy (NUDS) that has defined a strategy for municipalities to plan, design, create and pay for the multi-year investments made in infrastructure development (GoN, 2015).

The financing strategy, as embodied in the NUDS, is based on four premises: (i) municipal infrastructure is best created locally as envisioned under the Local Self Governance Act (LSGA), (ii) the fiscal transfer system must be rational, predictable and untied so that municipalities can leverage capital grants with debt, (iii) municipal own-source revenues such as the Integrated Property Tax (IPT) must be modernized so that municipalities can capture the benefits of rising land values, and (iv) the Town Development Fund (TDF) must evolve into a financial intermediary that functions as an open-access criteria-based lender for municipal infrastructure (TDF 2015).

Within this broader framework, this chapter focuses on own-source revenue (OSR) of subnational governments; especially on municipal taxes and non-tax revenue. As there is sufficient justification to enhance own-source revenue of all local governments, fiscal space at the subnational level needs to be enhanced in coming years to (i) meet growing expectations and preferences of locals/constituents, (ii) finance the expenditure assignments entrusted to them, (iii) seek greater decision making autonomy in order to respond to the local preferences, (iv) deliver basic services effectively to growing urban populations and (v) finance and maintain basic infrastructural services, especially to newly emerging municipalities as rapid urbanization has created an annual financing gap of about NPR 1 billion (draft National Financing Strategy, 2016).

3.2 Concept of Revenue Assignment and Own-Source Revenue (OSR)

One of the important dimensions of decentralization is fiscal decentralization. Fiscal decentralization includes the assignment of expenditure and revenue responsibilities. The objectives of fiscal decentralization are to enable subnational governments to perform their tasks effectively to the satisfaction of citizens; use scarce resources optimally, efficiently and effectively; develop skill and competencies to generate and manage resources locally; enhance people's participation and institutionalize accountable, transparent governance (UNDP, 2002).

Revenue Assignments: Once subnational governments are assigned certain expenditure responsibilities, tax and non-tax revenue sources should be made available to subnational governments in order to provide them with resources (Boex, 2001, Subedi, 2011).

Subnational government revenue sources, as enumerated by Richard Bird, can include a mixture of (i) property taxes, (ii) excise taxes, (iii) personal income taxes, (iv) pay roll taxes, (v) consumption taxes, (vi) business taxes and (vii) user charges. Good local taxes are defined as taxes that are easy to administer locally, are imposed solely on local residents and do not raise problems of 'harmonization' or 'competition' between subnational governments or between national and subnational governments. (Bird, 2001)

Concepts and Principles of Revenue Assignments: The LBFC study on revenue assignments in 2004 enumerates the following three concepts and five principles:

Three Fundamental Concepts

1) **Economic role of government**: Musgrave (1959) classified government functions in three major categories: macroeconomic stabilization, income redistribution justice and resource allocation.

   Macroeconomic stabilization and distribution functions are considered appropriate for the central government because it has to maintain distributive justice across the country.

   Allocation related functions, involving the provision and financing of public services, can be assigned to both central and local governments, depending on the central or local nature of the market failures.

2) **Concept of benefits and assignment of subnational tax:** the logic of benefit taxation argues that subnational revenue policy should be such that it is the beneficiary's subnational government who should be asked to pay for those services. The approach is both equitable and efficient. There are two kinds of benefits specific to a direct user approach (those who use the services should pay): specific benefits and, when generalized to a broader community, generalized benefits.

3) **Revenue subsidiarity:** Well-functioning subnational governments are able to access some tax bases more readily than a central government (e.g., certain user charges, real property taxes and simple excise and sales taxes)

Key Principles

Basic Principles of Tax Assignments: The Musgrave Framework provides the following revenue allocation principles (Musgrave, 1959):

1) Taxes suitable for economic stabilization should be central and lower level taxes should be cyclically stable.
4) Progressive redistribution taxes should be central.
5) Personal taxes with progressive rates should be levied by the jurisdiction most capable of implementing a tax on a global basis.
6) Unequally distributed tax bases should be taxed at the central level.
7) Lower level governments should tax bases with low mobility between jurisdictions.
8) Benefit taxes and user charges should be used by all levels of the government.

Additional considerations for revenue assignments include the following (Kelly, 2016):

- **Efficiency of market**: Tax assignment should have no adverse impact on the functioning of a market
- **National equity:** Taxes should be equitable in vertical and horizontal terms

- **Adequacy of fiscal needs:** Revenue generated should be sufficient to enable the government to carry out its tasks and services
- **Administrative Costs:** Revenue instruments should be designed to minimize administrative and compliance costs
- **Political acceptance:** The tax system should be politically acceptable.

As per the above principles, tax sources should be assigned to local governments. Further, tax sources which are easy to administer and where the tax burden may not easily be transferred should be prioritized for local taxation.

Successful fiscal decentralization requires significant local government taxing powers. Voters will typically hold their elected officials more accountable if local public services are financed to a significant extent from locally imposed taxes as opposed to having financing primarily provided through central government transfers. The tax must be visible to local voters, large enough to impose a noticeable burden and the burden must not be easily exported to residents outside the jurisdiction (Bahl, 2001).

Principles of Local Revenues*:* Subnational/local revenues can be defined as those revenues on which the local governments have the following (Bahl and Bird, 2001):

- Full autonomy to levy or not levy the tax, fees and charges
- Authority to determine the revenue bases
- Authority to determine the tax and non-tax rates
- Autonomy to collect taxes and non-taxes within their jurisdiction

Local revenue specialists have described the basic characteristics as (i) being permanent, (ii) increasing as per the growth rate, (iii) having an immobile tax base, (iv) being clear and transparent with taxpayers possessing the right to know how and where their money is used, (v) used to address the priorities of the local people and (vi) having flexible rates so that LBs can change and be accountable for their tax and non-tax rates.

3.3 Revenue Mobilization in Nepal

The Local Self-Governance Act (LSGA) of 1999, Local Self Governance Rules (2000), along with the Local Bodies Financial Administration Rules (LBFAR), 2007, set out the sources of different municipal tax/non-tax bases and rates, intergovernmental fiscal transfers and borrowings. LSGA Chapter 8, Clauses 136-148, LSGR Chapter 7, rules 140-149, and its annexes 8-12 define tax ranges and mechanisms of tax collection and non-tax rates. Rule 118 provides for a municipal level revenue advisory committee. LBFAR rule 139 prescribes different formats for municipal account keeping, while annexes 3, 9-15 and 27-28 prescribe revenue collection and account management formats.

These same legal and regulatory instruments, namely Clause 215-232, of which 215-220 are related to tax, fees, charges, sales, borrowing and revenue sharing for the District Development Committees (DDCs), respectively. Additionally, Chapter 7, Rules 207-211 elaborate on the above provisions of the Acts and Annexes of the LSG while Clauses 23-26 provide ranges of rates that can be charged for tax and non-tax rates and revenue sharing purposes.

Clauses 55-69 of LSGA lay out the financial management of the Village Development Committee (VDC), out of which Clauses 55-59 discuss the VDC tax, fees, charges, sales and borrowings. Similarly, LSGR Chapter 8 Rules 70-71 elaborate on tax and charge rates, with details contained in LSGR Annexes 4-6.

The Main Sources of Revenue (Tax and Non-Tax)

Municipalities are authorized to raise various types of service charges to finance services for their residents. The main sources of revenue (tax and non-tax) for municipalities are:

1) Municipal tax revenues sources include the House and Land Tax (HALT), integrated property tax (IPT), land revenue tax, entertainment tax, advertisement tax, rent tax, business tax, vehicle tax and commercial video tax.
2) Municipal non-tax revenue sources include fees and charges on solid waste, public utilities, parking, public toilets, *haat bazaar* (open air markets), slaughter houses, street lights, sewerage, roads, swimming pools, parks, building permits, recommendation fees and property valuation.

3.4 Analysis of Local Taxation

The following tables present municipal government revenue mobilization trends.

As shown in Table 3.1, the share of local total revenue to GDP is decreasing. From FY 13/14 to 14/15 and 15/16, GDP dropped from 2.44, 1.82 and 1.45 percent, respectively. Similarly, the percentage of local to central total revenue also decreased from 12.39, 8.35 and 6.87 percent, respectively.

Table 3.1 Total GDP, Central and Local Total Revenue, Share of Local Revenue to Total Revenue (NPR billion)

FY	Total GDP	Central Total Revenue	Local Body's Total Revenue	Share of Total Revenue as % of GDP		Percentage of Local to Central Total Revenue
				Central	Local	
2013/14	1,695	333.92	41.38	19.70	2.44	12.39
2014/15	1,965	429.54	35.86	21.86	1.82	8.35
2015/16	2,120	448.33	30.79	21.15	1.45	6.87

***Source**: LBFC, 2016*

As shown in Table 3.2, the internal income of the VDCs, municipalities and DDCs was 14, 53 and 10 percent of the total in FY 2014/15 and 11, 55 and 23 percent in FY 2015/16. VDCs revenue decreased from 14 to 11 percent in 2015/16, whereas municipalities and DDC revenue slightly increased by 55 and 23 percent in municipalities and DDCs, respectively. VDC revenue may have decreased because most of the VDCs have converted to new municipalities. Municipality revenue increased due to the increase in revenue sharing resources. The figures also indicate that DDCs are reluctant to transfer revenue sharing resources to VDCs and municipalities, meaning they are not yet following the legal provisions of the LSGA.

Table 3.2 Total Revenue of Local Bodies and Share of Own-Source Revenue to Total Revenue

	Local Bodies	VDCs	58 Old Municipalities	DDC
2014/15	Grants	8,210,000	3,350,188	15,700,442
	Revenue Sharing	0	-	1,666,724
	Internal Income	1,302,241 (14%)	3,782,585 (53%)	1,850,807 (10%)
	Total	9,512,241	7,132,738	19,217,973
2015/16	Grants	7,304,114	2,525,291	4,639,549
	Revenue Sharing	0	517,502	2,481,627
	Internal Income	896,522 (11%)	3,647,556 (55%)	2,096,431 (23%)
	Total	8,200,636	6,690,349	9,217,607
	Growth	**13.78**	**6.20**	**41.55**

***Source**: LBFC, 2016*

Table 3.3 shows the fluctuations of internal revenue and grants in local bodies. The causes of these fluctuations are not given in the LBFC report. It may be because DDC grants decreased from NPR 20.84 billion in FY 2013/14 to NPR 15.7 billion in 2014/15 and to NPR 6.65 billion in 2015/2016. Municipal income also decreased from 44.6% to 42.1% and then increased to 78.5%, 112.8% and 164.3%, respectively, from FY 2011/12 to 2015/16. In contrast, in other bodies, grants are decreasing and income is increasing. Municipal OSR in FY2014/15 and 2015/16 increased by more than 100% because municipalities are receiving revenue sharing such as land registration fees directly from the central government and because the central government transferred the Local Development Fee (LDF) money to Municipalities, both of which are counted as local revenue.

Table 3.3 Revenue Description of Local Bodies (2011-2015) (NPR billion)

FY	VDC			DDCs			Municipalities			
	Grant	Internal revenues including OSR & revenue sharing	Total	Grant	Internal Revenue including OSR & revenue sharing	Total	Grant	Internal Revenue including OSR & revenue sharing	Total	Local Body's total
2011/12	8.97	0.9 +10%	9.87	17.07	3.3 +19.3%	20.38	3.81	1.7 +44.6%	5.46	35.7
2012/13	8.53	1.0 +11.4%	9.50	16.71	3.1 +18.6%	19.77	5.34	2.3 +42.1%	7.59	36.9
2013/14	8.96	1.2 +13.4%	10.13	20.84	2.4 +12.9%	23.59	4.28	3.4 +78.5%	7.64	41.4

2014/15	8.21	1.3 +15.8%	9.51	15.70	3.5 +22.3%	19.22	3.35	3.8 +112.8%	7.13	35.9
2015/16	7.30	0.9 +12.3%	8.20	6.65	4.6 +69.2%	11.22	2.52	4.1 +164.3%	6.66	26.4

***Source**: LBFC, 2016*

As Tables 3.4 and 3.5 indicate, local taxes dominate OSR, at around 50%.

Table 3.4 Municipal Own-Source Revenue (NPR million)

Internal Revenue	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Average OSR	% of OSR	Annual Average Growth
Local Tax	632	582	770	905	1,556	1,123	928	47.6	17.2%
Service Fees & Fines	644	619	755	625	964	1,263	812	41.6	17.2%
Property Rental	98	124	107	125	178	205	140	7.2	17.4%
Other	73	84	28	73	99	67	71	3.6	22.5%
Total OSR	1,446	1,409	1,659	1,728	2,797	2,657	1,949	100	15.2%

***Source**: Data of the municipalities compiled by LBFC (TDF 2015)*

Table 3.5 Main Sources of Municipality Own-Source Revenue (NPR million)

Internal revenue	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Average OSR	% Average OSR
IPT	174	169	199	269	397	213	237	12.2
HALT	477	465	547	558	1081	717	641	32.9
Business tax	72	70	83	79	78	193	96	4.9
Service Charge	578	564	664	625	964	1263	776	39.8
Property rental	101	99	116	125	178	205	137	7.0
Others	43	42	50	73	99	66	62	3.2
Total OSR	1,446	1,409	1,659	1,729	2,797	2,657	1,950	100

***Source** :Authors' analysis based on LBFC's published and unpublished data (TDF,2015)*

This revenue includes three vital sources of municipal income: property taxes (House and Land Tax (HALT), with roughly 33%, Integrated Property Tax (IPT) with 12%) and Business Tax with 5%. This data includes only 58 municipalities and, out of those 58 municipalities, 46 are medium and small (rural) municipalities raising their income from IPT whereas the remaining 12 are large metropolitan and sub-metropolitan municipalities with HALT (TDF, 2015).

The second largest source of municipal income is service charges, fees and fines. Within this broad category, building construction permit fees dominate, with most other fees and charges quite nominal. Some municipalities are charging tourist entry fees (Bhaktapur, Lalitpur and Kathmandu).

There is tremendous potential for raising revenue from property taxes, which is recognized as one of the best revenue sources for municipalities.

As Tables 3.6 and 3.7 indicate, within the last two years, the municipal income scenario has changed due to direct revenue flow from land registration fees, which are centrally collected and shared to local bodies. Local taxes are now second place, at 40% in 2013/14 and 35% in 2014/15.

Table 3.6 Own-Source Revenues of the Municipalities (NPR thousands)

Category	2013/14	%	2014/15	%	Growth/deficit
Local Tax	1,527,055	40.4%	1,457,167	35.0%	4.6%
Service Fee	536,294	14.2%	475,170	11.4%	11.4%
Charges, sales, rental and revenue sharing and other local income	1,719,201	45.4%	2,232,730	53.6%	29.9%
Total	3,782,550	100%	4,165,067	100%	10.1%

***Source**: LBFC , 2016*

Table 3.7 Municipality Own-Source Revenues as per Revenue Sources (NPR thousands)

	FY 2013/14		FY 2014/15	
Descriptions	**Amount NPR**	**% Contribution**	**Amount NPR**	**% Contribution**
Integrated Property Tax	212,873	5.6	283,615	6.8
Business Tax	193,182	5.1	130,684	3.1
House and Land Tax	716,663	19.0	610,411	14.7
Service Charges	1,263,164	33.4	1,507,991	36.2
Revenue sharing	271,392	7.2	517,502	12.4
Other local taxes	1,125,276	29.8	1,114,864	26.8
Total	3,782,550	100	4,165,067	100

***Source**: LBFC, 2016*

3.5 Property Tax Benefits and Risks: A Few Measures for Precaution and Application

Public finance experts suggest that the best suited LG revenue source is the property tax. Because they are immovable, the impact is confined, benefit distribution is easy and it is good from an equity point of view. However, this tax base is not without certain issues that need to be addressed such as the valuation of land, methods of assessment, fixation of rates and collection methods. (Local Bodies Fiscal Commission, 2004)

Property tax is not without obstacles, inequities and inefficiencies, particularly in developing countries. The Local Bodies Fiscal Commission (2004) has outlined the following precautionary observations:

> There can be serious political problems with adopting and enforcing it. Because most politicians and local leaders are from elite families and they posses' large properties, in assessment of their property they may influence the local administration for valuation and assessment. Although property tax is visible, not hidden in deduction of income or prices of goods, local residents are still reluctant to pay taxes if they do not get adequate and desired municipal services. It demands better local services and responsive and accountable municipal administration.

There is a tendency to over tax business property through higher assessments and higher rates. This could lead to relocation or shifting of the tax burden in the form of higher prices for the very residents which the differential property tax rates are trying to protect.

Valuation procedures tend to be too complex and too infrequently applied such that the tax base stagnates for long periods. Simplified assessment procedures that use standardized land and building classifications have been employed in successful property reforms throughout the world, improving yields and reducing administrative costs.

Collection is a major concern in most countries and it often receives less attention than valuation reform. It is necessary to replace valuation led strategy with collection led reform (Kelly, 2000). Improved valuation without improved collection will not bring about significant revenue yield. Some key ingredients of collection-led reforms are (i) legal provisions that broadly define liability and allow renters to deduct property tax payments from rent, (ii) the establishment of more convenient points for tax payments, (iii) simpler payment procedures and (iv) measures to enhance enforcements such as sanctions and stiff penalties for noncompliance and property seizure in cases of default.

Strategic implementation, on the expenditure side, is critical for successful property tax reform. Simple and acceptable reforms should be initiated at first rather than contentious ones. New systems should be tested in pilot areas, allowing them to reform before wider replications. Better linkages should be created between tax policy and tax administration officials so that unworkable rules and field based issues can be quickly corrected and addressed (Kelly, 2013).

3.6 Key Issues and Challenges for Own-Source Revenue

Property Tax: Integrated Property Tax and House and Land Tax

The integrated property tax (IPT) and the house and land tax (HALT) are the major sources of municipal revenue. IPT taxpayers are identified by adopting household surveys. The property is assessed by self-assessment methods, with cross verification. The Revenue Advisory Committee at the municipality recommends the rates as per classifications of the wards and *toles*. Generally, rates depend on valuation rates received from local land revenue offices and are generally below actual market rates. There is a lack of sharing of land records and information regarding ownership transfer having these relevant property-related institutions represented on the municipal advisory board.

About 46 municipalities have initiated IPT, but the central level authorities have not reviewed the rates, and the LSGR has not been amended to adjust it to local demand. The tax rates have also not been reviewed or updated at the local level due to the absence of locally elected representatives. Several municipalities tried to review the tax rates, but local people resisted, which has let to continued negotiations.

The local digitized land property records, needed for IPT valuation purposes, also are not cross verified and updated based on information records from the local land revenue offices. The traditional valuation system based on land classification types is in need of structural change.

Currently, in urban areas, the *kachhapakho* land is high value and irrigated *abbal* land, typically used for agricultural purposes, is relatively low. Improving the property tax will require proper land use mapping, proper land classification for housing purposes and a regular recalibration of pricing mechanisms with local market values. For HALT enforcement, a major challenge is that the housing tax base is not properly mapped and registered. The land permit registry is also not maintained.

The depreciation rate and computation system is also not updated nor systematically reviewed. The land property valuation rates are not uniform and are viewed differently for different purposes. For example: property valuations are typically overvalued for bank guarantees and guarantees needed to study in foreign universities, but are undervalued in cases for land registration, tax valuation or land revenue collection purposes. Some municipalities stick only to the rates used by local land revenue offices.

The so called 'landless' and squatters are not included in any tax system despite their use of land and buildings and their use of different municipal services. This may be due to municipalities being reluctant to legalize those property holdings for tax purposes because those lands were originally captured illegally.

Collection–led reforms, with an emphasis on increasing taxpayer service, are also important for Nepal to encourage voluntary compliance. This requires an efficient and simplified billing and collection system, along with an effective socialization and taxpayer education program.

Business Tax

The business tax is an important potential OSR source for LGs, especially for municipalities. Thus, municipalities should be proactive to attract and encourage businesses to grow within their jurisdictions by providing incentives for good businesses or discouraging bad, hazardous business so as to address health and environmental concerns. A proper design structure and tax levels can help the municipality achieve these objectives.

Only around 50% of business people are captured in the tax base. The low rate of coverage can be attributed, as least partially, to the fact that business registration records are not shared by concerned government offices such as cottage industries, company registrar, transport management, land revenue, internal revenue and other tax registration offices at the local and central levels. The cross sharing of information is important and regular updates of the business registry are a most important aspect ensure a broad tax base coverage. A close working partnership with the local Chamber of Commerce (FNCCI) could encourage coordination and more efficient and equitable business tax collections.

Although the revenue potential from the business tax is very promising, most municipalities have not been able to fully utilize this revenue source. Some municipalities however have been very proactive in collecting this tax and have been able to send tax collectors to business entities to collect this annual tax (TDF, 2015).

Further, the following issues have been observed: (i) the present tax slab is not being reviewed, (ii) there is no clarity to penalize those in noncompliance, (iii) private schools should come under the tax bracket and this requires support from the District Education Officers, (iv) the municipal taxpayer clearance process is not compulsory to other offices, (v) modern businesses such as ISPs, cable service and telecom towers are not fully under business tax registration, (vi) financial institutions and cooperatives are not under the tax bracket, (vii) luxury hotels are not properly mainstreamed within local taxation systems and (viii) the central government exempts tax without consultation with concerned municipalities.

Service Fees and Charges

Municipalities are authorized to collect service fees and charges in the areas of solid waste, public utilities, parking, public toilets, *haatbazaar* (open air markets), slaughter houses, street lights, sewerage, roads, swimming pools, parks, building permits, different types of recommendations, property valuation, tourist entry fees and other miscellaneous services. Under the service charge and fee category, building permit fees, tourism fees and recommendation fees are contributing higher resources to municipalities. Income from other service charges and fees are nominal. Rental income from shopping complexes and other rental properties, like swimming pools, bus parks, town halls, etc. are income from commercial activity for municipalities (TDF, 2015).

Municipal Administrative Capacity

Tax administration capacity varies across municipalities affecting revenue yield, efficiency and equity. In our legal provisions, municipal tax bases are quite good other than a few nuisance taxes and fees. However, the tax range is quite wide, and the gap is very large. So, at the policy level, this has to be reviewed properly so that tax imposition can be simplified for local politicians because if the tax rate is given at the minimum level, political leaders may choose minimum because they do not want to upset their voters by imposing the higher side of taxes and fees.

Another issue is that municipal capacity is not assessed properly and the capacity gaps have not been identified to build a systematic capacity development plan. The tax section is not equipped with appropriate personnel or logistics and personnel are not trained and exposed to modern tax practices. The behavioral changes are most important for dealing with taxpayers and customers and to be more accountable to taxpayers and responsive to local people.

Capacity development encompasses three basic ingredients: (i) creating simple and transparent systems and procedures, (ii) raising awareness of municipal administration to use those systems and procedures and (iii) creating sufficient logistics such as computer software and hardware as well as office layouts convenient to the taxpayers.

Vehicle Registration, Irregular Vehicle Tax and Parking Fee

Taxes on motor vehicles take many forms. Import, registration, vehicle ownership, road use, toll tax and parking fees are the main forms of motor vehicle tax. Taxes on petroleum products are used as a proxy for vehicle use. While vehicle import duties should remain at the central government, the other vehicle related taxes are good candidates to assign to subnational governments (LBFC, 2004). With the exception of parking fees, those other vehicle taxes should be collected by the provincial governments, with a revenue sharing mechanism with the local governments within that province.

At present, vehicle taxes are collected by the central as well as local governments. This is ineffective as those taxes are collected due to intervention by the national-level traffic police. Most municipalities are collecting, in a cost ineffective manner, very limited amounts from the annual vehicle registration tax. A one-time entry fee on municipal roads would not yield much collection as there are a limited number of municipal roads (TDF, 2015).

Parking fees should be imposed by local governments but, at present, parking fees are not systematically collected and rates are not categorized as per municipal areas. Similarly, bus parks are not being systematically managed and are not paying their returns in comparison with their investments.

House Rent Tax

The house rent tax should be in the domain of local governments. But, until now, this house rent tax base is under the jurisdiction of the central government and municipalities are only authorized to charge an additional 2% piggyback taxing on private house rent. But, due to weakness in sharing information between internal revenue offices and municipalities, the collection is not tangible. And even the central government tax office does not support raising this revenue from municipalities and municipalities also lack systematic data from the Internal Revenue Offices (IRO). Due to this information gap and dual responsibility, the actual rent payer numbers are not recorded and updated in the municipalities. The tax is not systematically collected from all rented households. To resolve this issue, the house rent tax needs to be transferred upwards by solely authorizing municipalities or by using a single window collection system to make it simple and economical. Under the 2015 Constitution, the housing rent is now exclusively assigned to LGs.

Entertainment Tax

The entertainment tax faces a number of challenges. It is not collected systematically due to defaults in the collection system. The tax is to be collected on the basis of the per ticket charges, but actual data on the sales is not easily available and/or to be verified. Therefore, typically the entertainment tax is levied based on the classification of the cinema halls as an annual charge. The administration of the commercial radio/TVs also faces many challenges, and other entertainment taxes such as casinos and circuses should be transferred to the jurisdiction of municipalities.

Fees, Charges and Duties

A major source of non-tax revenue is building design, drawings/maps approval charges and other recommendation fees; however, their revenue predictability is uncertain and difficult to project. The increasing trend of municipal urbanization depends largely on the employment opportunities and municipal services. There is an absence of land use planning and proper plotting of land and a lack of municipal services needed to attract businesses within municipal jurisdictions.

There is also a lack of coordination and communication between town development committees and municipalities, often leading to duplicated activities between jurisdictions. Records are often not properly shared with the respective municipalities for plotting land and big multistoried housing complexes. A building code has now been issued but technical capacity has not been enhanced as needed. Still, people are not fully compliant with this code due to the lack of regular supervision.

The solid waste management fee and polluters pay systems are also not systematized fully, and all municipalities incur heavy costs. Charges are poorly rated, and all polluters have not been brought under the fee structure. Hazard management especially is not properly managed or appropriately charged to concerned ventures and industrial and service institutions.

Similarly, appropriate user charges are also not being properly applied due to the absence of dual services from telecom, electricity, sewerage and road maintenance.

Revenue Administration

The following observations concerning revenue administration are identified as areas for improvement:

- Each municipality has their own internal revenue section and many are poorly staffed. In some municipalities, these sections are led by tax officers, while in others, they are led junior level staff with little training. Capacity development initiatives have been undertaken by resource centers which are located in 12 strategic locations throughout the country. They support municipalities within the catchment areas sharing best practices and provide back up support as well. These centers are observed to be quite effective and should be continued even under new constitutional arrangements.
- Almost all 58 municipalities have computerized revenue databases as well as software accounting systems for managing income and expenditures. This must be continually updated and networked with accounting sections and with the municipal chief executive officers.
- Most municipalities collect their taxes only at municipal service counters and only a few municipalities extend collection services across ward offices and mobile units.
- Almost all municipalities have revenue advisory committees who regularly review tax policies and resolve issues, but they often lack a systematic exchange of databases and information.
- Most municipalities have conducted tax potential feasibility studies and Revenue Improvement Action Plans (RIAPs), but many of the recommendations remain to be implemented.

- Municipalities deposit their revenue in local treasuries before incurring expenditures. The revenue is collected in cash and deposited in the municipal bank account the next day. The account section reconciles the collections on a monthly basis. There are minimal horizontal linkages between the revenue collection and the accounting section, and the day-to-day collected amount is not reconciled within the municipal administration system creating problems of liquidity management in the finance services.
- Receipts are printed and issued, but records are not properly recorded in the municipal administration. The actual number of the receipt is printed but may not officially be known to either the account section or municipal executive officer, creating serious risks or flaws in revenue administration and collection.
- A major source of non-tax revenue is “fees and charges” from certification and building design map/drawings registration licenses. However, these are often areas of complaints and possible corruption. Some municipalities are using online registration systems, but with some remaining challenges. Bus parks are also not systematically managed, thus not generating their expected revenues.
- Accrual accounting systems are not being used as provided by regulations; however, two municipalities are in the process of piloting the accrual accounting approach. Further adoption of an accrual accounting system will require systemic reforms and transformation across the GoN accounting system.
- Internal audit sections are established in all municipalities, but their effectiveness is poor.
- The MCPM grant system provisions have encouraged increased tax efforts. In this regard, taxpayer education programs have been launched through electronic media, trainings, workshops and government-community interaction programs. However, larger municipalities may not be encouraged through this MCPM incentives as they receive other additional types of transfers.
- Most municipalities provide a 10-15% payment discount as an incentive to encourage advance tax payments. They also provide for a reduction in fees and charges for those with certification of being poor, disadvantaged and disabled or for fees for the approvals of design and drawings of community schools. Unfortunately, there is little systematic information on how much revenue has been foregone from these various discounts, exemptions and incentives. These need periodic review.
- The reporting system is weak and the income heads within the accounts are not grouped and posted as per the prescribed formats given in LBFAR. Different municipalities adopt their own approaches which then cause difficulty in linking local accounts with prescribed central formats and classifications.
- Disaggregated accounting records of carried forward amounts are not easily traced out and are posted differently by different municipalities. Municipalities typically treat carry forward transferred amounts as their income. The audit arrears cleared amounts are also not differentiated in the classification and often categorized as municipal own income.

Internal and Final Audit System

The current internal auditing system within municipalities is very weak and, in some municipalities, is being conducted by low profile staff. Objections are rarely heard and addressed, and final auditing is not effective due to the absence of political representatives and account committees. Therefore, a complete rearrangement should be made to make municipal accounts transparent and accountable. Due to an amendment in the LSGA (1999), audits should be conducted through the Office of the Auditor General (OAG) office or municipal audit boards. As per the new 2015 Constitutional provisions, the OAG will be responsible for auditing all levels of government.

Central Level Monitoring and Tracking with Improved Reporting Mechanisms

Revenue recording and reporting systems need to be improved by operating the systems and accounts as prescribed in LBFAR. The revenue tracking mechanism is not strengthened by the central level agencies or by the ministry.

Own-source revenue sources should be clearly defined to ensure proper recording and uniform reporting. Currently, the advances, audit arrears and carry forward (C/F) money are being treated as OSR by municipalities and, accordingly, budget heads have also been adjusted in the reporting system as well.

Revenue Sharing

Revenues which municipalities are authorized to receive should be transferred from the central and district levels as a predictable source. Systemic distortions are observed at the district level in the timely transfer of revenues to their municipal partners. Under the 2015 Constitution, revenue sharing has been expanded to include the revenue from passports, telecom services, piggy-back taxing on excise duties, income from national parks and income from the export of forest products in the jurisdiction of LGs, among others.

Public Community Partnership (PCP)

If the community needs and preferences are rightly planned and implemented, communities are ready to contribute more than 60% of the estimated cost in terms of cash or kind contributions. Communities also are found to be donating for social contributions. To encourage these types of contribution, municipalities should be encouraged to propose incentive packages and promote such practices for more community ownership, accountability and transparency.

Public Private Partnership (PPP)

Private sector participation should be encouraged on feasible projects. A clear incentive-based policy should be announced to attract private sector investments within municipalities, especially for solid waste management and the promotion of sustainable energy or business complexes.

Intergovernmental Fiscal Transfers (IGFT)

Currently, there are eleven different types of fiscal transfers from the central to municipal governments. The central government line ministries provide municipalities with different sectoral conditional grants through their line agencies at the district level. The current sectoral block grant approach follows a project-based or supply-based approach. Only capital grant transfers from MoFALD are formula-based, while other grants provided by the center are conditional.

Although the municipal block grants are unconditional in principle, increased conditionalities have slipped gradually into the provision of these grants. This practice not only reduces municipal discretion in using their limited grant resources, it also results in a fragmentation of municipal spending (TDF, 2015). These unpredictable transfers create dependency and discourage local revenue mobilization efforts. The intergovernmental fiscal transfer (IGFT) system must be made simple, criteria driven and predictable to encourage local revenue mobilization efforts. Under the MCPM allocation criteria, 15% of incentives are provided for revenue efforts while large transfers made from central governments are outside of the formulas and provided on an ad hoc basis. A one window transfer system should be encouraged.

Borrowing from the Town Development Fund (TDF)

Municipal borrowing for capital infrastructure from the TDF should be limited to funding those projects that are financially and economically viable. Municipalities should be able to repay the TDF loans through a combination of project specific income such as through user charges or through other municipal discretionary revenues.

3.7 Opportunities with the 2015 Constitution

The 2015 Constitution recognizes Local Bodies (LBs) as local governments (LGs). LGs are assigned functional expenditure responsibilities and revenue responsibilities in schedules 8 & 9 of the Constitution. Table 3.8 indicates the revenue assignments for all three levels under the 2015 Constitution.

Some of the tax bases are overlapping, especially between provincial and local governments, except for the tourism fee, which overlaps with the federal government. As illustrated Table 3.8, there are five tax bases which overlapped. The Government will need to establish clear laws and regulations to facilitate policy and administration coordination across various levels of government. As per the convenience principle, land and building registration fees and the vehicle tax should lie with provincial governments, while the entertainment tax needs further break down and should be the responsibility of both governments, along with the agricultural tax. Advertisement taxes should remain with the local governments.

Theory and international experience confirms that municipal own-source revenues are necessary but not sufficient to fund allocation expenditure functions. Due to horizontal and vertical inequities, merit goods and efficiency, virtually all countries provide supplemental funding resources to municipalities through an intergovernmental fiscal transfer system.

Table 3.8 Revenue Assignments in the 2015 Constitution

Federal	Provincial	Local
Customs	Registration Fee (Land and House)	Registration Fee (Land and House)
Excise-duty		Property Tax
Value Added Tax (VAT)		House Rent Tax
Individual Income Tax		Land Tax (land revenue)
Corporate Income Tax	Tax on Agricultural Income	Business Tax
Tax on Remuneration	Vehicle Tax	Vehicle Tax
Passport Fee	Entertainment Tax	Entertainment Tax
Visa Fee	Advertisement Tax	Advertisement Tax
Tourism Fee	Tourism Fee	Tourism Fee
Service Charge/Fee	Service Charge/Fee	Service Charge/Fee
Penalties and Fine	Penalties and Fine	Penalties and Fine

***Source**: Constitution of Nepal 2015*

These intergovernmental transfer resources should be made transparent, equitable and efficient. The new constitutional body, the National Natural Resources and Fiscal Commission (NNRFC), is mandated with the responsibility to recommend on all revenue, transfers and borrowings with clear parameters for all three levels of government. As Table 3.9 illustrates, revenue bases can be assigned across levels of government based on key principles. Taxes that support the stabilization and distribution functions of the government should be allocated to the central government, along with tax bases that are unequally located, and those which can be progressively taxed. Tax bases ideal for local government are those which are immobile, thereby reducing economic inefficiencies. Benefit taxes should be given to all levels of government, to be applied to those providing benefits.

Table 3.9 Tax Allocation Implications

Rationale	Taxes	Central	Provincial	Local
Stabilization	VAT	√		
	Custom	√		
	Income Taxes	√		
	Excise	√		
Distribution	Income Taxes	√		
Progressivity	Income Taxes	√		
Less Mobility	Land		√	√
	Property (L & B)		√	√
	Wages		√	
	Vehicles		√	√
	Excises		√	√
Unequally Located	Customs	√		
	Mining	√		
	Natural Resources	√		
	Corporate Income	√		
Benefit Taxes	User Charges	√	√	√
	Business Taxes			√

***Source**: Kelly, 2016, lecture handouts*

Central Government Reluctance

The central government tends to be reluctant to devolve taxing powers to subnational governments for fear of having to compete with SNGs for the same tax bases, losing control of fiscal policy and possible economic distortions impacting economic growth and equity. SNGs are reluctant to take responsibility for making politically unpopular decisions to raise OSR (Kelly, 2016).

Own-Source Revenue Projections

Annex 3.2 presents three scenarios for future potential municipality own-source revenue growth:

Scenario 1: This OSR projection uses the historical growth rate for 58 municipalities and half of this growth rate for the other 159 municipalities for the first three years and thereafter uses the same historical growth rate. According to this scenario, total revenue collection increases from NPR 3,070 million (FY 2014/15 base year) to NPR 65,087 million (FY 2030/31).

Scenario 2: This scenario assumes a 50% increase in scenario 1's historical growth rate for taxes and service charges. According to this scenario, total revenue collection would increase from NPR 3,070 (FY 2014/15 base year) to NPR 101,136 million (FY 2030/31).

Scenario 3: Scenario 3 optimistically assumes a 75% increase in scenario 1's historical growth rate for taxes and service charges. According to this scenario, total revenue collection would increase from NPR 3,070 (FY 2014/15 base year) to NPR 130,696 million (FY 2030/31) (TDF, 2015).

Institutionalization of the Constitutional Provisions

The Office of the Prime Minister and Council of Ministers (OPMCM) is engaged in the administrative restructuring process and clarification of expenditure and revenue assignments as contained in Annexes 5-9 per the 2015 Constitution. Revenue assignments are also detailed for all three levels of government. To facilitate the implementation of the Constitution, the following recommendations are made:

1) Elections at all levels are equally important and have to be conducted for accountable and responsive governance.

2) The provisioned and critical acts have to be drafted and enacted as per the constitutional spirit. Constitutional ambiguities need to be clarified and overlap must to be avoided.

3) There is observed overlap in revenue assignment bases (e.g., land and house registration, vehicle, entertainment and advertisement tax bases between provincial and local governments). For simplicity, convenience and cost effectiveness, such taxes should be collected in one place. For example, land and house registration, vehicle and entertainment taxes could be collected at the provincial level. Similarly, the natural resource tax and tourism fee should be collected at only one location and then the revenue shared across the three government levels as determined by the NNRFC.

4) The NNRFC needs to be immediately established to operationalize the tasks assigned by the Constitution. Similarly, within the government system, to resolve the intergovernmental financial matters, a competent department or division has to be established. The Intergovernmental Financial Act also should be enacted

5) In general, the Nepalese legal provisions comply with international practices and principles. The major weakness is in the implementation of those practices. This requires (i) systemic interventions with proper policy updates, (ii) facilitation of municipal administration with clear, simple and transparent procedures and processes acceptable to the taxpayers as well as tax education awareness campaigns, (iii) committed leadership and competent administration with full logistic capacity and high morale, (iv) a collection-led strategy with clear road maps and projections and, (v) a participatory planning and budgeting process, revenue policies.

3.8 Conclusion and Recommendations

The integrated property tax has gained popularity in most municipalities and its compliance rate is more than 80%, while HALT and business taxes have lagged behind. The IPT should be encouraged, and the HALT/Business tax compliance rates need to be reviewed periodically. The respective business communities and individual taxpayers should be encouraged to pay taxes using the simple principles of taxation and collection led programs along with incentive mechanisms.

The 2015 Constitution has clearly assigned revenue responsibilities. Now, the existing Acts and rules need to be developed or amended to be consistent with the Constitution. The municipal tax administration has to become more competent, responsive and accountable to taxpayers and the taxpayer's money has to be properly utilized with their participation. Additionally, the new tax areas have to be explored and addressed through proper tax policies and the outdated rates have to be revised.

The dependency of municipalities on the central government has to be reduced so that municipalities may gain self-reliance and autonomy. The tax system must be simple, convenient, payer friendly, economical and transparent to encourage compliance of the larger taxpayers.

The municipal revenue potential is higher than in the other LBs. The existing resource centers need to be strengthened to cater to the change requirements of municipalities. Additionally, revenue and account software need to be reviewed and changed accordingly.

The reporting mechanisms should be developed as per the information requirements suitable to different levels of the government. The NNRFC has to be established and it has to develop transparent and predictable transfer and borrowing practices to suggest, and later enable, the LGs to use their revenue potentials.

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3.10 Annexes

Annex 3.1 A Comparative Table of Revenue Assignments

(LSGA & Constitution of Nepal)

Local Bodies/ Governments	LSGA, 99 sources of Revenue assignments	Constitutional provisions of Local revenue
VDC/Gaunpalika	House and land tax Land tax/Malpot HaatBazar shop tax Vehical Tax Entertainment Tax Commercial Video Tax Rent Tax Rent Bitauri tax Advertisement tax Business Means Tax Natural Resources Use Tax Building permit charge Service fee charge Relationship certificate Fee Penalties	Property Tax Land Tax/Malpot House/Land Registration Fee HaatBazar Management Vehicle Tax Entertainment Tax House rent tax Advertisement Tax Business Tax Natural Resources Income Tax Service Fee Charge Vital registration Fee Penalties
Municipality	House and land tax Integrated Property Tax HaatBazar shop tax Vehicle Tax Entertainment Tax Commercial Video Tax Rent Tax Rent Bitauri tax Advertisement tax Business Means Tax Natural Resources Use Tax Building permit charge Service fee charge Relationship certificate Fee Penalties	Property Tax Land Tax/Malpot House/land Registration Fee HaatBazar Management Vehicle Tax Entertainment Tax --------- House rent tax ---------- Advertisement Tax Business Tax Natural Resources Income Tax ------- Service Fee Charge Vital registration Fee Penalties
DDC	Vehicle Tax Natural Resources Use Tax Sales Agriculture production Tax Service fee charge Penalties	

***Source**: LSGA and the Constitution of Nepal*

Annex 3.2 Municipal Own-Source Revenue Projections: Three Scenarios (NPR million)

Fiscal Year	Scenario 1	Scenario 2	Scenario 3
2015/16	8,550	8,938	9,132
2016/17	9,491	10,202	10,570
2017/18	10,549	11,699	12,323
2018/19	11,740	13,481	14,471
2019/20	13,083	15,609	17,118
2020/21	15,126	18,706	20,949
2021/22	17,490	22,451	25,711
2022/23	20,228	26,984	31,642
2023/24	23,397	32,479	39,046
2024/25	27,068	39,149	48,309
2025/26	31,319	47,253	59,919
2026/27	36,243	56,052	72,277
2027/28	41,947	64,953	83,802
2028/29	48,556	75,276	97,174
2029/30	56,213	87,248	112,690
2030/31	65,087	101,136	130,696
Total OSR	439,155	634,684	788,901

Source *:TDF, 2016*

4. Implementing the Integrated Property Tax in Nepal

– *Hem Raj Lamichhane and Khagendra Khatiwadada*

4.1 Introduction

Subnational revenue system design includes three central dimensions: assignment of revenue sources to subnational governments, the degree of autonomy with which subnational governments can exercise their assigned authority and the efficiency of the revenue administration system. For a decentralized system to meet expectations, policymakers must ensure coordination between these dimensions.

Ideally and according to theory, subnational governments should provide services to their constituents up to the point at which the cost-in terms of taxes-equals the benefit in terms of the value of services. To satisfy this condition, local governments must have the authority and be able to exercise own-source taxation. This is the essence of accountability and efficiency under decentralization and is why decentralized revenue policy matters (Taliercio, 2005). The match between revenue and expenditure assignments at subnational levels benefits allocative efficiency, promoting economic growth (Musgrave, 1959).

A tax is a compulsory charge imposed by a government upon a taxpayer who may be an individual or a legal entity. Paul Samuelson theorized that people would voluntarily pay taxes for shared benefits, while Musgrave pointed out that the government should opt for a planned allocation of goods and services depending on people's preference (Mancur, 1993).

Property tax revenues typically are an important source of finance for local government. Control of property taxes means local governments are able to make necessary autonomous expenditures (Bird, 2000). Property tax is the single most important revenue source for municipalities. Municipalities typically enjoy discretion in setting the property tax rate (Tilley, 2008). And the most responsible and accountable governments have the autonomy to establish their own tax rates and provide 'local' services funded primarily by local revenue (Hobson and St. Hilaire, 1997).

Historically, property taxes have been associated with local governments in most countries. Real property is immovable and visible, making it appropriate as a local revenue source. Secondly, property taxes are considered an appropriate source of revenue for local governments as many of the services funded at the local level are linked to increasing property values (Fischel, 2000).

This chapter reviews the practice of property tax implementation used by municipalities in Nepal. These property taxes are levied by municipalities under either the House and Land Tax (HALT) or the Integrated Property Tax (IPT).

4.2 Methodology

A desk review is the basic foundation of this chapter. Relevant literature, such as laws, bylaws, financial procedures of the Government of Nepal (GoN) and other books and articles related to property tax, were reviewed to capture the concepts, principles and practices of property tax and the role of local government, specifically in municipalities. The input and comments provided by participants during a sharing workshop jointly organized by MoFALD, MoUD and the TDF on December 20, 2016 are also incorporated in this chapter.

The statistical tool "EViews-9" was used to analyze the relationship between Integrated Property Tax (IPT) revenues and geographic areas, owned household numbers and the efficiency of the municipalities. In the regression analysis, the proxies for municipality efficiency are the four major indicators of the performance measures used in the MCPM grant system, namely indicator no. 9 (a status of revenue potentiality and projection study), indicator no.11 (the appropriate management of revenue administration), indicator no. 17 (the quality of financial transactions) and indicator no.19 (local resource mobilization). The data used and the regression results are found in Annexes 4.4.

4.3 Property Tax at Local Level: Theoretical Issues

Macroeconomic stabilization and redistribution should be a predominantly central responsibility with local governments having a principal role in the allocation function (Oates, 1972). Empowering local governments implies an avoidance of heavy fiscal transfer dependency, imposing a hard budget constraint and ensuring adequate resources for handling the provision of public services.

Thus, according to the principles of fiscal federalism, local services, by and large, should be paid for by beneficiaries who are local residents. User charges are appropriate for financing locally-provided services of a 'private good' nature. Local public goods should be financed by residents, and the cost of financing services whose benefits spill over jurisdictional boundaries should be shared through specific transfers. A local tax designed to satisfy these requirements should, in principle, have the following characteristics (Bird, 2006):

1) The base should be relatively immobile to allow local authorities to vary rates without losing the base
2) The tax should yield adequate revenue to meet local needs and should be sufficiently buoyant over time
3) The tax should be stable and predictable over time
4) It should not be possible to export the tax burden to non-residents other than to the extent that such burdens capture benefits non-residents obtain from local services
5) The tax base should be visible to ensure accountability
6) Taxpayers should perceive the tax to be reasonably fair
7) The tax should be relatively easy to administer.

There are a number of reasons for poor revenue productivity for taxes which would include:

1) Ambiguity in ownership and poor information and records about properties
2) The predominance of the informal sector in the market for immovable properties and poor information systems
3) Low capacity, lack of interest in reform and high cost of tax administration in developing and transitional countries for designing and enforcing the tax
4) The visibility of the tax and its unpopularity with voters as the benefits received are generally not perceived as commensurate with the tax paid and that other forms of property do not attract a similar tax
5) The predominance of vested interests and large scale exemptions and concessions
6) Arbitrary, uncertain and mysterious ways of determining the tax base
7) The static nature of the tax base and political difficulties in undertaking periodic valuations
8) The wide discretion of tax officers and high compliance costs associated with the tax
9) Adding the value of additions and improvements to properties in the tax base to better reflect the market property values.
10) Not surprisingly, actual revenue realization has not been commensurate with the potential.

4.4 Revenue Assignment and Own-Source Revenue

It is generally accepted that there is no ideal assignment of revenue sources between central and local levels (Odd-Helge and Geggstad, 2012). However, there are a set of tax (or revenue) assignment principles often referred to in the literature and practices on local government revenue assignments which are summarized in Table 4.1. Revenue assignment is one of the important pillars of fiscal decentralization, and should follow the assignment of expenditures. The property tax is considered an ideal source of revenue for local governments globally.

There are various types of revenue allocations that provide a higher level of autonomy for local governments to adjust yield against local needs.

4.5 Property Tax and Classification

Property taxes can be levied on all types of immovable properties such as residential, commercial, and industrial properties as well as agricultural properties. Occasionally, different categories of property are treated differently to apply a different set of exemptions, rates, and relief to certain classes of property, property owner or use of property. Classification allows municipalities to tax different types of property in a non-uniform manner. The most common form of classification taxes different types of property at different percentages of value. These classes are generally based on use or ownership. Municipalities classify properties by imposing different tax rates on different types of properties or by imposing a uniform rate of tax but assessing different types of property at different percentages of value. A few jurisdictions apply both varying tax rates and varying assessment ratios to different property classes. The most common categories in classified systems are residential, agricultural, commercial, and industrial properties, with residential and agricultural classes generally assigned lower tax rates.

Types of revenue allocation are outlined in Table 4.1.

Table 4.1 Types of Revenue Allocation

Type of revenue	Issues	Autonomy
Revenue Sharing (Transfer)	All policy, administration and revenue would be under central government control. Revenue could then be shared back to subnational governments through revenue sharing based on a formula.	Low in terms of size but high in terms of utilization
Tax Sharing (Transfer)	All policy and administration would be under central control. A portion of revenue would be given to subnational governments based either on origin, residence or a formula.	Low in terms of size but high in terms of utilization
Surcharges/Piggybacking	Administration would be under central control while policy discretion would be given to subnational governments to set the tax rate on a nationally-determined tax base. Revenue would be given back to regions based on the rate either to origin or residence.	High in size and utilization (own-source revenue)
Centrally-assisted LG taxes (co-administration)	Legislative discretion and revenue would be given to subnational governments but the administration could be shared (or co-administered) with the central government (e.g. tax base identification, valuation, assessment, collection and enforcement, appeals)	High in size and utilization (own-source revenue)
Independent LG tax	Legislative discretion, administration and revenue would be under the control of the local government but under broad guidelines from the central government	High in size and utilization (own-source revenue)

***Source**: Based on Mclure (1991), Kelly (2016) Duke University Fiscal Decentralization Training Course and further elaboration by Jesper Steffenson*

Land vs. Land and Improvements

Some countries, such as Kenya and Jamaica, only tax land. Other countries, such as Tanzania and Ghana, only tax buildings. However, most countries tax both land and buildings and a few include machinery and equipment. In countries where both land and improvements are taxed, the land portion is sometimes taxed more heavily than the improvements. The property tax on land and buildings can discourage investments in property whereas a tax only on land will not disproportionately discourage investments in building and improvements (Bird and Slack, 2002, Kelly, 2013).

4.6 Property Tax Base Options

Once the taxable base is determined, the next step is determining the value upon which the tax rate may be applied (Youngman and Malme, 1994; McCluskey, 1999).

Generally, there are two options for assessment methodologies for property taxation:

- Area based assessment
- Value based assessment
  - Capital value (market value)
  - Rental value

Area Based Assessment

A charge is levied per square meter of land area, per square meter of building (or sometimes “usable” space) or through some combination of the two. Where measures of area are used for land and buildings, the assessment of a property is the sum of an assessment rate per square meter multiplied by the size of the land parcel and an assessment rate per square meter multiplied by the size of the building. The assessment rates may be the same for land and buildings, but not necessarily. For example, a lower unit value per square meter might be applied to buildings to encourage development (Riel, 2013). There are two types of assessment rates:

- Unadjusted: (Dominica) per m^2 or hectare
- "Calibrated" area: (India, Israel) adjusted for location/use/age. This option is simple to administer. A relationship between size and value, self-assessment, and a lack of objections or appeals could be combined with locational factors though this would lack buoyancy and be regressive

Area-based assessments are commonly used in Central and Eastern Europe, China, Chile, Kenya and Tunisia. It is difficult to determine the market value of property in these countries. However, an area-based assessment is generally considered regressive, levying a greater burden on low-income taxpayers than higher taxpayers as compared to a value-based assessment basis (Bird and Slack, 2002).

Value Based Assessment

Capital Value Systems

Market value (or capital value) assessment estimates the value that the market places on individual properties. Market value is defined as the price that would be struck between a willing buyer and a willing seller in an arm’s length transaction. As Bird and Slack (2004) explain, this can be done in a variety of ways:

- Land only: (Estonia, Fiji, Jamaica, Kenya) This requires little data to set up, is cheap to administer, easy to maintain and does not deter or discourage improvement, but lacks buoyancy, narrows the base and has high nominal tax rates

- Land and building collectively: (Canada, South Africa, US)
- Land and building separately: (Antigua, Grenada, Namibia, Nevis) This has some buoyancy, buildings constitute visible wealth, it employs broad-based nominal rates, but development is likely to be stifled/silent, is constantly changing and is costly to maintain (requires various values)
- Building only: (Ghana, Tanzania)
- Value-banding or banded capital value system: (Great Britain, Ireland) This has few objections or appeals and is easy to administer but is regressive

Rental Value Systems

Rental value (agreement for payment for temporary use or annual value) is the fair market value of property while rented out in a lease. More generally, it may be the consideration paid under the lease for the right to occupy, the royalties or the return received by a lessor (landlord) under a license to real property. In the science and art of appraisal, it is the amount that would be paid for the rental of a similar real property in the same condition and in the same area.

Under the rental value (or annual value) approach, property is assessed according to the estimated (not actual) rental value or net rent. One rationale for using rental value is that taxes are paid from income (a flow) rather than from wealth (a stock) and, thus, it is appropriate to tax the net rental value of real property.

In theory, however, there should be no difference between a tax on market value and a tax on rental value. When a property is put to its highest and best use and is expected to continue to do so, rental value will bear a predictable relationship to market value – the discounted net stream of net rental payments will be approximately equal to market value (Bird and Slack, 2004). This can also be applied in one of two ways:

- Land and buildings collectively: (Australia, Singapore)
- Building only: (Egypt) This is more buoyant than land only and provides a base where land cannot be taxed (i.e. Ghana and Tanzania) but is costly to maintain and could stifle development.

Simple Per-Unit "Flat Tax" System

The flat tax, used in Dominica, is charged uniformly per house or room. It is very simple to administer but it is inequitable, lacks buoyancy and is regressive in nature.

4.7 Creating a Sound Property Database

The following three approaches/methods can be used as necessary for creating a sound property database in municipalities.

The Field Survey System

The foremost task of municipalities is the preparation of a database to identify the tax source potentiality. For this, municipalities can mobilize the enumerators in a household's level. This process is also known as the census method. The enumerators reach out to each household and prepare individual files on taxpayers' property. Once the raw information is collected from the field, the revenue section staff prepares a computerized database of individual taxpayers. This process is time consuming and costly.

The Self-Declaration System

Self-declaration requires property owners to self-report the property information and often an assessed value on their own property. Municipalities have to prepare a standard format for collecting and preparing taxpayers' individual profiles for the purpose of the Integrated Property Tax. Taxpayers use the format to declare their property and are obligated to register and report their tax obligations to the local tax administration. In practice, the responsibility of self-registration is not particularly effective because not all owners comply. Consequently, the number of potential taxpayers or taxable assets is generally unknown. The determination of tax liabilities also requires verification of the self-assessment submitted by taxpayers. However, a lack of personnel for making field inspections on each property requiring verification could pose serious issues.

The Mixed System

In the mixed system, municipalities collect self-declared information about taxpayers' property and the information provided by the taxpayers is verified through field observation and surveys on a sample basis. In addition, taxing jurisdictions can cross check declared information against 3rd party information. It would be very helpful to confirm the information provided and update taxpayer profiles.

In the beginning, the self-declaration system may be suitable for municipalities. However, the field survey system may be more accurate and necessary for cross checking declared property information, in addition to other 3rd party information, in order to increase the coverage of the property database.

4.8 Responsibility for Setting Tax Rates

To enable the property tax to serve as an autonomous local revenue source, local governments should be allowed to set tax rates independently or to set those tax rates within bounds established by the central government. As local governments need finances to pay for their mandated responsibilities, local government councils should be free to choose the rates (and to some extent the conditions) of their taxes or service charges (Hicks, 1961). However, in practice, some local governments will be limited by their administrative capacity and competence as to the autonomy they can responsibly exercise with regard to revenue.

In principle, municipalities can apply various rates on a geographic zonal basis where those geographic areas can be classified according to availability of basic services such as garbage collection, drainage management, street lighting, roadway and sidewalk coverage, sanitary sewers and rainwater sewers. Kitchen (2003) argue that locally-elected councils are in the best position to determine what citizens want and need and then to set appropriate rates. The upper limits on property tax rates assist in ensuring broad economic targets (Bell, 1999). Municipality autonomy is an important part of a variable tax rate system, while accountability is integrated into the system through such requirements as property tax bylaws, public consultation and fiscal disclosure requirements. Stability is also inherent in the system as property tax is not exceedingly cyclical or subject to individual discretion and property is not movable (Mezynska, 2005). Therefore, it is important to recognize that, although municipalities may not appear to be considering some principles while setting tax rates, these principles are implicit in the structure and process.

4.9 Municipal Taxation in Nepal

The LSGA has given municipalities certain rights to revenue collection and utilization (Table 4.2). For example, municipalities can levy either the Integrated Property Tax (IPT) or the House and Land Tax (HALT). A ceiling on the tax rates is also provided under the law. The national policy sets the tax base (and valuation rules) and the limits for the tax rates. Of the total 58 old municipalities, 46 municipalities collect property taxes through the IPT and the remaining collect the HALT. Kathmandu Metropolitan City, Lalitpur Sub-Metropolitan City, Kirtipur, Bhaktapur and Sanothimi municipalities of Kathmandu Valley have not implemented IPT, though the GoN has given priority for the IPT (LBFC, 2016).

Table 4.2 Sources of Municipal Revenue

Revenue Sources LSGA provision (136-145)	
Land Revenue and House and Land tax Rent tax Enterprise/Business tax Vehicle tax Property tax (Integrated property tax) Entertainment tax	Commercial video tax Advertisement tax Parking fees Service fees Borrowing rights (Art. 148) Fees for granting approval of building construction (Art 155(4))

***Source**: LSGA, 1999*

The 2015 Constitution has made explicit revenue assignment provision for all three levels of government. Local governments were given the exclusive power to tax land and buildings. The details are presented in Table 4.3.

Table 4.3 Constitutional Provisions for Revenue Collection Across Levels of Government

Exclusive Power of Federal Government	Exclusive Power of State Government	Exclusive Power of Local Government	Concurrent Power of Federal, State and Local Government
Customs Excise-duty Value added tax Corporate income tax Individual income tax Remuneration tax Passport, visa and tourism fees Related service charges and penalty fees	House and land registration fee Motor vehicle tax Entertainment tax Advertisement tax Tourism tax Related service charges and penalty fees	Local taxes (wealth tax, house rent tax, land and building registration fee, motor vehicle tax) and related service charges and fees Tourism fees Advertisement tax Business tax Land tax (land revenue) Entertainment tax Land revenue collection Deficit budget	Service fees, charges, penalty and royalty from natural resources and tourism fees

***Source**:The Constitution of Nepal, 2015 (Schedules 5, 6, 8 and 9)*

4.10 The Integrated Property Tax (IPT)

The GoN has given emphasis to the implementation of IPT. The rationale and underlying principles for implementing the IPT are as follows:

- All property owners will fall under the net tax coverage
- Because investment in municipal services is low, municipalities cannot levy an optimally high level of tax on individuals
- The tax rate can be increased once municipal services improve
- Property market values are relatively low in small municipalities; therefore, it would be inappropriate for small municipalities to initially levy a high tax rate, such as the House-Land Tax
- Municipalities would have a higher potential for collecting taxes if they widened the reach of the tax net. This could be done by imposing a minimal tax rate to maximize the number of taxpayers
- It is easy for municipalities to link IPT to other taxes, fees and surcharges because the IPT covers all properties and real estate
- No additional administrative cost is entailed
- The IPT establishes a reliable and suitable taxation and recording system

According to the annual progress report of the Local Governance and Community Development Programme (LGCDP), all 61 municipalities had implemented IPT in Nepal as of the end of 2015/16. Of the total 58 old municipalities, 46 municipalities implemented the IPT. Yet, large municipalities with greater revenue collection capacity, including Kathmandu Metropolitan City, have not yet implemented IPT.

IPT Implementation Processes

Municipalities interested in implementing IPT have to make decisions in their respective council meetings and must form task forces to facilitate this process. Following task force formation, the implementation steps include formation of a property valuation committee; stakeholder orientation including taxpayers (business persons and individual taxpayers), civil society organizations, intellectuals and others; conducting personnel training (municipality staff) on IPT; managing the necessary physical infrastructure (including computers and software) for the revenue section; determining the minimum value of land; determining the minimum value of physical construction on land; interacting at the ward level with ward citizen forums (WCFs), political parties and civil society; approving the minimum tax rate; printing forms/formats; publishing public notice; collecting basic information about individual taxpayers (individual profiles); filling, coding and processing the collected information; computer software installation; computer entry of the individual information and collecting the IPT tax from individual taxpayers (For details, see Annex 4.5).

Value of Taxable Property and Tax Rates

The rates of the House-Land Tax and Integrated Property Tax are separately included in LSGR Annexes 8 and 12, respectively. The rates of the House-Land Tax and the tax amount are presented in Table 4.4.

Table 4.4 Value/Price of Property for House-Land Tax, Tax Rates and Tax Amounts in Nepal

	Value/Price of House-Land (NPR)	Cumulative Valve/Price of House-Land (NPR)	Tax rates (%) and Amount (NPR)					
			Minimum			Maximum		
			Rate (%) and NPR	Amount (NPR)	Cumulative (NPR)	Rate (%) and NPR	Amount (NPR)	Cumulative Tax Amount (NPR)
Initial	3,000,000	3,000,000	25	25	25	1000	1,000	1,000
Additional	2,000,000	5,000,000	0.08	1,600	1,625	0.15	3,000	4,000
Additional	5,000,000	10,000,000	0.15	7,500	9,125	0.20	10,000	14,000
Additional	10,000,000	20,000,000	0.20	20,000	29,125	0.30	30,000	44,000
Additional	10,000,000	30,000,000	0.30	30,000	59,125	0.40	40,000	84,000
Additional	20,000,000	50,000,000	0.30	60,000	119,125	0.40	80,000	164,000

Source*: Local Self Governance Regulation (Seventh Revision), , 2016*

The valuation for the house and land tax include the following considerations:

1) Classification of the structure of the house
2) Valuation of houses (average cost per sq. foot, annual depreciation rates and total years of depreciation (25 years to 100 years))
3) No valuation shall be made of houses using raw bricks, soil, bamboo or wood for walls and having a roof made of hay,

4) While valuing the front side (main auditorium) of Cinema Halls, valuation shall be made by giving a 25% discount on the aforesaid rates.
5) While valuing land in an area where the house-land tax is levied, it shall be as prescribed by the local committee constituted for that purpose. If no such prescription has been made, valuation shall be made as per the land valuation made by the Land Revenue Office for land registration purposes.
6) Land is categorized in four grades (Malpot). Land revenue per Ropani NPR 1-100, and per Kaththa NPR 1-65
7) No land revenue shall be levied on land on which land tax has been levied (Bhumi Kar). Tax rate is fixed at Per Ropani NPR 15-400 and Per Kaththa NPR 10-260

The tax rate for the House-Land Tax is comparatively higher than for the IPT. Large taxpayers are the target of big municipalities. Taxpayers having property of up to NPR 10 million have to pay a minimum of NPR 9,125 and a maximum of NPR 14,000 under the House-Land Tax, while tax payers with the same property would have to pay a minimum of NPR 3,500 and maximum of NPR 10,000 under the IPT (Table 4.4 and 4.5). Taxpayers have to pay higher taxes under the HALT than under the IPT. A number of municipalities, namely Kathmandu Metropolitan City, Lalitpur Sub-Metropolitan City, Bhaktapur, Madhepur and Kirtipur, have been collecting more taxes in the name of the House-Land tax from large taxpayers.

Fundamentally, small tax payers are included under the IPT. The tax rates of IPT are significantly lower compared to the House-Land tax. Table 4.6 shows that taxpayers in the first tier (up to one-million-rupee value/price of house-land) have to pay a minimum of NPR 25 and maximum of NPR 200. In other words, municipalities shall levy between NPR 25 and NPR 200 as per their council's decision.

Table 4.5 Value/Price of Property and Annual Rates for Integrated Property Tax in Nepal

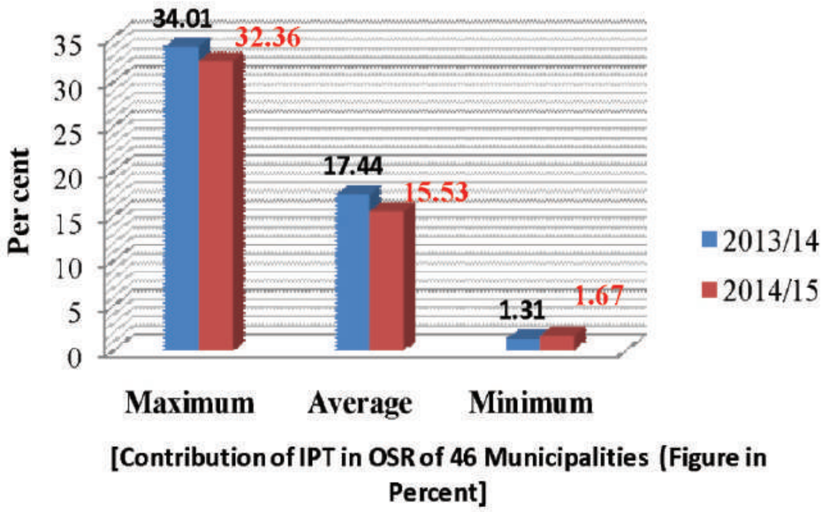
Value of Taxable Integrated Property (NPR)	Minimum Annual Rate (NPR)	Maximum Annual Rate (NPR)
Up to 1,000,000	25	200
1,000,001-2,000,000	250	400
2,000,001-3,000,000	500	1,000
3,000,001-5,000,000	1,200	3,000
5,000,001-10,000,000	3,500	10,000
10,000,001-20,000,000	12,000	20,000
20,000,001-50,000,000	25,000	60,000

Note: NPR 2 per thousand will be levied if property value is more than NPR 5,000,0001

***Source**: Local Self Governance Regulation, 2000, Annex 12*

As Figure 4.1 indicates, the financial data of the 46 old municipalities who have implemented IPT as property tax (presented in Annex 4.1) shows the share of IPT in the total OSR of municipalities that varies from a minimum of 1.3% in the Rajbiraj municipality to a maximum of 34.0% in the Nepalgunj municipality in FY 2013/14.

Figure 4.1 Share of IPT in Municipal Own-Source Revenue (2013/14)



Source: *LBFC (2015 and 2016). Local Bodies' Financial Situation Analysis Report of FY 2013/14 and 2014/15*

In the same fiscal year, the average share of IPT was 17.44%. Similarly, the IPT contribution in the total OSR of municipalities ranges from a minimum of 1.67% in the Dasharath Chandra municipality to a maximum of 32.36% in the Birendra Nagar municipality in FY 2014/15. The average IPT contribution was 15.53% in the same fiscal year.

As detailed in Annex 4.2, the share of HALT in the total OSR of the remaining 12 municipalities was 15.53% on average. Kathmandu Metropolitan City collected HALT as property tax in FY 2013/14, contributing 39.01% to the total OSR. The share of HALT in the total OSR of the Siraha municipality was only 0.33%.

Large municipalities, in terms of revenue capacity, do not seem to be interested in implementing IPT. Without any hassle and burden on small taxpayers, they are collecting HALT from large taxpayers and institutional taxpayers such as the banking sector and Nepal telecom. They are also free from the unnecessary burden of periodic revising property valuation and the tax rate.

Own-Source Revenue of Dharan Sub-Metropolitan City

Five fiscal years of financial data from Dharan Sub-Metropolitan City is presented in Annex 4.3. The data shows that about 30-47 percent comes from internal revenue including revenue sharing. Revenue sharing contributes 19 to 54 percent of the total municipality internal revenue. The contribution of IPT to total internal revenue ranges from 16 to 24 percent.

The revenue received from revenue sharing is excluded in the Dharan Sub-Metropolitan City OSR. Table 4.6 indicates that service charges and fees contribute more to OSR than other sources. The contribution of service charges and fees is between 46-54 percent of OSR whereas the contribution of IPT to total OSR ranges from 16 to 24 percent in the Dharan Sub-Metropolitan City. There has been a gradual decrease in the share of IPT in total OSR due to various causes.

It is not easy in Nepal to revise property values and tax rates of municipalities even periodically due to the unwillingness of political parties. Political parties are always fearful of unpopularity among citizens due to higher tax rates. Therefore, there is little substantial contribution of IPT to total OSR.

Table 4.6 Own-Source Revenue of Dharan Sub-Metropolitan City (in percent)

Source of Revenue	2011/12	2012/13	2013/14	2014/15	2015/16
Local Tax (Excluding IPT)	23.58	20.17	20.69	20.75	21.22
IPT	21.26	24.42	21.82	18.62	16.34
Service Charge and Fee	48.67	46.90	49.15	54.31	54.31
Rent	4.21	4.77	4.31	3.69	3.62
Others	2.28	3.73	4.03	2.63	4.51
Total	100	100	100	100	100

***Source**: Dharan Sub-Metropolitan City, Account Section, 2016*

MCPM Assessment and Municipal Capacity Development

In order to make municipalities more accountable and responsible, the following indicators are assessed in a minimum condition and performance measures (MCPM) assessment for making a database and determining the maximum collection of revenue from municipalities. The key indicators of the performance measures (PMs) related to municipality OSR are prescribed as follows:

- Establishment of a revenue section in each municipality
- Preparation of a revenue projection and potentiality study
- Establishing a ceiling of recurrent expenditures from internal revenue (Up to 25-60% of total internal revenue)
- Implementation/execution of an accrual accounting system
- Implementation of the Integrated Property Tax

Through the LGCDP, the following supports have been provided to municipalities with the goal of enhancing their capacity so that OSR will be increased by at least 10 percent each fiscal year:

- Support for the establishment and institutional development of a revenue section in each municipality
- Support for the preparation of a Revenue Improvement Action Plan with a revenue potential study
- Financial support and training for the implementation of Integrated Property Tax

Revision Valuation and Tax payer Profiles

According to existing legal provisions, municipalities shall revalue taxpayer properties at a three-year interval, formerly a 5-year interval. Experience says that the valuation interval should not be more than one year. This is because there is rapid development in infrastructure and the delivery of other public services. As a result, the value of individual/institutional properties dramatically increase in the market.

The principle is that municipalities must try to capture the development value of urban infrastructure to fund further investments to be made in urban development activities. However, taxpayers are typically very reluctant to accept the additional tax burden due to the revision to the individual property valuation over a three-year span (land and buildings/improvements).

To reduce taxpayer opposition, municipalities should increase the tax burden gradually and slowly, revise property valuation on an annual basis. Municipalities also should take the opportunity to update the individual profile of taxpayers on an annual basis while preparing revisions of property valuation for individual/institutional taxpayers. It is very important that the efficiency of municipalities remain intact in doing these things for the maximum mobilization of OSR through IPT.

Tax Coverage Enhancement

Due to the lack of detailed, actual information on land types and land owners, municipalities have not been able to maintain proper and updated taxpayer profiles. Thus, municipalities have been unable to prepare an actual database on potential tax revenues. Without an actual database, it is not practical to analyze and estimate the tax coverage and tax effort of municipalities.

Thus, horizontal coordination and cooperation between municipalities and the Land Revenue Office is crucial. A Land Registration copy should be made available by the Land Revenue Office to municipalities once property owners change due to property sales from one owner to another. The current provision for the preparation of two copies of Land Registration should be increased to three copies. Of the three, one copy would be for the Land Revenue Office, one for the buyer and one for the VDC/Municipality.

Depreciation rates for adjusting property values should be based on engineering norms. Additionally, building categories should be redefined, and tax information should be linked with an addressing system. It is urgent that *Guthi* land (trust land) be redefined by amending the Guthi Act, 1977. For example, if a land owner is an individual citizen, he/she should pay the IPT as property tax. According to the Guthi Act, 1977, the owners of *Guthi* land are compelled to pay property tax to local governments. Previously, about 40-60% of land was classified as *Guthi* in the Terai districts. However, municipalities could not access data about *Guthi* land which was not properly shared by the Land Revenue Office. It requires regular data updating. Local government should have the authority to collect property taxes from the property of trust (*Guthi*).

Building permits should be linked to taxation and the door to door billing system must be put in practice. Municipal capacity should be enhanced in terms of additional incentives, motivation and skill of municipal staff. The tax rate should be revised on a regular basis (annually) like the business tax and vehicle tax. Valuation criterion should follow the rate fixed by the Land Revenue Office for Land Registration valuation and should not be less than 50% below the fixed rate. Currently, local committees decide on a very low rate compared to the rate fixed by the Land Revenue Office for property valuation.

4.11 Use of ICT in Revenue Collection

Information and Communication Technology (ICT) plays a vital role in enabling the modernization of government and its services. It also allows both individuals and companies the opportunity to interact with government using desktops, laptops, cell phones, telephones etc. Citizen access to e-government services depends on availability of personal computers and their internet connections. In addition to private access in households, users may access the internet via public libraries, tele-centers and internet-cafes (Durrant, 2002). The rationale behind the usage and introduction of e-governance is that e-governance reduces costs and delays in delivering services, expands citizen access to public sector information, reinforces innovation, and increases transparency and public accountability (Pardo, 2000, Heeks, 2001, Norris, 2001).

Information systems can help people collect, store and use information (Duff et al, 1980). It can help recognize the policy of resource allocation processes and can increase municipality transparency and accountability. Therefore, an investment in ICT is important for municipalities in order to:

- Enhance efficiency as a result of timely revenue collection
- Enhance management integrity and honesty
- Maintain clear records of taxpayers and revenue collection
- Increase the transparency and accountability in revenue collection and utilization
- Enhance the internal control system
- Enhance E-service delivery

ICT system could make the IPT management system more efficient and transparent. ICT could help improve revenue collection online payment systems, SMS systems, E-Banking systems and Master Card payment systems. To effectively implement the ICT system, municipalities must invest annually, and the revenue staff of each municipality should have improved software and hardware computer expertise. Trained, professional, honest, sincere and motivated human resources are important in the revenue section of municipalities. These facilities should be available at the Ward level as well so that the tax collection system at the Ward level could be more efficient.

4.12 Addressing Issues Related to Vacant Land Parcels

Vacant land parcel owners in a flourishing city should pay a tax on that land. This would rationally encourage owners to perceive the vacant land as a financial liability, encouraging him/her to put the land to use in order to cover the tax. The Land Value Tax (LVT) would remove the financial incentive to hold unused land solely for price appreciation, making more land available for productive uses. Additionally, the LVT creates an incentive to convert these sites to more intensive private uses or to be released for public purposes. The tax on vacant land encourages landowners to develop vacant/underused land or to sell it. It is because the LVT discourages speculative land holding that deteriorating inner city areas return to productive use, reducing the pressure to build on undeveloped sites and so reducing urban slump (Foldvary, 2006).

Keeping and updating the vacant land information has been challenging in Nepal. Municipalities are facing problems even in identifying and recognizing the vacant land owners. Unless the Land Revenue Office provides support, municipalities alone can't resolve this problem. To address the issue of vacant land parcels, municipalities first have to complete road and street zoning and naming. After street naming, municipalities would need to prepare clusters on the basis of geography, business, agricultural land etc. Now, the ward, street and cluster combination of the land parcel can be identified for the purpose of valuation. The land's location, area or valuation zone should also be verified with the help of cadastral maps.

In Nepal, there is a trend for land owners holding land and keeping it vacant/underused. Vacant land owners are not ready to declare their property and pay the land value tax to municipalities. In order to resolve these issues, municipalities should have reliable, predictable, and practical property taxation policies and programs that should be implemented effectively and strictly so that all taxpayers can be captured on the tax net.

4.13 Challenges Faced by Municipalities in Nepal

Municipalities have not been able to prepare revenue improvement action plans focusing on revenue potentiality. This makes it difficult to assess municipal revenue collection capacity/effort. Neither the revenue potentials are perfectly identified/assessed nor fully exploited by the municipalities. Broadly speaking, municipalities face the following revenue mobilizing challenges:

Absence of elected representatives: There is a saying that there can be 'no taxation without representation'. Elected representatives are responsible and accountable for collecting taxes from their voters/taxpayers for specific service delivery within their municipalities.

Low capacity: There is very low human capacity in terms of skilled and motivated personnel, especially in the revenue section of municipalities. There is also a lack of necessary capital (lack of computers, power backup and software). The revenue section, with capable human resources and the necessary capital, would be able to support improvements in revenue planning, policy and administration.

Low compliance: Taxpayers are reluctant to pay taxes because they are not fully satisfied by the level of provided services or in how the tax is being administered.

Lack of incentives: Most taxpayers pay property taxes only when they need access to direct municipal services and/or services from financial institutes (banking systems). This is because there is an effective use of taxpayer socialization and education. Municipalities have not won the trust of taxpayers.

Encroachment of public land: Substantial land in urban areas is not legally registered in the name of the owners, meaning people have encroached and used land without legal right. And municipalities have been providing key urban services, such as drinking water, roads, drainage and supplying electricity, despite being unable to collect any taxes due to illegal occupancy of the land. Unless this is resolved, it will always be difficult to collect local taxes from urban areas. These kinds of properties should be included on the tax rolls in the municipalities.

4.14 Major Issues

Nepal is facing a number of major policy and administrative issues in the design and implementation of the IPT. Attention must be placed on addressing the following questions;

Scope of the tax: What kinds of property are to be subject to the IPT? Will it be all property, all tangible property, all immovable property, land and buildings, land alone or unimproved site value alone? How will the property be identified? How will this identification be coordinated with the work of other government agencies such as title or deed registries (*Lalpurja*), *cadastres* (survey) and mapping offices?

Identification of the taxpayer: Is the taxpayer a person with a particular relation to the property such as owner, occupier and/or beneficiary? How will tax liability be allocated among multiple parties holding partial interests in a single property? How will these be enforced in cases of non-compliance?

Exemptions: What specific types of properties are to be exempted (i.e., charitable, religious and educational property)? What level of exemption should be given to such properties and why?

Concessions and preferential assessments: Are there specific concessions (tax relief) for special groups such as low-income, handicapped or elderly taxpayers? Does a specific type of property, such as farmland, forestland or a residential building, qualify for special assessment procedures?

Measurement of the tax base: Is the tax based on a market value measure or on an area base, acquisition cost or on current use? Is the tax based on market value, capital value or annual rental value? If the tax is based on a formula designed to approximate market value, what provisions would be made for periodic review and revision of the formula as more market data becomes available?

Setting the tax rate: What level of government is responsible for setting the tax rate? Will the rate vary annually, and if so, within what limits? Will rates be uniform or be differentiated across property use or tenure?

Collection and Enforcement: What provisions are in place to provide incentives, sanctions and penalties? What type of late payment penalties and interest should be charged? In cases of default, what options are available to enforce compliance (e.g., rent and wage garnishing, tax liens, property seizure and auctions)?

4.15 Lessons Learned

1) The revenue improvement program should be implemented in each municipality with high priority given to verifying the IPT database, especially house/building data (type, area). It is very important to carry out revenue potential and projection studies in each municipality to identify the revenue potential for each municipality and help to identify the gap between revenue and expenditure needs for each municipality.

2) Municipalities must give the impression and feeling of transparency of public funds and give information to citizens on the services being provided as promised so that all taxpayers will overwhelmingly participate in the taxation activities. Municipalities must ensure maximum participation of civil society, professional organizations, politicians, and disadvantaged communities in the decision making process of tax rate fixation and implementation or utilization of tax revenue for providing urban services.

3) One problem for municipalities is that taxpayers sometimes undervalue properties. Municipalities need to be able to help citizens provide more accurate property valuation and to put into place effective audit systems to check valuation validity.

4) A sophisticated computerized system is required to operate property information and management systems. Learning this system takes time and the people currently working in the municipalities are not compatible with the existing computerized system applications. People will not participate in public consultation meetings due to diverse political and professional interests. It is important to make citizens understand that this is a common issue that affects all types of citizens and, by paying taxation, they have the right to participate in civic affairs.

5) Municipalities should focus on enhancing voluntary compliance through simplifying the collection system, reducing administrative and compliance costs and improving taxpayer service. For those reluctant to pay, municipalities should put into place a set of sanctions and penalties to encourage compliance.

4.16 Conclusion and Way Forward

Although the integrated property tax should be a very important local government own-source revenue, the data shows that there is only about 20% contribution of property tax (IPT) to the total internal revenue of municipalities in Nepal. The main reason behind this is the inefficiency of municipalities to effectively exploit their property tax. Based on the above discussion and analysis, the following conclusions and key recommendations are prescribed:

- Wealth tax (property tax) needs to be redefined by laws such as the Integrated Property Tax
- Separate IPT laws or local governance laws should address IPT issues. The law should define the property assessment methods, valuation rates, tax rates and collection and enforcement options.
- Laws contradicting the LSGA (i.e Trust Act, 1977) need to be amended
- Political commitment and taxpayer trust is necessary for implementing the IPT
- Elected local leadership through general elections should be in place
- Massive awareness programs should be conducted for successful IPT implementation
- Municipalities should have land use plans and vacant land use policies
- Adequate public consultation with all potential stakeholders at the municipal level is necessary

- Technically qualified, academically skilled and professionally motivated staff is required for IPT implementation
- An ICT friendly (i.e., well equipped with internet, power back up, computers, printers and other equipment) revenue section should be fully functional in each municipality
- It would be easier to collect taxes and increase coverage if municipal tax were linked with the services provided by other agencies such as the drinking water, telecommunication, and electricity authorities
- Municipalities should have a Revenue Improvement Action Plan (RIAP) which would include steps as identified in Annex 4.6
- Municipalities should prepare household level taxpayer personal profiles
- Municipalities should establish horizontal coordination with other line agencies such as the District Land Revenue Office and District Survey Office for accurate information on public and private land and building properties
- There should be a flexible tax exemption policy so that certain sections of society and groups such as senior citizens, unemployed land owners, single women, marginalized communities etc. can be applied to achieve social justice objectives.

4.17 References

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4.18 Annexes

Annex 4.1 Share of Integrated Property Tax in Total Own-Source Revenue for FY 2013/14 and 2014/15 (NPR 000)

SN	Municipality	2013/14			2014/15			Change (%)
		Total Internal Income	Integrated Property Tax	IPT in Total Internal Income (%)	Total Internal Income	Integrated Property Tax	IPT in Total Internal Income (%)	
1	Ilam	17,885	3,599	20.12	17,730	3,027	17.07	-3.05
2	Bhadrapur	9,537	2,191	22.97	19,822	2,239	11.30	-11.67
3	Damak	51,662	7,600	14.71	32,517	7,840	24.11	9.40
4	Mechinagar	29,861	4,091	13.7	26,981	4,190	15.53	1.83
5	Khandbari	5,181	1,595	30.79	7,920	2,253	28.45	-2.34
6	Dhankuta	14,596	1,965	13.46	12,008	2,176	18.12	4.66
7	Dharan	46,862	10,614	22.65	61,831	11,077	17.91	-4.74
8	Itahari	39,976	8,918	22.31	75,695	10,695	14.13	-8.18
9	Inaruwa	26,646	2,881	10.81	25,914	2,502	9.66	-1.15
10	Triyuga	21,243	3,838	18.07	18,123	4,046	22.33	4.26
11	Rajbiraj	14,991	196	1.31	27,427	5,269	19.21	17.90
12	Lahan	26,874	3,306	12.3	11,352	1,548	13.64	1.34
13	Malangawa	14,844	1,467	9.88	9,528	2,049	21.51	11.63
14	Kmalamai	12,687	2,091	16.48	11,202	949	8.47	-8.01
15	Bhimeshwor	12,908	976	7.56	10,962	1,929	17.60	10.04
16	Bidur	17,815	1,704	9.56	16,794	2,855	17.00	7.44
17	Dhulikhel	9,976	2,249	22.54	21,948	2,503	11.40	-11.14
18	Banepa	13,253	1,990	15.02	23,473	4,315	18.38	3.36
19	Panauti	12,759	3,035	23.79	121,120	25,902	21.39	-2.40
20	Hetauda	88,008	13,960	15.86	22,520	3,217	14.29	-1.57
21	Kalaiya	13,662	2,594	18.99	145,566	25,041	17.20	-1.79
22	Bharatpur	107,787	17,582	16.31	147,143	17,724	12.05	-4.26
23	Ratna Nagar	15,247	4,050	26.56	24,300	4,652	19.14	-7.42
24	Ramgram	12,793	210	1.64	21,997	2,120	9.64	8.00
25	Butwal	110,975	20,381	18.37	139,762	24,191	17.31	-1.06
26	Siddarthanagar	57,060	9,938	17.42	105,992	10,881	10.27	-7.15
27	Kapilbastu	15,395	1,556	10.11	18,360	2,267	12.35	2.24
28	Tansen	17,629	2,611	14.81	25,501	2,704	10.60	-4.21
29	Waling	10,153	1,419	13.98	18,994	1,367	7.20	-6.78
30	Putalibazaar	8,215	2,254	27.44	29,657	2,084	7.03	-20.41
31	Byas	30,607	5,426	17.73	38,721	5,543	14.32	-3.41
32	Gorakha	15,812	2,733	17.28	34,878	2,760	7.91	-9.37
33	Lekhnath	23,424	7,466	31.87	32,159	6,776	21.07	-10.80
34	Baglung	19,574	3,442	17.58	19,938	4,533	22.74	5.16
35	Ghorahi	38,061	6,472	17.00	26,421	6,527	24.70	7.70
36	Tulsipur	18,686	3,093	16.55	43,904	3,568	8.13	-8.42

37	Nepalgunj	39,184	13,325	34.01	67,779	19,096	28.17	-5.84
38	Gulariya	11,269	1,413	12.54	36200	1,683	4.65	-7.89
39	Birendra Nagar	16,539	4,005	24.22	43,599	14,108	32.36	8.14
40	Narayan	7,431	1,115	15.00	12,663	1,360	10.74	-4.26
41	Tikapur	22,827	6,410	28.08	37,208	6,144	16.51	-11.57
42	Dhangdhi	43,597	8,959	20.55	33,684	8,531	25.33	4.78
43	Dipayal Silgadhi	4,828	1,052	21.79	23,344	1,161	4.97	-16.82
44	Dasharathchand	2,418	283	11.70	31,424	526	1.67	-10.03
45	Amargadhi	12,965	1,623	12.52	12,306	1,623	13.19	0.67
46	Bhimdatta	36,544	5,195	14.22	43,778	6,064	13.85	-0.37
Total		1,200,246	212,873	802.16	1,790,145	283,615	714.57	-87.59
Average		26,092	4,628	17.44	38,916	6,166	15.53	-1.90
Maximum		110,975	20,381	34.01	147,143	25,902	32.36	17.901
Minimum		2,418	196	1.31	7,920	526	1.67	-20.413

Source: *LBFC (2015 and 2016). Local Bodies' Financial Situation Analysis Report of FY 2013/14 and 2014/15*

Note: Integrated Property Tax has not been implemented in the following 12 municipalities: Biratnagar Sub-Metropolitan City, Siraha, Janakpur, Jaleswor, Gaur, Birgunj Sub-Metropolitan City, Kathmandu MPC, Kirtipur, Lalitpur Sub-Metropolitan City, Bhaktapur, Madhyapur Thimi and Pokhara Sub-Metropolitan City.

Annex 4.2 House and Land Tax and Business Tax of Municipalities in 2013/14 (NPR 000)

SN	Municipality	Total Internal Income	House and Land Tax	Portion of House and Land Tax in Total Income (%)
1	Biratnagar SMC	184,965	9,796	5.30
2	Siraha	4,306	14	0.33
3	Janakpur	36,567	7,524	20.58
4	Jaleswor	16,315	251	1.54
5	Gaur	4,771	507	10.63
6	Birgunj SMC	127,402	31,362	24.62
7	Kathmandu MC	1,312,520	512,032	39.01
8	Kirtipur	35,977	7,124	19.80
9	Lalitpur SMC	224,460	64,299	28.65
10	Bhaktapur	263,333	8,084	3.07
11	Madhyapur Thimi	69,137	6,621	9.58
12	Pokhara SMC	302,554	69,049	22.82
Total		2,582,307	716,663	27.75
Average		215,192	59,722	15.49
Maximum		1,312,520	512,032	39.01
Minimum		4,306	14	0.33

Source: *LBFC (2015). Local Bodies' Financial Situation Analysis Report of FY 2013/14*

Annex 4.3 Total Income of Dharan Sub-Metropolitan City, 11/12-15/16

SN	Source of Revenue	2011/12	2012/13	2013/14	2014/15	2015/16
1	Internal Revenue	32,787,086	40,427,102	48,655,097	59,483,477	74,706,830
1.1	Local Tax (excluding IPT)	7,729,999	8,154,753	10,068,247	12,341,745	15,851,504
1.2	IPT	6,969,838	9,872,340	10,614,304	11,077,494	12,207,515
1.3	Service charge and Fee	15,958,923	18,961,547	23,915,930	32,305,942	40,573,936
1.4	Rent	1,381,882	1,930,039	2,095,471	2,192,258	2,707,293
1.5	Others	746,444	1,508,423	1,961,144	1,566,038	3,366,582
2	Revenue Sharing	39,197,201	9,992,679	22,741,421	29,886,215	33,720,195
	Total of Internal Income (1+2)	71,984,287	50,419,781	71,396,518	89,369,692	108,427,025
3	Capital grant from Central	82,703,600	46,734,000	67,822,575	106,182,426	166,353,250
3.1	Capital Unconditional	50,338,600	28,686,000	34,258,530	34,004,897	39,748,835
3.2	Capital Conditional	32,365,000	18048000	33564045	72177529	126604415
4	Re-current grant from Central	13,087,791	12,941,800	15,768,681	20,715,109	27,870,226
4.1	Re-current Unconditional	11,562,000	11,562,000	14,543,000	13,860,000	15,939,000
4.2	Re-current Conditional	1,525,791	1,379,800	1,225,681	6,855,109	11,931,226
	Total of Grants (3+4)	95,791,391	59,675,800	83,591,256	126,897,535	194,223,476
	Grand Total	178,494,991	106,409,800	151,413,831	233,079,961	360,576,726
% of Internal revenue of Total Income		40.33	47.38	47.15	38.34	30.07
% of revenue sharing of total internal income		54.45	19.82	31.85	33.44	31.10
% of IPT of total internal revenue (excluding Revenue sharing)		21.26	24.42	21.82	18.62	16.34

***Source**: Dharan Sub-Metropolitan City, Account Section, 2016*

Annex 4.4 Regression Analysis on 2013/14 IPT Revenues

The assumption is that the own-source revenue (OSR) from the IPT depends on geographic areas, owned households and the efficiency of municipalities as determined by performance measure indicators.

The model to be tested is as follows:

$Y= + {}_1X_1 + {}_2X_2 + {}_3X_3 + {}_4X_4 +$ ……………………………….. (i)

Where;

Y= Own-source Revenue of municipalities from IPT (dependent variable)

X_1= Total geographic area in square km (AREA_SQ_KM)

X_2= Number of owned households (total individual taxpayers) (OWNED_HHS)

X_3= Marks obtained by municipalities in the 4 indicators mentioned above (PM_MARKS)

= error terms, the simple difference between the actual and estimated Y values

The Least Squares method is used for regression analysis. There are 46 observations represented by 46 municipalities. This is because, of the total 58 old municipalities, only 46 had implemented IPT by FY 2014/15.

The following 2013/14 data is used in the regression analysis.

SN	Municipalities	IPT_Rev (Rs. 000)	Area (Sq. Km)	PM Obtained Marks	Total HHs	Owned HHs
1	Ilam	3,027	26.63	5	4,732	2,996
2	Bhadrapur	2,239	73.00	6	4,248	3,123
3	Damak	7,840	70.63	5	18,104	12,375
4	Mechinagar	4,190	55.72	8	13,181	10,540
5	Khandbari	2,253	91.03	9	6,290	4,639
6	Dhankuta	2,176	110.80	11	7,204	4,052
7	Dharan Sub-Metro	11,077	191.70	10	27,750	15,261
8	Itahari Sub-Metro	10,695	93.70	9	18,270	12,050
9	Inaruwa	2,502	22.36	10	6,195	5,143
10	Triyuga	4,046	319.88	9	15,926	13,367
11	Lahan	5,269	147.50	6	6,479	5,397
12	Malangawa	1,548	13.70	2	4,433	3,858
13	Kamalamai	2,049	207.95	8	9,304	7,018
14	Bhimeshwor	949	65.04	7	6,076	4,766
15	Bidur	1,929	33.48	3	6,270	4,501
16	Dhulikhel	2,855	12.08	5	3,279	2,090
17	Banepa	2,503	5.56	6	5,540	3,283
18	Panauti	4,315	31.73	12	5,943	5,136
19	Hetauda Sub-Metro	25,902	261.40	9	19,851	12,610
20	Kalaiya	3,217	18.98	3	6,847	6,054
21	Birgunj Sub-Metro	25,041	75.20	7	24,164	16,254
22	Bharatpur Sub-Metro	17,724	243.00	9	36,939	20,226
23	Ratnanagar	4,652	68.60	9	10,851	8,412
24	Ramgram	2,120	34.72	10	4,972	4,325
25	Butwal Sub-Metro	24,191	101.50	11	29,662	16,023
26	Siddharthanagar	10,881	36.03	4	12,497	8,596
27	Kapilvastu	2,267	63.30	6	5,130	4,357
28	Tansen	2,704	21.72	6	8,411	3,771
29	Waling	1,367	34.76	6	5,952	4,155
30	Putalibazar	2,084	70.14	4	8,180	6,279
31	Byas	5,543	86.00	8	11,321	7,151
32	Gorkha	2,760	85.80	5	8,793	5,603
33	Lekhnath	6,776	121.60	8	14,937	11,264

34	Baglung	4,533	18.35	6	7,848	4,095
35	Ghorahi	6,527	74.45	7	15,485	9,993
36	Tulsipur	3,568	180.80	10	12,214	9,192
37	Nepalgunj Sub-Metro	19,096	89.00	7	15,180	9,343
38	Gulariya	1,683	95.14	6	11,220	10,265
39	Birendranagar	14,108	139.00	9	12,029	8,398
40	Narayan	1,360	67.01	8	4,678	3,892
41	Tikapur	6,144	67.11	6	11,630	10,709
42	Dhangadhi	8,531	103.73	6	21,030	15,978
43	Dipayal Silgadhi	1,161	73.98	6	5,493	4,262
44	Dasharathchanda	526	55.01	2	3,788	3,337
45	Amargadhi	1,623	138.95	0	4,778	3,907
46	Bhimdatta	6,064	171.24	3	20,684	17,338

Source: *LBFC (2015) and CBS (2011)*

Results of Regression Analysis

As shown in the following table, the calculated value of adjusted R square is 0.5886. This means that the independent variables can explain 58% of the variation of the dependent variable (IPT). The slope coefficient is statistically significant. Due to the problem of the normality of the dependent variable, the original value of the dependent variable is converted into a log value to maintain the normal distribution of the dependent variable.

The probability value () of marks of performance that measure 4 different indicators is 0.055 which is greater than a 5% significance level (alpha value). Similarly, the probability value of geographic areas per square km is 0.1955 which is also greater than a 5% significant level. Therefore, it can be said that these two variables are not an adequate explanation for the dependent variable (IPT). However, the value of owned households (taxpayers) in municipalities is 0.000 which is less than a 5% alpha value. Therefore, only this variable (OWNED-HHS) is significant for explaining the dependent variable in the model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	6.752197	0.258830	26.08742	0.0000
AREA__SQ_KM	-0.002100	0.001596	-1.315474	0.1955
OWNED_HH	0.000158	2.39E-05	6.638624	0.0000
PM_MARKS	0.069389	0.035151	1.974028	0.0550
R-squared	0.616039	**Mean dependent var**		8.291487
Adjusted R-squared	0.588613	**S.D. dependent var**		0.920429
S.E. of regression	0.590358	**Akaike info criterion**		1.866767
Sum squared resid	14.63796	**Schwarz criterion**		2.025779
Log likelihood	-38.93564	**Hannan-Quinn criter.**		1.926334
F-statistic	22.46200	**Durbin-Watson stat**		2.329309
Prob(F-statistic)	0.000000			

The fitted equation for the model:

IPT = 6.752197 + -0.0021 AREA_SQ_KM + 0.000168 OWNED_HHS + 0.069389 PM_MARKS

(0.001596) (6.638624) (0.035151)

Annex 4.5 Key Problems and Possible Options for Resolution

Problems	Effect of problem	Possible options of resolution
Difficulty in up-dating data base.	Problem to identify taxpayers in time Repetition in counting of same property	There should be an effective legal provision that land revenue offices should provide updated information of land property owners following the transfer of land property because of sale or division of parental property.
Support not received from survey office to determine the demarcation of land	Difficulty in determining which taxpayers belong to which local body in the cases one ward is split and belonged two local bodies.	Restructure/delineation of local bodies should be finalized as soon as possible. Survey section and land revenue offices should support the municipalities until delineation is complete.
Taxpayers are not provided necessary information while adopting IPT following the self-declaration approach	A taxpayer cannot identify fill the appropriate form applicable for him/her and later faces problems to change the form applicable for him or her.	Disseminate detail and simplified information about IPT before its implementation Use leaflet Mobilize staff and volunteers to fill up forms and formats Prepare checklist of information needed for filling up form widely circulate/extend through various means of communication i.e. FM radio, newspaper
No proper coordination with the agencies related to the municipal services	Difficulty in bringing the taxpayers within tax purview and collecting taxes timely.	Municipalities should have good coordination with the district level offices of electricity authority, drinking water, Nepal Telecom, survey and land revenue offices and the common problems should be solved with common effort.
Information of taxpayers not received from all taxpayers	Not be able to bring all taxpayers into the tax purview	There should be penalty exemption policy or any other attractive schemes or policies for those who come into tax purview for the first time and should be implemented targeting such taxpayers.
Land revenue office has the practice of land registration without tax clearance chit of municipality	Difficulties to collect due tax	Land revenue office must support the municipalities by executing land registration only after receiving by clearance certificate from the respective municipality.
Municipalities have information only of the buildings which are built getting approval of design/structure from municipality	Even a hut of the poor is included but garages, storage facilities, separate kitchens or sheds of rich people are not included with in the tax purview.	Household survey or census should be provisioned and carried although tax self-declaration approach is adopted since the information of the structures developed without map approval and they do not made within the tax purview.

Annex 4.6 IPT Revenue Improvement Action Plan (RIAP) Matrix

SN	Main Activities	Time period	Primary Responsi-bility	Secondary Responsi-bility	Monitoring Responsi-bility	Budget	Source of funds
1	Organize staff meeting						
2	Organize meeting of all parties						
3	Form task force						
4	Orient political parties, other stakeholders						
5	Form valuation committee						
6	Conduct training for municipal staff						
7	Prepare basis infrastructure of revenue section						
8	Classify land and determine proposed tax rate						
9	Classify physical structure and determine proposed tax rate						
10	Conduct wider discussion at ward and other levels of municipality						
11	Recommend minimum rate to valuation committee						
12	Formulate necessary IPT execution procedures						
13	Arrange miscellaneous and printing cost						
14	Publish notice						
15	Collect forms						
16	File collected forms						
17	Enter taxpayers profile in computer						
18	Determine ITP tax rate based on LSGAR limits						
19	Approve property valuation rate and tax rate to be levied by council						
20	Prepare Bills						
21	Publish 35 day notice to collect appeals on council approved rates						
22	Collect Tax						
23	Receive appeals as per 35 day notice						
24	Decide on received appeals						

5. Rationalizing Solid Waste Management Service Fees in Nepal

– Achyut Nepal

5.1 Introduction

Management of solid waste is intrinsically connected with the development of human civilization. The challenges of waste management increase with urbanization. Solid waste management (SWM) has generally been the responsibility of local government (municipalities). Along with the day to day operations, municipalities are increasingly required to address the various types of issues relating to the development and maintenance of municipal infrastructure.

Nepalese municipalities have undertaken their SWM responsibility, but few municipalities have a door-to-door collection system, collection charges, and community or private sector partnerships. Also, few municipalities have had composting and recycling processes for longer than 20 years. For example, the composting facility in Bhaktapur Municipality was commissioned in 1984 with the support of GIZ (Practical Action, 2008). Similarly, to other countries, including those from the developed world, Nepalese municipalities are running with huge funding gaps and struggle to meet the demands of their citizens. Nepal's municipalities also rely heavily on central government grants and have a very weak own-source revenue base. Similarly, municipalities lack a systematic and scientific method for estimating the price of services provided and, consequently, municipal services are typically provided free of cost.

A common concern of citizens in Nepalese municipalities is that while municipalities will commit to their responsibility in words, they remain far behind in action. At times, they will not collect waste for months even though the city has a responsibility to collect the waste and keep the city clean whether the public have paid for the service or not.

The funding side of the service shows the level of operational sustainability. The funding mechanism provides the framework for directly or indirectly making the service users responsible for its sustainability. This chapter addresses the following questions regarding the necessity of pricing municipal services, especially those related to solid waste management:

- What is a fee and a tax in a municipal context?
- What are the theories pertaining to municipal service pricing and their practical applications?
- How significant is the pricing and collection of service fees, including the waste management fee, in making up the funding gap in municipalities?

This chapter discusses the above questions to highlight the rationality behind the application of service fees in general. Calculations of fees are subject to the contexts of each and every municipality. However, calculations pertaining to the selected project cases have been analyzed.

This chapter also reviews the theories pertaining to pricing municipal services, outlines steps for designing appropriate fees and identifies factors that influence the willingness of local governments to adopt user charges for waste management. Several cases of the best replicable practices nationally and internationally are also reviewed. Analyses pertaining to sub-projects under the Integrated Urban Development Project (IUDP) and Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) are used as the basis to recommend the SWM fee structure in connection with the appraisal policy of the Town Development Fund (TDF).

5.2 Review of Literature

Rational of Pricing

Payment made for a service is understood as a fee. A tax is different in that there is a direct link to a specific service which can be observed and used by the fee payer (Hauer, Steiner and Vogel, 2011). For many people, the very idea of charging for many public services seems inappropriate (Bird, 2003). This is due to the general sentiment that services provided by the public sector should be free.

Arguments in favor of charging user fees have been made from philosophical, political and economic perspectives. These arguments extend to issues pertaining to fiscal equivalences, accountability, cost recovery and economic efficiency. Conversely, arguments against charging user fees have been made on equity concerns, potentially high administrative costs and political unpopularity (Tschekalin, 2011). From a social perspective, "under-pricing", or the free (or subsidized) provision of services, results in the "over-consumption" of such services. Thus, the main economic rational of user charges is not to produce revenue but to promote economic efficiency (Bird & Tsiopoulos, 1997). There should be fees even to control the behavior of the citizens. It is easy to dispose waste without making payments, but it is difficult to receive services such as water, electricity or telephone access without making payments. Levying service charges are also critically important to maintain the operation's sustainability (Bird & Tsiopoulos, 1997)

Waste management fees are the payment for municipal waste management services and should cover all costs involved in the collection and treatment of waste, as well as the cost of administrating, operating and maintaining SWM facilities (Hauer, et al, 2011). Well-designed charges should achieve this goal by providing information to public sector suppliers as to how much clients are actually willing to pay for services and by ensuring that what the public sector supplies is valued is at least equal to the marginal cost by the citizens (Bird, 2003).

Waste collection and disposal technologies need to be both appropriate and financially sustainable. Sustainability being the critical issue, shifting from 'solid waste management' to 'sustainable waste management' has to be emphasized (UN-Habitat, 2010). For this reason, the rationale for user fees should be established. Criteria need to be set and fees should be ascertained to recover the operational and capital cost.

Tax or Fee

Taxes and fees are the bases of municipal revenue and need to be differentiated. It is important to understand what makes a levy a fee rather than a tax. In order for a levy to be a user fee, there needs to be a nexus between the service and the fee and there should be a reasonable connection between the service and the amount charged, otherwise the levy should be called a tax (Farish and Tedds, 2014).

In light of the current status of Nepalese infrastructure, municipalities have to develop waste management infrastructures and systems for municipal waste and sanitation management. The development of infrastructure along with strong operation and maintenance systems is crucial. Ensuring the operational and financial sustainability of the program will be a big challenge for local governments. Various studies and surveys have shown that the citizens of municipalities have shown substantial willingness to pay for services such as waste management and water supply. The amount levied for the services can directly be attributed to service usage. Therefore, charges against these services can be appropriately treated as user fees.

Pricing Waste Collection Services

The acceptable rational for the prices of public goods and services is cost recovery. Policy may justify charging fees less than full-cost recovery but, in some instances, it may also seek more than the recovery of the full cost.

> "Academic debates on the pricing of public services have recently experienced a renaissance. Concerns over the distortion effects of tax financing, fairness and a wish to make costs more perceptible to consumers are all factors that potentially support increases in the scope of user charges." (Dehne, Friedrich, & Nam, 2009)

Principles

The pricing of goods and services should be based on either the "ability to pay principle" or the "benefit principle". According to the ability to pay principle, those with greater access to economic means should make a greater contribution. The benefit principle states that people should pay for or make a contribution towards a good or service in accordance with the benefit they receive (Amborski, 2006).

The first step in pricing municipal services is to ensure that the price of the service set per unit of good or service reflects the full costs of providing that good or service. The price requires including the operating and capital costs and is necessary for adopting the full life cycle cost including the replacement cost of such facilities.

> "Legislature should enact laws that require the adoption and implementation of Full Cost Accounting (FCA) methods by local governments that conduct solid waste management programs." (Turner, 1997)

The benefits of full cost accounting (FCA) include determining the actual SWM costs more clearly to citizens, adopting a business-like approach in providing SWM services and increasing cost effectiveness through fine-tuning SWM management.

A useful approach to guide which facilities and services should be fee based, and to what extent, is to follow a pyramidal pricing and cost recovery principle (Boyle, 2012). Services which are fundamental and that benefit the entire community should not be subject to direct user cost recovery. As people move up the pricing pyramid, the more the balance shifts toward a service providing direct benefits to the individual rather than the community. For those services with clear individual benefits, user fees and charges are most appropriate.

In order to achieve the greatest efficiency gains, solid waste authorities should set volume based rates for trash collection on the basis of marginal landfill cost (Nestor and Podolsky, 1996).

Section 18(2) of SWM Act, 2011 of Nepal provides that the fixing of service charge as per the provision of this Act shall be made on the basis of quantity, weight and nature of solid waste and other matters as prescribed by the LB.

Rule 16 sub-rule 1 of the SWM Rules, 2013 issued by the Government of Nepal (GoN) as per the authority provisioned in section 50 of the Act provides for the determination of service charges. According to the provision, while determining the service charge, the Local Body (LB) shall, in addition to the matter mentioned in Section 18(2) of the Act, consider the following factors when determining SWM fees and charges:

- The technology, procedure and process adopted by the generator of solid waste for its management at the source of its generation
- The shape, size and type of the solid waste discharged by the generator
- The environmental impact of the discharged solid waste
- The estimated expenses that may incur in the management of solid waste.

Sub-rule 2 of Rule 16 states that if the solid waste management work is done by a LB in partnership with the private sector, the community and non-governmental organizations or agencies the service charge that may be levied shall be determined as per the provision of Sub-rule 1 mentioned above.

Rule 17 of the SWM Rules provides for discounts on service charges. The rule provides that a LB may offer discounts up to fifty percent on the predetermined service charge to underprivileged groups, taking into consideration the financial condition of the generator of solid waste. The LB shall publish a list identifying underprivileged groups each year. The underprivileged groups shall be determined before entering into an agreement with the private sector, community or non-governmental organization or agency for the solid waste management works. Additionally, the rule provides that the concerned LB may award full discount on service charges determined by the LB as individual households involved in the reduction of solid waste at the source of generation.

Levying User Fees for Waste Collection Services

Countries have used user fees to generate revenue for local governments. Discussion on the growing significance of user fees globally suggests their importance in raising municipal own-source revenue quite heavily.

According to Althaus & Tedds (2014, p.201), "A user fee is (i) a charge for a publicly provided good or service, (ii) where the revenues from the fee are solely used to offset the costs of providing the good or service, and (iii) the size of fee is dictated by the cost of providing the good or service." In connection with the implementation of user fees, two characteristics of publicly provided goods or services, namely, rivalry and excludability, should be considered in determining if a user fee is an appropriate policy instrument.

Rivalry and excludability characteristics can be elaborated by considering pertinent questions such as:

1) Does the consumption of the good or service by one person decrease the consumption by other people? **The more the good or service has rival characteristics, the better suited the good or service would be for a user fee**. In other words, if the consumption of good or service by one decreases the consumption by other, a user fee is applicable.
2) Can non-payers be excluded from consuming the goods or service? The greater the ability to exclude people from consuming the good or service, the better suited the good or service would be for a user fee. This means that if the non-payer can be excluded from receiving the good or service, a user fee may be more applicable.

The primary input for providing waste collection service is the staff time of the municipality. If employees are providing service to particular users, such as users of particular locations or categories, they are unable to provide the service to users of other locations, groups or categories. The consumption of waste collection time by one particular user or group of users decreases the time of service consumption available for other users. Similarly, excludability in connection with collection is the excludability of non-dwellers in the municipal area, meaning waste collection services will be limited to a particular municipal area.

Calculating SWM Charges

Prices shall be set at a level that is sufficient for covering the cost of the service provided. Setting adequate price levels is a difficult task requiring accurate information for standard calculations. Fees tend to be different from one municipality to the next and from one service to the next (Tschekalin, 2011). The basic information necessary for calculating charges includes the following:

- The current population and per capita waste generation
- The categorization of waste generators
- The estimated growth rate of the population and waste generation
- A determination of services that will be covered by the charge
- An estimate of the capital cost necessary to accommodate for service growth
- A determination of service standards
- The estimated periodic operational and maintenance cost of the service
- An estimated periodic debt service amount for the loan (if any) taken for the development of SWM infrastructure including landfill sites
- An estimate of the growth rate for the cost of operation and inflation.

With the above information, the ascertainment of charges can be made and may be applied in different contexts. The fee model has to be in line with the type of waste collection system (Hauer et. al., 2011). If the collection system is door to door collection, the model has to accommodate for the:

- Volume of the waste generated
- Number of residents/establishments
- Category of generator

If the collection system is in a common public place or in a common container, the model has to accommodate for the following:

- Number of residents
- Floor space
- Value of the property

In the above contexts, a volume based charge would be more justifiable and appropriate. However, in view of the capital and other related costs required for evaluating the system, numbers have shown that volume based charges are difficult to implement in countries such as Nepal.

Features of a Good Waste Fee Regime

Hauer et. al. (2011) laid out a set of framing guidelines for designing user fees which include the following:

- Be simple
- Reflect the waste generator's behavior
- Do not try to create ultimate fee fairness
- Avoid the additional cost of a sophisticated measurement system
- Have fee collection independent from waste collection
- Have only one fee for the entire waste category
- Have different fees for companies and households
- Do not confuse affordability with the client's reluctance to pay
- Do not apply pressure to pay the fee when ceasing the service
- Potentially be collected along with other utility charges

5.3 Review of Global Best Practices and in Nepal

Water and sanitation experience across world cities varies considerably (UN-Habitat, 2010). Here are some of the replicable practices from a few key cities.

India's capital city Delhi has opted to maintain a community container infrastructure service organized by NGOs, municipalities and community institutions using collection by private door-to-door waste collection service from waste-pickers at a fixed monthly fee. This service is provided for 80 percent of the high-, middle- and low-income households in the municipality. Secondary collection has been under a public–private partnership (PPP) agreement with the city authorities, serving approximately 50 percent of the total area while the municipalities do the rest.

In Moshi, Tanzania, waste collection services are provided through a private contractor on a pilot basis as well as through community based organizations (CBOs). Private contractors collect both waste and fees and give three percent of the total fees collected to the municipal council. The municipal corporation serves the rest of the urban area and provides secondary collection in peri-urban areas where CBOs and individuals are doing the primary collection. Primary waste collection is conducted by CBOs while the municipal council carries out secondary collection.

In California (US) garbage rates have been set to strongly encourage recycling or composting. The commercial sector receives a discount of up to 75 percent for trash. The residential sector, recycling and composting collection are provided at no additional cost. This 'pay-as-you-throw' system underpins San Francisco's diversion strategy and drives environmental programs.

In Tompkins County, New York (US), the county government introduced a pay-as-you-throw system in 1989. Under this system, disposing of non-recyclable waste requires paying a fee while recyclables – soon shifting to collection in a single stream – do not have to pay a fee.

In Ghorahi, Nepal there is room to improve cost recovery to ensure that the waste management system as a whole is sustainable. The municipality has started to collect service fees for waste management and plans to raise about 10 percent of the total cost from the service users.

A waste management best practice report (Practical Action, 2008) identifies a few best practices in waste management by Nepalese municipalities. These practices can serve as references for charging waste service fees and generating income from waste management in other municipalities.

In Bhaktatpur, for example, both the municipality staff and the group contractors are local residents. This municipality has a 20-year old composting facility commission and, with support from GIZ, has been operating successfully. Similarly, Tribhuvannagar Municipality is spending considerable revenue for waste management and generating income from the landfill site and waste recycling.

The report also mentions the Nepal Pollution Control and Environment Management Centre (NEPCEMAC) working in Kathmandu, Lalitpur and Biratnagar and the Urban Environment Management Society (UEMS) working in the Lalitpur Sub-Metropolitan City area in the management of waste and generation of revenue from waste management

Cases of IUDP and STIUEIP Sub-Projects

The cases analyzed in this study are from the IUDP and STIUEIP subprojects located in the municipalities of Sidhdarthanagar, Butwal, Nepalgunj, Janakpur, Biratnagar and Birgunj. These projects include Integrated Solid/Sustainable Waste Management (ISWM) as a project component along with storm water management and road & lane reconstruction and improvement.

Financial analyses under the TDF investment appraisal process were carried out for the purpose of possibly sub-lending a portion of donor funds as a TDF loan. With these analyses, the minimum and average rates for SWM per kg of waste generated were calculated. During the analysis, a review of municipal financial information revealed that municipalities under the project are not charging fees or are charging fees less than what would be required for cost recovery of the municipal SWM service. Additionally, municipalities are burdened by maintenance for land fill sites and fulfilling the ever increasing demand of residents in the areas adjoining those sites.

During the analysis, it was noted that there has been no concrete initiation of municipal practices/policies pertaining to the pricing of the SWM services. Municipalities charging a service fee have obtained approval for the rates from the municipal council, but the rates are fixed on an ad hoc basis without analysis and knowledge of the service delivery costs.

5.4 IUDP and STIUEIP Data and Information Analysis

A review of five years of financial information ending in FY 2013/14, for the municipalities under the aforementioned IUDP/STIEUIP projects, reveals that Nepalgunj, Sidhdarthanagar and Janakpur have not collected any service charges for solid waste collection. However, it seems that Butwal and Dharan have practiced fee collection but, as reported in their financial statement, only a small amount collected against SWM service (Butwal NPR 28,350, Dharan NPR 450,858 for FY2012/13 i.e, mid-July end 2013 financial statements). This amount is based on a monthly rate per house hold (HH). In Butwal (NPR 30 in ward 1, 2 & 3 and NPR 65 in 9,10,11,12 and 13), there is a single user category, i.e Residential HHs taken for fee levy collection. There is no additional categorization for waste collection from the commercial, institutional or industrial sectors as well as hospitals.

The design consultant for the ISWM project estimated the annual operational and maintenance costs for the SMW service and land fill service: Nepalgunj NPR 12,867,097; Sidhdarthanagar NPR 15,169,595; Butwal NPR 26,396,000 and Birgunj NPR 38,746,781. This indicates that there has been no recovery of the cost of SWM service in Nepalgunj, Sidhdarthanagar and Janakpur as well as negligible recovery in Butwal and Dharan. In this analysis, a single category for all service recipients has been used as information pertaining to the number of service users in other categories in these municipalities is not available. Nevertheless, the rate calculated assumes full cost recovery of the SWM service.

The calculated minimum rates per kg of waste generation were NPR 3.41/kg in Nepalgunj, NPR 5.47/kg in Sidhdarthanagar, NPR 1.80/kg in Butwal and NPR 3.047/kg in Birgunj. The following is the monthly rate as per appraisal analysis:

- Nepalgunj: NPR 118/month per HH, NPR 469/month per commercial establishment-shop, restaurant, etc. and NPR 241/month per institution other than hospitals
- Sidhdarthanagar: NPR 134/month per HH, NPR 441/month per commercial establishment-shop, restaurant, etc. and NPR 1550/month per institution other than hospitals)
- Butwal: NPR 94/month per HH
- Birgunj: NPR 210/month per HH

Based on the rates as per the sub-project financial appraisal analysis mentioned above, the annual fee for SWM service, considering the recovery of the operational maintenance costs and the debt of TDF loans with respect to these municipalities as outlined in Table 5.1.

Table 5.1 Annual SWM Service Charge Based on Minimum Fee as per TDF Appraisal Analysis

	Nepalgunj		Sidhdarthanagar		Birgunj		Butwal	
Year	Average Fee	Cash Balance	Average Fee	Cash Balance	Average Fee	Balance	Average Fee	Balance
2015								
2016					41,460,745	2,713,964	28,026,457	2,826,457
2017	25,679,141	12,812,044	29,407,542	14,237,947	43,022,161	5,545,413	29,438,991	5,869,448
2018	26,326,383	25,362,065	30,198,201	28,162,439	44,658,035	5,799,837	30,922,716	9,142,284
2019	26,991,454	37,594,114	31,013,768	41,706,714	46,372,746	6,183,131	32,428,221	12,606,029
2020	27,674,863	49,446,215	31,855,077	54,796,594	48,171,769	6,702,823	34,118,274	16,381,537
2021	28,377,138	60,849,768	32,722,986	67,349,731	50,058,389	7,365,845	35,837,835	15,277,131
2022	29,098,812	64,968,829	33,618,384	72,745,648	52,038,080	6,261,075	37,644,062	14,463,752
2023	29,840,440	68,479,569	34,542,190	77,412,236	54,115,224	5,219,562	39,541,323	13,958,899
2024	30,602,594	71,289,310	35,495,355	81,237,352	56,296,388	4,245,273	41,534,206	13,781,051
2025	31,385,859	73,295,708	36,478,860	84,096,854	58,585,954	3,340,946	43,627,530	13,949,716
2026	32,190,839	74,385,803	37,493,722	85,853,398	60,991,586	2,510,123	45,826,357	14,485,489
2027	33,018,155	74,434,970	38,540,991	86,355,109	63,518,759	1,756,366	48,136,006	15,410,111
2028	33,868,447	73,305,768	39,621,753	85,434,127	66,174,043	1,083,646		
2029	34,742,370	70,846,669	40,737,132	82,905,000	68,965,101	496,430		
2030	35,640,603	66,890,675	41,888,289	78,562,933	71,900,695	-		
2031	36,563,840	61,253,787	43,076,424	72,181,812				
2032	37,512,798	53,733,327	44,302,780	63,512,133				
2033	38,488,214	44,106,096	45,568,641	52,278,620				
2034	39,490,846	32,126,348	46,875,334	38,177,660				
2035	40,521,473	17,523,562	48,224,233	20,874,474				
2036	41,580,900	-	49,616,756	-				
2037		-						

Table 5.1 shows the cash flow analysis using the calculated minimum fee rate per month per household in order to serve the TDF loan for the SWM component of the sub-project. The term of the loan in the case of Nepalgunj and Sidhdarthanagar (IUDP Sub-project) was 20 years while the term for Birgunj and Butwal (STIUEIP Sub-project) was 15 years.

The cash balance in the table pertaining to the first three municipalities indicates a zero balance after the full repayment of the TDF loan. Thus, cash flow generated after the term of the loan is free cash flow for municipal infrastructure. In addition, if municipalities are able to charge above the recommended rate, the incremental amount would be a significant source of internal revenue. In the case of Butwal, as the landfill site would be exhausted after the 12th year of operation, the municipality must plan another site. Thus, the projection after the 13th year of the TDF loan has not been given.

This analysis, based on information obtained prior to the study, shows the importance of levying SWM service fees for municipalities with a resource gap. Municipalities may go for the prescribed minimum rate if they opt not to levy the charges above the minimum rate or opt to charge at a level sufficient to cover the O&M costs while servicing their debt. Currently, these municipalities are not charging for SWM services but are incurring expenditures for providing the service. Thus, if municipal residents are charged for the service, the amount collected would help narrow the resource gap facing those municipalities.

If municipalities decide to levy a slightly higher rate than the minimum, they would be able to further reduce the resource gap. For example, citizens in Kathmandu pay approximately NPR 200-250/month for waste collection. To increase the rate, municipalities should follow the appropriate theories and principles of pricing and should categorize users to apply the rate based on waste generation. With these steps, there could be shifts in the SWM fee level and structure and to the ability of LBs to deliver sustainable services.

5.5 Future Steps to Improvement

A New Concept for Waste Management

New concepts in SWM such as "integrated waste management systems", "zero waste cities" and "low carbon cities" aim to streamline and reorganize the entire life-cycle of solid waste. In these concepts, waste is not seen as superfluous, but as a resource with new uses (National Institute of Urban Affairs, 2015).

Understanding the Waste Generator (Consumer/User) Behavior

Underpricing a service by not charging for it can result in the over-consumption of that service. When service users do not have to pay for the service and are unaware of the cost of providing it, they will demand more of the service than when they would be paying for that service.

Developing independent revenue sources for municipalities and regional/local/state governments is important to strengthen the subnational governance of the public financial system. Generally, local independent revenue sources would include property taxes as well as user fees and taxes approved by the government.

Use of 3R/4R and Recycling/Composting Income

The participating municipalities under the above projects are supposed to apply Integrated Solid Waste Management (ISWM). ISWM applies the 3R/4R (Reduce, Reuse, Recycle and Recovery) principle. Application of the 3R/4R principles may prove to be a highly significant measure for enhancing municipal internal revenue. All participating municipalities have plans to establish facilities to collect the waste, segregate waste into recyclable and non-recyclable materials and process degradable waste into compost usable for fertilization. In order for these plans to become a reality, municipalities will need to price these services according to their marketability and the cost of the composting process employed.

The Polluter-Should-Pay Principle: The Pricing of Services and Levying Fees According to the Waste Generator's Categorization

The polluter-should-pay principle is about making the polluter responsible for maintaining the environment. The more waste which individuals and/or entities generate, the more they have to pay in order to maintain the environment. The sub-project municipalities getting funding for the Secondary Town Integrated Urban Environmental Improvement Project and Integrated Urban Development Project have adopted this principle in their project documents.

The fee structure should be based on the pricing principles previously identified as well as the categorization of waste generators. The categories of waste generators would include:

- **Residential:** Ordinary dwellers in the municipality and household waste. These generators are large in number of service recipients.
- **Commercial:** Small shops as well as big shopping malls, fruit and vegetable markets, cinema houses, slaughter houses, profit making educational and training institutions that may include private schools and colleges, and private offices. This category has generators who are moderate in number but consume significant portions of the service.
- **Institutional:** Government offices and community/government/trust run educational institutions. These generators are significant in number but will pay less.
- **Hospitals:** Private and public hospitals. Profit making and non-profit making hospitals are in the same category because both types of hospital generate waste in hazardous and non-hazardous categories. Municipalities may not enforce fees on public hospitals, but private hospitals should not have that concession. For hazardous waste, every hospital should have its own facility for disposal (incineration).
- **Construction waste:** Construction waste is another category which, though it is considered less often, generates a lot of waste in the municipal area. As individual residential building construction in Nepalese cities booms, there will be a significant impact on municipal waste generation. Municipalities will need to frame a policy on charging construction waste generators.
- **Industrial waste:** As all industries generate revenue, they may be kept in a single category irrespective of them being public or private. Industries generate hazardous and non-hazardous waste. They should have their own facilities for disposing hazardous waste.
- **Public places:** Streets, parks, recreational parks and bus parks, etc. which generate water drain, silt and drain cleaning waste, street waste, park waste, ordinary domestic nature waste and commercial and gardening waste. This waste may be significant in volume but municipalities have to collect and manage it without any cost recovery.

Funding Innovation

Innovative financing mechanisms are highly relevant to the municipal finance, and integrated SWM is one appropriate area for funding innovation. Recycling and composting has been proven to be an innovative action, as well the benefits of incorporating private sector participation and partnership. Currently, municipal drinking water services are being promoted through separately organized institutions. In the same way, waste management may require a separate organization within municipalities dedicated to waste management.

Private Participation

Municipal services such as water, electricity and waste collection and management that are currently publicly provided may be turned over to the private sector. As illustrated in this chapter, studies and the best replicable practices around the world have shown good results for private participation. Private companies have already demonstrated their effectiveness in meeting complex demands related to solid waste management (Turner, 1997). And various related types of IUDP/STIUEIP project documents have also highlighted private participation in different stages of waste collection and management. Municipalities need to determine which processes may be appropriate for private participation. If the waste collection, disposal and recycling services and facilities may be obtained through the private sector at a lower, sustainable price, municipalities should consider promoting private participation in the SWM cycle.

5.6 Conclusions and Recommendations

Citizen complaints suggest that municipalities are not performing as well as they are supposed to. In this context, a simple and primary strategy for handling these grievances would be to improve services, strengthen municipal finance and enhance overall municipal efficiency. To deliver and finance improved urban services, municipalities must consider introducing appropriate user charges.

One of the biggest challenges before any municipal government is the management of municipal waste. Waste management can prove to be an income generating opportunity. For this, it is necessary to establish a practice of pricing municipal services to recover at least a portion of the cost from residents based on their use of municipal services.

The central theme of this discussion is that the application of a user fee based on a proper foundation of service pricing theories and principles is necessary for waste collection in Nepalese municipalities. So far, there has been no implementation of the existing user fee policies and there appears to be a lack of improvement action plans. Realistic plans, programs and actions are essential for achieving these aspirations.

To move forward, the government should recognize the need for:

- Formulating a service fee policy, including a SWM fee, to be based upon solid theoretical and conceptual frameworks
- Strictly implementing the approved fee policies
- Promoting and implementing programs according to the 3R/4R principle
- Fully applying the "polluter should pay" principle
- Recognizing the concept that SWM may be a highly profitable venture

- Decreasing the municipal funding gap by transferring SWM to the private sector as appropriate
- Potentially utilizing private participation in collection, the management of waste and the collection of fees

Good infrastructure is the prerequisite for municipal service delivery. Due to weak own-source revenues, municipalities in Nepal are not fully capable of financing urban infrastructure without external support, including donor funding. Donor funds, however, are not free. They are generally available as repayable loans, perhaps through TDF Loans. Therefore, municipalities must design systems to recover service costs for waste management in order to reduce funding gaps. The question of how much to charge is a matter of calculating and determining the rates depending on the specific municipal context.

As identified in the improvement action plans by Nepalgunj and Sidhdarthanagar municipalities, waste management fees have been adopted and are expected to highly contribute to improving the financial position of the municipalities.

The main reason for not pricing/not charging fees for chargeable municipal services has been largely for local political reasons to gain popularity by being able to provide free municipal services. But these so called free services can potentially lead municipalities towards bankruptcy. Last but not least, the theory, principles and steps for pricing services are highly relevant for all local governments. The issue of charging fees for services is related to the issue of ensuring the operational sustainability of municipal infrastructure and services.

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6. Designing Intergovernmental Fiscal Transfers (IGFT) in Nepal

– Gopi K Khanal

6.1 Introduction

The Federal Republic of Nepal is a predominantly mountainous country in the Himalayan region, extending for about 800 km, with an area of 147,181 square km and a 2010 population of 28 million. Nepal is a relatively small country, covering a mere 0.3 percent of the Asian continental landmass. India, its southern neighbor, has 22 times more land area. China, its northern neighbor, is 75 times larger in area (Banskota, 1992).

Geographically, the country is a transitional mountain area between the fertile plains of India and the arid plateau of Tibet. Geo-politically, Nepal is land-locked between India and China. Buddhism and Hinduism are the major religions of Nepal, and they have profound impacts on the cultural fabric of the country. Nepal is a multi-ethnic, multi-cultural, multi-lingual and geographically diverse country.

Nepal is undergoing a major political, social and administrative transformation. Politically, the country has followed a path of rights-based liberal democracy since the end of its decade long armed civil conflict in April 2006, and it now in transition from a unitary to a federal government structure. And despite relatively better achievement in social development, Nepal is struggling to lift its economy. It has not been able to create sufficient jobs for youth inside the country and remittances have become the key resource for the economy.

As has happened elsewhere, urbanization and sub-urbanization are growing due to shifts in the country's economic, demographic, and social structures. In recent years, the Government of Nepal (GoN) has merged many Village Development Committees (VDCS), the rural local governments in Nepal, into municipalities. With the declaration of new municipalities and expansion in the size of old municipalities, the country is now increasingly focusing on urban development issues. institutional and political challenges, municipalities in Nepal will be increasingly important politico-economic institutions for local development and local democracy.

The GoN has undertaken a series of initiatives to put federalism in place, along with its necessary accompanying systems, polices, and mechanisms. Nepal's 2015 Constitution includes aspects of political, administrative and fiscal federalism, but the constitutional roadmap for fiscal federalism now needs further legal, administrative and fiscal institutions to support the transition.

Recently, in a major breakthrough for decentralized government, the GoN restructured local bodies into constitutionally powerful local governments. There are now a total of 753 local governments in the country including 6 metropolitan cities, 11 sub-metropolitan cities, 276 municipalities, and 460 Village Bodies. With this restructuring, municipal population has reached 62.34 percent of the total population. The Parliament has enacted a Local Government Operation Act that has provided substantial implementation responsibilities to 3,216 ward offices of Village Bodies and 3,527 ward offices in municipalities. There will be 6,743 functional ward-level local governments in Nepal.

Local governments are ensured considerable powers by the Constitution. Local governments will be able to exercise legislative, judiciary and administrative powers within limits set by the Constitution. The Constitution of Nepal is explicit on the political aspects of federalism. The immediate task, albeit challenging, is to sort out the issues of fiscal federalism.

The first steps to this end will be operationalizing the National Natural Resource and Fiscal Commission (NNRFC), as envisioned by the Constitution, and operationalizing the recently enacted Local Government Operation Act, 2017 that has replaced the Local Self-Governance Act (LSGA), 1999. The Local Bodies Fiscal Commission (LBFC) Secretariat has recently forwarded a proposal to the Ministry of Federal Affairs and Local Development to transform this Secretariat into the NNRFC Secretariat. This will be an important step to further consolidate decentralized financing in Nepal.

The Local Self-Governance Act, 1999 was the landmark legislation in the devolution of power and resources to local bodies in Nepal. The LSGA established important foundations to enable local bodies to provide services to their citizens, develop institutions for grassroots local democracy and establish inclusive enterprising societies based on democratic principles.

The LSGA not only made arrangements for making VDCs, municipalities and DDCs accountable to citizens, but also provided citizens opportunities to engage in local governance, receive local services, and participate in local development decision-making processes. The regulations formulated under the LSGA further created a conducive environment for strengthening local governance. The Act provided ample scope to bring development activities to the people. The LGSA principles (e.g., decentralization-based devolution, capacity development for local autonomy, fiscal autonomy, the institutional practice of local governance and citizen-responsive local leadership), along with market decentralization, remain the important foundations for establishing the new federal-based intergovernmental fiscal system in Nepal (Kelly, 2016).

The fiscal federalism literature stresses the importance of sorting out intergovernmental fiscal relations. Although political powers of subnational governments can be protected by laws, the fiscal powers depend on the individual capacity of subnational governments as well as on their demographic and economic characteristics.

Given the asymmetric distribution of economic centers, not all subnational governments will be able to mobilize the required amount of own-source revenue (OSR). Whatever local revenue system is in place, international experiences confirms that intergovernmental fiscal transfers must remain a critical and integral part of fiscal federalism in in order to deliver efficient, equitable and accountable services throughout Nepal.

6.2 Fiscal Decentralization in Nepal

The Local Government Operation Act (LGOA), 2017 provides the legal foundation for the political, administrative and fiscal structures of local governance in Nepal. There are 77 District Coordination Committees (DCCs) in Nepal which are the intermediate level of local government.

As a result of the 2015 Constitution, the GoN recently restructured the local government structure, creating 460 Village bodies and 293 municipalities that include 6 metropolitan areas and 11 sub-metropolitan cities. Ward offices are functional in most of the old 58 municipalities, and new municipalities have established joint ward offices to provide services. Wards are now visible physically in rural local bodies or *Gaunpalika* despite the presence of elected representatives.

Since July 17, 2002, Local Bodies (LBs) in Nepal had not had elected councils. Deputed civil servants were managing these bodies. In 2017, however, the GoN held local elections. However, the political climate in the country is still cloudy, which often brings unexpected political winds that could create obstacles to the institutionalization of the newly-elected local governments.

The Ministry of Federal Affairs and Local Development (MoFALD) coordinates LGs administratively. Technically, the Ministry of Urban Development (MoUD) and other sectoral ministries also have important roles in guiding municipalities. MoUD has been responsible for coordinating most donor-funded programs in municipalities.

Fiscal decentralization is often viewed from the eyes of first-generation theory and second-generation theory. The 1st generation argued that public sector efficiency would be improved if taxing, spending and regulatory functions would be exercised at the lowest level of government capable of internalizing the total economic costs and benefits of those functions (Shah, 2007; Oates, 1972). The 2nd generation theory recognized that government may not act in the best interests of their residents, thus stressing the importance on improving both accountability and efficiency. The 2nd generation recognized fiscal decentralization as a system and mechanism for empowering citizens through empowering their local governments (Oates, 2005; Bahl, 2008). If we examine the strengths of fiscal decentralization from this perspective, we can see systemic weaknesses in Nepal.

Expenditure assignment, the first pillar of fiscal decentralization, is subject to overlapping and duplication with sectoral agencies. There are still more than 23 laws in Nepal that contradicted the LSGA, 1999 (Association of District Development Committee, 2012). These will continue to contradict the new LGOA, 2017; thus needing to be reviewed and made consistent with the LGOA, 2017.

Under the decentralization implementation plan 2002, the GoN made an attempt to transfer some functions from sectoral ministries to DDCs. Under this initiative, the GoN was able to transfer the budget for primary education, agriculture extension services, livestock development, primary health and some micro infrastructure services to DDCs. The funds for these sectors were channeled to the related sectoral agencies via the District Development Fund (DDF). This sectoral devolution, however, did not transfer functions and functionaries to LBs. Instead many sectoral ministries established parallel divisional offices to bypass LBs, resulting in additional overhead cost for the government. In the absence of elected officials, LBs in Nepal have not been able to effectively advocate and lobby to extend the scope of this sectoral devolution.

The LSGA, 1999 assigned some tax powers to municipalities and VDCs. Although VDCs were too institutionally weak to mobilize OSR, municipalities in Nepal were in a relatively better position to mobilize their OSR. DDCs mobilized OSR mainly from the sale of sand and gravel. VDCS in the Terai, located in the southern plain of Nepal, mobilized OSR from revenue contracts on fish ponds and weekly markets called *haat bazars*. Urban centric VDCs were able to mobilize OSR from land tax, building permission fees, business tax and others. The fiscal decentralization literature argues that revenue decentralization is better than fiscal transfers for encouraging autonomy, downward accountability, sustainability and good fiduciary governance (Martinez-Vazquez, 2008). The current LGOA, 2017 has retained almost all local taxes of local government that were provided under the LSGA, 1999.

However, the volume of OSR not only depends on the capacity and revenue power of local government, but also on the underlying economic activities in local areas. The pace of urbanization and economic dynamism differs across cities and towns. Given the asymmetric nature of the economic opportunities, not all cities will be able to mobilize sufficient revenue irrespective of the granted tax power and institutional capacity.

As is true elsewhere, municipalities in Nepal differ substantially in their ability to mobilize OSR. And although they enjoy the autonomy to retain tax proceeds and spend their ORS as per the decisions of their respective councils, municipalities in Nepal have not been given the right to set their own tax bases and tax rates. In this regard, revenue decentralization is weaker than expenditure decentralization.

Municipalities in Nepal collect the integrated property tax, house and land tax, business tax, building permission fees, land revenue, advertisement tax, vehicle tax and tax on house rent. The average share of OSR to total municipal revenue and expenditures for the last six years (FY2008/09 – FY 2013/014) has been 26% and 31%, respectively.

As Table 6.1 indicates, municipalities receive the majority of their OSR from user fees (36,2%), the House and Land Tax (14.7%) and the Integrated Property Tax (6.8%).

Table 6.1 Structure of Municipal Own-Source Revenue (In NPR 000)

Tax	Amount FY 2070/71	%	Amount FY 2071/72	%
Integrated property tax	212,873	5.6	283,615	6.8
Business tax	193,182	5.1	130,684	3.1
House and land tax	716,663	18.9	610,411	14.7
User Fees	1,263,164	33.4	1,507,991	36.2
Revenue sharing	271,392	7.2	517,502	12.4
Other	1,125,276	29.8	1,114,864	26.8
Total	3,782,550	100	4,165,067	100

Source*: Local Bodies Fiscal Commission Secretariat, 2015*

Municipalities in Nepal have asymmetric revenue strengths in creating OSRs. Municipalities in Kathmandu valley are in a relatively better position for OSR mobilization. Despite the population size, most municipalities in Eastern Terai have not been able to mobilize OSR. Table 6.2 shows the revenue strengths of high and low-income municipalities. These municipalities have not been able to capture potential taxpayers into their tax nets. Small municipalities in the hill regions also find it difficult to capture their tax potentialities. The GoN needs to strengthen municipal capacity to be able to introduce innovative approaches to increase municipal OSRs. The use of information and communication technology could play an instrumental role in increasing the volume of OSR in municipalities.

6.3 Intergovernmental Fiscal Transfer in Nepal

Intergovernmental fiscal transfers play an important role in addressing vertical and horizontal fiscal imbalances. A certain degree of fiscal transfer is needed in many countries to enable the provision of a minimal level of basic services across the country, maintain basic quality and uniformity of basic services, unite the country politically and influence citizens through policies. Fiscal transfers are not only an instrument for meeting local government expenditure needs, but are also a mechanism for implementing national policies at the local level. Due to the asymmetric revenue capacity and expenditure needs of local governments, fiscal transfers are also a vehicle for offsetting inter-jurisdictional costs, benefit spillovers and inequity.

Table 6.2 High and Low Own-Source Revenue Municipalities in Nepal (in NPR 000)

Municipalities	Own-Source Revenues	Municipalities	Own-Source Revenues
Kathmandu	1,099,879	Khadwari	7,920
Bhaktapur	341,578	Gaur	9,138
Pokhara	310,556	Kamalamai	9,528
Biratnagar	206,087	Siraha	10,607
Lalitpur	178,499	Bidur	10,962
Bharatpur	147,143	Bhimeshor	11,202
Birgunj	145,566	Malangwa	11,352
Butwal	139,762	Dhankuta	12,008
Hetauda	121,120	Amargadi	12,306
Bhairhawa	105,992	Narayan	12,663

***Source**: Local Bodies Fiscal Commission Secretariat, 2015*

A key purpose for fiscal transfers is to address vertical and horizontal fiscal imbalances. Vertical fiscal imbalances occur due to a mismatch between revenue means and expenditure needs of municipalities (Shah, 1999). Horizontal fiscal imbalances result from the asymmetrical fiscal capacity and expenditure needs of municipalities needed to provide basic services.

Municipalities in Nepal receive a range of conditional and unconditional grants from the central government. They receive formula and performance-based capital block grants, recurrent grants for staffing and administrative purposes, donor-funded project financing, off-budget for centrally decided projects, participatory infrastructure grants, road grants, grants for solar street lights, grants for vehicles and equipment, social security grants and others (Ministry of Urban Development, 2015). Most of these grants are regular in nature; however, donor-funded project grants are periodic and off-budget grants are provided on an ad hoc basis. The Ministry of Finance provides block grants to LGs based on the recommendation of the MoFALD. The Local Bodies Fiscal Commission (LBFC) used to make recommendations on the allocation of formula and performance-based block grants. Now this responsibility will rest with the NNRFC. MoUD provides conditional grants to municipalities for non-funded projects. MoFALD administers regular conditional grants to local bodies.

The GoN has been implementing a formula and performance-based block grant system in Nepal, commonly called the Minimum Conditions and Performance Measures (MCPM). The MCPM system was piloted in 20 districts in FY 2004/05, then rolled out to all LBs in FY 2007/08 (LBFCS, 2016). Due to the transition, the MCPM block grant system has been suspended for the current fiscal year. The Ministry of Finance has been in consultation with NNRFC to reintroduce a performance-based funding system for local government finance.

Politically, this MCPM system was supported to avoid the common pool problem of budget allocation. The common pool problem arises when powerful politicians and bureaucrats allocate the budget to their hometowns and/or constituencies in such a way that these citizens get more benefits than the average citizens in the country at the cost of the average taxpayers (Hagen, 2008). A common trend in Nepal has been for sectoral ministries to allocate substantial chunks of district budgets in an ad hoc manner, bypassing the priorities set by the LGs.

The formula-based transfer system has reduced discretion in the allocation of block grants to LGs. It has also lowered the amount of ad hoc and discretionary budget allocation, establishing a transparent budget allocation culture in MoFALD, Ministry of Finance and National Planning Commission as far as block grant allocations.

However, the coverage of the formula-based system is limited to capital block grants. Conditional grants and donor-funded project grants are not subject to the formula-based system. And there are also some structural problems in the MCPM formula due to diverse economic, demographic and geographic characteristics of Nepal. Additionally, the formula is subject to different correctional factors under the presumption of rationalizing the LB population and land areas, and the cost index used in the formula is not updated on a regular basis.

Table 6.3 provides information on the existing formula system for the allocation of block grants to LBs in Nepal. The factors used in allocating the grants are population, land area, a cost index, poverty and tax efforts. Using these formulas have ensured that LBs receive a minimum level of block grant resources in an equitable manner.

Table 6.3 Formula Weights Used in Allocation of Block Grants in Nepal

Factor	Weightage (in %)		
	VDCs	Municipalities	DDCs
Population	60	50	40
Land Area	10	10	10
Cost Index	30	-	25
Poverty	-	25	25
Tax Efforts	-	15	-

***Source**: Local Bodies Fiscal Commission Secretariat, 2016*

The MCPM system uses separate guidelines for assessing the MCPM of DDCs, VDCs and municipalities. These MCPM indicators are simply based on the statutory requirements as per the LSGA (1999) and its related rules. For municipalities, there are 10 indicators for the minimum conditions and 40 indicators for performance measures (see Table 6.4). The Local Bodies Fiscal Commission Secretariat assesses the performance of MCPM on an annual basis conducted by hiring an independent group of assessors on a competitive basis.

Table 6.4 Distribution of Performance Measurements (PM) Scores

Functional Areas	Number of Indicators	Scores	Minimum Pass Mark
Local Governance	8	20	8
Financial Resources Mobilization and Management	11	28	11
Planning and Program Management	8	20	8
Organization and Human Resources Development	5	10	4
Basic Urban Service Management	8	22	9
Total		100	40

***Source**: Local Bodies Fiscal Commission, 2009*

The MCPM system has encouraged the improvement process for governance in municipalities. For example, all municipalities have now formulated an annual municipal development plan, and many municipalities are now complying with legal requirements related to accounting, auditing, reporting, planning, budgeting, monitoring, oversights and revenue management among others. This MCPM system has ensured basic fiduciary safeguards and provided incentives to LBs for improving overall fiscal performance.

The GoN has fully owned and internalized this system, and the Local Bodies Fiscal Commission Secretariat had internalized the basic capabilities needed to steer and administer this system. Even the new municipalities have shown readiness to incorporate this system as a viable mechanism for improving local governance. The MCPM system has helped keep the letter and spirit of the LSGA in the absence of elected local officials. And it has supported the promotion of downward accountability across the country.

Despite the above benefits, the MCPM system is not a magic bullet for improving sustainable fiscal performance. This system was largely based on the LSGA (1999). One of the limitations of the

LSGA was that its full potential could never be realized in the absence of elected councils in LBs. Each and every provision of the LSGA demanded for elected councils, elected boards and elected institutions. Ultimately political decentralization is fundamental for the sustainable impact of the MCPM system in Nepal.

The MCPM system is subject to systemic limitations. Structurally, indicators related to MCs are the legal requirements of the LSGA (1999). In principle, it is the obligation of public entities to strictly follow due process of the law irrespective of incentive systems. The ultimate goal of public finance is to enhance the socio-economic development of the country so that every citizen has a decent standard of living and/or a prosperous life.

The indicators of performance measures are mostly process-driven. Of the five functional areas of PMs, only basic urban service management is output-driven. None of the indicators are related to outcome or impact level. A municipality can be one of the best performers of MCPM while failing to deliver accountable services to its residents.

There is room to question whether the MCPM system has effectively improved service delivery and socio-economic development. Given the MCPM system limitations, the MoFALD recently introduced the performance contract system for the executive officers of municipalities.

The performance contract has about 60 indicators, most of which are related to tangible outputs such as roads, parks, stadiums, view towers, botanical gardens, etc. Similarly, the GoN is implementing environmentally-friendly local governance frameworks and child-friendly local governance frameworks. These frameworks include a set of indicators that are more result-driven than the MCPM indicators.

The GoN has been providing a range of conditional grants to municipalities. MoUD is transferring substantial amounts of resources for different projects. These conditional grants are not under the scope of the MCPM system. Currently, only capital expenditures of block grants are subject to the MCPM system. For richer municipalities, the MCPM system is a tool to protect their image rather than as an incentive to get more grants.

There are conflicting views among practitioners about the merits and demerits of conditional and unconditional grants in Nepal. Technocrats have been arguing for more conditional grants, whereas the politicians and local government associations favor block grants with more discretionary allocation power for local governments. Many executive officers in municipalities have argued that only sector-specific conditional grants produce visible results.

MoFALD regularly provides conditional grants to municipalities to support participatory municipal infrastructure development programs, which involve municipal cost sharing. For example, Koshi Haraicha Municipality was able to blacktop 15 km roads last fiscal year, with almost fifty percent cost sharing with local residents. Similar cases can be found in Dharan, Hetauda, Itahari, Dhangadi, Debdaha and many other municipalities.

Unconditional block grants are not popular in municipalities. Rather, many see these resources as a source of fiduciary risk. By law, municipalities have to allocate 10 percent of the grant proceeds for projects benefitting children, 10 percent for women, and 15 percent for projects benefitting socio-economically disadvantaged ethnic communities. There is a tendency to allocate the remaining block grant equally to all wards for political reasons. As a result, most projects financed by block grants are tiny in nature. The targeted resources are spent on software-type projects under the presumption of awareness and empowerment. There are problems of elite capture in the allocation block grants.

Despite the popularity of project and sector conditional matching grants, poor and small municipalities have faced challenges in mobilizing the matching fund requirements, mainly for donor-funded projects. The Birgunj and Janakpur municipalities, for example, have not been able to complete the ADB-funded Integrated Urban Development Projects on time due to their inability in meeting the matching requirement for the grants. Similarly, MoFALD had requested municipalities for a proposal on solar streetlights. The proposal was opened to all 217 municipalities. However, more than half of the municipalities were unable to submit a proposal due to the 15 percent matching grant requirement.

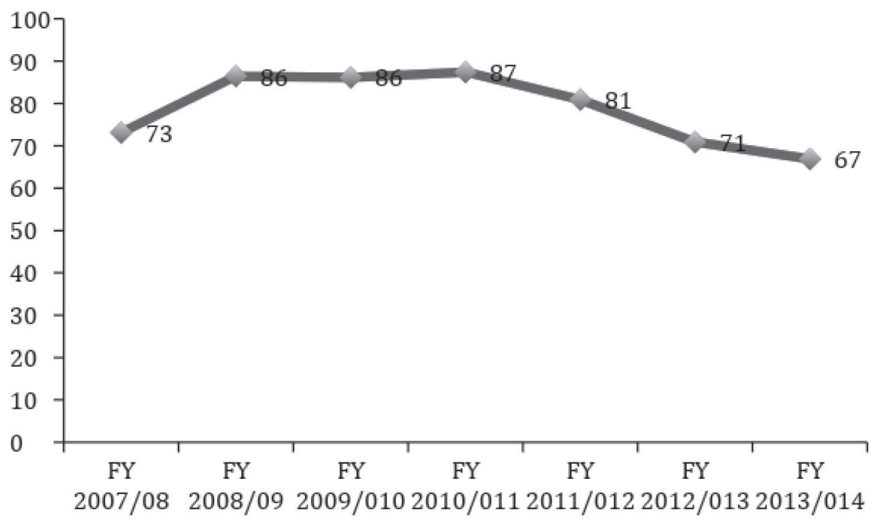
In participatory infrastructure projects, some resource poor municipalities have requested that the government not include mandatory provisions for people's financial contribution or user contributions. Given this situation, MoFALD withdrew the provision for matching funds and user contributions for blacktopped road programs provided they are implemented through a competitive bidding system.

Transfer dependency is a common characteristic of municipalities in Nepal. As Figure 6.1 indicates, the average share of transfers in total municipal revenue is around 79 percent, although the dependency rate is slightly declining. This means that, on average, municipalities in Nepal finance only 21 percent of their expenditures from own-source revenues. The level of transfer dependency varies across municipalities. Transfer dependency ranges from 93% (Dasrathchand) to 35% (Bhaktapur). Detail on transfer dependency in each municipality is provided in Annex 6.3. The data confirms that fiscal transfers continue to play an important role in the financing of local governments in Nepal.

6.4 Way Forward for Managing Intergovernmental Fiscal Transfers in Nepal

Despite the revenue generating power ensured by the 2015 Constitution, municipalities in Nepal will continue to face challenges in mobilizing the funding to meet their expenditure needs. For resource rich municipalities, borrowing may be an option for meeting the demand for municipal infrastructure investment. But access to capital and financial markets for municipal borrowing requires reliable institutional infrastructure and capabilities. And some municipalities may be reluctant to take loans, even from the Town Development Fund (TDF), fearing default.

Figure 6.1 Share of Fiscal Transfer in Total Municipal Revenue (in %)



Source: *LBFC, 2007-2014*

There is a tendency for municipalities to overestimate their revenue to avoid the administrative expenditure ceilings. Financial statements produced by municipalities are not reliable currently to assess municipal credit worthiness. One cannot compute financial ratios from financial reports produced by municipalities.

Municipalities typically pay back TDF loans from a pool of resources, including block grants, revenue sharing and OSR. Therefore, funds from revenue sharing could be option to help municipalities meet their expenditures. Under the new federal structure, the GoN will be required to share revenue not only with local governments, but also with provinces. This may reduce the amount of revenue sharing to be received by local governments. The GoN is sharing revenue currently from tourism royalties, revenue from electricity, royalties from forests, land registration and transaction fees, etc.

Local OSRs are always a good source of income for municipalities. However, not all municipalities will be able to generate sufficient OSRs to fill their fiscal gaps. In this respect, intergovernmental fiscal transfers will be critical source of revenue for municipalities. With the new constitutional mandates for local governments, the GoN will require the enactment of laws on intergovernmental financial management.

In order to avoid conflicts between local and provincial government, the GoN needs to clearly outline a detailed system of transfers, including a combination of general purpose and categorical grants, performance-based grants, equalization grants, formula-based transfers, and revenue sharing. Rule-based fiscal transfers will not only reduce conflict, but will also establish trust and cooperation between all tiers of government.

The current MCPM system needs to be revised with more indicators designed for output, outcome and impact. The process-driven MCPM indicators needs to be replaced by more result-driven indicators that can better encourage local governments to use these financial resources more effectively for socio-economic development. The GoN also needs to scale up the MCPM and formula-based transfer structure to apply to other conditional grants and donor-funded projects. And finally, fiscal transfers should be linked to socio-economic development and revenue efforts, and be structured so as not to provide disincentives on own-source revenue efforts.

6.5 Intergovernmental Fiscal Transfers under the New Constitution

The 2015 Constitution has transformed the former Local Bodies into local governments. Relative to the LSGA (1999), the Constitution has reduced the roles and responsibilities of district-level local governments. Until now, Nepal has ruled the country primarily through district level government bodies. Beyond the national headquarters, district headquarters were the primary power centers in Nepal. Village bodies and municipalities now have executive, legislative and judiciary powers at the local level.

Article 232 of the Constitution of Nepal clearly states that the relationship between federal, state, and local government should be based on principles of cooperation, coordination and co-existence. This means that Nepal has embarked on the journey of collaborative federalism, but with the residual powers vested in the federal government. Subnational governments can enact laws in their jurisdictions, but these laws should not be inconsistent with federal laws.

However, Schedule 8 of the 2015 Constitution has given some tax powers to local governments. There are concurrent revenue sources, such as service fees, penalties and royalties from natural resources and tourism fees. Table 6.5 identified the revenue powers allocated to the three tiers of government under the Constitution.

The Constitution of Nepal has given important mandates to the National Natural Resources and Finance Commission (NNRFC). It has a much broader role than the existing Local Body Fiscal Commission. NNRFC has the power to determine the basis and modality of distributing public revenue between the three tiers of government, make recommendations about equalization grants from the Federal Consolidated Fund to subnational governments, determine the basis and modality of distributing revenue from the State Consolidated Fund to provinces and local governments, among others.

The NNRFC consists of a maximum of five members, including the Chairperson. Parliament enacted the National Natural Resources and Finance Commission Act in 2017. The Ministry of Finance has been designated the contact Ministry for the NNRFC. However, the GoN has not yet appointed the members and chairperson of NNRFC.

Table 6.5 (below) overviews the distribution of these powers.

Table 6.5 Distribution of Revenue Powers in the 2015 Constitution of Nepal

Federal	Provincial	Local	Concurrent
Customs Excise-duties Value Added Tax (VAT) Corporate Income Tax Individual Income Tax Tax on Remuneration Passport Fees Visa Fees Tourism Fees Service Charges and Fees Penalties	House and Land Registration Fees Motor Vehicle Tax Entertainment Tax Advertisement Tax Tourism Tax Agro-income Tax Service Charges Fees Penalties	Property Tax House Rent Tax House and Land Registration Fees Vehicle Tax Service fees Tourism fees Advertisement Tax Business Tax Land Tax Penalties Entertainment Tax	Service Fees Charges Penalties and Royalties from Natural Resources Tourism Fees

***Source**: Constitution of Nepal, 2015*

Constitutionally, the GoN must distribute revenue equitably among all tiers of government based on the recommendation of the NNRFC. The GoN is obligated to implement fiscal equalization grants for subnational governments taking into account the expenditure needs and revenue capacity of each subnational government. Revenue sharing should be designed and implemented in a balanced and transparent manner. In the same manner, provinces need to introduce fiscal equalization grants for local governments on the basis of the expenditure needs and revenue generating capacities of each local government. The volume of fiscal transfers to subnational governments should be distributed as per the recommendations of the NNRF. The GoN will need to build the necessary institutional infrastructure to for the effective management of fiscal federalism in Nepal.

6.6 Conclusion

Decentralization is not an end in itself. Rather, it is a means to achieve socio-economic development. Given the trend of urbanization, municipalities will become increasingly important political and economic institutions for local democracy and local development in Nepal. Local development will require tremendous capital investment for which fiscal transfers will continue to play an immediate and reliable role.

Nepal is undergoing a major political, economic and social transformation. The 2015 Constitution of Nepal has ensured the pace of localization. Politically, the country has embarked on a transition to federally-based, devolution-led, decentralized governance. Progress in political decentralization will not be sufficient without the institutionalization of efficient, equitable and accountable fiscal decentralization mechanisms. Whatever level of decentralization takes place; it will not be functional without adequate revenue to meet local expenditures. Fiscal transfers will continue to play a critical role in financing the expenditure needs of municipalities in Nepal. Since the country has decided to take the political course of federalism, Nepal should manage intergovernmental fiscal relations from the foundations and principles of fiscal federalism.

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6.8 Annexes

Annex 6.1 Indicators and Scores for MCPM Municipal Performance Measures

Indicator	Score
Formulation of participatory annual development plan	4
Allocation of budget and program to women, children and socio-economically disadvantaged communities	2
Spending of targeted program budget for the benefit of women, children and socio-economically disadvantaged communities	2
Allocation and spending of budget for child protection and development and adoption of child-friendly local governance	2
Information management through information centers, information disclosure online, compliance of rights to information, execution of GIS on development projects and monthly disclosure of income and expenditures	4
Transparent and effective management of social security programs through disclosure of information and updated data-base management	2
Preparation and timely submission of monthly and yearly physical and financial progress reports	2
Conducting public hearings on a quarterly basis	2
Feasibility studies on revenue potential and projections of annual revenues based on the study	2
Consistency between actual and projected income and expenditures and their implementation	4
Management of revenue administration with due process and maintenance of electronic records	4
Revenue enhancement through the enforcement of integrated property tax	2
Adoption of public private partnership modality in municipalities	2
Compliance of optimum limitation of administrative expenses	2
Adoption of an accrual accounting system	2
Management of security deposit accounts in accordance with law	2
Quality of financial transactions: Management of accounts and advances	2
Compliance with limitations of expenses in financial administration	2
Local resource mobilization	4
Implementation of a municipal plan: Periodic plan, municipal transportation master plan, and preparation of a municipal profile	2
Pre-feasibility and feasibility studies of development projects in accordance with the provisions of the Local Self-Governance Act, 1999	2
Procurement Management: Preparation and enforcement of a procurement plan and e-submission system	4
Final clearance and technical settlement of completed development projects and their approval from the municipal council	2

Project inventory profiles and provision of maintenance and repair funds	4
Transparency in project management	2
Implementation of monitoring and evaluation systems in accordance with law	2
Enforcement of a social accountability system	2
Enforcement of employees' job description	2
Service management through citizen charter and other by-laws	2
Provision of an employee welfare fund	2
Lawful enforcement of the service contract system	2
Enforcement of the code of conduct property disclosure system	2
Sanitation and solid waste management	4
Environment management	4
Vehicle parking management	2
Management of slaughtering houses and meat shops	2
Public health promotion	2
Emergency service and disaster management	4
Vital registration management	2
Enforcement of building by-laws and building codes	2
Total Scores	**100**

Annex 6.2. Average Performance Management Scores by Functional Areas for FY 07/08-13/14

Municipalities	Average PMS Scores				
	Local Governance	Financial Resources Mobilization	Planning and Program Management	Organization and Human Resources Development	Basic Urban Service Management
Ilam	15	14	11	10	16
Mechinagar	13	18	10	10	13
Bhadrapur	15	16	11	12	13
Damak	16	18	13	11	15
Itahari	16	17	11	12	15
Dharan	16	19	11	11	15
Dhankuta	16	18	10	12	16
Khadbari	13	13	7	10	12
Biratnagar	12	14	7	9	15
Inaruwa	15	16	9	9	12
Rajbiraj	13	10	9	8	11
Triyuga	16	17	10	10	10
Siraha	11	10	8	9	7
Lahan	11	13	7	7	11
Janakpur	12	11	10	10	10

Jaleshwor	10	8	6	8	8
Malangawa	9	7	4	6	9
Kamalamai	15	18	9	10	12
Bhimesor	16	20	14	11	14
Kathmandu	11	12	7	8	16
Kirtipur	14	13	11	11	16
Lalitpur	13	12	9	10	14
Bhaktapur	16	16	10	11	15
Thimi	14	13	11	11	11
Bidur	13	15	10	11	12
Dhulikhel	14	17	10	9	14
Banepa	15	14	12	11	15
Panauti	15	17	11	12	12
Hetauda	18	17	12	13	18
Gaur	11	11	5	9	10
Birgunj	11	13	9	9	13
Kalaiya	14	14	8	10	12
Ratnanagar	17	19	11	11	14
Bharatpur	15	18	11	10	16
Tansen	17	16	11	12	14
Butwal	16	20	13	10	16
Ramgram	17	19	12	10	11
Siddharthanagar	15	17	13	10	15
Kapilbastu	16	17	11	11	12
Gorkha	14	15	6	10	11
Byas	16	15	10	13	12
Lekhnath	15	16	10	11	11
Pokhara	16	16	7	9	16
Putalibazar	16	15	10	11	12
Waling	18	17	13	12	13
Baglung	17	17	12	11	14
Ghorahi	19	21	13	11	18
Tulsipur	17	16	11	10	13
Birendranagar	17	18	10	11	14
Narayan	16	17	11	11	11
Nepalgunj	11	11	7	9	14
Gulariya	17	16	10	10	13
Tikapur	17	16	10	11	15
Dhangadhi	13	18	10	11	14
Dipayal-Silgadhi	14	10	7	10	12
Dashrathchand	12	11	5	11	10
Amargadhi	12	14	7	9	11
Bhimdatta	13	16	7	11	12

Annex 6.3 Average Ratio of Fiscal Transfer and Own-Source Revenues to Total Municipal Revenues of 58 Municipalities for FY 07/08 – 13/14

Municipalities	Transfer Dependency	Revenue Autonomy
Dashrathchand	93	7
Narayan	92	8
Dipayal-Silgadhi	92	8
Khadbari	92	8
Amargadhi	92	8
Waling	91	9
Kapilbastu	90	10
Siraha	90	10
Panauti	89	11
Gulariya	89	11
Ramgram	89	11
Gaur	88	12
Bhimeshwor	88	12
Triyuga	88	12
Gorkha	87	13
Lekhnath	87	13
Putalibazar	87	13
Jaleshwor	86	14
Kamalamai	86	14
Dhulikhel	85	15
Tikapur	85	15
Bidur	85	15
Bhadrapur	85	15
Kalaiya	85	15
Tansen	84	16
Ratnanagar	83	17
Bhimdatta	83	17
Tulsipur	83	17
Dhankuta	83	17
Baglung	82	18
Birendranagar	82	18
Rajbiraj	82	18
Malangawa	80	20
Banepa	79	21
Ilam	79	21
Dhangadhi	78	22
Byas	77	23
Nepalgunj	76	24
Janakpur	76	24
Ghorahi	75	25

Inaruwa	75	25
Lahan	75	25
Dharan	75	25
Mechinagar	75	25
Birgunj	74	26
Kirtipur	73	27
Damak	70	30
Thimi	70	30
Hetauda	69	31
Itahari	68	32
Siddharthanagar	66	34
Bharatpur	65	35
Biratnagar	62	38
Butwal	61	39
Pokhara	55	45
Lalitpur	52	48
Kathmandu	49	51
Bhaktapur	35	65

Annex 6.4 Transfer Dependency of 58 Municipalities from FY 07/08-13/14 (in %)

Municipality	%						
Ilam	81	83	87	86	77	74	64
Mechinagar	62	81	81	88	80	60	74
Bhadrapur	83	87	91	94	91	73	73
Damak	83	82	83	82	68	45	50
Itahari	67	80	71	81	73	58	50
Dharan	65	81	86	86	84	60	63
Dhankuta	76	91	92	90	90	70	69
Khadbari	88	97	95	96	93	91	84
Biratnagar	58	76	76	74	65	41	43
Inaruwa	77	86	87	89	87	53	47
Rajbiraj	84	90	89	91	80	71	69
Triyuga	85	95	92	93	91	76	84
Siraha	80	99	99	97	98	78	80
Lahan	64	81	90	84	75	72	60
Janakpur	67	88	87	82	82	51	73
Jaleshwor	82	95	96	90	94	75	68
Malangawa	84	84	84	92	60	74	82
Kamalamai	82	86	95	96	95	67	78
Bhimeshwor	85	95	91	93	91	88	73
Kathmandu	65	59	49	54	48	32	37
Kirtipur	79	86	79	85	75	47	58

Lalitpur	56	54	51	69	62	32	41
Bhaktapur	52	44	34	49	33	18	18
Thimi	68	82	83	85	84	48	38
Bidur	81	94	95	93	92	54	84
Dhulikhel	63	90	93	93	88	89	79
Banepa	58	86	79	93	82	83	75
Panauti	86	95	97	96	92	86	73
Hetauda	85	75	87	89	56	38	51
Gaur	55	98	96	97	91	92	90
Birgunj	56	85	86	78	77	71	64
Kalaiya	72	90	92	91	86	84	77
Ratnanagar	75	87	99	89	81	81	69
Bharatpur	44	80	73	81	71	52	50
Tansen	88	90	90	83	82	88	68
Butwal	44	68	59	66	68	75	48
Ramgram	91	93	94	93	89	84	77
Siddharthanagar	42	78	72	76	72	67	56
Kapilbastu	84	94	95	93	92	93	80
Gorkha	85	90	93	95	89	95	64
Byas	72	84	85	87	78	86	49
Lekhnath	82	94	93	92	90	93	63
Pokhara	48	72	69	78	47	37	33
Putalibazar	84	96	94	93	88	72	81
Waling	89	97	96	97	94	82	80
Baglung	61	89	92	89	89	88	70
Ghorahi	58	87	87	86	74	70	64
Tulsipur	79	88	88	91	82	78	74
Birendranagar	76	92	90	87	83	74	76
Narayan	86	98	95	98	97	82	90
Nepalgunj	65	86	73	87	74	82	64
Gulariya	84	94	96	95	89	83	82
Tikapur	89	93	94	95	77	76	72
Dhangadhi	68	88	91	82	82	72	65
Dipayal-Silgadhi	81	96	96	97	96	90	89
Dashrathchand	83	98	99	99	97	79	93
Amargadhi	90	97	97	97	92	92	78
Bhimdatta	64	88	91	91	85	88	74
Average	73	86	86	87	81	71	67

7. Enhancing Subnational Borrowing to Finance Urban Infrastructure in Nepal

– *Maniram Singh Mahat and Nawa Raj Koirala*

7.1 Introduction

Providing for municipal infrastructure and services is an essential component of how local governments encourage sustainable economic, social and environmental development (Eichler and et al, 2012). All over the world, municipal governments have been mandated to provide goods and services, such as roads, public transportation, water supply, sanitation, solid waste management, sewerage, electricity, health care, education and social housing with amenities services, to enhance urban peoples' quality of life. However, municipalities are facing several financial challenges in satisfying the increasing demands of a growing urban population. Today, 54% of the world's population lives in cities, with 924 million people, or 31.6% of the total urban population, living in urban slum areas (UN-Habitat, 2016). According to UN-Habitat, over 1.1 billion people do not have access to clean water, and over 2.6 billion people have no access to toilets or adequate sanitation facilities.

Nepal's urban population, exemplifying this global scenario, has increased from 23% in 58 municipalities in 2011 to 60% in 2017, indicating encouraging trends of urbanization and economic development prospects for the country, following the restructuring of local government in the context of federal structure. This urban growth, however, also results in ever-increasing demand for funds to finance new infrastructure in newly-urbanizing municipalities and to improve the service level in existing ones. The Town Development Fund estimates that roughly 61% of total municipal financing is needed from external sources to meet Nepal's fiscal gap in existing urban infrastructure development by 2030 (TDF, 2015).

7.2 Urban Finance and Infrastructure

Urban infrastructure financing is a complex subject that requires a great deal of knowledge and experience. In addition to a municipality's own-source revenues (OSR) and transfers from the central government, there are various other financial instruments for urban infrastructure development (e.g., debt financing, equity investment, bonds, pool financing, public-private partnership (PPP) and public-community partnership (PCP). Equity and debt are two generic financing instruments that cities can use to secure infrastructure financing (Kim, 2016).

Municipal finance (also known as urban finance) is concerned with both the revenue and expenditure decisions of municipal governments. It covers the traditional sources of revenue that are used by municipal governments—taxes (e.g., property, income, sales, excise), user fees and intergovernmental transfers—but also includes ways of financing infrastructure through innovations such as using operating revenue and borrowing as well as development charges and public-private partnerships. It also addresses issues around expenditures at the local level and accountability for expenditure and revenue decisions, including the municipal budgetary process and financial management (UN-Habitat, 2009).

According to the "subsidiarity principle," the efficient provision of services requires that decision making be carried out by the level of government closest to the individual citizen (Barnett, 1997). This principle should be applied when considering the cost and efficiency gains from delivering services at the local level. With a few exceptions, such as macroeconomic stabilization, distribution functions and a number of national level public goods such as national defense, almost all public services should be provided at the local or regional level with local policy-makers making decisions about what services to provide, how much to provide and who should pay for them. The fiscal decentralization literature states that "finance follow functions," stressing the need to give all local governments adequate funding to carry out their assigned expenditure functions, including those on urban infrastructure. These revenues come from a combination of own-source revenues, intergovernmental transfers or shared revenues and options for subnational borrowing.

7.3 Urban Finance and Infrastructure: Issues and Challenges

In developed countries, local governments typically have a wide and strong tax base as well as a predictable, well-structured grant system to drive the economy through social and economic infrastructure development and partnership with the private sector and NGOs on development initiatives (Serageldin et al, 2008). However, they are also heavily dependent on debt financing for funding urban capital infrastructure.

In contrast, in developing countries, many local governments, due to limited own-source revenue, must rely heavily on intergovernmental fiscal transfers. They are not equipped for market-based financing of urban infrastructure. They are only capable of short-term borrowing to bridge the gap between income and expenditure flows within the fiscal year. They have limited surplus for meeting capital investments as per capital investment needs as well as low human capacity for debt management and long-term debt financing for the large scale of urban infrastructure (Kopanyi, 2014). Considering these issues of fiscal deficits and the low financial capacity of local government, many developing countries have established financial intermediary institutions or municipal development funds to provide loans and grants to local governments for urban infrastructure financing and development.

In transition economies, the evolution of municipal finance for urban development follows integration with market economies and the global economy. These types of countries have reformed political, administrative and fiscal decentralization with economic sectors primarily and have changed legal frameworks by devolving tasks to local governments. These reforms include provisions for the roles and responsibilities of the public and private sectors, an adjustment to the system of central transfers and the privatization of land and property ownership. In emerging countries such as China, there is no borrowing authority for local governments. However, Chinese local governments have managed to borrow from the market through a Special Purpose Vehicle mechanism, using an off budget process for infrastructure development (Serageldin, et al, 2008).

With increasing decentralization and urbanization in developing and transitional economies, municipal finance is moving toward a new paradigm. The old paradigm of cash transfers from the central government (grants) and below market rate loans from bilateral and multilateral donors do not provide enough funding to meet the infrastructure and service needs of municipalities. The new paradigm uses market based municipal financing with innovative financing schemes for urban infrastructure development including education, solid waste management, water supply and sanitation as well as other economic development projects. As Table 7.1 indicates, under the new paradigm, municipalities are increasingly turning to (i) own-source revenue, i.e., taxes, user and service fees, licenses and permits and revenue from municipal assets. and (ii) capital market borrowing (Billand, 2005).

Table 7.1 Funding Sources for Building Municipal Facilities

Old Paradigm	New Paradigm
■ Cash transfers from a higher level of government or grants ■ Below market-rate loans from bilateral and multilateral donors	■ Leveraging market-based local currency loans through the strategic use of cash transfers, grants and concessionary loans

***Source**: Billand, 2005*

7.4 Principles of Subnational Borrowing and Financing

Subnational borrowing, a key component of fiscal decentralization, has been a powerful tool for narrowing the fiscal gap in infrastructure financing at the subnational level (provincial or local level). Subnational borrowing has been a necessity for the municipalities of developing countries and least developing countries (LDCs) for financing urban infrastructure. Borrowing enables local governments to provide and capture the benefits of major capital investments immediately rather than waiting until sufficient savings from current income can be accumulated to finance those investments. Infrastructure investments benefit future generations; therefore, they should bear a portion of the cost.

Subnational borrowing creates a system and process of debt financing where funds are borrowed from a bank or financial intermediary and has been established as an important avenue for financing urban infrastructure globally. Economic theory suggests that reasonable borrowing in developing countries can enhance their economic growth through the channels of (i) capital accumulation and (ii) productivity growth. Because local governments are best informed about local needs and investment priorities, local borrowing is a useful tool for local economic development (Drezgic, 2004). Global best practices suggest that local governments should not be allowed to borrow to meet operating expenditure requirements, only to borrow for capital expenditures. For large capital investment projects which require long-term financing, borrowing is the preferred form of financing.

Most countries introduced central government controlled and regulated borrowing for local governments or municipalities after 1990. The central government regulates borrowing as it is mandatory for preserving fiscal discipline and maintaining national fiscal sustainability by preventing the insolvency of local government.

For this purpose, central governments manage subnational borrowing and debt by implementing ex-ante and or ex-post regulations (Vazquez and Vulovic, 2016). Ex-ante regulations include a mixture of market discipline, fiscal rules, administrative regulation and cooperative regulation, while ex-post regulations include a mixture of sanctions for noncompliance and rules against imprudent behavior (Ter-Minassian and Craig, 1997). There is consensus that both ex-ante and ex-post regulations should be used simultaneously and should be considered for both borrowers and lenders (Webb 2004, referred from ADBI, 2016). The key elements of commonly used ex-ante regulations include (i) allowing borrowing only for financing long-term capital investments (i.e., the "golden rule"), (ii) setting limits on key fiscal variables such as the primary and/or fiscal deficit and debt service ratio, and (iii) requiring subnational governments to establish medium-term fiscal frameworks and transparent budgetary processes (Liu and Waibel, 2006).

In addition to the "golden rule," setting limits on fiscal variables is an important part of determining the borrowing capacity of municipalities and gaining insight on their creditworthiness. Different financial institutions, such as municipal banks, commercial banks, international financial institutions and municipal development funds, assess a municipality's budget before providing loan financing on long-term infrastructure development projects. Establishing a medium-term fiscal framework and transparent budgetary processes are also essential for qualitatively assessing the financial management structure of a municipality in order to help manage the substantive capital investments within cities.

Municipalities in some countries can borrow using debentures, a type of debt borrowing where a loan certificate is issued and certified by the municipality's mayor and treasurer using a municipality's own general revenue as loan collateral. Under this approach, an approval from the appropriate board or council is necessary. Similarly, municipalities can issue bonds as an alternative to borrowing. This is especially used to finance new capital projects and is secured through property taxes or user fees. The borrower municipality promises to repay the capital value of the bond with the agreed interest on a specific date. As bonds provide upfront funds, and repayment is spread out over a longer period of time, municipal bonds are beneficial for larger metropolitan cities that have the potential to raise large amounts of capital and have good credit ratings.

7.5 Cross Country Experience with SNG Borrowing

Subnational borrowing experience varies across LDCs, developing and developed countries. Many European countries have enacted debt management laws, including limits on borrowing in which the debt/GDP ratio is no higher than 60% according to the Maastricht criterion (Roy and Williams, 2010). The adoption of fiscal rules, with a debt ceiling endorsed by legislation, has allowed the maintenance of fiscal discipline to meet the target for infrastructure with debt sustainability through adequate political commitment and appropriate compliance mechanisms. Table 7.2 illustrates the variety of debt policy and provisions as well as the accompanying institutions.

Table 7.2 Fiscal Policy, Institutions and Provisions for Debt Management in Selected Countries

Country	Policy	Lender/ Institution	Debt Provisions
Brazil	Fiscal Responsibility Law of 2000 (applies to all levels of government)		Personnel spending of 60% or less of net fiscal revenue for states and municipalities (mandatory limits set by the Senate). Credit operations excluding amortization of debt limited to 60% of net current revenue for central government and 16% for states, the federal district and municipalities.
South Africa	Public Finance Management Act of 1999	Infrastructure Finance Corporation Development &Bank of Southern Africa	The central government provides regulatory oversight for borrowing and intervenes if a local government fails to meet its debt servicing obligations.
India	Fiscal Responsibility and Budget Management Act of 2003 (for the central level; however, most states have adopted their own Fiscal Responsibility Laws in line with the national law)	Tamil Nadu Urban Development Fund (TNUDF), an example of a state level financial institution for local borrowing.	The Constitution of India (Article 293) provides state governments with executive power to borrow exclusively from domestic sources while prohibiting foreign borrowing. The Article further stipulates that a state with any outstanding debt from the central government requires advanced consent from the central government to borrow. Debt service cannot to exceed 20% of revenue (for all states considering placing a ceiling on the budget deficit to GDP ratio at 3%).
Australia	State wise Fiscal Responsibility Law		
Canada	Provincial wise Fiscal Responsibility Law		
Colombia	Fiscal Responsibility Law of 2003		Interest payment/operational savings Debt/current revenue
Argentina	Fiscal Responsibility Law of 2004 (applies to all level of government)		The budget balances of provinces are sufficient to bring debt service below 15% of the current revenue, or net of municipal transfers.
Peru	Fiscal Responsibility Law of 2003		Fiscal deficits, including in SNGs, are no more than 1 percent of GDP. The stock of debt for each SNG may not exceed 100 percent of the current revenue. The debt service (interest and amortization) may not exceed 25% of the current revenue.

Vietnam	Public Debt Management Law of 2009		Debt accumulated only through socio-economic development projects which should be capable of generating revenue to repay the debt. Article 26 of Decree 60/2003 limits most provinces' borrowing for capital investments to 30 percent of the annual investment budget.
Poland			Set limits of 60% for the debt to revenue ratio and 15% for the service debt to revenue ratio

Source*: Liu and Webb, 2016,Roy and Williams, 2010& Koirala, 2017*

Reviewing borrowing policies for local governments from different countries confirms that debt financing has been an instrument for infrastructure development. Subnational borrowing finances infrastructure more equitably across inter-temporal generations of service users because a debt can be serviced to match the economic life of the corresponding asset. Infra-state debt, local debt and quasi-public agency debt has grown in importance as a result of fiscal decentralization, rapid urbanization and the increasing role of private capital. However, with debt comes the risk of insolvency, emphasizing the importance of aligning fiscal incentives with debt restructuring frameworks (Canuto and Liu 2013).

There are three major structural trends that have contributed to the rising share of subnational debt as a share of general public debt (Canuto and Liu, 2010a). First, decentralization in many countries has given subnational governments (SNGs) certain spending responsibilities, revenue-raising authorities and the capacity to incur debt in their respective legal frameworks or constitutions. The Constitution of the Republic of South Africa, 1996, for example, has given municipalities authority to raise short and long-term loans for capital and current expenditures in accordance with national legislation. However, loans for current expenditures are only taken when needed for bridging purposes during a fiscal year. The new Constitution of Nepal has also given borrowing rights to SNGs, a significant structural shift toward building fiscal autonomy for these governments.

Second, rapid urbanization in developing countries requires large-scale infrastructure financing to help meet the needs of the population influx from rural areas. Nepal has witnessed fast urbanization, from 17% urban population in 2011 to 60% by 2017, creating huge demand for urban infrastructure in its municipalities. In 2015, it was estimated that meeting 60% of the country's basic urban infrastructure demand in its 217 cities would require an investment of NPR 150 billion per year, while current investment is only NPR 30 billion per year (TDF, 2015). Today, the number of cites has grown (due to restructuring of municipalities under the new Constitution), and it is expected that about NPR 1.23 trillion per annum will be required to meet the demand in Nepal's municipalities for basic urban infrastructure development.

Third, the subnational debt market in developing countries has been going through a notable transformation. Private capital has increasingly emerged to play an important role in subnational finance, and subnational bonds are increasingly competing with traditional bank loans. Notwithstanding the temporary disruption of the subnational credit markets during the 2008-09 global financial crisis, the trend toward more diversified subnational credit markets is expected to continue. In various emerging countries, such as China, Colombia, India, Mexico, Poland, the Russian Federation and South Africa, SNGs or their accompanying entities have begun issuing bond instruments. More countries, such as Indonesia, are considering policy frameworks for facilitating subnational debt market development, while others, such as Peru, are allowing selected subnational entities to pilot transaction and capacity-building activities.

7.6 History of Local Borrowing in Nepal

In Nepal, the Municipal Panchayat Acts 2006 and 2009 allow municipalities to take out loans and make provisions for a "Sinking Fund" for debt servicing (Article 57, 102). Municipal Act 2019 makes provisions for borrowing with or without collateral (Article 38). These provisions mean municipalities can borrow more than their revenue with approval from the upper levels of government.

The Municipal Act 1992 allows municipalities to take out loans with or without collateral. As per this Act, municipalities can buy debentures and shares protected by the government (Article 15) and goes as far as allowing metropolitan cities to issue development bonds (Article 63) (Dhungel, et al, 2004). The Local Self Governance Act 1999 allowed municipalities to borrow from banks and financial intermediaries such as the TDF (Town Development Fund) with or without mortgaging their properties as collateral (Article 148).

The 2015 Constitution of Nepal has granted more tax autonomy to SNGs, which should reduce the risk of moral hazard and improve the effectiveness of borrowing control and help maintain fiscal balance at the subnational level. There are strong arguments for giving SNGs space for raising their financial resources, which, along with an appropriate subnational borrowing regulatory framework, will be able to reduce the chances of fiscal crises caused by defaults.

The Town Development Fund Act 1997 has also mandated the TDF to issue loans to municipalities, urbanizing villages, town development committees and organizations working for city development. With this mandate, any municipality in Nepal can borrow money from the TDF for up to 25 years, subject to their borrowing capacity and project viability. Borrowing capacity and debt limits are based on the total estimated amount that a municipality may be able to mobilize in a fiscal year from the total taxes, fees and unconditional grants it receives.

7.7 Genesis of Institutional Lending: The Town Development Fund (TDF)

The Town Development Fund (TDF) was established as the TDF Board, by Formation Order in 1988 under the Development Board Act of 1956 and was made autonomous under the TDF Act of 1997. Initially, the TDF was funded by loans from the World Bank, grants and technical assistance from the German Technical Cooperation (GTZ) and equity funds from the former HMG/N until July 1997 supported with technical assistance from the United Nations Centre for Human Settlements (UNCHS) until December 1993. These funds were pooled as TDF capital for providing loans, including soft loans and grants, for social infrastructure projects, urban utility projects and revenue generating projects (GoN, 1997).

System and Process

The TDF's system and processes have been designed and implemented and include loan grant policy, comprehensive manuals and guidelines for its operations. The TDF's legal mandate, legal authority and processes are comprehensive. The TDF has adopted Standard Operating Procedures (SOPs) to ensure the quality of its business processes and operating efficiency.

The TDF typically provides financing for the following:

1) Social infrastructure projects (e.g., drainage, public toilets, slum area improvement)
2) Basic utility infrastructure projects (e.g., drinking water and sanitation, roads, bridges, public/ municipal buildings)
3) Economic or revenue generating infrastructure projects (e.g., bus parks, tourism development, market place development)

The types of loan products and terms:

1) Infrastructure loans for social services with up to a 25-year payback period at 5-9.5% interest rates and a loan to grant ratio of 80% to 90% loan with 10% matching from the client
2) Infrastructure loans for basic urban service projects with a 20-year payback period at 5-12% interest rates and a loan grant ratio of up to 60:10 with 10% matching from the client
3) Income generating infrastructure loans with a 20-year payback period at 5-12% interest rates (100% loan/no grant)

Role of the TDF in Urban Finance and Infrastructure Development

The Town Development Fund has been managing the loans and grants which the GoN has received from the ADB, the World Bank and the KfW over the last two decades. More than 1,200 municipal projects have been financed by the TDF. Municipal financing in Nepal is mainly based on non-commercial sources, i.e., bilateral (Germany through KfW) and multilateral (ADB, IDA) grant and loan contributions.

TDF loans have triggered urban infrastructure development and growth and, often supplemented by grants in appropriate situation and composition, have also financed social development projects in several municipalities, which have helped to improve the living conditions of the urban poor. Municipalities have a narrow base of revenue, receive limited central government grants and have low capacity. Consequently, the TDF's loan and grant financing, along with technical support for infrastructure development, have played an important role in meeting longer-term goals for basic urban service improvement. However, the past trend of loan financing from the TDF was very limited. Now, on order to enhance internal revenue in municipalities through debt servicing with funds from revenue generating projects, TDF loan financing has become more focused on bankable projects.

Opportunities

Decentralization has been a global trend, whether under a unitary system or federal polity, over the last couple of decades. This has increased the expenditure power of SNGs in many countries. Hence, central governments have adopted various types of institutional responses to address the decentralization issues regarding subnational borrowing.

Due to the coherent legal and institutional structures of its local governments, South Africa has been able to raise 90% of its municipal revenue from internal sources with only 10% from central transfers. In contrast, Nepal in FY 2014/15, was able to raise 27% of its municipal revenue from own-source revenue, with roughly the remaining 70% from central transfers and with less than 1% from local borrowing.

Subnational governments have rarely been able to borrow sustainably on their own without increased levels of OSR enabled by fiscal autonomy. However, the Constitution of Nepal has empowered the subnational level (local level) with this needed fiscal autonomy.

SNG borrowing offers numerous benefits, the primary benefit being the facilitation of infrastructure financing to match the maturity of debt with the asset life for more efficient and equitable financing. Subnational governments can access capital markets through on-lending with a public financial intermediary such as the TDF.

Internally, there are five main reasons why access to financial markets is considered important for local authorities:

1) **Leveraged access to capital**: Local governments are responsible for infrastructure that requires large, capital investments on a periodic basis. Tax revenue is not capable of meeting the required amount of capital but can be used to leverage credit from the capital markets to finance infrastructure investments more efficiently.
2) **Inter-Generation equity**: Infrastructure created now will also be used by future generations of taxpayers and users. Long term financing can thus spread the costs of those long-term assets over present and future users of those assets. The amount of the borrowing can be based on the expected future cash flows of user fees and taxes.
3) **Efficiency criterion**: Prudent borrowing should only be done after serious financial and economic appraisal of potential capital project to discourage wasteful investments.
4) **Accountability**: Infrastructure projects financed by borrowing provide all stakeholders space to evaluate the relative performance of municipalities.

5) **The Short-term matching of revenue and expenditures**: Municipal revenue and expenditure flows are often not congruent requiring possible short-term borrowing. At the same time, municipalities need access to longer term loan financing to fund long-term capital investments.

For example, the Butwal Bus Park was built with TDF loan financing and is generating substantial revenue which can be used for debt servicing. It has created an asset for the municipality and serves both the purpose of a bus terminal and park in the city. However other, similar municipalities, such as Pokhara Sub-Metropolitan City, did not opt for loan financing and was unable to build the bus park. In fact, these municipalities are still unable to construct bus parks because costs have increased many fold.

Demand for TDF Debt Financing

Pace of Urbanization

Nepal's urban population has grown rapidly from 23% in 2011 to more than 60% in 2017. This is an encouraging trend of urbanization, which can lead to economic development. However, the urban economy operates under severe constraints in Nepal with limited urban infrastructure in key cities and towns. Urban areas have mostly grown haphazardly, expanding over flood-prone areas. Thus, urban growth has not adequately transformed potential production sectors in the hinterlands (ADB, 2010).

These facts suggest a need for multiyear investments in environmental and urban physical/logistic infrastructure based on systemic access to long term financing. SNG borrowing allows local entities to carry out more ambitious infrastructure investments than would otherwise be possible in such a short time frame. SNG borrowing in general promotes intergenerational equity by having future generations of citizens who will benefit from a facility's services pay for a portion of its construction.

7.8 Problem/Issues/Challenges

In general, there are three major challenges to making SNG borrowing effective. The first challenge is that municipalities still need huge effort to improve their institutional capacity.

The second challenge in Nepalese cities is the existence of "free riders". The free rider problem occurs when those who benefit from resources, goods, or public services do not pay for them, resulting in under-provision for those goods or services. This issue has occurred in several of the 70 towns in some cases whose Small Town Water Supply Systems were financed by the TDF, although it has been already solved successfully in case of small towns water supply and sanitation programs in several towns.

The third challenge may be moral hazard. Subnational borrowers may have little incentive to repay their loans and creditors may lend without risk differentiation if defaulting debtors maybe bailed out by the central government. This was the case with ADB loans to Pokhara Sub-Municipal corporation and Kathmandu Metropolitan City in 2000.

Studies conducted by Canuto and Liu (2013) reveal several design challenges with respect to debt restructuring frameworks:

1) How to balance the tension between the contractual rights of creditors and the need for maintaining public services in the event of subnational insolvency?
2) How to define the respective roles of different levels of government in resolving insolvency cases?
3) How to develop a collective framework for debt resolution (e.g., judicial, administrative or hybrid approaches)? Cases from various countries show the importance of country-specific circumstances; historical, constitutional and economic contexts and entry points for reform-influence framework designs in each country (Canuto and Liu, 2013).

7.9 Analysis

Infrastructure Financing Needs Analysis

The NUDS and Urban Infrastructure Financing Strategy (drafts) are based on four premises:

1) Municipal infrastructure is best created locally as envisioned in constitution
2) The fiscal transfer system must be rational, predictable and untied so that municipalities can leverage capital grants with debt
3) Municipal OSR, such as the Integrated Property Tax (IPT), must be modernized and simplified so that municipalities can capture the benefits of rising land values
4) The TDF should be enabled to evolve into a strong financial intermediary that functions as an open-access criteria-based lender for municipal infrastructure development

To move toward designing a new financing system, reforms are needed in all the three components of the municipal financing system, namely own-source revenues, intergovernmental fiscal transfers and local borrowing frameworks.

The current municipal finance system operates under several operational and framework constraints. First, there are no established billing systems for OSR and valuations are not updated regularly. This results in systemic inefficiency and an inability to judge standard performance measures/metrics such as the tax base, tax rate, collection ratios and so forth. Second, various components of capital grants are often tied to specific sectoral targets (Annual Road Fund) and the release of those funds are sometimes delayed. These characteristics add to the unpredictability of municipal revenue streams and disincentives multi-year planning. Third, there is no clear borrowing framework and municipalities have no access to debt on a repeated and demand driven basis. The TDF was set up to provide long term financing for municipal infrastructure but has limited capital, stressed loan assets, and low earnings. The TDF functions more as an agent for on-lending multilateral loans for pre-selected municipalities and projects rather than a lender of significance - accounting for less than 5% of annual municipal capital spending. Hence, there is need for reform in OSR, Inter Government Fiscal Regulation (IGFR) and the borrowing framework to enable the implementation of the National Urban Development Strategy over a medium term.

The infrastructural status of Nepal's new municipalities is pathetic and require a quick response from the government and TDF to help create and fund the basic infrastructure needed.

Consequently, the future demand for adequate infrastructure and public services will be immense, especially as poverty increasingly displays urban characteristics and challenges all actors to improve the quality of life in poor urban communities. The TDF Business Plan also analyses the borrowing capacity of municipalities from FY 2008/09 to FY 2010/11 and estimates the total borrowing capacity of the former 58 municipalities at only NPR 795 million. Out of these 58, only 24 municipalities had the capacity to borrow more than NPR 10 million.

Investment Gap Analysis

Net Infrastructure Financing Requirement

The net financing requirement could be partly met through innovative and special financing vehicles. The investment requirement of the TDF is calculated after making some assumptions about the contribution of those innovative financing vehicles to urban infrastructure (Table 7.3-5).

The projected financing gap assumes a 15% growth in recurrent expenditure, 16% growth in OSR, and 12.5% growth in IGFT based on the estimated amount for FY 2015/16. The average recurrent expenditure growth in 35 municipalities (except Metro and Sub-Metro) have been taken into account in the projection of recurrent expenditures for the remaining 170 municipalities. The 15% growth rate was derived by adding 3% to actual growth rate of 12%. OSR is predicted to increase by 16% for the 58 old municipalities but by 8% for the remaining 159 municipalities for the first three years and then by 16% for the remainder of the projection period.

The investment target is 60% for scenario 1, 75% for scenario 2 and 90% for scenario 3, an estimated total of NPR 1,398 billion, NPR 1,747 and NPR 2,097 respectively by 2030. These targets are seton the basis of the amount estimated by NUDS for the 58 old municipalities. The amount of municipal internal revenue and IGFT available for capital investments is NPR 818 billion.

Market borrowing (capacity constraints) is considered as 25% of revenue surplus, meaning constraints on market borrowing with potential municipal revenue for capital investment. According to this scenario, municipalities need more external resources particularly from debt financing. However, there are challenges to receiving funding from private banks and financial institutions as municipal borrowing capacity is very limited and should be enhanced to attract private financing.

In this situation, the TDF can play a key role in debt financing for infrastructure. But, as the existing capital structure of the TDF cannot fulfill this fiscal gap in the total capital investment needs of municipalities, the TDF's capital should be restructured to increase equity from different sources, including the private sector, to meet the required amount of debt financing.

Urban Infrastructure Finance in Federal Polity

The federal government can provide an environment that promotes the marketability of municipalities to access financial resources from non-government sources through (i) the appropriate macroeconomic and regulatory policies especially those which are conducive to the accumulation of resources for investing in long-term savings pools which would help municipalities access borrowing and (ii) devolving sufficient and appropriate powers to local governments.

Functional Assignment in the Constitution

Nepal's new Constitution describes the assignment of expenditure and revenue functions to federal, provincial and local governments. The new federal act will have a strong impact on how urban infrastructure could and should be financed in Nepal.

Infrastructure Financing Gap in 217 Municipalities

Tables 7.3 through 7.5 overview the total investment needs and gaps through 2031.

Table 7.3 Total Investment Needs (NPR billion)

	100%	90%	75%	60%
Old Municipalities	413.00	371.70	309.75	247.80
New Municipalities	1,916.93	1,725.23	1,437.69	1,150.16
Total Old & New	2,329.92	2,096.93	1,747.44	1,397.95

Source: *TDF, 2015*

Table 7.4 Projected Source and Use of Municipal Funds

		2015-16	2018-19	2021-22	2024-25	2027-28	2030-31	Total
Own-Source Revenue		8.55	11.74	17.49	27.07	41.95	65.09	427.54
Subtract: Recurrent Expenditures	*15% Growth*	7.11	10.81	16.45	25.01	38.04	57.85	389.04
Subtract: Previous Debt Services		0.09	0.20	0.33	0.30	0.28	0.28	4.11
Revenue Surplus		***1.35***	***0.72***	***0.71***	***1.76***	***3.62***	***6.96***	***34.38***
Add: Unconditional Grant (IGFT)		9.73	13.85	19.72	28.08	39.99	56.94	424.85
Add: Revenue Sharing (IGFT)		1.31	1.90	2.93	4.90	8.20	13.79	81.15
Add: Conditional Grant (IGFT)		9.55	10.39	14.72	19.03	24.61	31.83	277.56
Amount Available for Capital Investment		21.93	26.86	38.09	53.77	76.43	109.51	817.94
Total Investment Need ***(Scenario 1: meeting 60% of physical target)***		67.11	75.58	84.98	95.54	107.42	120.78	1,397.95
Total Investment Need ***(Scenario 2: meeting 75% of physical target)***		83.89	94.47	106.22	119.43	134.28	150.98	1,747.44
Total Investment Need ***(Scenario 3: meeting 90% of physical target)***		100.67	113.37	127.46	143.31	161.14	181.17	2,096.93

Source: *TDF, 2015*

Table 7.5 Investment Financing

		2015-16	2018-19	2021-22	2024-25	2027-28	2030-31	Total
Revenue Surplus		1.35	0.72	0.71	1.76	3.62	6.96	34.38
Total IGFT		20.59	26.14	37.37	52.01	72.80	102.56	783.56
Market Borrowing (Capacity Constraints as 25% of Revenue Surplus)		0.34	0.18	0.18	0.44	0.91	1.74	8.60
Net Financing Requirement (Scenario 1)		***44.84***	***48.54***	***46.71***	***41.33***	***30.09***	***9.53***	***571.41***
Net Financing Requirement (Scenario 2)		***61.62***	***67.44***	***67.95***	***65.22***	***56.95***	***39.72***	***920.90***
Net Financing Requirement (Scenario 3)		***78.40***	***86.33***	***89.20***	***89.10***	***83.80***	***69.92***	***1,270.39***
Cost Sharing	***3%***	1.35	1.46	1.40	1.24	0.90	0.29	17.14
PPP	***3%***	1.35	1.46	1.40	1.24	0.90	0.29	17.14
PCP (including NGOs)	***2%***	0.90	0.97	0.93	0.83	0.60	0.19	11.43
TDF Financing Requirement (Scenario 1)		41.25	44.66	42.97	38.03	27.68	8.77	525.70
Cost Sharing	***3%***	1.85	2.02	2.04	1.96	1.71	1.19	27.63
PPP	***3%***	1.85	2.02	2.04	1.96	1.71	1.19	27.63
PCP (including NGOs)	***2%***	1.23	1.35	1.36	1.30	1.14	0.79	18.42
TDF Financing Requirement (Scenario 2)		56.69	62.04	62.52	60.00	52.39	36.55	847.23
Cost Sharing	***5%***	3.92	4.32	4.46	4.46	4.19	3.50	63.52
PPP	***3%***	2.35	2.59	2.68	2.67	2.51	2.10	38.11
PCP (including NGOs)	***2%***	1.57	1.73	1.78	1.78	1.68	1.40	25.41
TDF Financing Requirement (Scenario 3)		70.56	77.70	80.28	80.19	75.42	62.93	1,143.4

Source: TDF, 2015

Urban Financing Framework

Urban infrastructure investments can be financed through a mix of local revenue, transfers from the central and provincial government levels; borrowing from dedicated financial intermediaries such as the TDF or opting for commercial borrowing and by forging partnerships with the private sector, NGOs and community organizations and opting for commercial borrowing for financially viable projects.

The current and projected infrastructure-financing gap could neither be filled with conventional sources of funding nor could the TDF, with its current business policies and practices, meet that gap. While transforming the TDF into the most responsible financial intermediary for financing urban infrastructure, enhancing its institutional capacity through legal and regulatory reform and organizational restructuring is crucial. Exploring all other complementary and sustainable ways of financing urban infrastructure and enhancing the financial intermediary role of the TDF is the strategic orientation of the municipal financing framework.

7.10 Recommendations

Local Borrowing Has Growing Potential

Assessing empirical studies and institutional frameworks for effective SNG borrowing is rather complex. However, structural trends of decentralization and urbanization are likely to continue in developing countries, requiring massive infrastructure investments at the subnational level. Based on the TDF's past experiences, the implementation of local government investment projects depends on their ability to raise the necessary funds from a combination of OSR, intergovernmental transfers and external financing. Debt financing enables municipalities to carryout bankable projects in shorter time periods compared to when financing projects with entirely their own funds.

Debt financing is valuable for infrastructure development where the maturity of assets is generally longer than the current terms of taxation and transfers.

Based on the experiences of different countries, the following recommendations are made to make subnational borrowing more systematic and effective to reduce the urban infrastructure financing gap in Nepal:

Enhance Municipal Own-Source Revenue: Increasing the revenue of SNGs will enable debt payment and raise borrowing capacity. Broadening the tax base will have a positive bearing on potential debt financing. Siddharthanagar Municipality in Nepal, for example, made investments in urban infrastructure under an ADB line of credit. The municipality also prepared and implemented a comprehensive financial improvement plan which helped mobilize substantial revenue from the integrated property tax and other local taxes through improved tax administration. Improvement in basic infrastructure and services has raised the ability and/or willingness of residents to pay the required debt service costs through taxes and fees.

Fast Growing Reassessment: Fast growing land value in Nepal provides great potential for capturing value by using land value capture tools. A fast growing tax base means better potential ability of municipalities to pay debt in the medium to long term. A fast growing reassessment reflects the willingness and ability of municipalities to pay potential debt service costs.

Debt Ratio: Municipalities in Nepal still have very low debt ratios, meaning there is still scope for future borrowing.

Debt Service Costs as a Percentage of Revenue: This indicator depicts the portion of municipal revenue used to pay debt service costs. It basically reflects the debt burden in relation to recurrent annual resources potentially available to cover debt service. Municipalities with a low debt ratio can afford to take out more loans.

Debt Service Costs as a Percentage of the Municipal Levy: This measure shows the portion of the property tax that is used for debt service. It is possible that a high growth municipality could manage a higher debt service cost ratio since its property tax revenue is likely to increase with assessment growth more so than for other municipalities.

Subnational debt comes with the risk of insolvency when SNGs follow unsustainable fiscal policies. Insolvency is the inability to service debt. Sometimes, the central government gets dragged in to provide bailouts which can disrupt its own fiscal sustainability. Several major economies, especially

Asian countries, experienced subnational debt crises in the 1990s. Similarly, Brazil experienced three major subnational debt crises in the 1980s and 1990s. It seems that newly decentralized countries face potential fiscal risks. Several Indian states faced fiscal stress, e.g. fiscal deficits, debt and contingent liabilities, from the 1990s to 2000. In the case of the US, as capital markets and their regulatory frame-works matured, the default rates of local governments declined. Yet, there have recent episodes including the default of the Washington Public Power Supply System in 1983, the bankruptcy of Orange County, California in 1994 and the bankruptcy of Jefferson County, Alabama in 2011.

Based on the assessment of international and national case studies, the following recommendations are worth considering while crafting the SNG borrowing framework:

Revenue Improvement Action Plan (RIAP)

RIAP is a tool for designing and mobilizing financial resources linked with the city development strategy (Mahat, 2010). SNGs need to be supported to prepare and implement the RIAP which will help to improve local revenues, ease debt servicing obligations and leverage the borrowing capacity of municipalities for project financing. The RIAP should incorporate strategies and action plans for implementing taxes, fees and other alternative avenues for accessing municipal revenue sources.

Intergovernmental Fiscal Transfers (IGFT)

The GoN needs to review IGFT policy to make it more predictable and balanced for the transition period and to adapt the structure to make it suitable for the federal organizational structure in the long-term.

Overall Financial Framework

The financial framework of local governments plays a key role in the sustainable development of local credit markets. The design of intergovernmental fiscal transfer (IGFT) structure as well as accounting systems and reporting procedures are important factors that should be taken into consideration while drafting and issuing the overarching financial framework of the country. Local borrowing frameworks need to be further worked out in detail as part of the municipal/SNG financial framework.

It is recommended that each local government under federal polity have a debt management strategy and a written debt policy in place. The debt management strategy should ensure that local governments can maintain a prudent and sustainable capital investment and financing plan to manage its level of debt at appropriate levels. This level of debt should enable the implementation of investment objectives by filling investment gaps without impairing financial stability.

SNGs should be supported in performing self-assessments of their borrowing capacity/ creditworthiness prior to approaching financial institutions such as the TDF. Thus, they would be able to determine roughly how much money they can borrow without impairing their financial stability. This requires adequate, accurate and timely financial information on SNG operations in the standard format along with an appropriate fiscal risk assessment. At the same time, the GoN should ensure that the financial operations of SNGs are audited by independent auditors on a regular basis.

However, borrowing is not always an appropriate financing strategy. Borrowing to cover current expenditures or account deficits has just the opposite effects while borrowing also shifts the cost to future generations while today's taxpayers enjoy the benefits.

Many municipalities practice a combination of Pay-as-you-use and Pay-as-you-go policies. There are mixed views as to whether long-term debt financing is a superior method for capital financing than pay-as-you-go. There are advantages and disadvantages to both approaches and municipalities should consider the merits of both methods to guide their future financing. "Pay-as-you-go" financing is normally useful for low cost repair and maintenance projects or for purchasing equipment with a short lifespan. "Pay-as-you-use" financing is appropriate for capital improvements with a high cost and a long lifespan. "Pay-as-you-go" financing has important advantages over pay-as-you-go financing schemes as it lets municipalities build projects sooner, allows for greater inter-generational equity and spreads out capital expenditures over time.

Transforming the TDF into a Strong Financial Intermediary

It is obvious that (i) existing banks and financial institutions cannot cater to the demand for large scale borrowing for infrastructure projects; (ii) they cannot serve the investment demand for long-term infrastructure projects (25+ years) and for those which have a low rate of return (i.e., below the cost of capital); (iii) they cannot finance social infrastructure projects without supporting viability gap funding in other agencies such as the government, municipalities or the TDF; (iv) they are not interested in the public sector or even PPP projects because of the political risk of the projects and (v) banks feel that financing municipal infrastructure projects incurs loan recovery hassles unlike private sector projects whose loan collateral assets could be captured and auctioned off to recover the loan amounts.

There is a need for the enactment of a full-fledged financial law to operationalize the TDF as a fully functioning financial intermediary. The TDF as a financial intermediary would operate within the parameters of a special "Act" formulated for municipal financing as the existing laws on banks and financial institutions would not serve the special purposes of this institution. The intermediary must have a strong capital base mostly owned by government institutions and development partners. The intermediary should be a specialized agency for infrastructure financing and cooperate with other financial institutions to finance large municipal infrastructure projects.

The TDF intermediary will be able to raise its equity capital through the public offering of shares up to 40 percent and would also enable raising funds from the capital market by issuing bonds and certificates of deposit (TDF's Business Plan 2016). The intermediary would come under the umbrella of the Ministry of Finance to better coordinate international funding agencies and mobilize resources from the domestic capital market. The TDF's operational expenses (personnel cost of NPR 19.5 million, office expenses NPR 11 million 11%) have tended to range around 31% of total income and it would be necessary to rationalize some of the cost centers under operation. The TDF's operating costs are higher mainly because it has to extend technical support to its clients. The TDF needs to be restructured in terms of enhancing its capital structure, enlarging the functional coverage to SNGs (municipality level, village level and provincial level), taking insights from the Housing and Urban Development Corporation (HUDCO), TNUDF of India and the Urban Bank of the Philippines.

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8. Implementing New Avenues for Financing Urban Infrastructure: The Issuance of Bonds

– *Hemanta Bashyal and Resta Jha*

8.1 Introduction

The Nepalese financial market is in the nascent stage and, gradually, new innovative financial instruments are coming into the market. Most household earning is contributed by remittance, and the majority of household income is expensed on consumption with residual savings invested in non-productive sectors, like real estate, which do not contribute significantly to national income. In this context, innovative financial instruments are necessary to provide alternative investments. Although fixed income security markets have a long history in the market, they are not growing as efficiently as they should. Very few financial intermediaries have issued fixed income securities in the market, and those that have are using the them to increase their capital to increase lending capacity.

Other financial institutions have regulatory requirements for investing in fixed income securities and are not able to invest in such securities given the scarcity of available investment instruments in the market. Insurance companies holding more than 120 billion in investable funds are a prime example and are forced to invest in fixed income securities. Other institutions with billions in investable funds, like the Employee Provident Fund, Citizen Investment Trust and Nepal Telecom, which are entitled to invest in fixed income securities, are placing those funds in fixed bank deposits since they do not have alternative investment options.

Banks and other financial institutions should maintain an 80% credit to deposit ratio, meaning they should not lend more than 80% of their deposit, and the capital component should be invested in fixed income securities. However, because of the scarcity of fixed income instruments, a portion of those funds are being invested in very low yielding securities. Under this scenario, the Nepalese financial market would have around an estimated 500 billion in funds with institutional investors which could be invested in fixed income securities, but the supply is very low. At the same time, organizations seeking investable capital are not able to raise the funds necessary to invest. This is due to the gap between savers and investors. Mid-term government bonds are traded with 4 to 5% yields in the same scenario while government-guaranteed debt financing to Nepal Airlines corporation is yielding 11 to 12%. This scenario indicates a mismatch between the investment savings, liquidity money (ISLM) curve and demonstrates the need for financial intermediaries to act as a bridge between financers and investors.

The Nepalese financial market lacks sufficient debt securities as investment alternatives. Portfolio diversification minimizes investor risks, but, due to the lack of fixed income securities, investor portfolios consist of equity only securities and very few debt securities.This indicates that investors are concentrating portfolios on risky equity securities. Nepal's bond market is underdeveloped and dominated by government securities. The share of treasury bills in the domestic market has increased from 61% in FY 2004 to 70% of outstanding domestic debt as of mid-April 2010. The government also issues longer term instruments, Development Bonds and are admitted for trading through the Nepal Stock Exchange (NEPSE). However, development bonds are rarely traded, and the bonds are quite small to satisfy the demand for institutional investors including insurance companies, the Employees' Provident Fund, and the Citizen Investment Trust.

A World Bank report states that Nepal has an infrastructure funding gap of USD 13-18 billion from 2011-2020 and needs the most resources for electricity and the transportation sector. As Table 8.1 illustrates, the country will require as much as US $5.3-7 billion for electricity while the transportation sector will require USD 3.7-5.5 billion. Nepal now has a total of 217 municipalities; however, most of these municipalities lack the necessary infrastructure. The share to meet the urban infrastructure needs of the old 58 municipalities alone, is NPR 372 billion (Shrestha, 2016). This gap could be bridged by bringing in financial instruments such as bonds from agencies like the Town Development Fund (TDF).

Table 8.1 Infrastructure and Social Sector Investment Requirements (USD million)

Economic Infrastructure Investment						Social Infrastructure Investment	Total Investment in all Sectors
Period	Power	Telecom	Airport	Road	Irrigation		
2008-11	510	77	8	367	132	1,849	2,942
2011-16	1,710	166	37	1,064	244	4,146	7,367
2016-21	3,620	219	90	2,045	282	5,609	11,866
2021-26	6,527	277	172	3,524	329	7,242	18,072

***Source**: Feedback Ventures. 2008. Feasibility Study and Business Plan for Setting up an Infrastructure Financing Institution in Nepal. Kathmandu*

8.2 Fixed Income Security: Global Context

Since the 1980s, the fixed income world has been changing, more innovative ideas are being introduced and fixed income securities are being bundled with different features that make fixed income securities more complex. There are features in many fixed income securities that differentiate by repayment schedule and duration (for how long interest will be received). The US fixed income market is the largest fixed income market in the world, In the other non-US markets as well, new innovative ideas are being introduced gradually, and the fixed income market is being expanded. In recent years, there has been significant growth in the fixed income markets of other countries as borrowers have shifted from funding via bank loans to funding via the issuance of fixed income securities. This is a trend that is expected to continue around the world.

In the Nepalese fixed income security market, traditional securities are the major component, though some securities do include a conversion feature.

US Semi Government Agency Bond Market

In the United States, the federal government can establish an agency or organization that issues bonds. The bonds of such entities are not issued directly by the federal government but may have either a direct or implied government guarantee. Those bonds are generically referred to as semi-government bonds or government agency bonds. In some countries, semi-government bonds include bonds issued by regions of the country.

Semi-government bonds are referred to as federal agency securities. They are further classified by the types of issuer—those issued by federally-related institutions and those issued by government-sponsored entities. Federally-related institutions are the arms of the federal government. They include the US Export-Import Bank, the Tennessee Valley Authority (TVA), the Commodity Credit Corporation, the Farmers Housing Administration, the General Services Administration, the Government National Mortgage Association (Ginnie Mae), the Maritime Administration, the Private Export Funding Corporation, the Rural Electrification Administration, the Rural Telephone Bank, the Small Business Administration and the Washington Metropolitan Area Transit Authority. With the exception of securities from the TVA and the Private Export Funding Corporation, securities from these institutions are backed by the full faith and credit of the US government. The TVA has been the only issuer of securities directly into the marketplace.

Government-sponsored enterprises (GSEs) are privately-owned, publicly-chartered entities. They were created by Congress to reduce the cost of capital for certain borrowing sectors in the US. Six GSEs that currently issue securities are the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), the Federal Agricultural Mortgage Corporation (Farmer Mac), the Federal Farm Credit System, the Federal Home Loan Bank System and the Student Loan Marketing Association (Sallie Mae). Fannie Mae, Freddie Mac, and the Federal Home Loan Bank are responsible for providing credit to the residential housing sector. Farmer Mac provides the same function for farm properties. The Federal Farm Credit Bank System is responsible for the credit market in the agricultural sector of the economy. Sallie Mae provides funds to support higher education (CFA Institute, 2012). Generally, GSEs used to issue debentures and discount notes. These securities are not backed by any specific collateral. The ability to pay debt holders depends on the ability of the issuing GSE to generate sufficient cash flow to satisfy the obligation. The TDF may issue such bonds to fund specific projects such as mass transportation by itself or with local governments and project revenue used to back the bonds.

In the US, GSEs charged with providing liquidity to mortgage markets, Fannie Mae and Freddie Mac, also issue securities backed by the mortgage loans they purchase. That is, they use the mortgage loans they underwrite or purchase as collateral for the securities they issue. These securities are called agency mortgage backed securities and include mortgage pass through securities, Collateralized Mortgage Obligations (CMOs) and stripped mortgage-backed securities.

A mortgage design is a specification of the mortgage rate, term of the mortgage, and the manner in which the borrowed funds are repaid. Every mortgage loan must be serviced. Servicing a mortgage loan involves collecting monthly payments and forwarding proceeds to owners of the loans, sending payment notices to mortgagors, reminding mortgagors when payments are overdue, maintaining records of principal balances, administering an escrow balance for real estate taxes and insurance, initiating foreclosure proceedings if necessary and furnishing tax information to mortgagors when applicable. The servicing fee is a portion of the mortgage rate.

In Nepal, the TDF may also act as a servicer on such bonds and also finance specific land pulling projects, including apartments to manage the lifestyle of urban households, through mortgage loans. Here, securitization may become necessary to enable a wide variety of investors to fund projects with maturities ranging from 1 month to 30 years and with various risk levels. For this, detailed financial engineering may be required to satisfy the needs of investors.

Non-central government entities can also issue bonds. In the United States, this includes state and local governments as well as the legal entities they create. These securities are referred to as municipal securities or municipal bonds. Because the US bond market has the largest and most developed market for non-central government bonds, there are both tax-exempt and taxable municipal securities. "Tax-exempt" means that interest on a municipal security is exempt from federal income taxation. The tax-exemption of municipal securities applies to interest income but not capital gains. The exemption may or may not extend to taxation at the state and local levels. Each state has its own rules as to how interest on municipal securities is taxed. Most municipal securities that have been issued are tax-exempt. Like other non-Treasury fixed income securities, municipal securities expose investors to credit risk. Nationally recognized rating organizations rate municipal securities according to their credit risk. There are essentially two types of municipal security structures: tax-backed debt and revenue bonds.

Tax-Backed Debt instruments are instruments issued by states, counties, special districts, cities, towns and school districts that are secured by some form of tax revenue. Tax-backed debt includes general obligation debt, appropriation-backed obligations and debt obligations supported by public credit enhancement programs.

General Obligation Debts are the broadest type of tax-backed debt in the US market. These obligations are categorized in two categories based on obligation pledges: unlimited tax general obligation debt and limited tax general obligation debt. An unlimited tax general obligation debt is secured by the issuer's unlimited taxing power. Tax revenue sources include corporate and individual income taxes, sales taxes and property taxes. Unlimited tax general obligation debt is said to be secured by the full faith and credit of the issuer. A limited tax general obligation debt is a limited tax pledge because there is a statutory limit on the tax rates an issuer may levy to service the debt.

Appropriation-Backed Obligations Agencies, the authorities in several states, have issued bonds that carry a potential state liability to make up shortfalls in the issuing entity's obligation. The appropriation of funds from the state's general tax revenue is approved by the state legislature. Debt obligations with this type of nonbinding pledge of tax revenue are called moral obligation bonds. The purpose of moral obligation bonds is to enhance the credit-worthiness of the issuing entity.

Debt Obligations Supported by Public Credit Enhancement Programs are those debt securities that carry some form of public credit enhancement that is legally enforceable. A state or federal agency has an obligation to automatically withhold and deploy state aid to pay any defaulted debt service by the issuing entity. This form of public credit enhancement is used for the debt obligations of a state's school systems.

More recently in the US, state and local governments have issued increasing amounts of bonds where the debt service is to be paid from so-called "dedicated" revenues such as sales taxes, tobacco settlement payments, fees and penalty payments. In Nepal after federalization is effective, provincial governments will have taxing authority and these taxes and revenue sources could be used to back development bonds. Still, because of a lack of municipal bond or agency bond markets, government guarantees may be necessary to develop such markets in the initial stage.

Revenue Bonds are issued for enterprise financing that is secured through revenue generated by the completed projects themselves. Revenue bonds in the US are usually created to allow issuers to raise debt outside of general obligation debt limits and without voter approval. Revenue bonds can be classified by the type of project being financed. Revenue bonds include utility revenue bonds, transportation revenue bonds, housing revenue bonds, higher education revenue bonds, health care revenue bonds, sports complex and convention centre revenue bonds, seaport revenue bonds and industrial revenue bonds. These bonds are only issued to fund specific projects.

In Australia, state and government-issued bonds are the bonds issued by Telstra or a state electric power supplier such as Pacific Power. These bonds are guaranteed by the full faith and credit of the Commonwealth of Australia. In Germany, government agency bonds are issued by Germany's Federal Railway (Bundesbahn) and the Post Office (Bundespost) backed by the full faith and credit of the central government.

In Nepal, very few fixed income securities are being issued. Most of the fixed income security market is covered by government securities. Even government-issued securities do not fulfil the minimum risk security required for institutional investors in the Nepalese market. Demand for such securities is very high but supply is limited due to the failure of government bodies to implement development activities. Only 60 to 70% of the allocated development budget is being expensed. In this context, government agencies such as the Town Development Fund need to take action to mobilize idle funds for development activities in Nepal. The TDF needs to seek government guarantees for investments in infrastructure development, which is the ultimate responsibility of the nation and will assure the investor that their loan will not be defaulted.

8.3 Research Methodology

The methodology used to conduct this research consists of discussions with the TDF's relevant departments, experts, regulators of the financial and capital markets of Nepal and officials and ex-officials of the concerned authorities. In addition, a review was undertaken on the latest policies, acts, regulations and guidelines by the GoN, Nepal Rastra Bank (NRB), Securities Board of Nepal (SEBON) and Nepal Stock Exchange (NEPSE), as well as on the capital markets and government guarantee policies of other nations, Data cross verification with on time data and policy review was done with documents, practices and think tank views. Regular consultations with the relevant regulatory bodies played a vital role in ensuring the timely completion of the study.

8.4 Problems and Opportunities

Overall, the capital market in Nepal is in a developing phase, while the bond market is in a niche stage. Bond issues are limited, and the majority of issued bonds are government securities. Investor awareness regarding portfolio diversification is limited. The presence of a limited number of investors in the bond market relative to the total population of Nepal is insignificant. Though investor preference regarding capital gains is significant, development bonds are largely issued by the government. Additionally, bond liquidity and marketability is limited due to the high brokerage commission. There is a very limited number of privately managed pension funds and government organizations. These factors may be a challenge for development of the bond market.

Another reason for the underdevelopment of the bond market in Nepal is weak market regulation and a lack of proper infrastructure. Local development bodies are demanding high infrastructure financing, but financing options are limited to their internal revenue sources, grants from government, grants from multilateral agencies and financing through the TDF. Gaps between demand and supply for capital are very large. However, investable funds with institutional investors and participants in the Nepalese financial system are significant.

The organizational structure of the TDF still does not clearly designate the fund as a financer or a fund manager. Thus, increasing the ability of the TDF with a capital increment plan to absorb risk could counter the problems of the bond market. Lower market interest rates with higher excess liquidity in the market suggests that a market significantly favours issuing debt securities at a lower price. Increasing urbanization, underdeveloped infrastructure and infrastructure development needs have significantly increased the demand for infrastructure financing in local bodies, but there is a lack of infrastructure financing for local government bodies. The TDF is the single institution that has been financing urban infrastructure for long term investments (up to 25 years) on a large scale. The TDF could tap into this demand for urban infrastructure to float bonds in the market and become a pioneer in the development bond market.

Contextual Background

"HMG Nepal introduced the Company Act in 1964 and the first issue of government bonds made in the same year through Nepal Rastra Bank to collect the developmental expenditures. It carried 6 percent rate of interest and had the maturity period of five years" (Shrestha, 1982). With this provision, government bonds have experienced an increasing trend, but the issue of such bonds does not satisfy the demand for government bonds in the market.

"HMG Nepal announced the Industrial Policy in 1974 and under this policy an institution named Securities Marketing Centre (SMC) was established to deal in government securities-development bonds and national savings bonds, and corporate securities of few companies" (Gurung, 2004). This creates a new platform to trade securities in the secondary market. Now, the NEPSE is a platform to trade such securities. Currently, 226 companies are listed and trade in the NEPSE which has an annual turnover of NPR 65.33 billion in FY 2014/15 with a nil debt component.

The total corporate bond amount listed by the NEPSE in FY 2014/15 is NPR 1.25 million. ICRA Nepal was incorporated on November 11, 2011 as a credit rating agency and granted its licence by the Securities Board of Nepal on October 3, 2012.

No active trading of government bonds through the NEPSE has been found to date. There have not been any events for the promotion of municipal bonds and securitisation activities so far. Institutional investors are confined to the fixed deposit and government securities for investment in fixed income securities despite having sufficient funds available for investment in fixed income securities as per the requirements of regulating authorities. It is difficult for investors to diversify portfolios through investing in Fixed Income Securities.

As of July 16, 2016, for FY 2015/16 there was NPR 37.3721 billion in net borrowing through the issue of different bonds and treasury bills. The trading and pricing of corporate bonds is still not feasible. The Nepal Accounting Standards (NAS) has been replaced by the Nepal Financial Reporting Standards (NFRS). This has enabled standard financial statement reporting and disclosure of issues to help increase the transparency of the companies. Since there is only one credit rating agency, ICRA Nepal, the credibility of ratings is still in doubt. However, some agencies have gotten approval to issue credit ratings. This will foster competition in the industry to enhance the credibility of ratings.

A key challenge facing Nepal is the lack of urban infrastructure to keep pace with rapid urbanization. As Nepal goes federal, another challenge will be ensuring regional balance in urbanization. Nepal also needs to re-evaluate traditional models of urban development and look to create smarter cities (GoN, 2016).

Various legal provisions include the following:

- Section 9 of the TDF Act outlines provisions for the issue of debt securities by the TDF
- Security Act 2007, Sec 2, Subsection (f) has defined bonds as securities. Subsection (g) defines security transaction as the issue, purchase, sale or exchange of securities and other acts pertaining thereto and Subsection (h), "Registration of securities", is defined as the registration of securities by a body corporate with the Board pursuant to Section 27. As a corporate body, the TDF can issue bonds in the domestic market
- Security Act 2007 Chapter-3 does provide provisions regarding the registration and issuance of those securities:
- Security Act, Section 27clearly defines provisions regarding the registration of securities
- Security Act, Section 28 has provisions regarding the sale and transfer of securities
- Security Act, Section 29 has provisions regarding securities to be issued publicly
- Security Act, Section 30 has provisions regarding the Prospectus to be published if a security is publicly issued. According to this provision, the prospectus should be published with the information on where the prospectus can be obtained or inspected
- Security Act, Section 30 provides that the following securities are not required to publish a prospectus:
  - Securities issued by the Nepal Rastra Bank
  - Securities issued against the full guarantee of the GoN
  - Securities sold to up to fifty persons at a time
  - Securities issued to a company's own workers or employees,
  - Other securities permitted by the Board to issue and sell without issuing a prospectus

Government Guarantee Policy: India and Vietnam

Several countries have their own policies for granting government guarantees. The experiences of India and Vietnam can be used as a reference for establishing a system to grant government guarantees on a bond in Nepal. For both of these countries, government guarantees for bonds are limited only to the payment of the principal with normal interest in the case of default

- In India, government guarantees can be extended to projects which will create significant social and economic benefits and that are undertaken by government entities. The government guarantee is to enable public sector companies to raise resources at lower interest rates or on more favourable terms.
- In Vietnam, government guarantees are provided for high technology projects, as well as projects in energy, mineral exploitation and processing, export production and provision of export services. Programs and projects in localities eligible for state investment incentives are also further eligible for guarantee. In Vietnam, government guarantees are provided for key projects and works as well as major projects of urgency and particular importance to national socio-economic development. Additionally, the PM may waive the owner capital condition on a case-by-case basis.

Government Guarantee Provisions in Nepal

In Nepal there is a lack of such policy to help fulfil infrastructure financing needs.

Section 4 of the Loan and Guarantee Act, 1968 focuses on government guarantees in raising debt capital from foreign governments and institutions in foreign currency denominated borrowings only. The legal power to create provisions for government guarantee provision has limited the scope of government guarantees. This should be amended to provide government guarantees while borrowing from the domestic market in domestic currency for specific projects with national interest. This amendment should also allow for the provision of government guarantees to obtain domestic currency for the following benefits to the economy and national interest.

- Currency exchange risk will be minimized so that borrowing cost will be minimized (Fisher's effect). The inflation differential is one of the causes of currency devaluation. Because the Nepal Rupee is pegged to the India Rupee, Nepal is importing Indian inflation into its economy. The long run inflation differential of the Indian economy, which is a developed economy, is around 5 to 6% per annum. So, an effective interest rate on foreign currency denominated borrowing is the quoted interest rate plus a premium of 5 % to 6%.
- Foreign currency debt can be substituted with domestic currency debt which can increase the financial strength of the domestic economy and nation.
- Domestic idle capital will be mobilized, so that capital efficiency will increase, promoting capital intensive projects that could be feasible with domestic capital.

Based on the above reasons, the GoN should give provisions for the guarantee of domestic currency bond issues. The TDF needs to work on obtaining government guarantees for the following reasons:

- To obtain capital at low cost.
- To build trust with the general public and institutional investors
- For the betterment of the national debt market

As a corporate body, TDF can issue bonds/debentures in the market as per the Security Act 2007. Under section 30 subsection 2 of the Security Act (2007), TDF would not need to publish a prospectus if the issue was given a government guarantee. However, the Security Act (2007) does not include any provisions for the TDF acting only as a servicer and issuing fixed income securities to local governments. This may need an amendment or clarification in the Security Act to define local government bodies in Nepal as corporate bodies. There is no clear policy on granting government guarantees in the issue of any debt in domestic market. The Loan and Guarantee Act (1968) is silent on domestic borrowing.

8.5 Data Information and Analysis

Different Options for Debt Financing

The TDF as a Servicer

The TDF may act as a servicer for the bond issue processes for specific local government bodies and infrastructure developers. With these processes, the TDF will not be liable for any default on the issue, but the issue will be fully managed by the TDF. Credit quality depends on the credit quality of the issuer. Under this approach, the TDF may act as the custodial and servicer as well as receive a commission for the services provided. In this case, the TDF would act as a financial intermediary on behalf of the bond issuer. The benefits under this approach would be as follows:

For the TDF

- Receiving commission can enhance earning
- No leverage on its balance sheet so there is no change in its credit quality
- No credit risk for the TDF

For the Borrowers

- A platform to raise debt capital
- Receive professional service from the TDF with technical support from multilaterals
- No administrative hassles for local government authorities
- Increases market exposure and the availability of resources

For the Economy

- Increases economic efficiency through the efficient allocation of resources
- Enhances economic activity at the local level to strengthen local authorities and infrastructure developers financially

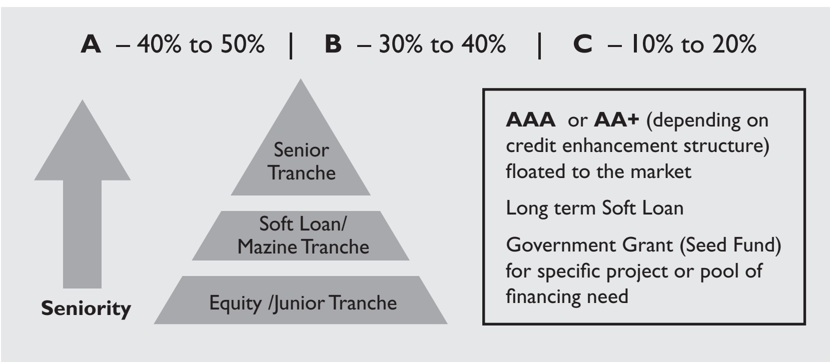
The TDF as an Issuer (Without Government Guarantee)

While the TDF acts as an issuer, credit risk would be retained by the TDF and TDF would be the borrower. In this scenario, TDF would be able to reallocate credit risk to different layers of debt financers.

Figure 8.1 outlines the following proposed structure of financing:

- 10 to 20% - Backed by government: junior tranche bonds (Equity Tranche), which is assumed as seed capital
- 30 to 40% - Backed by multilateral organizations such as the KfW, JICA, World Bank, etc. with soft loans (Subordinated Bond Tranching), to be passed on as subordinated loans fund pool/long term soft loan
- 40 to 60% - Float to the market, senior bonds floated to market with AA+ or higher credit rating

Figure 8.1 Purposed Risk Tranching



Source: *Authors*

Total Pools will be floated in the market to finance selected projects that satisfy minimal requirements set forth by the TDF. In the case of default, the first default up to the equity tranche will be borne by the equity tranche, i.e. up to 10% to 20% of any default. The mezzanine and senior tranches will not suffer default up to the equity tranche.

In extreme scenarios, if a default occurs of more than 10% to 20%, additional risk will be transferred to the mezzanine tranche up to 40% to 60%, while the senior tranche will not suffer any default. The senior tranche is default free up to 60% of the pool fund which is unlikely in the normal case scenario. Now, the non-performing loans (NPL) of the TDF are around 7% or 8% and are trending downward trend. If borrowers have technical and financial assistance, the default rate in a normal situation would be within a boundary or there could be no cases of default. This has already been achieved by the TDF in water and sanitation financing. So, in the long term, the senior tranche is not expected to suffer any credit risk.

In a normal scenario, the ICRA Rating of 3 or more bonds (equivalent to a BBB rated bond) is being issued in the market at a 6% to 7% coupon rate. With credit enhancement, a bond's credit quality will increase and such bonds may float into the market at or below a 6% coupon rate. Assuming 5% inflation differentiation in the long-term, soft loans from multilateral organizations like the KFW or other organizations would cost 5.75%, and the effective interest rate of the pooled fund ranging from 4.3% to 5.175%.[1]

The equity tranche does not get any interest. The equity tranche is a residual for pooled funds and assumed to be a Seed fund for debt financing from the government.

As Table 8.2 illustrates, Scenario 1 produces the lowest effective interest rate of the pool at 4.3%. After adding 1% for administrative costs and other charges, the effective cost of the fund ranged between 5.3% and 6.18% in the four given scenarios.

Table 8.2 Scenario Analysis of Possible Way of Financing and Effective Interest Rate of the Fund

Tranche	Scenario 1		Scenario 2		Scenario 3		Scenario 4	
	Weight	Interest Rate	Weight	Interest Rate	Weight	Interest Rate	Weight	Interest Rate
Equity	0.2	0	0.2	0	0.1	0	0.1	0
Soft loan	0.4	5.75	0.3	5.75	0.4	5.75	0.3	5.75
Float to Domestic Market	0.4	5.0	0.5	5.25	0.5	5.25	0.6	5.75
Effective Interest Rate		4.3		4.35		4.93		5.18

Waterfall Structure of Risk Tranching

1) Any interest and principal component repaid by the borrower of the pooled fund will be distributed to the senior tranche first as it is due.
2) After fulfilling the senior tranche, the Mezzanine tranche will get their due amount
3) After fulfilling both tranches, the remaining cash flow goes to the equity tranche which will be reinvested in the pool and enhance credit quality through overcollateralization.
4) As a capital redemption plan, the TDF would allocate 30% of its principal repayment from borrowers for investment in long term government securities or projects that are guaranteed by the government. The underlying assumption is that, for projects with 10 to 15 year lifespans, repayment will occur on an equal amortization module periodically.

In case of default, the first default to the equity tranche will be covered by equity. In case of extreme default scenario, the mezzanine and senior tranche would be affected.

1 [1] A rate of 0.75% on the 10 million Euro loan is being proposed for the Tamil Nadu Urban Development Fund's Water and Sanitation Pooled fund project (TNUDF WSPF).

Credit Enhancement

The following credit enhancement steps have been set-forth for the above structure of pooled funds:

1) Credit enhancement by the mezzanine and subordinate tranches, i.e. the equity tranche
2) Credit enhancement by the cash reserve fund, the proceeds of the equity tranche fund retained for additional credit protection. From a business perspective, access to cash reserves may be used for growth prospects (i.e. to issue additional bonds if necessary in the long run)
3) Overcollateralization by the equity tranche
4) Excess Spread: the interest paid to a bond holder plus administrative costs and interest received from financing projects or local authorities.

Furthermore, the TDF may seek government guarantees for defaults of more than 50%. However, default of more than 50% is unlikely in the general case scenario. Therefore, the government should consider it their responsibility to protect the economy in such an extreme scenario.

With Government Guarantee

Instead of grant financing directly to local government authorities, loans would make consumers more liable for the asset rather than governments. It could enhance project efficiency, optimize resource utilization and prompt repair and maintenance. This process encourages greater self-responsibility of users, a better financing opportunity, an enhancement of lifestyle for local people through earning power enhancement and autonomy for local government authorities.

Government guarantees on debt financing from the TDF, suppliers of funds can be increased significantly to fulfill the financial institutions, who are the major suppliers of the funds, regulatory requirement. The mandatory requirement to invest in government security or government guaranteed bonds could be diverted to this fund. Demand for government bonds or government guaranteed bond is currently more than NPR 100 billion. Due to the lack of such bonds in the market, the Insurance Board has provided alternative ways to invest in commercial bank FDs where interest rates are less than 4% but with higher risks than investing in government guaranteed bonds.

Government guarantees for TDF bonds could also provide better financing options at a lower cost to local development authorities. The volume of government grants for infrastructure financing could be significantly decreased and diverted to mega projects financed by government.

In government guaranteed, domestic currency dominated bonds, risk tranching is not required. In such a scenario, the government may not be required to finance the equity tranche. Borrowing cost will significantly decrease, and there will be no need for the issuer (TDF) to prepare and publish as per prevailing Nepalese law, further lowering the cost of funds. With government guarantees, the supply of funds and potential financers will increase significantly because it is mandatory for institutional investors to invest in government securities. At least 25% of the investment by life insurance companies, 20% by non-life and 5% to 7% by bank and financial institutions for a statutory liquidity ratio (SLR) or 12%.

Under the current situation, those institutions are diverting funds to fixed deposits in banks and financial institution given the lack of government securities. Regulators are providing alternative ways to invest in fixed deposits in case of losing the supply of government securities.

Government guarantees on bonds will facilitate TDF borrowing at a lower cost and financial intermediaries to enhance revenue with a higher interest rate than interest on deposit while minimizing regulatory cost.

8.6 Supply Side Analysis

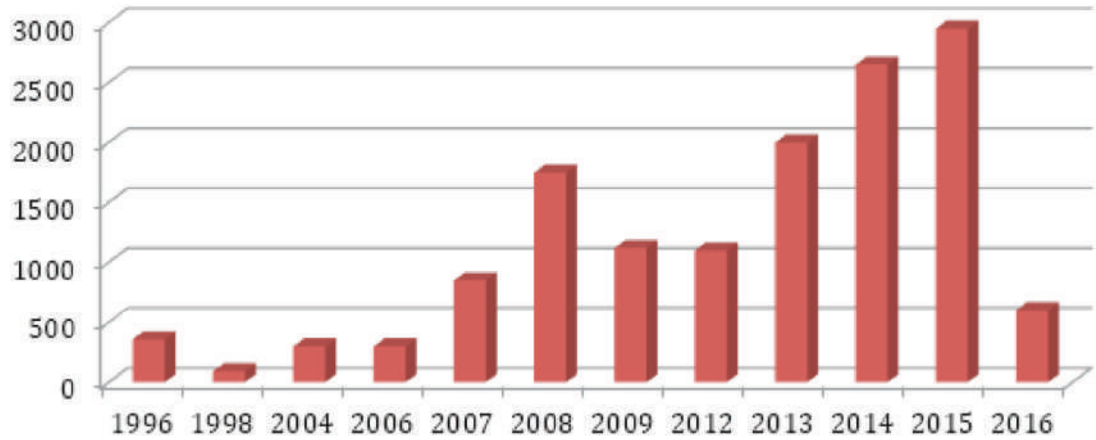
The Nepalese fixed income market is not yet developed. Very few corporate bonds have been issued in the Nepalese financial market. Most issues are settled by private settlement. Market participation is very low at the moment although there is strong interest for public shares.

Most bonds being issued are issued by financial institutions. Generally, these financial institution bonds are oversubscribed in the market even through market participation is very low. The institutions who are interested and mandated to invest in fixed income instruments are not able to get the fixed income securities to invest. Thus, their investments are concentrated in short duration fixed deposits within financial institutions.

The following table describes the current fixed income market for securities issued by corporate bodies. Based on historical experience on the run of Nepalese corporate bonds are being issued at par with coupon rate ranges 7% to 8%. Without government guarantee, the TDF may issue fixed income securities in this range. If TDF can achieve government guarantee, the rate for such securities could range from 4% to 5% as per the prevailing market interest rate. Because of the market size and slow historical development, the issue of more than NPR 1 Billion may require government guarantee or other credit enhancement plans.

Figure 8.2 describes that issuance of corporate debt in the domestic market is in increasing trends but is not significant compared to the issuance of equity security. When liquidity in the market increases, interest rates decline so the volume of issuances increases. Market interest rates on corporate debt have been between 7 to 8.5% in the past 5 years. The current liquidity position of the economy and lower interest rate on deposits suggests it could further decrease if the TDF issues debt in the market without a government guarantee.

Figure 8.2 Historical Data on the Issue of Bond in Nepal



***Source**:Annual Reports of SEBON, 2003 to 2016*

As Table 8.3 indicates, the past two years of development bond issuance history shows that government bonds are trading at a discount rate 2.65% and 4.95% for maturities of 15 years. If the TDF could get government guarantees from Nepal, a government debt instrument could be issued at a discount rate below 5%.

Table 8.3 Nepalese Government Bond Interest Rates Issued in 2016

Development Bond Interest Rates			
Issue date	**Payment date**	**Interest rate**	**Maturity**
2/17/2016	2/17/2021	4	5
2/22/2016	2/22/2023	3.44	7
2/29/2016	2/29/2025	3.44	9
3/11/2016	3/11/2026	3.08	10
3/18/2016	3/18/2031	2.65	15
12/1/2016	12/1/2024	3.97	8
12/19/2016	12/19/2027	4.44	11
1/5/2017	1/5/2029	4.74	12
1/10/2017	1/10/2030	4.94	13
1/17/2017	1/17/2032	4.94	15

***Source**: NRB, Banking and Financial Statistics, Mid-July 2015, no. 61*

As indicated in Table 8.4, foreign currency reserves in Nepal are increasing suggesting that sustainable money supply in the economy is increasing which would suggest an increase in capacity for infrastructure financing. Nepal must utilize these reserves for capital formation rather than consumption because a significant proportion is contributed by remittances and consumed by households rather than investments. Nepal needs to provide investment opportunities to households for capital creation.

Table 8.4 Nepal's Foreign Currency Reserve in NPR (millions)

Foreign Currency Reserve of NRB for last five years				
2012	**2013**	**2014**	**2015**	**2016**
227,061	395,110	474,436	594,929	728,675

***Source**: NRB, Banking and Financial Statistics, Mid-July 2015, no. 61*

As shown in the table below, the current discount rate on T-bills is far below 1% per year for consecutive year, showing non-cyclical excess liquidity in the financial system.

Table 8.5 Discount Rate of Short Term Government Debt Security

T-Bill Rate (2016-17)		
Type	**Issued**	**Discount rate**
182 day	11/27/2016	1.11
364 days	11/27/2016	1.33
91 days	12/30/2016	1.35
91 days	1/28/2017	0.56
91 days	04/11/2017	0.1328
182 days	03/07/2017	0.3255
364 days	03/14/2017	0.7218

***Source**: NRB, Banking and Financial Statistics Mid-July 2015, no. 61*

As Table 8.6 indicates, the demand for development bonds is very high. The discount rate on bonds ranges from 2.65% to 4.94%, and the subscription ranges from 2.12 times to 8.81 times the issue amount. This indicates that demand for such bonds is very high compared to the number of bonds issued.

Table 8.6 Development Bond Auction Result Summary Sheet (2014-17)

SN.	Auction Date	Issue Date	Maturity Period	Bond Name	Maturity Date	Offered Amount (in crore)	Bid Amount (in crore)			Allocated Amount			Cutoff Rate	No. of Partici-pants	Number of Bids
							Com-petitive	Non-com-petitive	Total	Com-petitive	Non-com-petitive	Total			
FY 2014-15															
1	**7/28/2014**	8/6/2014	5	2075	8/6/2019	300	2402.43	242.01	2644	210	90	**300**	**3.25%**	**86**	**490**
2	**9/4/2014**	9/8/2014	7	2077	9/8/2021	600	2802	254	3056	420	280	**600**	**3.49**	**80**	**479**
FY-2015-16															
3	**2/14/2016**	2/17/2016	5	2077	2/17/2021	500	3665.4	68.21	3734	431.79	68.21	**500**	**4**	**78**	**470**
4	**2/21/2016**	2/22/2016	7	2079	2/22/2023	500	4161.25	63.5	4225	436.5	63.5	**500**	**3.44**	**72**	**448**
5	**2/28/2016**	2/29/2016	9	2081	2081-2-29	500	3704.75	60	3765	440	60	**500**	**3.08**	**68**	**456**
6	**3/10/2016**	3/11/2016	10	2082	3/11/2026	1000	4715.7	188.05	4904	811.95	188.05	**1000**	**2.99**	**73**	**472**
7	**3/17/2016**	3/18/2016	15	2087	3/18/2031	500	3742.5	100	3843	400	100	**500**	**2.65**	**51**	**276**
FY 2016-17															
8	**11/30/2016**	12/1/2016	8	2080	12/1/2024	1200	3063.85	340	3404	960	240	**1200**	**3.97**	**63**	**302**
9	**12/18/2016**	12/19/2016	11	2083	12/19/2027	1300	2584.7	305.5	2890	1040	260	**1300**	**4.44**	**48**	**312**
10	**1/12/2017**	1/5/2073	12	2085	1/5/2029	1300	2777	296	3072	1040	260	**1300**	**4.74**	**48**	**289**
11	**1/9/2017**	1/10/2017	13	2086	1/10/2030	1300	2657	100	2757	1200	100	**1300**	**4.94**	**47**	**264**
12	**1/16/2017**	1/17/2017	15	2088	1/17/2032	1100	2964	42	3006	1058	42	**1100**	**4.94**	**43**	**270**

Source: *NRB, Banking and Financial Statistics, Mid-July 2015, no. 61*

As shown in Table 8.7, approximately 70% of investments have been placed in fixed deposits in the past and is expected to grow. The expected figure for 2016-17 is approximately 75%.

Table 8.7 Percentage of Fixed Deposit Placed by Insurance Companies Compared to Total Investment (2011-2016)

Year I	Percentage
2011-12	65.07
2012-13	63.31
2013-14	67.93
2014-15	74.38
2015-16	70.97

***Source**:Annual reports of insurance companies of Nepal, 2011-2015*

The total investment of the Employees Provident Fund (EPF) for the year 2011/12 was NPR 102.3 billion of which NPR 13.47 billion was in government securities. The investment figure of the EPF has increased by approximately 15% annually and their investment in long term debt securities is nominal. In the year 2015/16, the total investment amounts to NPR 184.0 billion, of which NPR 15.2 billion was in government securities. Investment growth in government securities relative to total investment is very low due to the lack of availability of government securities in local markets[2].

The total investment for 24 of 26 insurance companies is NPR 111.15 billion[3]. Taking into account that 70% of investments are placed in fixed deposits, the projected fixed deposit is NPR 77.80 billion. If we account for the remaining two companies as well, this figure may increase to NPR 80-85 billion. The lack of qualified debt securities means that insurance companies are placing investible funds in the commercial banks of Nepal.

For other organizations, the EPF has placed a fixed deposit of NPR 37 billion in 2015-16 and the growth of such funds seems very high. Mutual Funds, Citizen Investment Trusts, Retirement funds of various corporations and government owned banks are also significant. If we account for all of the above, the amount of potential funding could be around NPR 200 billion. As businesses expanded, demand for such bonds also expanded as total investable funds increased.

Demand for government bonds from other institutional investors is also significant. In the current scenario, more than NPR 40 billion in government securities is demanded by institutional investors alone. Based on the above analysis, the supply of funds, i.e. the demand for debt securities, is quite high. It is estimated that more than NPR 500 billion would be available for fixed income security investment in domestic markets for government and corporate bonds.

Demand of Debt by Municipalities

The main source of local government capital investment is grants from the central government and multilateral donors. Most municipalities have not been able to meet their investment needs due to a lack of financing options. Most local authorities have high economic potential; however, due to a lack of capital resources, they are unable to realize their full potential. Infrastructure financing needs are high and the basic needs of the urban population are not being fulfilled. Newly

2 [2] These figures are drawn from the Annual Report of the EPF, 2011/12 to 2015/16.
3 [3] Drawn from 4th Quarter Report of Insurance Companies, 2016/17.

recognized municipalities do not have sufficient infrastructure to meet the basic needs of their urban population. The GoN needs to facilitate reform in municipalities and empower them to improve the living conditions in urban areas.

Potential Borrowing Capacity of Municipalities

According to the TDF business plan, 58 municipalities, on a 3-year average, have recurrent revenue of NPR 4,641 million, total recurrent expenditures of NPR 1,459.26 million, net operating surplus of NPR 3,181.61 million per year and an average borrowing capacity (with a 25% net operating surplus ceiling) of NPR 795.40 million available debt service fund NPR 2,121.07 million[4]. In addition, our analysis shows a financial borrowing capacity of NRS 20,825.01 million and the potential to earn incremental revenues of NPR 2,082.5 million derived from new capital investments, assuming an expected return on investment of 10%.

These calculations are based on the following assumption:

- The cost of funds is estimated at 8% annually with 20-year financing and a required debt service ratio of 1.5. Calculations are based on a fully amortized basis.
- Financial borrowing capacity is calculated based on allocating only 2/3rds of the operating surplus for debt service.
- Revenue earnings from the purposed projects is not counted in calculating existing borrowing capacity. It is also assumed that grant revenue is unconditional and that the earning component may compliment the conditional grant.

Based on these assumptions, the 58 listed municipalities would have a borrowing capacity of around NPR 21 billion and can enhance their earning capacity by NPR 2 billion annually assuming a return on investments for new projects of 10%. This is around 45% of current recurrent earnings and 1.4 times total recurrent expenditures. Including all LBs would further increase the potential borrowing capacity.

The World Bank says that Nepal has an infrastructure funding gap of USD 13-18 billion from 2011-2020 (World Bank, 2014). Infrastructure needs are mainly in electricity services and the transportation sector. Nepal would require about USD 5.3-7 billion for electricity while the transportation sector would require USD 3.7-5.5 billion.

Nepal now has 217 municipalities; however, most of these municipalities lack the necessary infrastructure. According to Envisioning Nepal 2030, Nepal is estimated to require NPR 372 billion to meet urban infrastructure needs of the old 58 municipalities alone. If we account for all 217 municipalities, infrastructure financing will require more than NPR 1 trillion.

Potential Investment Areas in Municipal Financing

These funds can be invested in different infrastructure development sectors. Taking Housing and Urban Development Corporation (HUDCO) as a reference, the following sectors could be potential for TDF funds:

4 [4] These figures are drawn from the TDF's Business Plan 2013/14 - 2017/18

1) Water Supply
2) Sewerage and Drainage
3) Solid Waste Management
4) Low Cost Sanitation
5) Integrated Area Development Schemes and Housing Plans
6) Social Infrastructure
7) Transportation—Roads, Bridges, Bus Terminals, Airports, etc.
8) Industrial and Business Infrastructure—warehouses, etc.

8.7 Recommendations and Way Forward

Demand for infrastructure financing in municipalities is significant. The TDF or any municipal authority can issue fixed income security bonds for infrastructure financing on bankable projects. The current, local financial market has significant investible funds to invest in fixed income securities. However, market mechanisms are required to upgrade and facilitate this municipal financing.

One approach would be to encourage the securitization of a pool of funds with different tranches for fund differentiation as well as government guarantees for infrastructure projects with national interest. This approach would help make the fixed income security market a feasible tool for municipal financing, while investor securitization, tranching risk and using a waterfall structure would accommodate different investor's needs as per risk and create high demand for development bonds.

To realize these, it is recommended that the GoN to consider the following issues:

- The TDF could issue and or act as servicer for issuing development bonds in the domestic as well as in international markets on behalf of local government on economically viable projects. This could be done using its own resources or through using its Special Purpose Vehicle as a corporate body.
- The TDF could securitize its basket of bonds for various categories of investors and issue different tranches of securities to accommodate different levels of investor risk tolerance.
- Legal provisions should be amended to allow local governments to obtain development bonds through the fixed income security market operating primarily in the domestic market through such financial intermediaries like the TDF.
- A trustee act should be enacted for the sake of settling the fixed income security market through debenture trustees and their issuance. The lack of a Trustee Act, and the lack of clarity of custodial functions and the fact that the servicer is not defined clearly is a major constraint.
- The TDF should get a financial intermediary license from the NRB or the TDF Act to allow the TDF to act as a full phase autonomous financial intermediary for local governments. In this way, TDF can freely issue fixed income securities for municipal financing.

- The GoN should exempt the TDF development bonds issued from the income tax in order to promote the viability of development bonds in the domestic market.
- The GoN should have a clear government guarantee policy. The Loan and Guarantee Act, 1968 should be amended facilitate wider market exposure with lower borrowing cost.
- To promote the development bond market, the GoN should support the reduction in T brokerage commissions, strengthen the trading platform of NEPSE through introducing an electronic trading system for bonds and to extend the market base and depth for trading bonds.
- Once federalization is effective, revenue backed development bonds should be issued and backed by the provincial and local government revenue. Initially, the GoN should consider granting Because government guarantees to encourage the bond market development.

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9. Expanding the Scale of Municipal Financing in Bangladesh

– Iqbal Abdullah Harun

9.1 Introduction

Interest in cities around the world is on the rise in large part due to rapid population growth in cities in both developed and less developed countries. The rapid increase in urban populations puts pressure on local governments to provide a range of services from water and sewer infrastructure to social services and housing. To meet the rising demands of urbanization, municipalities need adequate revenue tools to pay for services and infrastructure (UN-Habitat, 2009).

The average annual urbanization growth in Bangladesh from 1990 to 2012 was 3.4 percent (UNICEF) and currently 35 million people live in urban areas. Research suggests that there is a 40-50 percent urban service gap which is increasing further with the creation of new urban bodies (Hossain, 2013). It is estimated that half the population of Bangladesh will migrate to urban areas by 2030 (World Bank, 2016). The United Nations has projected that Bangladesh's urban population in 2030 will be 86.5 million (UNDESA, 2004). By 2050, the share of urban population to national population could cross the 60 percent mark, reaching above 100 million (Islam, 2012). In response to the increased demand for financing, developed countries and emerging market countries have responded by giving Urban Local Bodies access to different segments of local financial markets. The liberalization of financing for Urban Local Bodies is very much in line with the goal of giving greater autonomy to local government institutions such as municipalities and city corporations.

Municipal Finance is about the revenue and expenditure decisions of municipal governments and addresses issues around expenditures at the local level as well as accountability for expenditure and revenue decisions including the municipal budgetary process and financial management (UN-Habitat, 2009). The United Nations Capital Development Fund (UNCDF), through its Municipal Investment Finance Bangladesh (MIF-B) project, is facilitating the development of a municipal finance support and funding mechanism to expand resource availability in Urban Local Bodies (municipalities and city corporations) for urban infrastructure development and the creation of an enabling environment for present and future city dwellers in Bangladesh.

As part of the effort to develop a mechanism and create an enabling environment within the municipal financial governance system, this chapter offers a brief review of the current financing options for Urban Local Bodies (ULBs) in Bangladesh, evaluates the legal and administrative frameworks, examines the current creditworthiness of ULBs, analyzes the financing opportunities available for Urban Local Bodies in the domestic financial market and assesses the prospects of non-grant municipal financing in Bangladesh. It also aims to suggest a Non-Grant Municipal

Investment Financing Strategy (NGMIFS) to gradually move toward non-grant financing and give ULBs greater control over resources and long-term planning. Successfully piloting these options under the Non-Grant Municipal Investment Financing Strategy in Bangladesh would provide useful lessons for other developing countries.

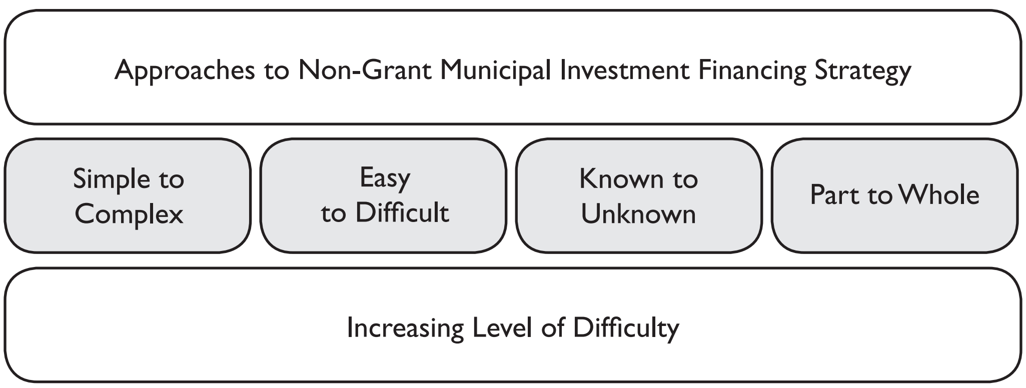
9.2 Methodology

This chapter is primarily based on secondary information, group meetings and face to face interviews with key stakeholders, regulators, academics, researchers, government officials and representatives of the ULBs and financial institutions.

In ascertaining the underlying reasons for and main challenges in moving toward non-grant financing options, this chapter substantially relies on a feasibility study, in-depth assessment results of existing legal and regulatory framework, assessment of the current process of transfers to ULBs and assessment results of credit rating methodologies in selective ULBs (4 municipalities and 2 city corporations).

Recommendations emerging from this analysis will assist in developing the main approach for prioritizing the Non-Grant Municipal Investment Financing Strategy for piloting in Bangladesh. As captured in Figure 9.1, this approach is based on the premise of choosing simple over complex, easy over difficult, known over unknown and part over whole.

Figure 9.1 Approach to Non-Grant Municipal Investment Financing Strategy



9.3 Literature Review

Generally, decentralization is a government policy process that transfers responsibilities, resources and/or authority from higher to lower levels of government. Decentralized governance, if carefully planned, effectively implemented and appropriately managed, leads to significant improvements in welfare service delivery throughout local government administrations (Abdulwaheed and Samihah, 2012). The different types of decentralization include fiscal, administrative, institutional, economic and political decentralization. This chapter focuses on fiscal decentralization given its increasing importance in local governance.

Fiscal decentralization comprises the devolution of financial governance to regional and local governments. Alternate descriptions such as 'central-local (or intergovernmental) financial relations' and 'fiscal federalism' are often used by European and American scholars, respectively (Davey and Péteri, 1998). Fiscal decentralization covers two inter-related issues. The first is the division of spending responsibilities and revenue sources between levels of government (national, regional and local). The second is the amount of discretion given to regional and local governments to determine their expenditures and revenue in aggregate and detail. Both issues have significant impacts on the reality of decentralization in its broader political and administrative sense. According to Davey and Péteri (1998), the extent of power and responsibility that regional and local governments actually exercise depends on:

1) Which public services they have responsibility to finance
2) Whether their revenue is commensurate with their responsibilities
3) How much real choice they have in allocating their budgets to individual services
4) Whether they can determine the rates of their taxes and fees (both allowing them to vary their levels of spending and making them answerable to those who pay)

Scholars have identified four pillars of fiscal decentralization (Smoke, 2003; Bahl and Martinez-Vazquez, 2006; Boschmann, 2009). As outlined by Smoke (2001), these are:

1) Expenditure responsibilities: The expenditure responsibilities and functions of each level of government have to be defined

2) Revenue assignments (including tax sources): Once local governments are assigned certain expenditure responsibilities; tax or non-tax revenue sources will be made available to them to provide them with resources

3) Intergovernmental fiscal transfers: Central governments may provide regional and local governments with additional resources through a system of intergovernmental fiscal transfers or grants

4) Subnational borrowing: Subnational government's failure to balance its annual expenditures with revenue and transfers will result in subnational deficits and the incurrence of debt through borrowing

Intergovernmental fiscal relations can be seen as a system and all the pieces in this system must fit together. Ideally, the implementation of a decentralization program should begin with the design of a comprehensive system and plan for each element of the system (Crook, 2003). Fiscal decentralization involves a lot more than what are traditionally thought of as fiscal issues. In fact, the electoral system, civil service and other institutional arrangements are arguably as important to assuring the success of fiscal decentralization as are the taxing and spending elements. 'One-off' piecemeal reform that addresses only one element of the system (for example, central government revenue sharing with local governments) is unlikely to fully capture the benefits of decentralization. Instead, it can lead to undesirable outcomes including larger central government deficits and macroeconomic instability (Bahl and Linn, 1994).

Local governments should be given some revenue autonomy if hard budget constraints are going to be imposed on them (Smoke, 2001). This means that a decentralization program must include provisions for local governments to gain the power to choose the rates of their taxes and fees and, when appropriate, access capital markets to finance long-term infrastructure. It is also important that local governments receive intergovernmental transfers that give them the discretion to choose the mix of their public expenditures. Unconditional grants and block grants can provide such discretion whereas tightly earmarked transfers cannot (Bird, 2000). Unless local government decision makers have the freedom to decide on the use of resources, they will not be held fully accountable by local voters for the outcomes of public spending.

It is important that local governments have control over employees who deliver services in local communities (Boex, 2009). Such control over human resources is an essential component of fiscal decentralization policy. Local councils should be held fully accountable for the efficiency of local government employees. If local government employees remain under the control of higher-level governments or if the powers to hire, fire, promote and determine compensation are vested in higher-level governments, local councils are relatively powerless to affect change in the quality of local public services. Perhaps, the more important question is who controls the local government employees and pays their compensation.

Accountability to local voters is perhaps the most crucial element of a decentralized system (Boex, 2009). Local councils should be locally elected, preferably through local elections. If the local leadership is appointed by higher levels of government, its accountability will likely not be to the local population. The efficiency gains that are at the heart of fiscal decentralization strategies will not be realized if local voters do not have a voice in making budget decisions. There are other problems with not providing accountability to local voters. For instance, local governing councils will not be pressured to provide better services in exchange for the chance of re-election.

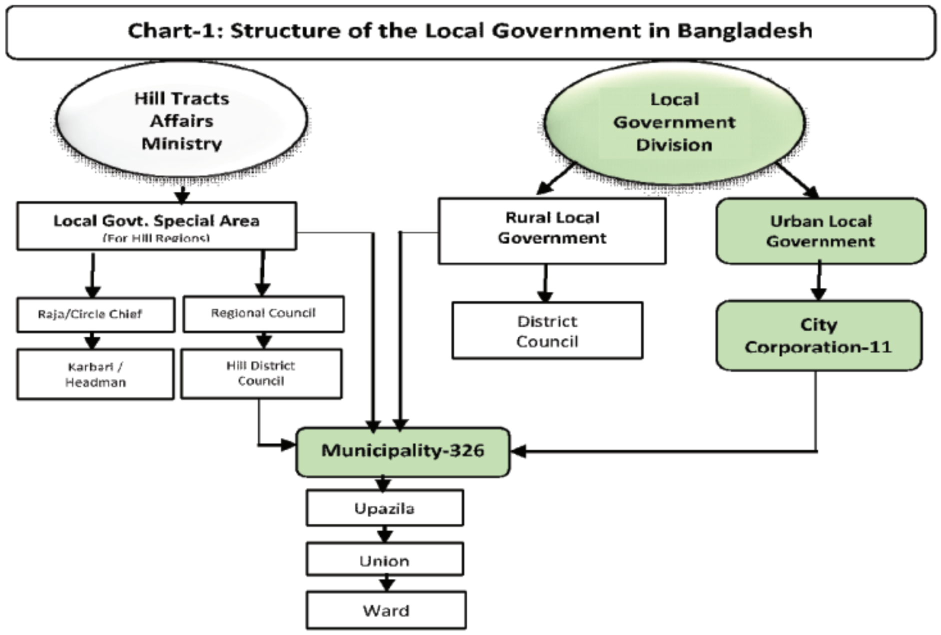
A local government's level of responsibility and resource mobilization makes a substantial difference to their discretion - their ability to make decisions about the nature and levels of public services. For example, a local government should have the authority to determine its expenditure level if it obtains a significant proportion of its revenue from local taxes and fees, the rates of which it can adjust. Revenue sharing and block grants tend to provide more freedom of allocation than targeted grants (Bird and Vaillancourt, 1998). In practice, local government discretion depends on a more complex set of factors. Shares of a buoyant national tax may support more budgetary choice than dependence on politically sensitive and administratively burdensome local tax sources. Targeted grants may release local government funds for other expenditures. Expenditure decisions may be largely determined by national regulations rather than service requirements.

9.4 Review of the Structure and Financing of Urban Local Bodies in Bangladesh

Structure of the Local Government in Bangladesh

The history of Bangladesh has shaped its local government system. Repeated experiments by successive governments has made the governance system complex, placed it under the control of the central government, and has been largely ineffective in terms of devolving authority to the local level. As a result, overlapping institutional governance (Figure 9.2) has put elected and administrative bodies at odds rather than supporting to each other.

Figure 9.2 Structure of Local Government in Bangladesh



***Source**: Author*

The number of local government tiers in Bangladesh is also high compared to international standards. Bangladesh's Constitution established a unitary form of government and, despite various local government reforms, the tradition of a centralized state bureaucracy has prevailed with only occasional efforts toward decentralization/devolvement which, in many cases, simply added more complexity. The central government is territorially divided into 8 administrative divisions which are further subdivided into 64 Zila Parishads (district councils), 487 Upazila Parishads (sub-district councils) and 4,553 Union Parishads (village cluster councils). Upazila and Union Parishads form the core of rural local government while the 326 Municipalities and 11 City Corporations (in big cities) are the core of ULBs. Given the rapid urbanization of Bangladesh, municipalities with higher population densities are upgraded to city corporations from time to time through Acts of parliament. There are three categories of municipalities (A, B and C) determined by the amount of revenue they generate.

Union Parishads, municipalities and city corporations have elected bodies. The Chairpersons of Union Parishads and the Mayors of City Corporations/municipalities are directly elected by the entire constituency's popular vote, while the Union Parishad members and Councilors are elected by their respective constituencies. In addition, there are seats reserved specifically for women.

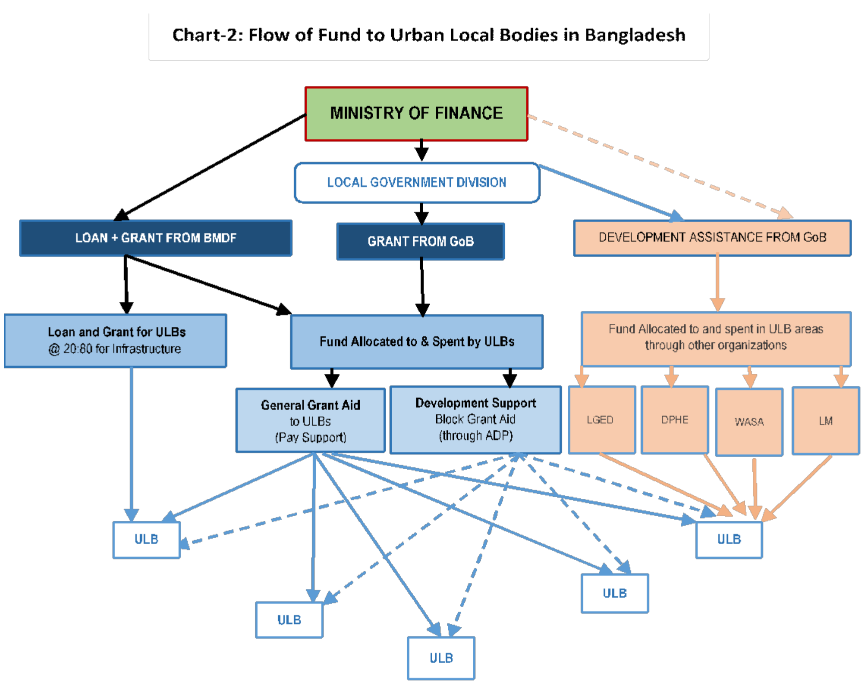
Local governments in Bangladesh continue to have poor records of efficiency, accountability and responsive provision of public services to local communities. The extent of fiscal powers accorded to various tiers of local government is also very limited (Fox and Menon, 2008). Additionally, there are a set of central institutions under the overall umbrella of the Local Government Division (LGD) that exert significant influence on subnational administrations. The LGD sets basic rules for operation, determines the number of employees that local governments can have, sets intergovernmental transfers and structures other aspects of the overall system. To provide special preference to three south eastern hill districts, different, separate arrangements are in place in terms of controlling development and finances in these districts. The LGD has broad oversight over a range of areas including local governments, drinking water, sanitation and sewerage, regional and local roads, village police and courts and local economic development as well as the development, operation and maintenance of small-scale water plants. The LGD also directs two national-level implementation agencies—the Local Government Engineering Department (LGED) and the Department of Public Health Engineering (DPHE)—as well as the Water Supply and Sewerage Authorities (WASA) in Dhaka, Chittagong, Khulna and Rajshahi and a local government training academy—the National Institute for Local Government (NILG).

Review of the Current Financing Options for Urban Local Bodies

Financing for ULBs is highly dependent on grants from the central government. These grants are often insufficient in size and their usage is controlled by terms and conditions which poses serious challenges for meeting infrastructure requirements in the context of rapid urbanization in Bangladesh. The own-source revenues (OSR) of these ULBs is constrained and makes up only a small share of total financing. Very limited debt financing is available through the Bangladesh Municipal Development Fund (BMDF), a national agency set up by the Central Government under the Ministry of Finance (Figure 9.3).

The resources available through the BMDF are small and hardly make any significant contribution to meeting growing demand. Fiscal devolution in ULBs and elsewhere in local governments is in a poor state. In most cases, deconcentrated government departments are devolved far more powers than other departments. Additionally, hybrid administration frameworks comprising of elected bodies and centrally controlled bureaucracy has proven ineffective in creating a pro-growth governance system. A large portion of the overall local government infrastructure budget is channeled through the LGED. This not only undermines the position of elected ULBs as autonomous-government entities, but also makes it impossible to consider the priorities and preferences of the urban population, hindering the equitable growth of the country as a whole.

Figure 9.3 Flow of Funds to Urban Local Bodies in Bangladesh



Source: Author

Review of the Legal Framework for ULB Financing

Urban Local Bodies in Bangladesh are governed by the Local Government Municipality Act, 2009 (LGMA) and the Local Government City Corporation Act, 2009 (LGCCA). These legal frameworks ensure that ULBs cannot levy any tax, rate, cess, toll or fee without the prior permission of the Government of Bangladesh (GoB). Consequently, they cannot independently raise funds, repay the principal and pay the interest on the debt issued. The analysis of the legal framework reveals that Article 59 of the Constitution of the People's Republic of Bangladesh empowers local governments to perform (i) administration and the work of public officers, (ii) the maintenance of public order and (iii) the preparation and implementation of plans relating to the public. The framework governing borrowing by local authorities is the Local Authority Loan Act, 1914 (LALA), enacted during the British colonial period to consolidate the law regarding the borrowing powers of local authorities. A local authority is prohibited from borrowing money or otherwise creating a charge on its funds other than in accordance with the LALA. ULBs cannot go beyond the scope of the LALA to borrow money by issuing municipal debt. Under section 3 (1) of the LALA, if a local authority wishes to borrow more than TK. 25,00,000—currently equivalent to roughly USD 31.25—from a source other than loans from the GoB, it must secure prior approval from the GOB. Additionally, it stipulates that a local authority may borrow through issuing bills or promissory notes up to a maximum tenure of only twelve months. The LALA allows local authorities neither the ability to use their immovable properties as collateral to secure a loan nor the ability to attach their immovable properties as payment on loans they take.

In summary, there are several bottlenecks that ULBs encounter in seeking access to the non-grant financing options available in Bangladesh. This seriously restricts their growth and discharging responsibilities stipulated in legal documents such as the Local Government (Municipality) Act, 2009 and the Local Government City Corporation Act, 2009 (LGCCA) for 11 city corporations enacted at different times.

Analysis suggests that:

1) There are capital market financing options in the long term for ULBs which include the public issuance of debt. This requires serious reform in ULBs including legal, structural and operational reform that will enable them to satisfy the current legal requirements stipulated by several rules enacted by the Bangladesh Securities Exchange Commission (BSEC) for different types of financing options offered by the capital market

2) Short to medium term options are also available under the current legal provisions covered by several laws on enabling access to different options. These also require reform on a few key points mainly related to legal provisions, especially bringing ULBs under the purview of the relevant laws

3) The main legal constraints on borrowing for ULBs come from the Local Authority Loan Act, 1914 which is over a hundred years old and bars ULBs (and other local government bodies) from borrowing from entities other than government sources for periods of more than 12 months. The respective law for two types of ULBs (the LGMA, 2009 for Municipalities and the LGCCA for 11 ULBs) does not allow repayment on loans from local revenue, seriously curtailing the status of ULBs as potential borrowers

4) Amending several laws issued by the government related to local governments (such as the LALA), municipalities (such as the LGMA, 2009) and city corporations (LGCCA, 2009) will pave the way for ULBs to borrow from capital market sources in the short term while gradually getting them ready for public issuance in the long term

5) As has occurred, the BSEC could take steps to support the enactment of standalone laws for the issuance of municipal bonds that will help overcome existing bottlenecks and shortcoming in several of the Government and SEC enacted rules for different options

Review of the Creditworthiness of Urban Local Bodies

A review of the six sample ULBs (4 municipalities and 2 City corporations) covering their policy and institutional frameworks, economic base and potential, operating performance, management efficiency and financial strength reveals that there are three critical limitations of the national nodal apparatus and ULBs in Bangladesh that need to be addressed to achieve the threshold-level credit capacity necessary for municipal borrowing and tapping into external finance. They are:

1) Weak systems for accounting, financial management and information disclosure

2) A narrow revenue base, inadequate own-source revenue and uncertain grant receipts

3) Weak capacity to deliver services

Analysis further reveals that addressing these limitations is crucial in enabling ULBs to access capital markets and external financing. In order to narrow the gap, actions need to be organized around three thematic areas:

1) Effective financial management, accounting and information disclosure with requisite accounting controls, timely audits and capacity to disclose quality information

2) Improve revenue visibility and buoyancy to create a stable and buoyant revenue surplus to honor and meet debt obligations

3) Capacity building for effective service delivery

Review of the Financial Market in Bangladesh

A review of the formal financial sector in Bangladesh shows that the level of maturity among the market segments of the formal financial sector varies. The money market, which accounts for more than half of the market is the most vibrant segment followed by the capital/ debt market. Important long term financing sectors, such as insurance and pension fund segments, are very weak and their activities and contributions are limited. The capital market segment has regained investors' confidence and volatility has reduced in recent years, indicating a relatively stable outlook. Table 9.1 shows that the performance of the Dhaka Stock Exchange in recent years has been comparable to other regional stock markets. Government bonds and corporate bond markets are underdeveloped, and there are structural issues. Some fundamental reforms would provide diversity, growth and competitiveness in these sub-segments. Deposit and lending interest rates continue to be and should remain relatively low due to high levels of liquidity in the market, that are likely to persist in the short to medium term. Municipal debt issuance during this low interest regime will help set a low benchmark on debt issuance which is important for cost purposes. ULBs can explore financing with a strategy for the money and capital bond market. ULBs can also explore specialized infrastructure—climate change related financing institutions with appropriate preparation levels.

Table 9.1 Overview of SAARC Capital Markets

Name of the Capital Markets	Indices Name	Year ended Indices		Listed Companies (2015)	Market Capitalization in USD million (2015)	Turnover value in USD million (2015)	PE Ratio (2015)	Market Cap to GDP % (2015)
		2014	2015					
Colombo Stock Exchange	CSE	7,299.00	6,894.50	294	20,804.11	1,888.52	17.98	
Dhaka Stock Exchange	DSEX	4,864.96	4,629.64	287	40,118.81	13,251.94	15.23	20.88
Karachi Stock Exchange	KSE 100	32,131.28	32,816.31	554	67,025.15	27,431.74	-	24.74
Bombay Stock Exchange	SENSEX	27,499.42	26,117.54	5836	1,516,216.71	120,779.85	19.88	69.47

***Source**: Dhaka Stock Exchange (2016)*

9.5 The BMDF: A Platform for Non-Grant Municipal Finance in Bangladesh

Analysis suggests that, while they are not free to borrow, ULBs have a strong demand for additional finances. With the current management structure, financial management system, low technical capacity and poor creditworthiness, ULBs are unlikely to be in a position to directly secure non-grant financing from market sources. Experience in other countries suggests that the use of a special purpose vehicle in the short to medium term will allow ULBs to diversify their finances to implement priority projects, while the necessary legal, administrative and financial management reform takes place in the medium to long term. This should include several amendments to the municipal act such as extending taxing authority to enable ULBs to charge on municipal funds, create special funds and enter into financial agreements. This would also give ULBs access to financial institutions and capital markets.

In the interim, the use of Special Purpose Vehicles would allow for market linked financing of ULBs. The existing Bangladesh Municipal Development Fund (BMDF) could be an important option in the medium term to perform this function, while ULBs gain their own strength as credit worthy borrowers. The BMDF, a company limited by guarantee without share capital, was created in 1999 and empowered to arrange and receive loans, aid, grants and donations from any lawful source and make these funds available to ULBs with transparent terms and conditions. The BMDF is already providing blended loan-grant financing packages and is authorized to issue debt which can be used in non-grant financing for ULBs.

Since April 2014, the BMDF has implemented demand-based financing for urban services, provided capacity building & project implementation support and financed more than 100 ULBs under an IDA credit line which will close in June, 2020. The BMDF prepares annual financial statements duly audited by external auditors. It imposes service charges at a 1.5% rate with application fees, processing fees and interest at 5% on loans. It also receives interest from municipalities on a quarterly basis. As per the financial statement made by the BMDF for 2014-15, the total income of the company was BDT 176.93 million and it received grants totaling BDT 386.35 million. The GoB bears the operating cost of BMDF. The loan recovery rate is 84%, and it does not write off any loans. For entity financing, the thresholds for the debt service coverage ratio (DSCR) and the economic internal rate of return (EIRR) are minimums of 1.3 and 12% respectively. The BMDF has financed 596 projects in 154 ULBs. Of the total expenditures for ULBs, 10% came from the contributions made by the ULBs participating in the programs.

The BMDF allocates funds based on availability and the needs of each project. Loanable funds are limited compared to the demand from ULBs, and it takes many years for an Urban Local Body to get financing from the BMDF a second time. BMDF financing includes a combination of grants, loans and the ULBs' own contributions for any infrastructure project. To begin a project, 10% of the ULB's share must be deposited in an escrow account and, of the remaining 90%, 80% is given as a grant and 20% as a loan. The BMDF transfers money to the escrow account against contractor billing and evidence of project progress. ULBs repay the loan portion in 37 quarterly instalments over 10 years after a one-year grace period. Generally, BMDF loans are in demand to finance municipal infrastructure maintenance, solid waste management in urban areas, slaughter houses, healthcare projects, water supply and sanitation service in educational institutions, digitalization of City Corporations and municipalities, solar-based power supply for an Urban Local Body's office buildings, solar street lighting and environmental development and rehabilitation (for water bodies, woods and forests, hills, etc.).

9.6 Non-Grant Municipal Investment Financing Options

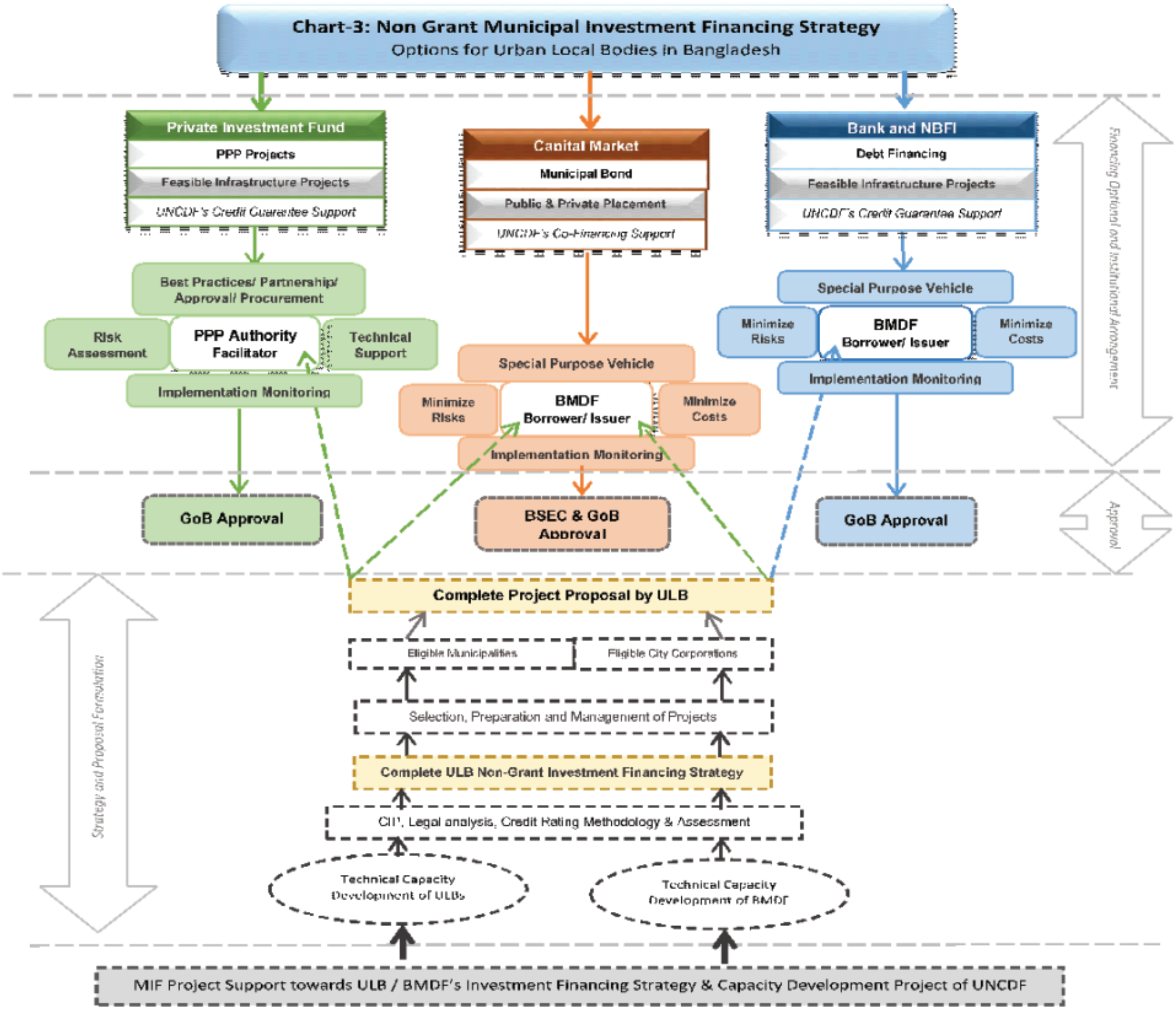
Based on the above analysis and a series of consultations with key stakeholders, experts and academicians, the following non-grant municipal financing options appear to be the most feasible for ULBs in Bangladesh.

1) Private Investment through Public-Private Partnership (PPP)
2) Debt Financing from Banks and Non-Bank Financial Institutions
3) Debt Financing from Capital Market sources

Activities and Process for the Non-Grant Municipal Investment Financing Strategy

Major activities, processes and institutional arrangements for the Non-Grant Municipal Investment Financing Strategy are presented in Figure 9.4. The bottom part of the figure shows the support provided by the UNCDFs MIF-B project to the Non-Grant Municipal Investment Financing Strategy (NGMIFS), limited piloting and advocacy for its gradual implementation.

Figure 9.4 Non-Grant Municipal Investment Financing Strategy: Options for Local Bodies

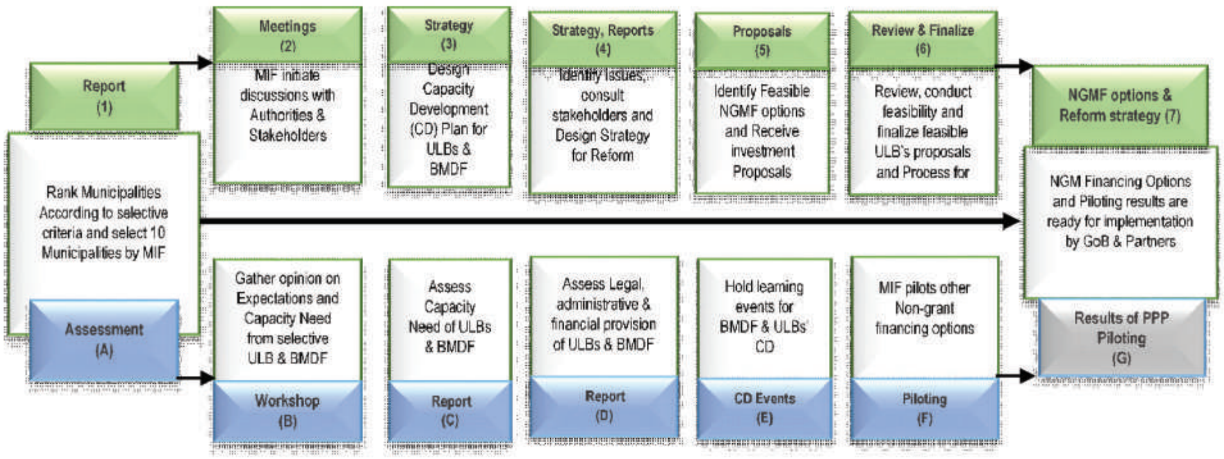


Source: *Author*

The proposed operational process is described using two different flow lines (Figure 9.5). The process includes selecting the 10 best performing ULBs, understanding their needs and challenges and designing capacity development exercises for the ULBs that will receive the financing. Additionally, the BMDF needs to understand the legal, administrative and financial position of the ULBs, gather and review proposals to find the best proposal and do a feasibility study of the selected proposal before approaching non-grant financing options for infrastructure investment.

The entire process has different events and outputs which include assessment, meetings, workshops, report preparation, strategy formulation, capacity development events and piloting of the options under the NGMFIS.

Figure 9.5 Operational Process for Non-Grant Financing Options



***Source**:Author*

Private Investment through Public-Private Partnership

Public–Private Partnership is a cooperative arrangement between one or more public and private sectors, typically long-term in nature and focused more on infrastructure projects traditionally expected to be undertaken by a government entity.A key motivation for governments considering public-private partnerships is the possibility of bringing in new sources of financing for funding public infrastructure and servicing needs. For the public sector, they are able to invest unused funds under a predictable risk scenario supported by a clear legal structure with the prospect of getting Viability Gap Funding (VGF) if the situation demands. Using PPP to address fiscal constraints and encourage private sector participation in national development through innovative and cost effective projects is a relatively new financing concept. Common themes of Public Private Partnerships are risk sharing and building long term relationships between the public and private sectors while developing innovative projects.

Legal and Administrative Structure

This PPP option offers ULBs the opportunity to tap into private sector finances on a partnership basis administered under the existing Public-Private Partnership (PPP) Act of 2015 and with active technical support from the Public-Private Partnership Authority in the country. Bangladesh is gradually moving toward a robust Public-Private Partnership set up in terms of legal frameworks, administrative infrastructure and amount of investment proposals in the pipeline. The implementation of this proposal would also initiate Public-Private Partnership Financing at the local level, a pioneering initiative for Bangladesh.

Benefits of Public-Private Partnership Modality for Urban Local Bodies

In the context of inefficiency and lack of technical capacity at the ULBs level in financial management, support from the Public-Private Partnership office in project proposal preparation and evaluation as well as in processing the bidding document would be very helpful. Obtaining approval from the appropriate authorities, administering agreements, reviewing designs and providing the necessary technical assistance will help ULBs build their capacity significantly during this process. Since the proposal will be evaluated based on the cash flow and return for the parties, ULBs will be benefitted by way of infrastructure built, future cash flow and mitigation for the risks that arise from financing. Generally, private sector technology and innovation provides better public services through improved operational efficiency, timely project delivery within the budget, developed local private sector capabilities and long-term value-for-money through appropriate risk transfer to the private sector.

Progress and Capacity of Urban Local Bodies

The Municipal Investment Financing Programme, Bangladesh (MIF-B) initiative enabled preliminary consultations between stakeholders followed by workshops by the Public-Private Partnership Authority on (i) the concepts, procedures and benefits of the Public-Private Partnership financing process, (ii) the preparation of Public-Private Partnership Proposals and (iii) climate resilience in urban infrastructure projects. These initiatives had the participation of the Mayors, Executive Engineers and Council Secretaries of nine municipalities. Under the MIF-B initiative, the Public-Private Partnership Authority is preparing to review and process nine capital investment proposals from the selected municipalities and will provide guidance on the preparation of a successful investment proposal for municipalities. The BMDF has already started assisting the selected municipalities to prepare their investment proposals to submit them on time.

Risk Assumptions and Allocation

In these efforts, the public sector generally prefers to retain most political, legal and social risks and share most of the micro level risks and force majeure risks, while the major part of the mid-level risks is preferred for the private sector. This kind of partnership at the local level with no baseline risk scenario is common for both parties. The most important risk that may have overarching impact on the success of this financing modality is the extent of control ULBs have on the revenue coverage and rates including the power of changing rates. However, the Local Government (Municipality) Act, 2009 emphasizes the need for municipalities to go for Public-Private Partnership projects and included a special section guiding investments in such projects.

Considering the long-term nature of these projects and the complexity associated, it is difficult to identify all possible contingencies during project development. Issues may also arise that were not anticipated in the documents or by the parties at the time of the contract. Some risks simply exist due to the nature of the venture including:

- Costs in Public-Private Partnership projects are likely to be greater than for traditional government procurement processes
- Finance will only be available where the operating cash flows of the project's company are expected to provide an acceptable return on investment
- Focus would be on performance requirements that are output based and relatively easy to monitor
- If the process is not institutionalized, a change of regime or political difference may risk project implementation, revenue collection, revenue rate fixation, etc. which has a direct impact on revenue and cash streams and investors may shy out

Implementation Process

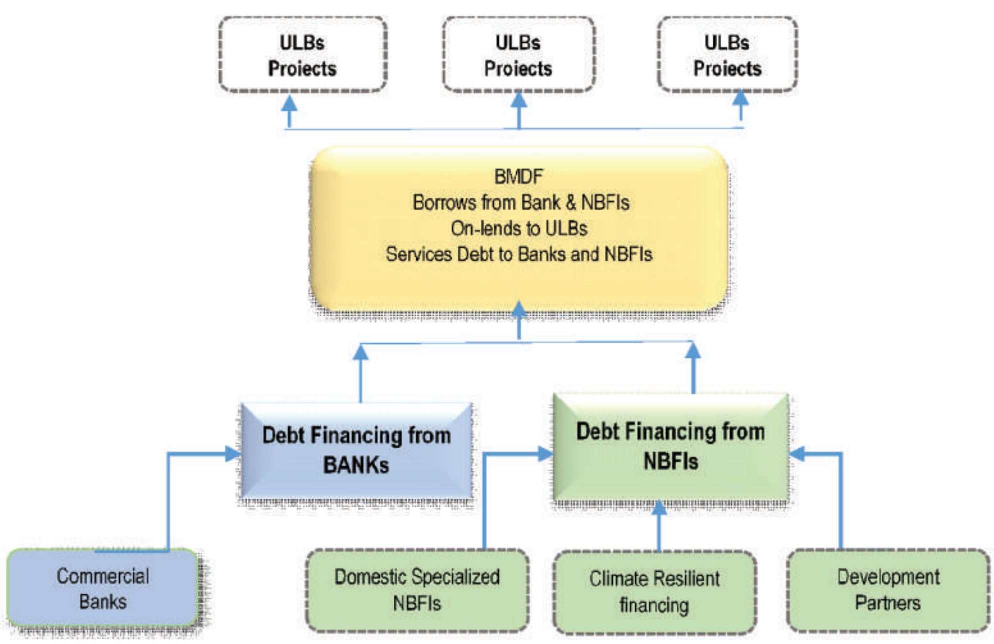
The following process and institutional arrangements will be followed to pilot Urban Local Body project financing under Public-Private Partnership modality. The main process under this modality will be steered by the Public-Private Partnership authority with active support from ULBs and the BMDF. Upon receipt of 9-10 infrastructure investment proposals from the BMDF (collected from selected ULBs under selective criteria), a consultant appointed by the MIF who will work as per advice from the Public-Private Partnership Authority will review them and identify a few proposals based on their chances of being eligible for financing. A feasibility study will also be undertaken by the consultant and, based on the report, the most feasible options will be forwarded to the LGD, as the administrative ministry for ULBs, by the Public-Private Partnership Authority for administrative approval.

Upon receipt of approval from the LGD, the Public-Private Partnership Authority will invite bidding from private investors who, as a group, will be consulted during the process to apprise them about the municipal financing. In this process, credit rating methodology and results, financial conditions, ULBs' skill in capital investment planning, legal aspects, etc. will provide useful information to potential investors. The capacity of the BMDF, as the main technical entity in-between ULBs and the Public-Private Partnership Authority and Investors, would play a vital role. The approval process for a project under Public-Private Partnership might take 6 to 9 months based on the current trend.

Debt Financing from Bank and Non-Bank Financial Institutions

This is the most common mode of financing in terms of structure and would be the actual entry point for ULBs to access market financing options for medium-term infrastructure projects. Figure 9.6 outlines the concept of borrowing from the banks and NBFIs in Bangladesh.

Figure 9.6 Bank and Non-Bank Borrowing



Source: *Author*

Debt Financing from Banks

There are as many as 56 scheduled banks operating in Bangladesh. Analysis reveals that the banking sector is the largest formal financial sector in Bangladesh constituting 60% of the financial market, followed by the stock and bond markets. Analysis also reveals that deposit and lending interest rates continue to remain low but with a high liquidity available in the banking sector. This is likely to persist, at least in the short to medium term. Additionally, ULBs can exploit the benefits of a low interest regime in the banking sector which will allow them to manage financing at a comparatively lower cost while setting a lower benchmark rate of interest for municipal borrowing in Bangladesh.

Implementation Process
The BMDF, upon receipt of the investment proposals from ULBs and after conducting a feasibility analysis, will select projects for financing and start communication with interested banks for negotiating financing terms and conditions. Depending on the investment requirements, financing may also be done through syndication. There will be a separate contract for each of the projects. Generally, loans from commercial banks are payable in the medium term, ranging from 3-5 years with no grace period. After due approval, financing will be available to the BMDF which they will on-lend to the respective ULBs through a Subsidiary Loan Agreement signed between the Urban Local Body and the BMDF.

Legal and Administrative Framework
To enter a contract, the BMDF will follow procedure, including getting approval from the Board of Directors as stipulated in its legal document. It also may be required to obtain approval from the finance division as ULBs will create debt by signing Subsidiary Loan Agreements with the BMDF. Such permissions will be under the provision of the Local Authority Loan Act, 1914. In this case, the BMDF would be the issuer of debt, while a financial entity/entities such as the Investment Corporation of Bangladesh (ICB) or other similar entities would be the trustee/agent to provide technical/professional support to the BMDF.

Risk and Cost Management
As lower risk reduces cost, partial sovereign or non-sovereign guarantees would be useful to fulfill the conditions of relevant rules. Since the tenure of such loans would be shorter, the most likely risk would be the refinancing risk as most ULBs do not have regular cash flow and cannot expect any cash flow from projects during the implementation period. To avoid default risk, BMDF can issue general obligation bonds which could be issued to refinance loans from banks and other market financing sources.

Debt Financing from Non-Banking Financial Institutions

Three types of Non-Banking Financial Institutions (NBFI) financing for ULBs are likely to be available subject to the fulfillment of criteria set by each type of NBFI in Bangladesh. These sources could be as follows:

1) Domestic specialized NBFIs
2) Climate Resilient Financing
3) Financing from Development Partners

Domestic Specialized NBFIs

There are a number of identified companies/funds/mechanisms established in Bangladesh that specialize in infrastructure financing related to climate change mitigation/adaptation and related areas. While their broad focus is on infrastructure development, each of them have specific areas of focus, separate rules and procedures, legal frameworks and management structures. Most of these companies/projects are set by the government, assisted by development partners with initial equity capital from the government & other sources and managed by highly professional staff.

The Bangladesh Infrastructure Finance Fund Limited (BIFFL), the Infrastructure Development Company Limited (IDCOL) and the Investment Promotion & Financing Facility Project (IPFF) are all well established and have earned reputations for making quality investments in financing focusing on climate resilient projects. A review also shows that, in general, most of them are relevant to Urban Local Body financing and provide financing for infrastructure development in sewerage and drainage, effluent treatment plants, environmental, industrial and solid waste management, municipal and village water supply and other urban, municipal and rural projects.

The initiative from BMDF, in collaboration with potential ULBs, may prepare projects in line with the set procedures of these organizations. Generally, they follow stringent project selection criteria and it may take few years for ULBs to qualify for financing from such sources.

Climate Resilient Financing for Urban Local Bodies

Urbanization has a direct impact on increasing climate change vulnerability through environmental degradation and changing the natural ecosystems. Given that Bangladesh is one of the most climate change vulnerable nations, institutions financing climate resilient urban development are an important future source of support to municipalities in Bangladesh.

The Green Climate Fund (GCF) was established by 194 governments to limit or reduce greenhouse gas emissions in developing countries to help adapt vulnerable societies to the unavoidable impacts of climate change. The GCF mission to advance the goal of keeping the temperature increase on our home planet below 2 degrees Celsius. The fund is a unique global initiative to respond to climate change by investing in low-emission and climate-resilient development. Given the urgency of the challenge, the fund is mandated to make an ambitious contribution to the united global response to climate change.

Accessing GCF financing requires organizations that have a pro-climate mandate and high professional and organizational strength as well as global accreditation. Bangladesh, being one of the most climate change vulnerable countries in the world, is eligible for GCF financing if the appropriate measures are undertaken to prepare a few institutions that comply with their standard eligibility criteria. It would be worthwhile to explore the mechanisms different companies/ ministries/ institutions use to access such funds that are ultimately channeled through ULBs to finance infrastructure projects aiming to mitigate and adapt to climate change impacts. The BMDF is a contender for accessing the GCF with proper preparation.

Competitive Funding from Development Partners

The development community worldwide is concerned about the impact of rapid urbanization and climate change and its consequence for the quality of life of poor people in Bangladesh.

There are efforts to provide ULBs with control over finance for urban development and climate vulnerability adaptation related to infrastructure and financing also needs to be explored. To maintain a focus on climate change and ensuring better use of resources, financing decisions are likely to be competitive, low cost with a long term maturity and impact on climate change vulnerability mitigation. Project proposals with innovative ideas, project designs, implementation plans and higher impact will compete for the fund. BMDF should look for potential development partners willing to invest in Urban Local Body infrastructure as well as the preparation of a concept note. Since potential donors would be interested in seeing if ULBs are willing to borrow rather than getting grants, this option is likely to provide financing at a lower cost as well.

Financing through Capital Markets

Global capital markets are a heavily used source for financing municipal projects through municipal bonds, particularly in countries with functional local/subnational governments. Even though there is complexity in the structure of local governments, analysis reveals that capital markets could be a potential source for ULBs in Bangladesh through which non-grant investment financing can be accessed. This source can be accessed under the existing legal structure.

Legal Framework

In the absence of a specific legal framework for municipalities to access capital markets in Bangladesh, debt securities could be issued under the provisions of the Securities and Exchange Commission (Private Placement of Debt Securities) Rules, 2012 and/or the Bangladesh Securities, Exchange Commission (Public Issue) Rules, 2015 and/or Exchange Commission (Asset Backed Securities) Rules, 2004.

Issuance Options

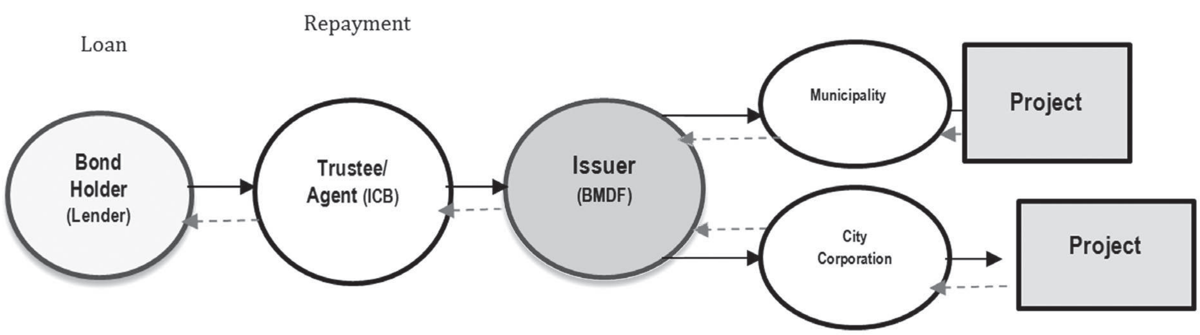
There are two options for an authorized legal entity (e.g., a municipality or city corporation), when issuing debt securities to collect funds. An Initial Public Offering (IPO), is the first time a particular issue of a security is made available for sale on the open market. These issues are regulated by the Bangladesh Securities and Exchange Commission (BSEC) and require strict financial reporting criteria on a regular basis to remain available for trade. Private placement offerings are securities released for sale only to accredited institutional investors such as investment banks, pensions or mutual funds. Some high-net-worth individuals may also purchase private placement shares through these options. Companies using private placements generally seek a smaller amount of capital from a limited number of investors. Depending on lender's risk exposure, an issuance can be in the form of (i) debt securities or (ii) asset backed securities. In the case of asset backed securities, securitization is done against the asset of the borrowing entities. Asset-backed securities are issued against specific projects/infrastructures, and are generally managed by a subsidiary entity through a trust. On the other hand, debt securities are issued by registered companies/entities and do not require the formation of a subsidiary.

It is very unlikely at this point of time that any municipality/city corporation would fulfill the requirements set under these rules to issue their own debt securities. Moreover, getting permission from the government for such issuance is very unlikely considering the associated ULBs high risk exposures. Investments in public issuance are based on reputation and other risk indicators which municipalities do not have at this time. Above all, the financial information on ULBs that investors would consider does not currently match expectations and is not even in the proper format. Municipal accounting is currently done using a single entry method, and the assets and liabilities of ULBs are not being properly managed.

Issuance Process and Institutional Arrangements

The Bangladesh Securities and Exchange Commission (BSEC), the Dhaka Stock Exchange (DSE) and other relevant stakeholder suggest that issuing debt securities through private placement is the immediate option using the BMDF, working as a special purpose vehicle, as the legal platform. Apart from its legal mandate to borrow and on-lend, BMDF is also experienced in issuing debt to municipalities on a limited scale from the money received under International Development Association (IDA) credit. From the perspective of the BSEC, BMDF could create a mutual fund made of a pool of funds collected from many investors to invest in ULBs. This would also allow banks and other financial institutions to invest through this facility which would be difficult otherwise. Most likely, development partners who intend to seek more self-sustaining financing options at the municipal level would also be potential investors through private placement offerings. Figure 9.7 illustrates a simplified process of bond issuance and the indicative institutional arrangements.

Figure 9.7 Possible Bond Issue Process for Financing Urban Local Bodies in Bangladesh



Source*: Author*

Cost and Risk Management

Risk management is the process of controlling and minimizing uncertain outcomes. From the issuer's perspective, striking a balance between risk and potential return is important as it is the determining factor for investors. The balance between risk and return varies by the type of investment, the entity that issues it, the state of the economy and the cycle of the securities markets. A general rule for investment is that higher returns involve greater risk and vice versa. The municipal bond market is no exception to this rule. However, compared to other financing instruments, bonds, in this case municipal bonds, are generally considered less risky than stocks for both the issuer and subscriber for the following reasons:

- The issuer carries the promise of returning the face value of the security to the holder at maturity

- Investors are mostly at a fixed rate of interest income that is also backed by a promise from the issuer
- Historically, bond markets are less vulnerable to price swings or volatility
- The average returns from bond investments have been lower historically

Likewise, the investor risks associated with bonds are applicable for the issue of municipal bonds, including interest rate risk, inflation risk, market risk and credit risk (default risk). Since the municipal bond issuer in this case would be the BMDF, such risks for the investor may not be as high, since the rating of BMDF would determine the actual bond creditworthiness.

Currently, there is no credit rating for BMDF as an issuer, and its current operation is not exposed to market risks as BMDF mainly issues grant based financing and a few loans to ULBs. In this situation, BMDF and its management are less likely to know risk management techniques. This perception may make potential investors refrain from investing if not otherwise compensated. To build a sustainable capacity at BMDF, an assessment and rationalization of technical capacity, a training needs assessment and a capacity development strategy should be undertaken. BMDF's credit rating assessment would play an important role in building investor confidence. Since municipal bond issuance would initially be through private placement and investment would be done by high net worth institutional investors, prior assessment of risk would be more likely.

Most ULBs generate limited revenue and low cash flow, elevating default risk substantially. To minimize such risks, BMDF must perform proper project feasibility assessments before sanctioning loans and conducting post disbursement follow ups. A Partial Risk Guarantee (PRG) may be useful in the initial stage to reduce BMDF's default risk and build investor confidence. Private placement of interested development partners' funds can lower the cost and work of a PRG initially. However, the Non-Grant Municipal Investment Financing Strategy envisages that the borrowed amount received through long-term municipal bonds would refinance the shorter/medium term bank and the NBFI debt reduces the above risks considerably.

Global experience with municipal bonds suggests that government provision of tax incentives to popularize such bonds is also an option for Bangladesh where the overall bond market is in a nascent stage. The pricing of municipal bonds would be difficult in the absence of a recognized benchmark rate. However, issuing debt when the overall market interest rates are low would set a good benchmark for the future.

To increase efficiency, BMDF needs to get expert services from individuals and organizations. BMDF could recover the costs spent on such purposes by charging a nominal fee for services to the ULBs and such fees could be exempted from tax obligations. The National Board of Revenue (NBR) may be consulted in order to incentivize investors by giving exemptions to the earnings from municipal bonds.

Prerequisites

The following is an exhaustive but not indicative list of prerequisites necessary to enable the BMDF to act as an issuer:

Approvals

- *Obtaining approval from BMDF's Board of Directors*
- *Obtaining approval from the Finance Division for Debt Issuance*
- *Obtaining approval from BSEC*

Capacity Developments

- *Develop and use BMDF credit enhancement capacities (Credit Rating)*
- *Improve status of selective indicators based on the credit rating report (if any)*
- *Obtaining approval from BSEC*

Capacity Developments

- *Develop and use BMDF credit enhancement capacities (Credit Rating)*
- *Improve status of selective indicators based on the credit rating report (if any)*
- *Assess current capacity status and install required skills and capacity at BMDF*

Project Development

- *Install Capital Investment Programme capacity at the Urban Local Body and BMDF level*
- *Set criteria for project selection and weightage*
- *BMDF gathers and evaluates projects*
- *Finalize list of projects with priority rankings*

Systems, Processes and Procedures

- *Prepare and get approval of rules, procedures and criteria for selection of projects eligible for financing*
- *Prepare other systems and procedures for risk management, progress monitoring and debt service management capacity*

Institutional Support Arrangement

- *Appoint Lead Arrange(s) and Lead Manager(s)*
- *Finalize Tax provisions/exemptions etc.*
- *Finalize willing institutions for private placement*

9.7 Implementing the Non-Grant Municipal Investment Financing Strategy: Outlook, Challenges and Actions

The preceding sections highlights the challenges and opportunities for Bangladesh to gradually move toward a non-grant financing modality for ULBs. The challenges can be grouped into two sets:

1) ULBs inability to become eligible to access non-grant financing sources

2) The current legal framework inability to accommodate borrowing by ULBs

ULBs eligibility is mainly constrained by their low human capacity, poor organizational infrastructure and legal barriers, while constraints on the legal side arise mainly out of the mixed nature of ULBs. Traditionally, municipal entities are created within a government structure but are mandated to operate as demanded by constituents with greater autonomy. Therefore, their functions must be supported clearly and strongly by legal mandates which is not the case for Bangladesh. Moreover, due to unplanned reform in local government bodies, ULBs in Bangladesh have lost their desired status within the overall central and local governance system.

Considering the above-mentioned realities, implementation of the NGMIFS is likely to be done in phases and should evolve step by step. At the same time, reform must be implemented with the utmost level of commitment by the government and other stakeholders. The entire process is outlined in detail with deliverables shown in Table 9.2.

Table 9.2 Roadmap for Non-Grant Municipal Financing Strategy

Roadmap for Non-Grant Municipal Financing Strategy Preparation, adoption and Implementation											
				YEAR-0	YEAR-1		YEAR-2		YEAR-3		YEAR-4
Activity No	Deliverable	Activity	∑ Activities	HY2	HY1	HY2	HY1	HY2	HY1	HY2	HY1
A	MIF-B Project Inititation Phase										
A1	NGMIFS by MIF-B	Finalization									
A2	NGMIFS by MIF-PSC	Approval	1,2								
A3	BMDF's Restructructuring & CD Plan	Preparation	3								
A4	BMDF's Short to medium Term Capacity Development	Implementaation									
A5	Piloting atleast 1 Option of NGMIFS	Piloting									
A6	Report to GoB (BFID)	Submission	1,2								
A7	Resrouce Moblization, Project formulation & approval	Project									
B	MIF-B Project implementation Phase-1										
B1	Inception Report	Report									
B2	Old Piloting Constinues, New piloting starts	Piloting									
B3	Piloting of all NGMIFS options	Piloting									
B4	Evaluation of Piloting Results	Evaluation									
B4	Evaluation BMDF's perfformance in support to ULBs	Evaluation									
B5	Implementation of BMDF's short to medium term Restructructuring & CD Plan	SMT Plan									
B6	BMDF's Medium Term capacity Development including CIP, Debt capacity analysis, bankable project selection, and mobilizing private capital.	Implementation									
B7	Drafting a legel document addressing issues of Municipal Bond/debt issuance by Municipalities & city corporations	Drafting Legislation									
B8	Preparation of BMDF's Long term Restrucuturing Plan in the light of current phase performance evaluation	LT Plan									
B9	Facilitating Legal Reform towards enebling NGMIFS	Consultation, pursuation	\								
B10	Strengthening Capacity of the LGD and NILG capacity towards NGMIFS implementation	Capacity developmet									
B11	ULB financing Institutional Business Process Reengineering at policy and implementation level	Process Reengineering									
B12	Redrafting NGMIFS based on Piloting Results and Stakeholder Consultation & Reforms undertaken	Revised Draft									
B13	National Level Consultation Workshops and Conference	Conference									
B14	Legel, Administrative and Operational reform Strategy towards implementatiton of BNMIFS finalization & Adoption	Finalization & Adoption									
B15	Resrouce Moblization, Project formulation & approval for MIF-B Phase-2	Project									
C	MIF-B Project implementation Phase-2										
C1	Inception Report										

Source: *Author*

Phase 0: The Initiation Phase (Current Phase FY2016-17)

This phase is focusing on an initial stocktaking review of the relevant issues, exploring municipal financing and institutional arrangements, legal provisions, financial market conditions and analyzing ULBs current efficiency in dealing with urban development issues, investment financing and meeting citizen demands. This phase also attempts to educate relevant stakeholders on the need for a more self-reliant urban local government in the context of high urbanization growth in Bangladesh. It also works toward developing mechanisms to allow ULBs to shift toward more climate resilient municipal investment financing.

At the end of the current phase, the following outputs would be available:

1) A list of the 10 best performing municipalities based on three criteria namely size of the municipality, financial performance and organizational aspects
2) Status reports on current Urban Local Body financing options, financial market conditions, credit rating frameworks for ULBs and the shadow credit ratings of selected ULBs
3) Legal and regulatory frameworks reviews needed to assess an Urban Local Body's eligibility to borrow and market readiness assessments which would to allow ULBs access to financing
4) The main capacity constraints of ULBs as potential borrowers and of BMDF as a potential debt issuer
5) Education of key stakeholders, including GoB, and a broad agreement on the need for reform and going beyond the current grant-based municipal financing in Bangladesh
6) A first draft of the Non-Grant Municipal Investment Financing Strategy for Bangladesh
7) Preparation for piloting at least one option under the strategy gradually as proof of concept
8) Preparation of a project document for the next phase including the required financing and an implementation strategy

Phase 1: MIF-B Implementation Phase-1

The first phase of implementation would start following the successful completion of the MIF-B Initiation Phase. The main objectives of this phase are:

1) Piloting the MGMIFS options to allow ULBs access to non-grant financing through BMDF
2) Strengthening BMDF's organizational capacity to handle financial management, project implementation and monitoring, loan portfolio management, preparation and submission of report and returns as per regulatory requirements
3) Achieving a good investment grade through an evaluation of BMDF's credit worthiness with adequate preparation
4) Preparing a long-term reform strategy with different phases to augment the individual and institutional capacity of selective ULBs, empowering them to be eligible to independently access non-grant financing options
5) Providing individual and institutional capacity development of key local government related

organizations and an adequate understanding of the NGMIFS and their role in managing risk and debt sustainability

6) Reviewing and realigning the NGMIFS based on the piloting results, BMDF's capacity, the government's ownership and approvals, etc. to gradually move toward a sustainable financing mechanism for all ULBs

While government ownership, particularly the Ministry of Finance and Local Government Division's ownership of the NGMIFS, is the key element of this phase, harmonization among key donors working in urban governance, urban development and climate resilience would be crucial.

For administering pilots, GOB's approval will be required as per the Local Authority Loan Act, 1914. The allocation of business "matters relating to borrowing by public bodies such as Corporations, Municipalities, etc." falls under the jurisdiction of the Finance Division. Moreover, no government entity can create debt without prior approval from the government as represented by the Finance Division. Therefore, proposals for any borrowing by ULBs must go to the Finance Division through the Local Government Division, with appropriate justification, repayment modality and risk measures against default.

Phase 2: MIF-B Implementation Phase-2

Based on the success of Phase-1, the realigned NGMIFS should be implemented. Detailed activities of this phase can only be identified after analysis of the results from Phase-1. However, it can be assumed that the piloting will be successful and that the BMDF gained adequate organizational capacity to i) handle the complex and challenging tasks related to ULBs exposure to the market under standard terms and conditions and ii) is capable of forecasting risks arising out of each portfolio and monitoring progress in each project.

9.8 Conclusions

ULBs in Bangladesh are facing high demand for infrastructure investment, but the available financial resources to them are limited primarily to low revenue receipts and to the grants received insufficient to meet urban service demands. The legal restrictions limit their scope to manage finances from the local financial market. Being an extension of the government, service innovation, governance structure, financial management and technical capacities are in a poor state and restrict ULBs' ability to access financial resources from the market independently.

Under such circumstances, the current chapter highlights several non-grant financing options available to ULBs to enable access to external financing options. This access would be possible if ULB creditworthiness improves and restrictions to borrow are relaxed and if ULBs are able to enhance local revenue as well as improve staff capacity.

Even if ULBs cannot access market based options owing to their structural weaknesses, the BMDF, as a Special Purpose Vehicle, can borrow from banks, NBFIs, capital markets, private sector funds through Public-Private Partnerships and other sources in the medium term to on-lend to ULBs to expand their investment financing. A long term goal would be to enhance ULBs' institutional and individual capacities and provide the legal authority for them to borrow from the financial markets. To achieve this a comprehensive reform plan needs to be initiated by the government. BMDF would need a capacity boost to deal with complex organizational reform and financial management issues as well as to increase its creditworthiness and management capacity. A pragmatic strategy to move in this direction would enable many ULBs to issue their own bonds in 5 to 8 years' time due to their strong support from a higher revenue income.

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