PROPERTY TAXATION IN BUDHANILKANTHA MUNICIPALITY, NEPAL: AN ANALYSIS ON IMPLEMENTATION FOR PUBLIC SERVICES

A Thesis Submitted to
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Recommendation Letter

This is to certify that Mr. Nawa Raj Koirala has completed his MPhil dissertation on **"Property Taxation in Budhanilkantha Municipality, Nepal: An Analysis on Implementation for Public Services"** under my supervision and guidance. He incorporated the suggestions and comments made by me in this study. He prepared this thesis according to the prescribed format of the Central Department of Public Administration, Faculty of Management, Tribhuvan University, Kathmandu, Nepal. Therefore, I recommend this thesis for evaluation.

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Plagiarism Test Report

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VIVA-VOCE-SHEET

We have concluded the viva-voce-examination of the thesis

Submitted by

Mr. Nawa Raj Koirala

Entitled

Property Taxation in Budhanilkantha Municipality, Nepal: An Analysis on Implementation for Public Services

and found the thesis to be original work of the students and written according to the prescribed format. We recommend the thesis to be accepted as the partial fulfillment of the requirements for the Master of Philosophy.

Evaluation Committee	Signature

Date:

APPROVAL SHEET

The research report entitled "PROPERTY TAXATION IN BUDHANILKANTHA MUNICIPALITY, NEPAL: AN ANALYSIS ON IMPLEMENTATION FOR PUBLIC SERVICES" submitted by Mr. Nawa Raj Koirala has been accepted by the Central Department of Public Administration, Faculty of Management, Tribhuvan University for the partial fulfillment of the requirement for the Degree of Master in Philosophy (M.Phil.) in Public Administration.

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DECLARATION OF AUTHORSHIP

I hereby declare that the thesis entitled “PROPERTY TAXATION IN BUDHANILKANTHA MUNICIPALITY, NEPAL: AN ANALYSIS ON IMPLEMENTATION FOR PUBLIC SERVICES” is my own work. The information and materials resources I have used are fully identified and properly acknowledged as and when required. I affirm that it is a pioneering and deserving work for the award of Master of Philosophy (M.Phil.) degree.

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ABSTRACT

This study delves into the property tax system in Budhanilkantha Municipality, Nepal, focusing on its implementation and effectiveness in supporting public services. Rapid urbanization and increasing demands for urban infrastructure have posed significant challenges in generating adequate revenue through property taxes. The primary objective of this research is to analyze the current property tax functional system, identify its weaknesses, and propose improvements to enhance revenue generation for service delivery.

The research adopts an exploratory approach, utilizing qualitative methods such as focus group discussions (FGDs), key informant interviews (KIIs), and expert questionnaires to gather diverse perspectives from elected representatives, municipal staff (revenue section and ward offices), and tax experts with extensive experience in local taxes, including property tax, in various municipalities. The study's conceptual framework is grounded in interpretivism, emphasizing the subjective experiences and interactions of stakeholders involved in the property tax system. The analysis focuses on identifying key themes related to policy, administrative efficiency, and technological integration.

Key findings reveal several critical issues:

- Only 37.43% of properties are currently included in the tax net, indicating substantial gaps in property identification and coverage.
- Property assessments average about 38.37% of market valuations, indicating significant undervaluation.
- The billing and collection processes are predominantly manual, with an underutilized online payment system.

Despite these challenges, the municipality achieves nearly 100% budget realization, with a modest annual revenue growth from property taxes of 11% on average based on the past five years (FY 2075/76-FY 2079/80). According to the past five years' data, property tax currently accounts on average:

- Approximately 4% of the municipality's total revenue.
- About 10% of its own source revenue.
- 13% of local tax revenue.

Variables identified in the conceptual framework—policy, administrative, and technological factors—were crucial in evaluating the system's functionality. Specific indicators, such as tax base definition, assessment criteria, property identification methods, valuation techniques, collection, enforcement, and the use of information and communication technology (ICT), provided a detailed analysis of the system's weaknesses and potential areas for improvement.

The study highlights the need for comprehensive reforms, including the adoption of advanced ICT systems, improved property identification and valuation methods, and enhanced taxpayer services. The research underscores the importance of political will and public awareness in fostering a culture of tax compliance and supporting sustainable municipal finance. These improvement processes aim to create a more equitable, efficient, and transparent property tax system.

The study concludes that while property taxes alone cannot fully fund all public services, improving the property tax system can significantly enhance the municipality's financial capacity to meet the growing demands for urban services. The proposed improvements aim to create a

more equitable, efficient, and transparent property tax system, ultimately contributing to better service delivery in Budhanilkantha Municipality.

CHAPTER 1: INTRODUCTION

This chapter provides an introduction to the study by outlining its background, the issues it addresses, and the motivation behind conducting the research. It also details the study's objectives, the research questions and the study hypothesis. Additionally, the chapter discusses the study's limitations and concludes with an overview of the thesis structure.

1.1 BACKGROUND OF THE STUDY

By 2050, six billion people, or two-thirds of the global population, will live in urban areas (UN-HABITAT, 2009). This rapid urbanization, especially in developing countries, is shifting poverty into expanding slums and informal settlements, known as the "urbanization of poverty." As cities grow, there is a pressing need for more urban infrastructure and social services despite limited revenue sources. Property taxation is widely seen as the most reliable and accessible revenue for national and local governments, funding public services, social development, and land market monitoring. This is why many countries have reformed their property tax systems.

Nepal currently consists of 753 local administrative units, with 293 urban municipalities and 460 rural municipalities. This demographic distribution underscores the need for Nepal to align its urbanization policies with international standards to ensure sustainable development across all regions.

Over the past decade, from 2011 to 2021, Nepal's urban population grew significantly by about five percent, primarily due to migration. Urban areas increased from 22.31% to 27.07%, while peri-urban areas experienced a slight rise from 39.19% to 39.75%. In contrast, the rural population decreased from 38.5% to 33.19% during the same period (NSO, 2024).

Geographically, rural residents are mainly concentrated in the Hill (66%) and Mountain regions (16%). Peri-urban populations are most concentrated in the Tarai region (85%), while urban populations are highest in the Hill region (53%), influenced significantly by cities like Pokhara and Kathmandu Valley (NSO, 2024).

Property tax revenues are crucial for local governments, enabling them to make independent expenditures and fund essential public services such as education, public safety, roads, and utilities (Bird & Slack, 2004). This tax is economically rational as it captures a portion of the unearned increment in property values, attributed to local government investments in infrastructure, and is considered progressive, with higher-value properties bearing heavier burdens.

Despite its global importance, property tax is sometimes overshadowed by indirect taxes preferred by politicians. For example, in Brazil, it ranks second after the Tax on Services, while Indian municipalities have historically relied on octroi taxes, and Chinese local governments prioritize taxes on property transactions over ownership taxes (Salm, 2014). User charges also play a crucial role in cost recovery for services, and many urban municipalities are exploring additional revenue streams through land value capture mechanisms.

Historically, property taxes have been linked to local governments because real property is immovable and visible, making it suitable for local revenue. Property tax supports urban renewal, infrastructure investment, and enhances property values, creating a feedback loop where effective service provision funded by taxes maintains or increases property values, sustaining the tax base (Bird & Slack, 2004).

Property tax offers transparency, easy identification of the tax object and taxpayer, difficulty of avoidance, and general acceptance, making it an efficient and equitable revenue source essential for robust local governance and autonomy (Fisher, 1981).

1.1.1 Historical Background of Property Tax in Nepal

In Nepal, the first elected government introduced the Birta Abolition Act 2016 (1959) to abolish Birta Land and impose Land Tax thereon. However, the first property tax was introduced by House and Land Tax Act, 2019 (1962) to levy tax on the house and land in the urban areas in order to increase national income for the development of the country. This act had made provision of (a) Valuation of house and land of urban area, (b) Assessment of house and land tax to be collected by Government of Nepal (central tax).After the democracy restoration in the country in 2046 (1990), the Interim Government of 2047 BS (1990 AD) again introduced the property tax by the finance act in the beginning and by property tax act 2047 (1990). However, it was again replaced by urban house and land tax in 1995/96.

After the introduction of the Local Self-Government Act in 1999, local bodies were empowered to collect two types of property taxes: house and land tax (HALT) and integrated property tax (IPT). Then VDCs and municipalities were given the right to collect on of these types of property tax, with most municipalities generally opting to collect the integrated property tax.

Following the Constitution of Nepal in 2015, Nepal was restructured from a unitary system to a federal democratic republic with three tiers of government: federal, provincial, and local levels. A total of 753 local governments (LGs) were established, including six metropolitan cities, 11 sub-metropolitan cities, 293 municipalities, and 456 rural municipalities.According to the

Constitution of Nepal, property tax is classified as an exclusive tax of Local Governments, similar to other significant taxes such as business tax,land tax and rent tax.

The prevailing law, namely the Local Government Operational Act 2074 (2017), was promulgated in line with the spirit of the constitution. According to this act, property tax is levied on property owned by individuals or legal entities such as corporations. The rate is set and calculated by the local government where the property is located and is paid by the property owner. Typically, the tax is based on the value of the property, including land and buildings. It is determined based on factors such as the area of the land and the structure of the house, taking into account the value of both the land and the building. It excludes tangible personal property that is movable, like vehicles and equipment.

1.1.2 Global and National Context of Property Tax

Countries and cities facing challenges with ineffective property tax systems are urged to implement targeted policy and administrative reforms to improve various aspects, including tax base coverage, property valuation methods, billing procedures, collection mechanisms, enforcement strategies, and taxpayer assistance services. These reforms, if enacted, have the potential to enhance property tax revenues in a more equitable and efficient manner (World Bank, 2020). According to Kelly(2020), there are six key functions of a property tax system for reform: i) identifying the tax base, ii) valuing the tax base, iii) assessing taxes, iv) collecting taxes, v) enforcing tax laws, and vi) resolving disputes and providing taxpayer services. These functions are connected to four critical ratios: coverage, valuation, tax, and collection. Kelly's model shows that total revenue collection depends on tax base definition, tax ratio (TR), coverage ratio (CVR), valuation ratio (VR), tax liability assessment ratio (TLR), and collection ratio (CLR).

Tax policy reforms primarily involve refining the definition of the tax base, assessment criteria, establishing appropriate tax rate structures, and making policy adjustments related to tax relief, collection procedures, and enforcement measures. On the other hand, tax administration reforms aim to broaden the tax base, improve property valuations, enhance tax liability assessments, streamline collection processes, and provide better services to taxpayers (World Bank, 2020). The following Table shows the property tax revenue performance in different countries and cities.

Table 1: *Property Tax Revenue Performance (Contribution to GDP, Government Tax and Local Taxes, 2010)*

Countries	% in GDP	% in Government Tax	% in Local Taxes
High Income Countries	1.1%	4.5%	37.7%
Middle Income Countries	0.6%	2.1%	35.5%
Low Income Countries	0.3%	<1%	15-20%

Source: World Bank, 2020

An analysis of the data reveals significant disparities in property tax revenue among different countries and regions. High-income countries allocate a larger portion of their GDP to property taxes compared to middle and low-income countries. Additionally, there are wide variations in per capita property tax revenue among selected capital cities, with some cities generating substantially higher revenue than others.

Table 2: *Per Capita Property Tax Revenue in Selected Capital City*

Country/Capital City	Population (million)	Per Capita Property Tax (in US$)
Africa (Property Tax Data and Population Ranges as per FY 2009-2017)		
Tanzania (Dar es Saalam)	3.6	0.85
Kenya (Nairobi)	3.36	7.93
Uganda (Kampala)	1.40	6.65
Latin America and the Caribbean (Property Tax Data and Population Ranges as per FY 2009-2013)		
Columbia (Bogota)	7.36	82.40
Argentina (Buenos Aires)	3.02	111.00
Jamaica (Kingston)	0.68	6.6
South Asia (Property Tax Data FY 2015 -2016 and Population Ranges as per FY 2009-2013)		
India (Delhi)	16.30	10.58
Nepal (Kathmandu) as per data of 2021/22	1.7	22.62
South East Asia (Property Tax Data FY 2009 -2010 and Population Census FY 2009-2010)		
Philippines (Metro Manila)	16.30	17.71

Country/Capital City	Population (million)	Per Capita Property Tax (in US$)
Indonesia (DKI Jakarta)	9.61	22.11
Malesia (Kuala Lumpur)	7.10	25.12

Source: World Bank 2020 and Kathmandu Metropolitan City, 2022

Taking Kathmandu as an example, it generates $22.62 per person in property tax revenue. While this figure is relatively higher compared to other capital cities like Jakarta and Kuala Lumpur, it falls short when compared to cities such as Buenos Aires and Bogota, which generate significantly higher per capita property tax revenue. Therefore, there is a pressing need to implement targeted policy and administrative reforms to enhance property tax systems and fully realize their revenue potential in a fairer and more efficient manner.

1.1.3 Budhanilkantha Municipality- A Case Study for Property Tax in Nepal

This study examines the practice of property tax and its contribution to municipal finance in Nepal, focusing on a case study of Budhanilkantha Municipality's implementation and improvement for public services.

Budhanilkantha Municipality, situated in Bagmati Province and Kathmandu district, is one of the municipalities in the country and holds significant historical significance as Nepal's second largest municipality in terms of population 177,557 among all 293 municipalities (NSO 2024). It was established by a ministerial decision of the Government of Nepal, then Ministry of Federal Affairs and Local Development, on December 2, 2014 (Mangsir 16, 2071 BS). Initially, it was formed by merging six Village Development Committees: Chapali, Bhadra Kali, Khadka Bhadra Kali, Chunikhel, Mahankal, Bishnu Budhanilkantha, and Kapan, and divided into 19 wards. However, on March 10, 2017 (Falgun 27, 2073 BS), the government restructured these wards

into 13, aligning with the country's transition into a federal democratic republican system.Since its inception, the municipality has been actively collecting property tax[1].

1.2 STATEMENT OF THE PROBLEM

Nepal, like many developing countries, continues to generate significantly less revenue from property taxes, contributing less than 12% to local government's own source revenue, 0.33% to total government revenue, and approximately 0.09% to GDP[2]remains lower than in other low-income countries, where property tax constitutes around 0.3% of GDP, less than 1% of total general tax revenue, and between 15% to 20% of total local taxes. This extreme low performance of is due to both taxes administration inefficiencies and poor political perceptions of the public, which is also linked to issues of governance.

The primary deficiencies in the current administration of property taxes stem from inefficiencies in maintaining tax base coverage, notably reaching a maximum of 86% of households, but an annual collection rate of onlyfrom37% to 38% households in Budhanilkantha Municipality as perlast FY 2079/80 *(see Table 18 below).* These shortcomings are exacerbated by inadequate

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1 According to the Constitution of Nepal (2015), the "Local Level" consists of two distinct types of local level government (Municipality and Rural Municipality). Property tax is designated as an exclusive tax for both Municipality and Rural Municipality according to Annex 8 of the Constitution. With this authority, all Local Level including Budhanilkantha Municipality is collecting this tax.

2These figures were sourced from the Economic Survey of FY 2022/23, which reported Nepal's GDP at NPR 4696.50 billion. Additionally, the Auditor General Office's 61st annual report for FY 2079/80 documented a total own source revenue of NPR 33.74 billion and revenue sharing of NPR 79.29 billion across all 753 local levels. The Federal Government's total revenue was reported at NPR 1033.66 billion, with provincial government own source revenue amounting to NPR 94.43 billion, inclusive of revenue sharing.

Consequently, total government revenue amounted to NPR 1241.12 billion. Property tax revenues for all local levels were calculated at 12% of this own source revenue, totaling NPR 4.05 billion. This calculation is based on the highest observed property tax collection level noted in Budhanilkantha Municipality, which is considered the maximum compared to other local levels. However, even at this maximum level, Nepal's property tax revenue remains lower than that of other low-income countries when compared against GDP and total government tax revenues.

fiscalcadastre and geographic information systems, which hinder accurate valuations, sometimes neglecting market values.

Compounding these issues is the insufficient capacity for tax collection, alongside an unpopular enforcement mechanism. As noted by Kelly (2020), policy decisions regarding *tax rates, valuation standards, exemptions, and enforcement provisions* significantly affect revenue generation. The key to enhancing revenue efficiency lies in improving administrative practices. Effective property taxation requires active participation of the municipality to ensure up-to-date tax base information and property valuations, as well as proper assessment, billing, collection, and enforcement of taxes.

However, there is a noticeable lack of political will for property tax payment and enforcement, leading to low revenue yields, economic disparities, and administrative inefficiencies. Ideally, local taxation should be practical, equitable, cost-effective to administer, promote transparency, be easily understood by the public, and not complicate the broader tax system. However, in Budhanilkantha Municipality, Nepal, these principles are yet to be fully realized.

Similarly, the benefit principle requires that funds collected from property taxes should be allocated towards public services. However, what remains unclear to the researcher is why there persist failures in planning, such as unlit streets at night, poorly maintained blacktop roads, water supply issues, escalating drainage problems leading to mosquito breeding, and numerous potholes on both major and minor city roads.

The current situation in Budhanilkantha Municipality reveals a lack of understanding on how to enhance the property taxation system. This prevents it from becoming a reliable revenue source to improve service delivery. The municipality faces growing demands for services but lacks

strategies to convert challenges into revenue opportunities. This study aims to raise awareness about the potential of property taxation in Budhanilkantha Municipality, aiming to improve property tax system to leverage revenue for public services.

1.3 MOTIVATION OR JUSTIFICATION FOR CONDUCTING THE RESEARCH

The primary motivation for this study is to analyze and revitalize the property taxation system in Budhanilkantha Municipality. By examining how property taxation can be a reliable revenue source, the study aims to enable the municipality to function more effectively. Sound urban governance and sustainable income sources, particularly property tax, are crucial for a well-functioning municipality.

Despite its potential, property taxation in Budhanilkantha Municipality has not been fully leveraged. This study seeks to understand why property taxation has not been prioritized and identify barriers to its effective collection and administration. Motivated by the policy and administration variables outlined by Kelly in 2020, particularly to assess the effectiveness of property tax administration, this study will evaluate the property tax system in Budhanilkantha Municipality. This approach will guide to improve the property tax and identify factors influencing revenue generation and administrative efficiency for public services.

Furthermore, the researcher is motivated to seeks to integrate property tax policy with urban services in the municipality. The municipality faces challenges such as inefficient tax base coverage, inadequate valuation systems, and poor enforcement mechanisms, resulting in low revenue yields and insufficient service delivery. This study aims to address these implementation issues and improvement for property tax system for better public services.

1.4 RESEARCH QUESTIONS

This study aims to explore the following questions to achieve its objectives:

1. How does the property tax system function in Nepal,
2. What obstacles are impeding the functionality of the property taxation system ?
3. What strategies can the municipality implement to enhance compliance and increase property tax revenue?
4. How is policy linked with public services in terms of the collected amount from property tax?

1.5 RESEARCH OBJECTIVES

The objective of this study is to assess the overall functionality ofproperty taxin Budhanilkantha Municipality. The specific objective of this study are as follows:

(a) To identify how property tax rates are considered on the tax base (land and building)

(b) To assess the reliability of property assessment methods in determining property value consistent with market value.

(c) To identify the process of tax collection and its link with services.

1.6 RESEARCH HYPOTHESIS

The study hypothesizes that if the property tax system in Budhanilkantha Municipality is managed and operational, it could generate more revenue to support urban services. This framework identifies key independent variables—policy, administrative systems, and technology—that are crucial for the effective management of the property tax system. Robust policies, administrative capabilities enhanced by technology, political backing, efficient taxpayer services, and the willingness of taxpayers to contribute are essential factors in this process.

It's crucial to recognize that relying solely on property taxes does not guarantee the comprehensive delivery of urban services, especially given the backlog that exceeds the

municipality's current capacity. Therefore, the hypothesis suggests that improving the property tax system, through the strong policies, efficient administrative systems, and appropriate technology, could expand municipal financial resources to meet the public's needs for essential services.

1.7 LIMITATION OF THE STUDY

This study was also not far from limitations. The main limitations of this study had as follows:

a) The focus of this study was solely on property tax (house and land) in Budhanilkantha Municipality.
b) The topic was new topics for some stakeholders due to gaps in information
c) The study primarily relied on secondary data and information. Primary data was collected mainly through questionnaires and opinion surveys from elected representatives, tax experts and tax administrators.
d) Respondents views were gathered only from the Budhanilkantha Municipality and its some ward offices (ward no 7, 8, 9 & 10).
e) The study was limited to data from fiscal years 2075/76 to 2079/80 (2018/19-2022/23), particularly market value, tax liability to analysis the ratio.
f) There was absence of opportunity to obtain data on how property tax revenue was spent on public services.

1.8 THESIS FRAMEWORK

This thesis is organized into SIX chapters

Chapter 1 introduces the background of the study, including the national and international context of property tax, problem statement, justification, research objectives, hypotheses, and study limitations.

Chapter 2 reviews the literature related to the study, beginning with a conceptual framework. It explores literature on property tax definitions, tax bases, exemptions, and their impact on administration. The chapter covers critical ratios like tax ratio, collection ratio, valuation ratio,

and coverage ratio, as well as the significance of property taxation from various authors' perspectives. It also discusses the uniqueness of property tax compared to other taxes and examines challenges to its effectiveness, concluding with literature on property tax reforms.

Chapter 3 outlines the research methodology, detailing the chosen research strategy, instruments used, scope, population sample, data quality considerations, and procedures for collecting and analyzing both primary and secondary data. It also describes the qualitative data analysis framework used, focusing on the unit of analysis, variables, indicators, and their operationalization.

Chapter 4 provides the case study of Budhanilkantha Municipality, emphasizing socioeconomic factors, legal provisions for property tax, sources of income to the municipality, an overview of property taxation, and past reforms. It includes an analysis of property tax potential yields based on records.

Chapter 5 presents analyzed information and findings aligned with the research questions identified earlier. This chapter is crucial as it demonstrates how the collected qualitative data addresses the core issues outlined in the research questions and objectives. It provides a detailed account of the results obtained from the qualitative research methods employed, such as focus group discussions (FGDs), key informant interviews (KIIs), and questionnaires directed at experts in local taxation.

The collected information from in-depth interviews and focus groups is systematically presented. This chapter delves into the analysis, identifying key themes such as property tax policy, administrative efficiency, and technological prospects.

*Chapter 6*offers conclusions and recommendations drawn from the study's findings.

CHAPTER 2: LITERATURE REVIEW

This chapter presents the theories and concepts underpinning the study, addressing key research questions and objectives. It starts with an explanation of the conceptual framework, detailing its components and their relevance to the study. Variables related to property tax are discussed below. This Chapter also defines property tax both in the context of this research and from the literature.

2.1 THEORETICAL BRACKGROUND OF PROPERTY TAX AND IMPROVE FOR PUBLIC SERVICES

2.1.1 Theory of Property Tax with Public Services

In addressing the fiscal deficit for public services within municipal own-source revenue, two primary strategies can be employed: (a) enhancing revenue from existing local taxes, and (b) broadening the revenue base to strengthen overall revenue. Property taxes are considered both efficient and fair for generating revenue, yet their potential remains largely untapped in many countries. Although property taxes tend to generate modest revenue, especially in developing and emerging economies, there are significant disparities between countries. These disparities indicate both popular resistance and technical challenges in tax administration, but they also highlight the potential for increased revenue utilization.

(a) Public Finance Theory

Public finance theory provides foundational insights into how governments raise revenue and allocate expenditures to maximize social welfare. This theory suggests that property tax is an ideal local tax (McCluskey et. al, 2019). According to Musgrave (1959), local governments must balance efficiency in tax collection with equity in tax burden distribution. Property tax, as a primary source of local government revenue, is critical in this balancing act. It supports the

provision of public goods and services, which in turn, supports the local economy and community development (Musgrave, 1959).

(b) Fiscal Federalism

The theory of fiscal federalism explores the division of financial responsibilities among different levels of government. Oates (1972) argues that local governments are best positioned to provide services whose consumption and benefits are localized. Property taxes enable local governments to fund these services independently, reducing reliance on central government subsidies and allowing for tailored solutions that best fit local needs (Oates, 1972).

(c) Tiebout Model

The Tiebout model (1956) adds to the discourse by suggesting that local taxation and expenditure decisions create a marketplace where residents "vote with their feet," choosing communities that best match their preference for public services relative to tax levels. Property tax rates thus influence local government policies and resident satisfaction, as they dictate the type and quality of services possible within a given budget constraint (Tiebout, 1956).

(d) Political Economy

The political economy perspective examines how political factors influence economic policies and outcomes. Property tax policies are often shaped by the political environment, where stakeholders including taxpayers, local officials, and business groups exert influence. These interactions can affect policy decisions on property tax rates, exemptions, and the use of revenues (Slack & Bird, 2004).

(e) Equity and Efficiency

Equity and efficiency in taxation are crucial for local government credibility and effectiveness. Bird and Slack (2004) discuss how property taxes must be designed to be both equitable—fairly distributing the tax burden—and efficient—minimizing administrative costs and economic distortions. The challenge lies in assessing property values accurately and ensuring that tax systems do not disproportionately burden any segment of the population.

2.2 DEFINITION OF PROPERTY TAX

According to Bird and Slack (2004), property taxes apply to various property types like residential, commercial, industrial, and farm properties. Different countries have diverse approaches, with some taxing land only, others taxing buildings, and most taxing both. Additionally, certain categories of property or property owners may be exempt from taxation, and some countries tax machinery or tangible business assets.

With definition of Property Tax, Almy (2001) argues that an effective property tax system must identify and link taxpayers with taxable properties, generate accurate tax assessments, and ensure efficient tax collection. Poor performance in any of these areas undermines tax equity and public trust. To achieve fair property tax distribution, the system requires careful planning, resource optimization, comprehensive data, and accurate valuations through mass appraisal programs. Beyond valuation, the process includes applying exemptions, issuing tax notices, allowing and processing appeals, and properly managing tax payments. Providing taxpayers with adequate information and addressing their inquiries is essential for acceptance of the property tax system.

In Nepal, according to Local Government Operation Act 2074 (2017), property tax is defined in the framework of this research as an annual tax levied by local governments on land and buildings of personal property. This tax is based on the assessed value of the property and a tax

rate determined by the local government. Each local government, exercising its constitutional rights provision of federal act, determines both the property value and the applicable tax rate through their annual Financial Act.

In other countries, property tax regulations vary, where the tax may apply to land, structures, or both. Typically, an assessor, valuer, or municipal/city official determines the property's value. Property tax can take the form of an Ad valorem tax, which is based on the property's value, often calculated as a percentage of the assessed value set by the country. This assessed value commonly serves as the standard for local real property tax assessment. Property tax, according to Dillinger (1988), is a recurring tax on real property, encompassing land and/or improvements, primarily in urban areas. It represents one of several forms of real-property-related taxation. Property taxes are obligatory charges associated with land and building ownership, occupation, or development. They are typically based on either the property's capital value or its annual rental value, whether actual or estimated. These taxes are collected by local authorities for various municipal purposes (Nsamba-Gayiiya, 2002).

2.3 PRINCIPLE OF PROPERTY TAX

According to Almy (2001), several principles guide the design of property taxation and help evaluate existing systems. These principles fall into categories such as administrative, social justice, economic, and political. They are based on common sense notions of fairness, equity, and uniformity.

Uniformity means proportional taxation, often linked to the taxpayer's *ability to pay*. In a market value-based system, uniformity has a fiscal benefit because overvalued taxpayers tend to

complain about high taxes, potentially leading governments to limit rates, which can result in undervalued taxpayers paying less than they might accept.

Neutrality means that a uniform, broad-based tax is likely to be neutral and less likely to distort economic decisions. An efficient tax encourages a balanced use of production factors (labor, capital, management, and land), enhancing general welfare. For example, high taxes on apartment building owners might be passed on to tenants through higher rents.

Stimulation of Business Environment suggests that fair taxation of business properties creates a level playing field, as overtaxed properties are at a competitive disadvantage. However, tax preferences and incentives, which deviate from the uniformity principle, are sometimes used to attract businesses and investment.

Openness is crucial for democratic governance. Open property markets function better, and public acceptance of property taxes depends on factors like the tax level, ease of payment, benefits received, transparency, and perceived fairness. Commitment to public service and effective public information programs can build acceptance.

Buoyancy refers to a tax's ability to rise or fall with the economy. Since property taxes are not transaction-based, maintaining buoyancy requires administrative actions such as frequent revaluations and rate adjustments.

Cost Efficiency involves discovering virtually all taxable property, minimizing valuation and assessment errors, achieving close to 100% tax collection, and minimizing administration costs. Almy notes that it's challenging to express all efficiency measures in monetary terms, and each criterion must be evaluated separately. The concept of cost-effectiveness includes economic ideas like marginal utility and diminishing returns. Achieving efficiency requires a certain level of

expenditure, but the optimal level might be significantly lower than the expenditure level that maximizes effectiveness. Sometimes, improving a property tax system (e.g., installing a new computer system) can increase effectiveness without additional cost.

2.4 THE CONCEPTUAL FRAMEWORK

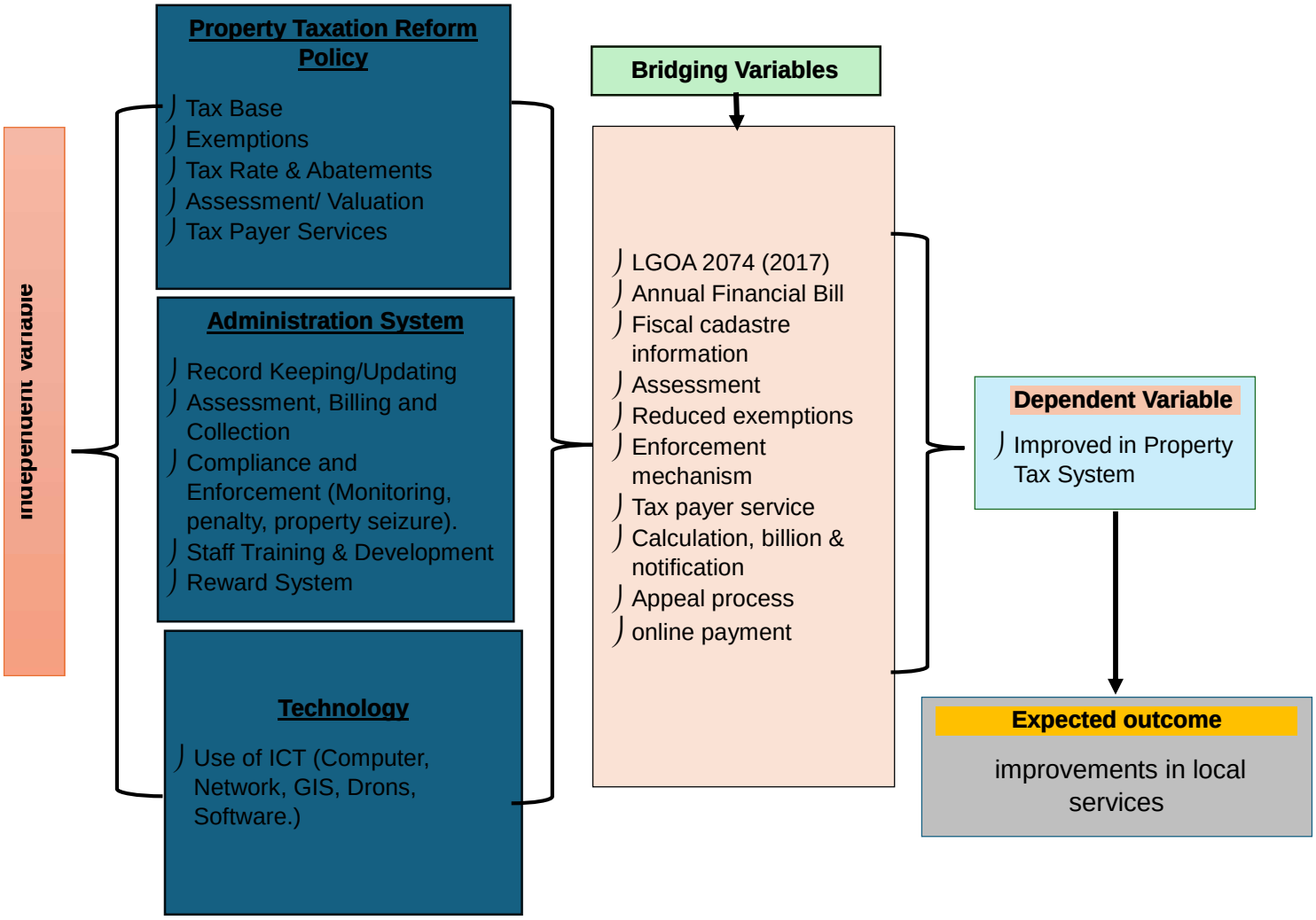
The theoretical foundation of this literature review is based on a conceptual framework (Figure 1) developed for this study, in line with the policy and administrative variables developed by Kelly (2020). This framework identifies key independent variables—policy, administrative systems, and technology—that can reform the property tax system to improve public services. Political and administrative concepts also influence these variables.

Property tax is determined by laws that define the tax base and exemptions. The tax rate or tax ratio depends on the type of value assessment, such as market value, rental value, area-based assessment, or land value. These assessments determine how properties are valued and taxed.

Effective property tax systems rely on billing, enforcement, the number of properties on the valuation roll, taxpayer services, public and political support, and the integration of Information and Communication Technology (ICT). Reforms need to address these elements to increase local government revenues.

Although property tax alone can't fund all public services, it can significantly improve services like garbage collection, road maintenance, street lighting, and drainage. Reform is urgent to help local governments meet the growing demand for urban services due to population growth.

Figure 1:*Conceptual Framework of Property Tax: Basis for Improving Local Services*

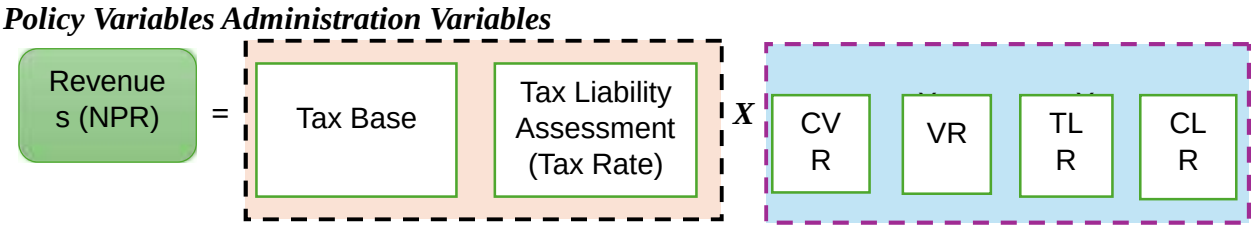


2.5 FUNCTIONALITY OF PROPERTY TAX

According to Kelly (2020), property taxation relies heavily on active government involvement to keep tax base information and property values current, and to ensure proper assessment, billing, collection, and enforcement of taxes.Effective property tax reform must acknowledge the administrative intensity and necessity of direct government management for revenue stability. Kelly identifies six key functions of a property tax system: *i) identifying the tax base, ii) valuing the tax base, iii) assessing taxes, iv) collecting taxes, v) enforcing tax laws, and vi) resolving*

disputes and providing taxpayer services. These functions are connected to four critical ratios: coverage, valuation, tax, and collection. Kelly's model shows that total revenue collection depends on tax base definition, tax ratio (TR), coverage ratio (CVR), valuation ratio (VR), tax liability assessment ration (TLR), and collection ratio (CLR). The formula for property tax revenue is:

Figure 2: *Functionality of Property Tax*



Source: Kelly 2020

It can be concluded that property tax is a function of factors such as the *tax base, tax ratio, collection ratio, valuation, and coverage ratio*. However, these ratios are significantly influenced by political aspects such as governance and public acceptance, as well as the appeal and penalty system. This is summarized in Table below.

Table 3: *Property tax administration function and the four critical ratios*

S.N	Property Tax Function	Objective	Action	Critical Ratio
1	Base identification	To determine what will be taxed	Identify the tax base (land, building and/or machinery and equipment); Identify the exemptions from the tax base.	Coverage ratio
2	Tax Base	To determine how the tax burden will be distributed among the tax payers	Weight the tax base (either by area, by other characteristics or by value): Influence the distribution of tax burden among the taxpayers.	Valuation ratio
3	Tax Assessment	To determine how much tax will be levied: To determine how the tax burden will be distributed among tax payers	Determine the overall tax level; Influence tax burden distribution among tax payers through varying effective tax rates.	Tax ratio
4	Tax Collection	Tax collection	Issue and deliver tax bills; collect	Collection

S.N	Property Tax Function	Objective	Action	Critical Ratio
			the tax	/enforcement ratio
5	Tax Enforcement	To determine how much revenue will be collected through enforcement.	Enforce against non-compliance (sanctions and penalties)	Collection /enforcement ratio
6	Tax (and valuation) Appeals Resolution	To ensure that the tax is equitably administered	Resolve disputes concerning property information, valuation or tax assessment	Linked to coverage, valuation, and tax ratio.
7	Taxpayer Service	To provide services to the taxpayer.	Tax education; Tax payer services	Linked to collection ratio (i.e. good taxpayer service will encourage higher collection ratio

Source: Kelly (2000)

This literature review will discuss these ratios and their impact on property tax system performance as outlined by Kelly in 2020.

2.5.1 Tax Base

As mentioned above, the property tax base is determined by law, specifying what is included, such as land, buildings, machinery, and equipment, and what is excluded through implicit and explicit exemptions. Property tax laws or rules created by respective governments that control how property taxes work. They cover everything from how property values are assessed to how much tax property owners have to pay. The laws also explain any exemptions or deductions available and outline the process for appealing tax assessments. Each place might have slightly different rules, but they all aim to ensure fair and consistent property tax collection.In most countries, the property tax base comprises both land and buildings. However, some countries, like Jamaica, Kenya, and New Zealand, tax only land, while others, such as Ghana, Haiti, and Tanzania, tax only buildings. In certain jurisdictions, both land and buildings are taxed separately. (Kelly, 2020).

According to Bird and Slack (2004), in some countries where both land and buildings are subject to taxation, the tax burden on land is often greater than that on buildings or improvements.

2.5.2 Tax Liability Assessment(Tax Rate)

The Tax Liability Assessment involves applying the tax rate to the tax base, factoring in policies related to tax abatement and tax relief, which collectively determine the property's tax liability. Government policies set tax rates, which can either be a specified amount per property value under an ad valorem system or per property unit under a pure area-based rating system, influenced by the established tax rate structure and levels. Legal provisions typically outline tax abatements or relief programs, which can include fractional assessments, valuation deductions, credits, and other mechanisms.

Box 1: Property Tax in Japan (Assessment, Valuation and Exemption)

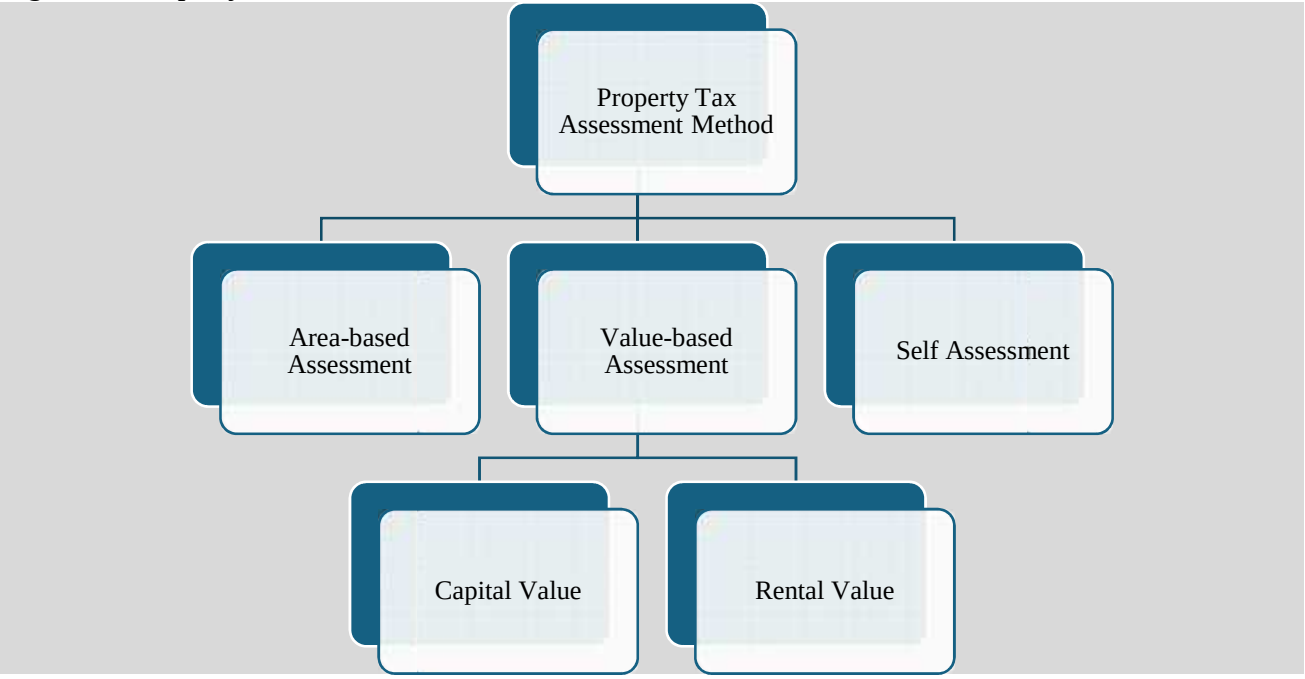
Japan: Property tax is assessed based on market value and re-evaluated every three years. The three main types of property taxes are fixed assets tax, city planning tax, and business premises tax, all administered locally. The standard property tax rate is 1.4%, and any increase must be approved by the Minister of Internal Affairs.

Japan's tax exemption system exempts properties with total land value under 300,000 yen and housing under 200,000 yen. Exemptions also apply to school dormitories, designated cemeteries, religious organizations, public interest groups, research teams, and educational institutions. Additionally, small-scale residential land benefits from reduction rights. The country has developed a mature and reasonable real estate tax system with differential tax rates (Dong and et al. 2022).

Once the taxable amount has been established, the next step is to determine the value to which the tax rate will be applied[3]. The following figure shows the assessment methods:

[3]Proportional rate: As the value of property rises the tax liability rises by the same percentage;
Progressive rate: As value/size increases, the tax takes an increasing percentage of value/m^2;
Regressive rate: As value/size increases, taxes take a smaller percentage of value/m^2.

Figure 3: *Property Tax Assessment Method*



Source: Author, 2024

Property taxation typically employs two main assessment methods: area-based assessment and value-based assessment. Value-based assessment is further categorized into capital value and rental value approaches. Additionally, various countries utilize other assessment systems like self-assessment, annual value, and site value, among others.

Table 4: *Property Valuation Assessment Method*

Assessment	Method	Nepal
Area-based Assessment	⁾ Charges per square of land or building space, or both combined. ⁾ Size of the building with location, building construction types, or depreciation, among others ⁾ Rates may vary; lower rates for buildings might encourage development. ⁾ Unit value assessment adjusts rates based on location or structure quality. ⁾ Market value indirectly influences assessment through adjustment factors (e.g: rates per square meter might vary by property zone, not specific location). ⁾ Adjustment factors are averages for groups of properties, not individual characteristics.	⁾ In the Plain region, land is assessed per *dhuro*r *kattha*, while in hilly and mountain regions, it's per *aana* or *ropani*. ⁾ Rates are typically lower than market value. ⁾ Assessment is based on government value or a hybrid of government and market value. ⁾ Buildings are assessed per square feet as per building structure and size.
Value based Assessment	***Capital Value***** ⁾ This method determines property value based on fair market sales with value related factors such as location,	

Assessment	Method	Nepal
(Capital Value and Rental Value)	building construction types, or depreciation, among others *(OECD, Latin American countries, South Africa, and UK for residential properties).* ⁾ Valuation methods include comparable sales, replacement costs, and income approach. ⁾ Trend shifting towards capital value basis for property taxation. ⁾ Requires data on sales and property attributes. ⁾ Mass valuation methods often used with adjustments for location and property characteristics. ⁾ Advanced techniques like regression analysis used in some high-income countries.	
	Rental Value** ⁾ Annual rental value systems estimate the typical rent needed for a property (Australia, India, Uganda, and the UK for non-residential properties). ⁾ Reflects market values based on property desirability and productivity. ⁾ Assessments may use rent surveys and expert valuations. ⁾ Methods include imputing rental values from known properties, converting sales data to rental values, or estimating rental value from property profits.	⁾ Challenges in Nepal due to limitedinformation about sales, rent costs etc. In absence the information, result often in substantial underassessment.
Self Assessment	⁾ Property owners set the value for their own property. ⁾ In Hungary, taxpayers must register and report their taxes. ⁾ The verification process- only checks property size (not market value) for building and idle land taxes.	Practices in some Local Levels as alternative method.

Source: *Kelly, 2020*

*****Note:*** *As with rental value system, capital value systems also require market data (sales, rents, costs) from various sources and skilled valuers. An appeals process and effective taxpayer communication are also essential.*

Regarding the tax rate and structures in unitary countries, these are established by national laws, while in federal countries, these are set by state or provincial laws. These laws may explicitly specify tax rates and structures or outline the parameters within which local governments have discretion to determine their own tax rates and structures. These parameters can provide the guidelines for setting minimum and maximum tax rates, criteria for determining taxable entities, and rules for how taxes are assessed and collected. However, in some countries, the tax rate is set by local government itself. The following Table shows the practices in different countries:

Table 5: *International Practices of Property Tax (Setting Tax Rate and Discretion Level)*

Country	Tax Rate Set by	Discretion Level
Columbia	Local Government	Within minimum and maximum levels
Ecuador	Local Government	Within minimum and maximum levels
Honduras	Local Government	Within minimum and maximum levels
Poland	District Government	Within minimum and maximum levels
Indonesia	Local Government	up to a maximum rate of 0.3%, no minimum level
Philippines	Local Government	Within a maximum tax rate level
Bangladesh	Local Government	Within a maximum tax rate level
USA	Local Government	Based on local revenue needs, sometimes with state caps or referendums
Canada	Local Government	Based on local revenue needs, sometimes with state caps or referendums

Source: *Kelly, 2020*
Note: *In Nepal, the property tax rate is set by Local Government with full discretion level.*

Internationally, statutory property tax rates vary from 0.5 to 1% on the capital value in the middle and high level countries. In the United States and East Asian countries, rates are approximately 1%, with slight variations among states. European property tax rates are generally reported to be around 0.7% of assessed values.

Box 2: Determining the Property Tax Rate based on Need (Budget Driven for Public Service):

Tax rates are either set by central or state governments or local governments are given discretion to set them within certain parameters. These rates are influenced by political and technical factors such as tax needs and affordability.

Taxing jurisdictions which begin with a given tax rate are sometimes called “rate-driven” or “value-driven” systems in contrast to a “budget-driven” property tax system (IAAO, 2020).

Jurisdictions that start with a fixed tax rate are called “rate-driven” or “value-driven” systems, where revenue is determined by property valuation levels. In such systems, accurate property valuations are crucial, but taxpayers may oppose revaluations fearing higher taxes, and valuers may hesitate to estimate high market values to avoid criticism. Conversely, in a “budget-driven” system, the property tax acts as a "residual" fund to cover budgetary needs for public services after accounting for other revenues. Here, jurisdictions calculate the required property tax rate based on their total expected expenditures and non-property tax revenues to balance the budget considering the required public services from property tax as follows.

$$R = (E - NPR)/AV$$

Where,

R = Rate

E = Expenditure needs for public services. This is estimated as per requirement for public services or infrastructure with administrative cost

NPR = Non Property Revenue i.e local tax, fees charges, inter governmental transfer etc. These amounts are estimated based on historical data and forecast of the revenue as potential.

AV= Assessed Value, which is calculated by assessing individual property values using market data, property characteristics, and valuation methods (mass appraisal/valuation[4] or individual value with average valuation), and then summing these values.

[4]The Local Government Rating Act, 2005 (Section 12) of Uganda mentions about the Mass Valuation method of Property Tax.

In a budget-driven system, a rise in property values typically results in a lower tax rate, provided spending needs remain steady. Here, total potential revenue isn't solely determined by property values, but also by the chosen tax rate. Property tax rates should reflect local decisions on service quality, revenue potential, and intergovernmental transfers. Affordability is key; rates must be set with consideration for taxpayers' ability to pay, potentially using benchmarks like property tax as a percentage of household income. For example, in Myanmar, the average residential property tax is akin to the cost of three cups of tea annually (Kelly, 2020, citing McDonald and Hein 2017), offering an accessible way to gauge affordability. Similarly, comparing property taxes to the cost of a pack of cigarettes or a dinner in a restaurant can provide additional insight into affordability for taxpayers.

Property rates for rental value systems also vary by country. In India, property taxes rangefrom 6–10%, depending on the cities. In Singapore, annual property tax rates are progressive, ranging from 0–8%.in Bangladesh includes four different rates applied to the annual rental value of a property—a maximum of 7% for the tax on land and building, 5% for streetlighting, 7% for conservancy, 3% for water for a total maximum holding tax rate of 22%(Kelly, 2020, citing Blochliger, 2015; Kopanyi and Murray, 2017).

2.5.3 Administration Variables

A. The Coverage Ratio (CVR)

CVR is calculated by dividing the number of taxable properties listed in the tax registry by the total number of taxable properties in a given area.This ratio measures the completeness of the tax roll information and is influenced by the administrative efficiency in identifying, capturing, and updating property data, as well as ensuring the correct application of legally approved exemptions.

$$CVR = \frac{Number\ of\ Taxable\ Properties\ in\ Registry}{Total\ Number\ of\ Taxable\ Properties}$$

The above ratio (CVS) helps to identify gaps where the registry needs improvement to ensure fair and accurate property taxation.For example, if there are 500 properties taxed out of a total of 600 taxable properties in a municipality, then the CVR would be 0.83. This implies

that 83% of taxable properties are included in the tax registry, indicating the comprehensiveness of tax roll information.

(B) The Valuation Ratio (VR)

VR is calculated by dividing the total value listed on the valuation rolls by the actual market value of the properties on the valuation roll. This ratio assesses how accurately the property valuation reflects market values, indicating the percentage of market value captured through the valuation process. The accuracy of this ratio depends mainly on how often and how precisely properties are valued.

$$VR = \frac{\textit{Value on Valuation Rolls}}{\textit{Real Market Value of Property}}$$

For instance, if the assessed value of a property is NPR 150,000 and its true market value is NPR 200,000, then the VR would be0.75. This indicates that the tax administration's assessment represents 75% of the property's actual market value.

(C) Tax Liability Assessment Ratio (TLR)

The TLR is calculated by dividing the actual tax imposed on a taxable property by the tax liability determined by legal mandate. This ratio assesses the precision of the tax administration in implementing the legally prescribed tax rates and applying tax relief or adjustment policies.

$$TLR = \frac{\textit{Actual Tax}}{\textit{Legally Mandated Tax Liability}}$$

For instance, if the legally mandated tax liability for a property is $1,000, and the actual tax imposed by the administration is $900, then the TLR would be 0.9(90%). This indicates that the tax administration is accurately levying 90% of the legally mandated tax liability.

(D) Collection Ratio (CLR)

CLR is defined as the annual tax revenue collected over total tax liability billed. This ratio measures collection efficiency on both current liability and tax arrears, determined largely by taxpayer compliance, taxpayer service, the effective use of incentives, sanctions, and penalties, and political will.

$$CLR = \frac{Actual\ Tax\ Revenue\ Collected}{Total\ Tax\ Revenue\ Owed}$$

The Collection Ratio measures the effectiveness of tax collection by comparing the actual tax revenue collected to the total tax revenue owed.

For example, if a municipality collected $800,000 in tax revenue out of a total owed amount of $1,000,000, then the Collection Ratio would be =0.80 or 80%. This indicates that 80% of the total owed tax revenue was successfully collected.

2.6 LEGAL PROVISION FOR SERVICE DELIVERY: INTERNATIONAL PRACTICES

The South African Constitution, specifically Section 229, confers municipalities with the authority to levy property rates and surcharges on service fees. Consistent with this constitutional provision, the Municipal Property Rates Act of 2004 was enacted. Under this legislation, metros and local municipalities are mandated to develop property rates policies. These rates primarily serve to finance essential municipal services, including roads and street lighting, through a general tax levied on all property owners within the municipality's jurisdiction (Pieters, 2015).

In Uganda, the Local Government Rating Act 2005 has given the mandatory to local government that all funds collected from property tax must be deposited into the Fund's account and can only be used for specified services such as road construction and maintenance, street lighting, anti-malarial drainage, garbage collection, and physical planning, as required by taxpayers in their respective areas. Additionally, it has alsostipulated that a minimum of 75% of these funds must be allocated to these services (LGAR 2005, Section 32, 2& 3).However, despite these provisions, the current level of infrastructure services remains inadequate compared to the increasing demands of the growing population densities, exacerbated by limited revenue sources (Kamba, 2007).

This legal provision, as exemplified by the South Africa and Uganda, serves as a valuable case study for Nepal in implementing similar measures for service provisioning through property tax.

2.7 ADMINISTRATIVE MECHANISM AND ICT FOR EFFECTIVE COLLECTION OF PROPERTY TAX

As per public finance theory, property tax is considered an ideal local tax. However, it is also a "data-hungry" tax, making proper administration challenging and expensive, particularly at the local government level where there is often a lack of capacity, skills, and resources. Due to its significant data requirements, the administration of property tax is well-suited to the implementation of modern information and communication technology (ICT) systems(McCluskey et al., 2019).

Box 3: Case Studies (Four African Cities from Three Countries):

Arusha (Tanzania): Implemented the Local Government Revenue Collection Information System (LGRCIS) in FY2013/14. This led to a 227% increase in total OSR collections and a 262% increase in property tax revenues by FY2015/16. The improvement was attributed to both the ICT system and enhanced data collection.

Kiambu (Kenya): Introduced CountyPro in FY2014/15. The initial results showed a 7% increase in property tax revenue and a 15.5% increase in OSR in 2015/16. However, by FY2016/17, OSR collections decreased by 15.3%, primarily due to political interference and enforcement issues rather than the ICT system itself.

Kitwe and Ndola (Zambia): Both cities still rely on manual administration. Despite this, their OSR collections per capita are comparable to those of Arusha and Kiambu. Financial statements indicated declines in OSR collections over the years, raising questions about the potential benefits of modernizing their systems.

Source: McCluskey et al., 2019

Local governments have increasingly turned to ICT to enhance property tax collection and other own-source revenues (OSRs). These ICT systems facilitate efficient administration by managing large volumes of data on taxable properties and taxpayers, improving service delivery, and reducing compliance costs. Despite this, over the past 40 to 50 years, studies have consistently shown that weak administration is a primary cause of poor revenue performance, including problems with data compilation and management, lack of transparency, ineffective billing and collection and collection methods, and insufficient enforcement mechanisms, including political interference (McCluskey et al., 2019).

Box 4: Case Study (Online Payment in Bangalore, India)

Computerized register of properties and taxpayer education helps to introduce on-line payment of the tax. This is extremely important to avoid a constant interface between the taxpayer and collector. This will improve tax compliance and significantly reduce the compliance cost. While some of the municipal corporations like Bangalore have facilitated the tax payments by having online payment tax, many others, including Delhi have not. It is important to ensure ease of tax payments including the online payments

Source: Rao, 2013

In line with growth of Information and Communication Technology (ICT), ICT is considered as one of the factors that affect tax revenue in a region or country. The amount of the use of ICT in the tax administration system creates an assumption that the use of ICT is a factor which affect the tax revenues, but these factors have not been included in the recent study above (Nugrahani et al, 2022). Tax revenues are

impacted by tax policy, tax administration, taxpayer compliance, and government enforcement. The advancements in information and communication technology (ICT) over the past decades, particularly in electronic tax filing and payment, have provided numerous opportunities for revenue agencies to boost government revenue, enhance efficiency, and improve service quality for taxpayers. This technological progress also helps reduce the compliance burden on taxpayers, lowers government administration expenses, and strengthens enforcement measures (OECD, 2017).

The above statements confirm that the use of ICT are positively related to tax revenue. However, in Indonesia, ICT relation is not so significant to the Provencial level government'stax revenue. This can be explained because the mechanism for online motor vehicle tax application still recognize as semi online, which is requires taxpayers to come to office (Samsat) to exchange the validation papers/sheet, therefore it still considered complicated by the public. In this case of Indonesia, ICT tools are only part of the solution for revenue administration. They improve transparency and efficiency, but they don't directly address enforcement challenges. However, they can empower authorities to better tackle tax issues. So, combining ICT with effective enforcement efforts can lead to better revenue collection over time.

2.8 PROPERTY TAX FOR PUBLIC SERVICES

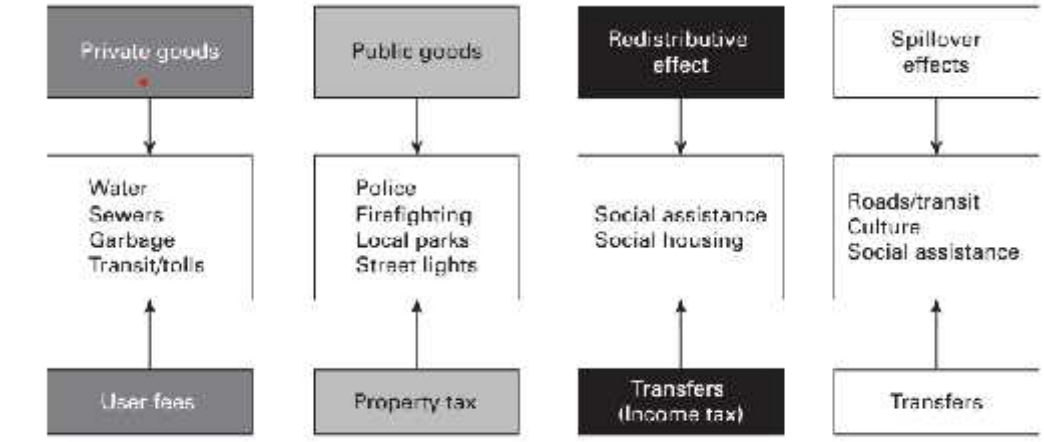
As per principle of local revenue management, municipalities should directly link the services (private goods and public goods) they provide with the revenue sources necessary to fund them. The property tax differential represents the difference between the value of local public services a property owner receives and the property taxes they pay.

Property Tax Differential=Benefits−Taxes

It highlights the link between property taxes and public services by showing whether property owners are getting more or less in services than what they are paying for through their property taxes. This concept helps to evaluate the fairness and efficiency of the property tax system in funding local public services.

The beneficiaries of services should bear the financial burden, whether directly or indirectly, adhering to the "general benefit principle." This principle suggests that private goods, which can exclude non-paying individuals (such as electricity, water, urban transport, waste management, and parking), can be effectively funded through fees or user charges. Conversely, public goods like parks, street cleaning, and lighting should primarily be financed through local taxes (e.g. property tax).

Figure 4:*Benefit Principle of Municipal Finance*



Source: Slack 2008

Additionally, considerations like externalities and redistributive spillovers should be addressed, with the central government providing partial funding for these services. Education and cultural services present a nuanced scenario; if treated as private goods, beneficiaries should bear the cost with potential contributions from local taxes, supplemented by grants. However, if viewed as public goods crucial for enhancing a country's human capital, central government grants are typically justified (Slack, 2009, as cited in Farvacque-Vitkovic&Kopanyi, 2014).

2.9 REVIEW OF EARLIER STUDIES

The limited reports are available on the Nepalese property tax system. These reports have been conducted by some researchers. A concise review of previous research on Nepal's property taxation is summarized below. The aim of this review is to highlight significant contributions made in the field of property taxation in Nepal and to identify existing research gaps.

Dahal (2016)analyzed Ghorahi Municipality's property tax system and highlighted issues like corruption in tax authority, lack of appropriate information, inappropriate tax rate and inefficient tax collection. He has analyzed the property tax contribution in total revenue and own source revenue of the municipality with its trend analysis of last six years. This thesis has recommended better training for staffs, clear policy for implementation and computerized billing system.

The study by ***Upadhyay and Manandhar (2016)*** investigates the contribution of integrated property tax to own-source revenue in three Nepalese municipalities: Damak, Hetauda, and Birendranagar. Through a sample of 500 respondents, including municipal policy advisors and taxpayers, the research reveals that integrated property tax exhibits fluctuating contributions to own-source revenue over a six-year period. Despite this, Damak municipality stands out with the

highest contribution percentage. Municipal stakeholders, including policy advisors and taxpayers, view integrated property tax as a promising revenue source for Nepalese municipalities, underscoring its potential for bolstering municipal finance.

Sharma (2013) focused on the local tax structure of Pokhara Sub Metropolitan City (PSMC) and analyzed the contribution of local taxes to total revenue. He found that PSMC's tax collection efficiency was poor, with ineffective procedures and low taxpayer compliance. Sharma recommended motivational activities for taxpayer registration, an advanced billing system, a Revenue Improvement Action Plan (RIAP), better tax assessment, and consultation with stakeholders.

Adhikari (2012) studied the contribution of house and land (property) tax to the total revenue of Vyas Municipality. The main objective of his study was to examine and analyze the role of property tax in revenue collection within the municipality. He concluded that the trend analysis indicated a slow but steady growth in property tax revenue. Adhikari suggested that by focusing more on providing quality services, the municipality could significantly increase its property tax collection in the future.

Kapri (2011) studied the contribution of house and compound tax to the annual budget of Bhaktapur Municipality. The main objective was to examine the role of property tax in revenue collection. Kapri found that taxpayers were generally unaware of their house and land tax obligations. There was a discrepancy between budgeted and actual collections, with revenue not increasing as expected despite rising property values. Many taxpayers failed to pay on time due

to lack of awareness. Kapri recommended that the municipality should inform taxpayers of their tax liabilities in advance and implement an effective billing system. Additionally, he suggested enforcing standard penalty procedures against tax defaulters.

Shrestha (2010) used statistical tools and both primary and secondary data to study and analyze the house and land tax system of Lalitpur Sub Metropolitan City (LSMC). She concluded that most Nepalese people are unaware of property tax. Due to a lack of tax education, property owners are unaware of their tax obligations. Properly informing them about property tax could increase tax revenue and timely payments. She also pointed out significant weaknesses in tax administration and collection. There needs to be a high degree of honesty and integrity in the system. To improve the property tax system, she recommended promoting house and land tax rates, discount rates, prices, and other incentives through newspapers, TV, and radio to attract and motivate taxpayers.

Dahal (2008) studied the house and land tax in Dharan Municipality, emphasizing its importance as a source of revenue. He identified issues like tax evasion and inefficient tax administration, pointing out the lack of clear valuation rules for assets. Dahal suggested that improving tax education, decentralizing authority, and simplifying tax laws could enhance tax administration. He noted that taxpayers were reluctant to pay without compulsion and that tax collection efforts were ineffective.

Conclusion

Previous studies in Nepal have largely concentrated on the quantitative contributions of property tax to municipal revenue. However, international literature highlights the pivotal role of robust policy frameworks and administrative capacities, particularly enhanced through ICT, in ensuring effective property tax systems. These systems span the entire tax cycle, from the identification of taxable properties to providing services to be linkage between property tax and public service.

The main objective driving property tax reforms, as highlighted in this study, is to comprehensively assess and improve the property tax system in Nepal, with a case study in Budhanilkantha Municipality, to enhance public service delivery.

No existing research comprehensively addresses the property tax system within the scope mentioned above. This study aims to fill this research gap by focusing on these critical aspects, ensuring a more effective and equitable property tax system for improved urban service delivery in the Municipality.

CHAPTER 3: RESEARCH METHODOLOGY

This chapter describes the research methods used, providing justification for each. It details the research type and strategy and then explains the tools and strategy used for data collection. The chapter also covers the scope, samples, data collection procedures, and analysis techniques, concluding with a summary. The primary aim is to show how qualitative data was gathered, analyzed, and presented.

3.1 PHILOSOPHY OF RESEARCH

The philosophy of this research is interpretivism, which aligns with the qualitative nature of the research. This approach is suitable for policy and practices of property tax system in Budhanilkantha Municipality.

Epistemologically, the study follows an interpretivist approach, focusing on the subjective experiences and knowledge of the municipal officials involved in the property tax system ((elected representatives, staffs of revenue section and ward offices).

Ontologically, it adopts a constructivist perspective, viewing the reality of property tax administration as constructed through the interactions and perceptions of various stakeholders (elected representatives, officers and staffs of revenue sections with ward office and views of experts involving in local tax with property tax system.).

By aligning the chosen methods with these philosophical considerations, the study aims to provide a comprehensive understanding of the factors influencing property tax administration and its effectiveness in Budhanilkantha Municipality

3.2 TYPE OF RESEARCH AND STRATEGY

Based on the problem definition, questions, and objectives, a case study is the best approach because the research is exploratoryand descriptive. The focus is on current events, specifically property taxation reforms, making a case study the most suitable method; and how the property taxation system works in area of Budhanilkantha Municipality and how it can be improved to better deliver urban services.

3.2.1 Research Instruments

This study adopts an exploratory research design to investigate the property tax system in Budhanilkantha Municipality. This approach allows for an open-ended exploration of the system's functionality. Data were collected using focus group discussions (FGDs), key informant interviews (KIIs), and questionnaires directed at experts in local taxation (see Annex -1 and Annex-2 below).

Focus group discussions were conducted with elected representatives, officials from the Revenue Section, and Ward Offices of the municipality. Views of experts working in local tax were collected through questionnaires. Additionally, interviews were conducted with officers of the Land Revenue Office.These methods enabled the gathering of diverse perspectives and insights on various aspects of the property tax system, including policies, administrative processes, and technology use.

3.2.2 Research Scope and Sample

The study focuses on Budhanilkantha Municipality, examining its current property tax system to identify areas for reform due to inherent weaknesses. The research includes municipal officials, experts involved in taxation, opinion leadersas key respondents. Budhanilkantha Municipality

was chosen for its urban significance, high property values adjoining with Kathmandu Metropolitan City- capital city of Nepal, and demand for urban services. The following sample methods were used.

Purposive Sampling: Key respondents such as elected representatives, staffs of Revenue Section and Ward Offices involved in tax collection were specifically chosen for their direct involvement and expertise in the property tax system. For this purpose, an open-ended questionnaire were developed

In addition to purposive sampling, ***Convenience Sampling*** was also used as Researcher created the Google Form and sent the questionnaire ***(Annex-2)*** to Tax Experts via email.

This approach allowed for thorough data collection and analysis, leveraging the knowledge and experience of those directly involved in property taxation and administration.

3.3 DATA COLLECTION

Two methodologies for data collection were utilized in this study. Primary data was gathered through interviews and focus group discussions (FGDs), while secondary data was obtained through desk studies involving document reviews. Further elaboration on these methods is provided below.

3.3.1 Secondary Data

A comprehensive review of books, journals, reports, unpublished papers, and online resources was conducted to shape the research framework. This included identifying relevant theories, aligning study objectives with existing knowledge on property tax system and its reforms, and identifying gaps compared to previous research. This desk study supported to establish the

theoreticalframework before fieldworks. It focused on understanding experiences related to implementing reforms in municipalities and examining the challenges and benefits associated with a functional property tax system. Detailed findings are presented in Chapter Four and Five below.

3.3.2 Primary Data

Primary data collection involved structured interviews with Elected Representatives including Ward Chairpersons, Revenue Officers and Ward Office Revenue Staff of Budhanilkantha Municipality. Questionnaires were also developed and sent to the key experts involved in the Revenue Improvement Action Plan for Local Levels and Senior Officials from other municipalities as well. Informal discussions were held with Government of Nepal officials serving in various local levels. In-depth interviews with municipal officials provided detailed information on system operations, challenges, and recommendations for reform.

3.4 DATA ANALYSIS AND PRESENTATION

The analysis of property tax functionality employed a qualitative framework integrating interviews and observations. Elected representatives, Staffs or Revenue Section and Ward Office of the municipality and Expert views or responses were integrated to identify commonalities and distinguish tax administration improvement with policy changes. All their opinions, gathered through interviews, were categorized into proposed reforms. Direct observations provided insights into daily operations and were integrated into the analysis.

The study investigated the relation between an enhanced property tax system and urban service delivery by examining service limitations, funding dynamics, and taxpayer services.

Municipality data on property tax potential and collection rates were analyzed. The property tax with ward level services were also analyzed in relation to service delivery outcomes.

3.5 UNITA OF ANALYSIS, VARIABLES AND INDICATORS

The unit of analysis in this study is the property tax system of Budhanilkantha Municipality. This study aims to analyze the functionality of the property tax system by examining various factors that influence its efficiency and effectiveness.

As per the topic of this study, the variables and indicators were developed during the literature review and detailed in the conceptual framework in Chapter Two. These variables include:

3.5.1 Policy Variables:

- *Tax Base Definition:* Land and Building
- *Assessment Criteria:* The methods and standards used to assess property values.
- *Tax Rate Structures:* The structure of tax rates applied to different property types.
- *Exemptions:* The categories of properties that are exempt from taxation.

3.5.2 Administrative Variables:

- *Property Identification*: The systems, process and technology used to identify and record properties.
- *Valuation Methods:* Approaches used to determine the value of properties (government, market or both etc).
- *Billing and Collection Processes:* Procedures for issuing tax bills and collecting payments.

- *EnforcementMechanisms*: Methods used to ensure compliance with property tax laws and regulations.

3.5.3 Technological Variables:

- *Use of ICT:* Implementation of Information and Communication Technology in property tax administration.
- *GIS Mapping:* Utilization of Geographic Information Systems for accurate property identification and valuation.
- *Online Payment Systems:* Availability and effectiveness of online platforms for property tax payments.

These variables and indicators provide a comprehensive framework for analyzing the property tax system in Budhanilkantha Municipality, helping to identify strengths, weaknesses, and areas for improvement.

3.6 RELIABILITY AND VALIDITY

In the context of this research, interviews and questionnaires (open-ended) were used to collect data. These instruments were designed to ensure that the same questions were asked in the same way to all respondents, minimizing variations in responses due to differences in the way questions were posed. The interview guides and questionnaires were pre-tested on a small sample of respondents before the actual data collection began. This helped to identify any ambiguities or inconsistencies in the instruments, allowing for adjustments to be made to improve reliability.

The content validity of the instruments was ensured by reviewing relevant literature and consulting with experts, including those who used the questionnaire for the Revenue Improvement Action Plan (RIAP) and the Revenue Section of the Budhanilkantha Municipality in property taxation. This process guaranteed that the instruments comprehensively covered all aspects of property taxation relevant to the research questions.

3.7 RELIABILITY AND VALIDITY

- The purpose of the study was explain clearly to all the participants prior to the datal collection.
- Written and verbal consent from the respondents were taken.
- The respondents were not forced if they don’t want to respondent.
- The information provided by the respondents will be confidential, unanimous and private.
- The information collected for this research study will not be used in other study or other purpose without consent of particular respondent.
- The photographs were not taken and used as per the request of respondent inside the municipality and ward offices.

Conclusion

This study aims to analyze the functionality of the property tax system in the local context, focusing on identifying current bottlenecks and developing improvement proposals. A case study approach was chosen to address the ***"what"*** and ***"how"*** questions. Qualitative methods, particularly open-ended interviews, were employed for data collection. The researcher conducted the interviews independently due to the topic's unique nature. The study focuses on property taxation withinBudhanilkantha Municipality, Kathmandu.

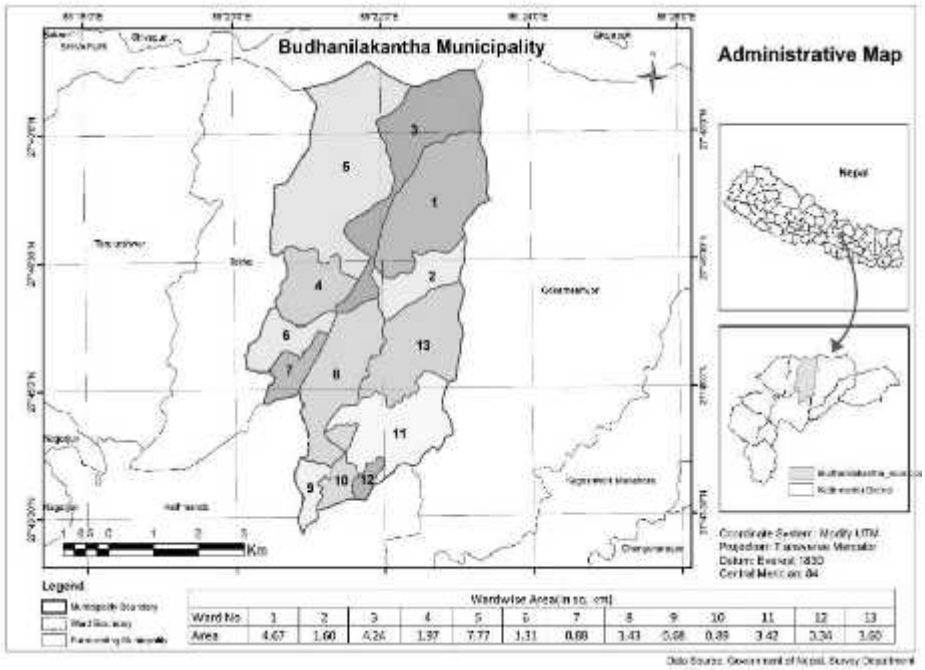
CHAPTER 4

PROPERTY TAX: CASE STUDY OF BUDHANILKANTHA MUNICIPALITY

This chapter describes Budhanilkantha Municipality and provides its geographical and historical context including property tax and condition of urban service provisions since the municipality was established after the new federal governance system in the country. It highlights the level of property tax revenue, efforts made by the municipality for its reformfrom identification of the tax payers to collection. The chapter concludes by noting that the municipality is losing about63% of its property tax revenue.

4.1 BACKGROUND OF THE BUDHANILKANTHA MUNICIPALITY

Budhanilkantha Municipality, located in Bagmati Province within the Kathmandu district, holds significant historical importance as Nepal's second-largest municipality in terms of population among all 293 municipalities. It was established by a ministerial decision of the Government of Nepal, then Ministry of Federal Affairs and Local Development, on December 2, 2014 (Mangsir 16, 2071 BS). Initially, the municipality was formed by merging six Village Development Committees (VDCs):



Chapali, Bhadra Kali, Khadka Bhadra Kali, Chunikhel, Mahankal, Bishnu Budhanilkantha, and Kapan. It was originally divided into 19 wards but was restructured into 13 wards on March 10, 2017 (Falgun 27, 2073 BS) to align with the country's transition into a federal democratic republic system.

***Table: 6** Brief Information of Budhanilkantha Municipality*

Area in Sq. Km.	34.80
Population (2021)	177,557
No. of Households (2021)	46,930
Proposed Center	Office of Budhanilkantha Municipality
Number of Wards	13
Boundaries	
East	Gokarneshwor Municipality
West	Tokha Municipality
North	Nuwakot District
South	Kathmandu Metropolitan City

***Source:** Government of Nepal, Nepal Gazette, 2073 Falgun 27, number 58&NSO census 2021 with (DEGURBA) January 2024- page # 46*

A brief overview of the new municipality following the federal governance system is presented in Table below.

***Table 7**: Budhanilkantha Municipality: Area, Population and Households*

S.N.	New Ward	Included VDCs/Municipalities (ward no)	Area (sq. km)	Population (2021)			Households (2021)
				Male	*Female*	*Total*	
1	1	Budhanilkantha (1)	2.36	3971	4107	8078	2130
2	2	Budhanilkantha (2,3)	2.52	5596	5806	11402	2877
3	3	Budhanilkantha (4)	2.34	3955	4049	8004	2090
4	4	Budhanilkantha (5)	2.38	4614	4883	9497	2431
5	5	Budhanilkantha (6)	2.30	3641	3791	7432	1985
6	6	Budhanilkantha (7)	2.41	5875	5928	11803	3135
7	7	Budhanilkantha (8)	2.54	3165	3270	6435	1696
8	8	Budhanilkantha (9,10)	2.45	9432	9586	19018	5037
9	9	Budhanilkantha (11)	2.29	4880	5070	9950	2593
10	10	Budhanilkantha (12)	2.34	16507	17116	33623	9353
11	11	Budhanilkantha (13,18,19)	2.55	11164	11478	22642	5914
12	12	Budhanilkantha (14)	2.39	9463	9962	19425	5211
13	13	Budhanilkantha (15,16,17)	2.49	5074	5174	10248	2478
Total				**87337**	**90220**	**177557**	**46930**

Source: Gazette 2016 and DEGURBA 202, page # 46.

According to the "Degree of Urbanization (DEGURBA)" report published by NSO (previously CBS) in January 2024, only ward no 5 in Budhanilkantha Municipality is classified as *peri-*

urban, while the remaining 12 wards (1,2, 3, 4, 6, 7, 8, 9, 10, 11, 12, & 13) are classified as *urban* based on the criteria.

Table 8: *Types of House and Numbers based on Construction Materials*

Types of House	Number of Households	%
Mud Bonded Brick Stones	1373	3%
Cement bonded bricks/ stone	13159	28%
Reinforced Cement Concrete with pillars	30576	65%
Wooden pillars	1401	3%
Other	421	1%
Total	**46,930**	**100%**

Source: NSO census 2021 (DEGURBA January 2024)

4.1.1 Current Land Use

The total area of Budhanilkantha Municipality is 34.80 sq. km. The land use details are as follows:

Table 9: *Land Use of the Municipality (Area in Sq. Km)*

S.N	Area	Sq.KM
1	Residential	12.67
2	Agriculture	6.80
3	Forest	9.87
4	Grass lands	0.22
5	Shrublands occupy	5.00
6	Riverbeds and rocky areas	0.02
Total		**34.80**

Source: GIS Mapping and Budhanilkantha Municipality 2075

4.1.2 Geographic and Administrative Boundaries

Budhanilkantha Municipality, named after a renowned religious site, is one of the 11 municipalities in the capital city of Kathmandu, Nepal. To the north, it borders the Shivapuri Nagarjun National Park, which is adjacent to rural municipalities of Nuwakot district. To the south, it is bordered by wards 3, 4, 6, and 7 of the Kathmandu Metropolitan City and ward 4 of Tokha Municipality, specifically Dhapasi. Tokha Municipality lies to the west, while Gokarneshwor Municipality and ward 6 of the Kathmandu Metropolitan City are situated to the east.

4.1.3 Population and Household

According to the 2021 census, the population of Budhanilkantha Municipality was 177,557, which is approximately 0.61% of the total population of Nepal (29,164,578). Budhanilkantha has 46,930 households, which represents 0.70% of the total households in Nepal (6,660,841) and 1.05% of the total households in the 293 urban municipalities (4,474,699).

4.1.4 Forests, Rivers, and Waterways

Budhanilkantha Municipality is notable for its diverse natural features, including forests, rivers, and waterways.To the north, the municipality is characterized by the Shivapuri mountain range, which is covered with lush green forests. This area forms part of the Shivapuri Nagarjun National Park, a protected area that provides a natural habitat for a wide variety of flora and fauna. In addition to this, the municipality contains public community forests and traditional green spaces, which offer recreational opportunities for residents and contribute significantly to the local environment's health and sustainability.

Several rivers and streams flow through Budhanilkantha Municipality, including the Bishnumati, Rudramati, Dhovikhola, and Yagyamati. These waterways are crucial for maintaining the local ecosystem and supplying water for various uses within the municipality. The rivers and streams enhance the natural beauty of the area and play a vital role in sustaining its ecological balance.

The forests, rivers, and waterways collectively define the natural landscape of Budhanilkantha Municipality, providing both ecological benefits and recreational spaces for its residents.

4.1.5 Cultural and Religious Sites

Within the municipality, there are several notable temples, including the Budhanilkantha Temple, Chandeshwari Temple, Rudreshwar, Bhadrakali, Panchakanya, Shiva, and Krishna temples. It

also hosts prominent Buddhist monasteries such as Anigumba and other religious centers catering to various faiths.

4.1.6 Governance

Following the local elections, the newly formed municipal executive has committed to ensuring good governance. In line with this policy, it decided in its first meeting to establish 13 separate ward offices to provide accessible services to the public. These offices, which were previously operating jointly, began functioning independently from the 1st of Shrawan in the fiscal year 2075/76 (2018/19).

4.2 MAJOR INFRASTRUCTURE IN THE MUNICIPALITY

4.2.1 Major Road Network

According to the recently developed Municipal Transportation Master Plan, Budhanilkantha Municipality has several RCC (reinforced concrete cement), paved, gravel, and earthen roads. This plan details all types of roads within the municipality that are operational year-round, including comprehensive information about major roads. The master plan lists a total of 236 roads by ward (Municipal Profile, 2075).

4.2.2 Bridges

Budhanilkantha Municipality features various types of bridges, including RCC and wooden or bamboo bridges. Key bridges include JyamleKhola, Nilopul, Dhovikhola Concrete Bridge, BishnumatiKhola, Sapredhunga, Miteri, Hepali, Nikhileshwar (Sundar Mitranagar), and another Nikhileshwar (Municipal Profile, 2075).

4.2.3 Communication and Technology

Telecommunication services in the municipality are provided by Nepal Telecom and Ncell. Modern communication facilities such as postal services, private courier services, telephones, fax, and the internet are available. Additionally, services are accessible through cyber cafes, hotels, lodges, schools, and colleges, enhancing public access to telecommunication (Municipal Profile, 2075).

4.2.4 Economic Activities Within the Municipality

Economic development plays a crucial role in social, cultural, and physical transformation, guiding the pace and direction of societal change. Societies with strong economic foundations can readily embrace new transformative activities. Economic development is considered the leading form of development, significantly influencing social activities, behaviors, values, and relationships. Prosperous individuals have better access to education, health, communication, food security, and nutrition, fostering the development of scientific outlooks and societal norms. Consequently, communities become more engaged in adopting new values, customs, systems, and behaviors (Municipal Profile, 2075).

Local governments prioritize economic development, promoting physical infrastructure, modern agricultural systems, and industries. In Budhanilkantha Municipality, a minority of the population is engaged in agriculture, while the majority work in various sectors, including government, NGOs, INGOs, businesses, trade, daily wages, and industries. Despite the lack of large industries, many residents are employed. According to a basic survey, the population distribution across various professions is as follows:

Table 10: *Professional Distribution by Percentage in Budhanilkantha Municipality*

S.N	Profession	Percentage
1	Agriculture	10.43%
2	Jobs	30.65%
3	Business	22.97%
4	Foreign Employment	8.55%
5	Doctors	2.46%
6	Engineers	0.48%
7	Lawyers	0.87%

Source: Municipal Profile, 2075

This table reflects the diverse employment landscape within Budhanilkantha Municipality, highlighting the economic activities and professional engagement of its residents.

4.3 FINANCIAL STATUS OF BUDHANILKANTHA MUNICIPALITY

Since the promulgation of the Constitution of Nepal in 2072 BS (2015 AD) and the establishment of the federal democratic republic system, laws such as the Local Government Operation Act, 2074 (2017 AD), and the Intergovernmental Fiscal Management Act, 2074 (2017 AD), have strengthened local governments. As per Schedule 8 of the Constitution of Nepal, local governments are authorized to levy property tax, house tax, house registration fees, vehicle tax, land revenue, entertainment tax, advertisement tax, business tax, and fees for non-tax services, fines, tourism tax, and penalties. The Local Government Operation Act, 2074 (2017 AD), specifically Sections 54 to 63, empowers local governments to determine and collect tax and non-tax rates, including property tax. The Act also specifies provisions in other tax and non-tax areas, allowing rate determination and collection at either the Provincial or Local Level, with provisions for sharing revenues between them. Additionally, local governments receive grants and revenue-sharing from the federal and provincial governments.

Budhanilkantha Municipality, like other local governments, exercises its authority to set tax rates and collect revenues through its own Fiscal Act, encompassing various taxes and non-tax revenues. Operating within this framework, Budhanilkantha Municipality actively engages in tax collection and benefits from grants and revenue-sharing.

The following table provides a comprehensive analysis of revenue sources of Budhanilkantha Municipality over five fiscal years since the new constitution and establishment of Nepal's federal democratic republic. It outlines the Municipality's financial performance against estimated budgets and actual figures, highlighting significant trends and variations:

Table 11:*Budhanilkantha Municipality- Budget and Actual Revenue with Realization in % (FY 2076/77-FY 2079/80)*

S.N	Revenue Source	FY 2075/76 (2018/19)	FY 2076/77 (2019/20)			FY 2077/78 (2020/21)			FY 2078/79 (2021/22)			FY 2079/80 (2022/23)		
		Actual	*Estimated*	*Actual*	*%*	*Estimated*	*Actual*	*%*	*Estimated*	*Actual*	*%*	*Estimated*	*Actual*	*%*
1	Land Tax	5,491	6,000	4,577	76%	6,000	2,769	46%	5,000	2,632	53%	5,000	2,491	50%
2	Property Tax	62,856	70,000	53,722	77%	70,000	66,410	95%	75,000	82,790	110%	80,000	92,413	116%
3	Rent Tax	20,147	20,000	40,497	202%	45,000	53,981	120%	55,000	68,740	125%	60,000	97,609	163%
4	Business Tax	6,751	15,000	12,570	84%	25,000	20,266	81%	25,000	18,638	75%	30,000	24,136	80%
5	Advertisement Tax	-	2,000	1,413	71%	2,000		0%				1,000	464	46%
6	Entertainment Tax		-	-										
7	House and Land Registration Fees	135,900	470,000	643,417	137%	562,132	584,232	104%	610,873	782,044	128%	512,356	408,882	80%
8	Other Tax		-	-										
9	***Local Tax (1+….8)***	***231,145***	***583,000***	***756,196***	***130%***	***710,132***	***727,658***	***102%***	***770,873***	***954,844***	***124%***	***688,356***	***625,995***	***91%***
10	Building Permit	63,235	50,000	48,295	97%	70,000	62,489	89%	75,000	90,696	121%	75,000	99,949	133%
11	Recommendation Fees	25,815	35,000	24,571	70%	35,000	37,832	108%				35,000	32,311	92%
12	Penalty/Fines	742	2,000	878	44%	2,000	1,925	96%	2,000	2,755	138%	2,000	9,513	476%
13	*DahattarBahattar* (Riverine Debries)	3,202	5,000	4,629	93%	7,000	7,738	111%				4,500	345	8%
14	Parking fees		100	-	0%									
15	Other Service fees	38,935	-	7,480		121,387	2,485	2%	35,000	41,471	118%		9,796	
16	***Non Tax (10+...15)***	***131,929***	***92,100***	***85,853***	***93%***	***235,387***	***112,469***	***48%***	***112,000***	***134,922***	***120%***	***116,500***	***151,914***	***130%***
17	**Own Source Revenue (9+16)**	**363,074**	**675,100**	**842,049**	**125%**	**945,519**	**840,127**	**89%**	**882,873**	**1,089,766**	**123%**	**804,856**	**777,909**	**97%**
18	Revenue Sharing from Province (Vehicle Tax)	29,050	37,203	33,663	90%	40,923	11,869	29%	44,053	46,410	105%	51,041	47,551	93%
19	Revenue Sharing from Federal (VAT, Excise Duty & Royalty)	87967	132,000	89,281	68%	108,911	139,581	128%	108,670	128,521	118%	131,641	95,116	72%

S.N	Revenue Source	FY 2075/76 (2018/19)	FY 2076/77 (2019/20)			FY 2077/78 (2020/21)			FY 2078/79 (2021/22)			FY 2079/80 (2022/23)		
		Actual	*Estimated*	*Actual*	%	*Estimated*	*Actual*	%	*Estimated*	*Actual*	%	*Estimated*	*Actual*	%
20	Royalty from federal government					1,000	545	55%	1,000	429	43%	1,000	595	60%
21	**Revenue Sharing (18+…20)**	**117,017**	**169,203**	**122,944**	**73%**	**150,834**	**151,995**	**101%**	**153,723**	**175,360**	**114%**	**183,682**	**143,262**	**78%**
22	Fiscal Equilization Grant	10,116	12,023	12,023	100%	11,871	11,871	100%	25,098	25,098	100%	30,073	30,073	100%
23	Conditional Grant	34,925	1,559	10,559	677%	39,820	39,820	100%	24,224	24,224	100%	20,781	20,781	100%
24	Matching Grant	10,000		19,931		29,812	29,812	100%	29,925	29,925	100%	29,935	29,935	100%
25	Special Grant			4,253		3,500	3,500	100%				7,500	7,500	100%
26	Others Grant	6,000		70										
27	**Provincial Grant (22+...26)**	**61,041**	**13,582**	**46,836**	**345%**	**85,003**	**85,003**	**100%**	**79,247**	**79,247**	100%	**88,289**	**88,289**	**100%**
28	Fiscal Equilization Grant	257,100	265,100	265,100	100%	260,300	260,300	100%	278,300	278,300	100%	293,900	271,858	93%
29	Conditional Grant	164,850	159,300	201,976	127%	301,000	337,456	112%	285,300	332,751	117%	356,500	374,669	105%
30	Matching Grant													
31	Special Grant								16,600	16,600	100%	20,000	20,000	100%
32	Social Security Grant	58,385												
32	Others Grant	45,020		2,114										
33	**Federal Grant (28+…32)**	**525,355**	**424,400**	**469,190**	**111%**	**561,300**	**597,756**	**106%**	**580,200**	**627,651**		**670,400**	**666,527**	**99%**
34	**Other Income**	**10,000**											29,702	
35	**Opening Balance**		**191,771**	**204,301**			**933,476**					1,502,773	1,584,969	105%
36	**TOTAL REVENUE (17+21+27+33+34+35)**	**1,076,487**	**1,474,056**	**1,685,320**	**114%**	**1,742,656**	**2,608,357**	**150%**	**1,696,043**	**1,972,024**	**116%**	**3,250,000**	**3,290,658**	**101%**

Source: Annual Planning and Budget of Budhanilkantha Municipality (FY 2075/76-2079/80)

4.3.1 Performance of Property Tax

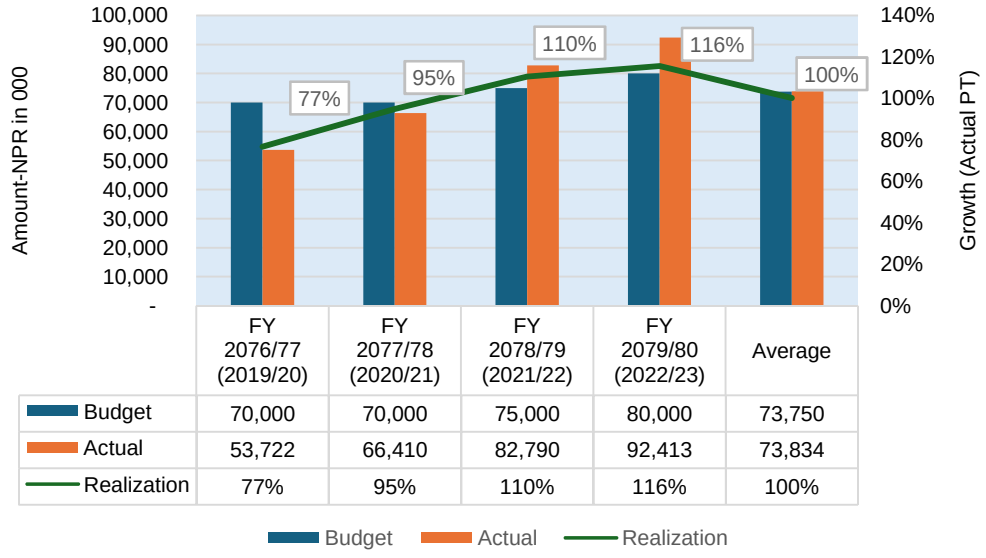
The following table shows the realization, weightage, and incremental growth of property tax over last five fiscal years. It provides insight into how closely actual property tax revenues align with budgeted amounts, the significance of property tax within various revenue categories, and the year-on-year growth in property tax and other related revenues.

Table 12:*Property Tax Performance Indicator (FY 2075/76-2079/80)*

Indicators as Performance	FY 2075/76 (2018/19)	FY 2076/77 (2019/20)	FY 2077/78 (2020/21)	FY 2078/79 (2021/22)	FY 2079/80 (2022/23)	Average
Realization						
Budget vs Actual		77%	95%	110%	116%	99%
Weightage						
Property Tax in Local Tax	27%	7%	9%	9%	15%	13%
Property Tax in Own Source Revenue	17%	6%	8%	8%	12%	10%
Property Tax in Total Revenue	6%	3%	3%	4%	3%	4%
Incremental						
Property Tax		-15%	24%	25%	12%	11%
Local Tax		227%	-4%	31%	-34%	55%
Own Source Revenue		132%	-0.23%	30%	-29%	33%
Total Revenue		57%	55%	-24%	67%	38%

Realization: the average realization over these years is close to 100%, indicating that, on average, the actual property tax revenue was very close to the budgeted amounts. The upward trend from FY

Chart#1: **Budhanilkantha Municipality**
Realization of Property Tax-PT (Budget Vs Actual)



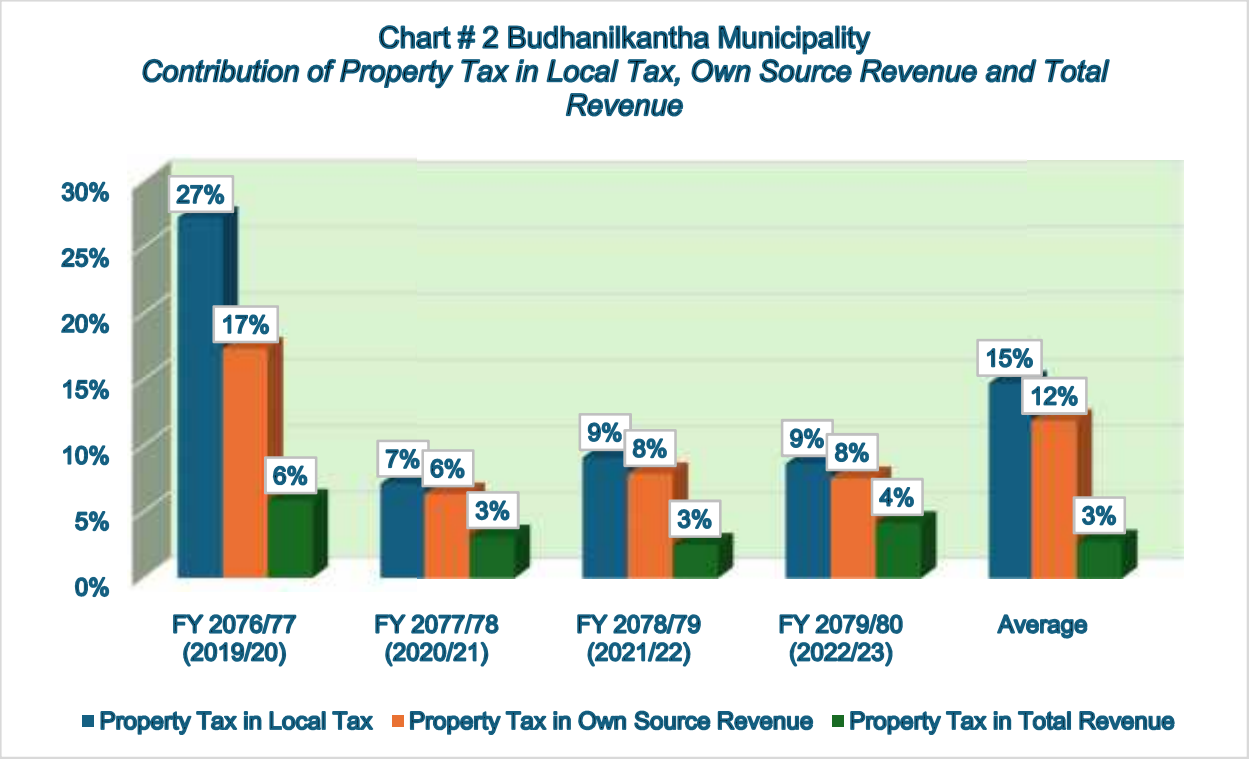
2075/76 to FY 2078/79, with a slight dip in FY 2079/80, suggests an overall improvement in budget accuracy and/or collection efficiency.Based on this four years collection efficiency of the municipality and theEfficiency Index is presented below:

Table 13:*Budhanilkantha Municipality-Property Tax Realization (Budget Vs Actual-NPR in 000)*

Fiscal Year	Budgeted	Actual	Realization % (Actual/Budget)	Efficiency Category**
FY 2076/77 (2019/20)	70,000	53,722	77%	Efficient
FY 2077/78 (2020/21)	70,000	66410	95%	Most Efficient
FY 2078/79 (2021/22)	75,000	82,790	110%	Most Efficient
FY 2079/80 (2022/23)	80,000	92,413	116%	Most Efficient
Average	**73,750**	**73,834**	**100%**	**Most Efficient**

Note: *Most Efficient = 91%-100%, Much Efficient = 81%-90%, Efficient = 71%-80%, Least Efficient = 51%-70% & Inefficient = 0-50%*
***Source: Villaroman, L. (2017)*

Weightage: the weightage figures illustrate that property tax contributes significantly to local tax and own source revenue, albeit a smaller share of the total revenue. This highlights the importance of property tax as a local revenue source.



Property Tax vs. Own Source Revenue: Property tax revenue grew steadily at an average rate of 11%, indicating consistent but modest gains. In contrast, own source revenue showed high volatility with an average growth rate of 33%, reflecting larger but unpredictable fluctuations.

Property Tax vs. Total Revenue: While property tax had steady growth, total revenue demonstrated a more robust and resilient average growth of 38%, significantly outperforming property tax. This indicates that other revenue sources contributed more dynamically to overall financial health.

Overall, Property tax provides stable but modest revenue growth, whereas own source revenue and total revenue show higher growth rates.

4.5 ANALYSIS OF PROPERTY TAX IN BUDHANILKANTHA MUNICIPALITY: POLICY, ADMINISTRATION AND ICT

4.5.1 Property Taxation Policy

(A) Tax Base

According to Article 55 of the Local Government Operations Act 2074 (2017), rural and urban municipalities can impose property taxes on houses and the land, the tax for land maximum double area of building they occupy. In line with this legal provision, Budhanilkantha Municipality enacts its annual Financial Act, which also includes land and buildings as the tax base. As per the Financial Act 2080 (2023), the following criteria are the major bases for property tax assessment on land and buildings:

- *The area of lands is divided into 19 categories based on land valuation located in the road (road wide <4m, road wide >4m & main road).*

- *Buildings are categorized into five types based on their structure (from muddy to RCC) with its depreciation based on their age and structure (vary from 3% for muddy structures to 0.75% for RCC buildings.).*
- *The rate set by the municipality is categorized into 5 slabs (first slab involves NPR 500 for property valuation up to NPR 3 million, followed by percentage based on the remaining valuation of the total building amount and its plinth area of land- maximum double).*

(B) Tax Rate and Abatement

Despite focusing on Budhanilkantha Municipality as the primary study area, the following table also includes the tax rates of two neighboring municipalities for comparison, highlighting inconsistencies in tax rates and property valuation assessments.

Table 14: *Comparing Tax Rate and Amount of Budhanilkantha Municipality with Neighboring Municipalities*

S.N	Range of Property Valuation for Tax	Budhanilkantha Municipality			Tokha Municipality			Gokarneshwor Municipality			
		% Rate	*Tax inNPR*	*Total Tax NPR*	*% Rate*	*Tax NPR*	*Total NPR*	*Range of Property Valuation for Tax*	*% Rate*	*Tax NPR*	*Total NPR*
1	Up to NPR 3,000,000	Lump sum	500	500	Lump sum	500	500	Up to NPR 5,000,000	Lump sum	500	500
2	Beyond that up to NPR 2,000,000	0.03%	600	1100	0.10%	2000	2500	Beyond that up to NPR 5,000,000	0.03 %	1500	2000
3	Beyond that up to NPR 5,000,000	0.07%	3500	4600	0.15%	7500	10000	Beyond that up to NPR 10,000,000	0.08 %	8000	10000
4	Beyond that up to NPR 10,000,000	0.11%	11000	15600	0.25%	25000	35000	Beyond that up to NPR 20,000,000	0.10 %	20000	30000
5	Any amount exceeding above	0.25%			0.40%			Beyond that up to NPR 20,000,000	0.15 %	30000	60000
6								Beyond that up to NPR 20,000,000	0.20 %	40000	100000
7								Beyond that up to NPR 20,000,000	0.25 %	50000	150000
8								Any amount exceeding above	0.50 %		

Source: *Annual Program Document and Financial Act 2080 (2023) of Budhanilkantha, Tokha and Gokarneshwor Municipality.*

The property tax rates vary significantly among Budhanilkantha, Tokha, and Gokarneshwor Municipality, despite their close proximity. Budhanilkantha imposes lower minimum taxes and rates compared to Tokha, especially for higher property values. For instance, properties valued above NPR 10,000,000 are taxed at 0.11% in Budhanilkantha but at 0.25% in Tokha. Similarly, Budhanilkantha generally maintains higher rates than Gokarneshwor across all property value ranges. For example, properties valued up to NPR 20,000,000 incur a tax of NPR 15,600 in Budhanilkantha, whereas in Gokarneshwor, the same value of property incurs a tax of NPR 10,000. This variation indicates that while municipalities have the authority under the LGOA 2017, differences may arise from local economic conditions or municipal revenue goals. Harmonizing these rates could ensure fairer property tax assessments across neighboring areas, benefiting taxpayers and improving administrative efficiency.

(C) Valuation for Assessment

As per the LOGA 2017, tax assessment is based on the size, type, construction, and usage of the house and land, the current market value and depreciated value of the house, and whether the property is used for commercial or residential purposes. Based on these criteria, the following table provides detailed comparisons between Budhanilkantha Municipality and its two neighboring municipalities, including the provisions made by each municipality in their respective Financial Act 2023 (Annual):

Table 15: *Comparing Valuation Rate as per Building Structure (Buhdanilkantha Municipality and Other Neighboring Municipalities)*

S.N	Building Type (Size, Type and Structures)	Budhanilkantha Municipality			Tokha Municipality			Gokarneshwor Municipality		
		Rs. per Sq Ft.	*Dep.%*	*Dep. Year*	*Rs. per Sq Ft.*	*Dep.%*	*Dep. Year*	*Rs per Sq Ft.*	*Dep.%*	*Dep. Year*
1	Clay on the inside, brick on the outside jointed or made of wood Zinc, shingle, tile, asbestos roof House.	600	3%	25	500	6%	NA	500	3%	25
2	Cement plastered (internally and externally) with a pitched roof, RBC roof, or a roof made of zinc, tile, shingle, or asbestos.	750	2%	30	600	6%	NA	700	2%	30
3	House with pitched roof (RCC or RBC) and cement plaster on the inside and outside, with walls made of brick or stone	1750	1%	50	1500	1%	NA	1000	1%	70
4	House with RCC frame structure, steel frame structure, truss, fiber or similar structure	1800	0.75%	70	1800 & with lift 2200	0.75%	NA	1500 & with lift 1800	0.75%	100
5	Department stores, complexes, apartments, and five-star and luxury hotels	3000	0.75%	70			NA	2500	0.75%	100

Source: *Annual Program Document and Financial Act 2080 (2023) of Budhanilkantha, Tokha and Gokarneshwor Municipality.*

Table 16: *ComparingLand Valuation (per aana- Maximum and Minimum)ofBudhanilkantha Municipality and other Neighboring Municipalities.*

Land Value	Budhanilkantha Municipality	Tokha Municipality	Gokarneshwor Municipality
Maximum	NPR 302,500	Valuationof Land Revenue Office as per FY 2071/72	NPR 50,000
Minimum	NPR 2,057,000		NPR 2,200,000

The above tablesillustrates the varying rates and amount (per aana)both in land and building including depreciation percentages applied by three neighboring municipalities—Budhanilkantha, Tokha, and Gokarneshwor—based on their respective Financial Act 2023 (Annual). Despite their geographical proximity, there are also noticeable inconsistencies for property tax assessment system.

(D) Abatement

As per the Financial Act 2080 (2023) of Budhanilkantha Municipality, property owners qualify for a 15% tax abatement on property tax if they make payment within the first quarter of the current fiscal year.

The municipality lacks sufficient information about overdue taxes and the total amount yet to be collected before merging into the municipality in FY 2071/72. However, the municipality is preparing to propose a policy for approval by the Municipal Assembly to implement abatement measures effective from FY 2081/82 for outstanding arrears.

According to the draft Financial Bill 2081, the municipality is planning to collect past years' arrears using rates from FY 2074/75 and additional 10% penalty, when the municipality gained the authority to set its own rates. This provision is part of the Financial Bill 2081, which offers a 40% abatement if property owners pay the arrears by the end of the first quarter of FY 2081/82, 25% by the end of the second quarter, and 10% by the end of the third quarter or by the end of the fiscal year.This abatement provision is valid only for FY 2081/82 (2023/24).

(E) Exemption

As per LGOA 2074 (2017) and Financial Act 2080 (2023) of the Municipality, the following properties are exempt from property tax, which includes:

- *Properties owned by the Government of Nepal, Provincial Government, and local bodies.*

- *Government hospital properties.*
- *Guthi-owned properties.*
- *Non-profit educational institutions and government organizations.*
- *Non-profit organizations' properties.*
- *Religious institutions (temples, monasteries, churches, mosques, etc.).*
- *Public utility sites (e.g., water collection ponds, powerhouses, cremation grounds, cemeteries, parks).*
- *Diplomatic properties (embassies, consulates).*

(F) Tax Payers Service (Public Services)

There is no legal mandate requiring a separate fund specifically allocated forpublic services funded by property tax. Neither the Local Government Operation Act (LGOA) nor any municipal legal documents specify provisions for public services to be financed from local taxes, including property tax. Furthermore, the municipality has not established any policies regarding public services funded by property tax.

In the context of Budhanilkantha Municipality, adherence to the principles of local revenue management is crucial for ensuring transparency and effectiveness in funding public services (public goods) through property taxes. Currently, there is a gap in the availability of data regarding how property tax revenues are allocated to specific public services within the municipality. The municipality needs a robust data system to assess the beneficiaries of property tax accurately. However, the currently available data show that the municipality allocates the

budget on a ward-wise basis for public services. This data can be compared with property tax collections from each ward as follows:

Table 17:*Ward Wise Property Tax Collection &Budget Allocation for Public Services (NPR in 000)*

Ward No	FY 2079/80 (2022/23)						FY 2080/81 (2023/34) ***					
	Budget for Public Service	Property Tax	Non Property Tax	Total Own Source Revenue-OSR	Diff Property Tax (Benefit-Tax)	PT Contribution (%)	Budget for Public Service	Property Tax	Non Property Tax	Total Own Source Revenue-OSR	Diff Property Tax (Benefit-Tax)	PT Contribution (%)
1	31,500	5,945	4,781	10,726	25,555	18.87%	31,600	6,002	3,787	9,789	25,598	18.99%
2	31,500	6,441	10,987	17,428	25,059	20.45%	31,600	7,023	10,967	17,990	24,577	22.22%
3	31,500	5,891	14,170	20,061	25,609	18.70%	31,600	7,053	14,599	21,652	24,547	22.32%
4	31,500	5,894	8,638	14,532	25,606	18.71%	31,600	5,776	7,229	13,005	25,824	18.28%
5	31,500	4,997	6,684	11,680	26,503	15.86%	31,600	4,964	8,202	13,166	26,636	15.71%
6	31,500	4,184	9,080	13,265	27,316	13.28%	31,600	4,804	8,628	13,432	26,796	15.20%
7	31,500	5,024	10,714	15,738	26,476	15.95%	31,600	6,009	8,684	14,693	25,591	19.02%
8	31,500	11,671	20,523	32,195	19,829	37.05%	31,600	12,808	21,631	34,439	18,792	40.53%
9	31,500	13,675	14,426	28,101	17,825	43.41%	31,600	10,416	13,926	24,342	21,184	32.96%
10	31,500	12,742	21,483	34,225	18,758	40.45%	31,600	13,092	20,716	33,808	18,508	41.43%
11	31,500	7,509	10,253	17,762	23,991	23.84%	31,600	7,332	10,114	17,446	24,268	23.20%
12	31,500	6,947	9,346	16,293	24,553	22.05%	31,600	7,230	8,803	16,033	24,370	22.88%
13	31,500	1,493	7,050	8,543	30,007	4.74%	31,600	1,855	7,137	8,992	29,745	5.87%
Total	**409,500**	**92,413**	**148,136**	**240,549**	**317,087**	**22.57%**	**410,800**	**94,364**	**144,423**	**238,787**	**316,436**	**22.97%**

Note: PT= Property Tax, NPT= Non Property Tax. This contribution is based only on the ward-level budget allocation. Town-level programs for each ward are not detailed in the document. Including these, the contribution of property tax is less than 22.57% in FY 2079/80 and 22.97% in FY 2080/81.

4.5.2 Property Tax: Policy Formulation and Collection Process (Administration System)

As per Article 65 of the Local Government Operation Act, 2074 (2017 AD), it is mandatory for the municipality to establish a Local Revenue Advisory Committee. Accordingly, the municipality has formed a 7-member Revenue Advisory Committee under the coordination of the Deputy Mayor, including representation from the private sector. This committee organizes meetings to advise on the revenue base, rates, and revenue-related policy decisions before the Municipal Assembly.

There is a dedicated Revenue Section staffed by three individuals, led by a Section Officer, in the Municipality Office Building. Revenue collection for all types of sources, excluding building permit services, is managed through the ward offices. Each ward office has designated staff for

this task. The municipality has used revenue software for tax collection, including property tax, and a networking system that links the municipality and allows for day-to-day monitoring of revenue collection activities in the ward offices. Recently, an online payment system were introduced about two months ago. QR codes are now in operation, streamlining municipality revenue collection by making payments easy, transparent, and accessible for taxpayers.

According to municipal sources, taxes are collected and bills are issued when taxpayers visit the ward office to receive the services. There is no regular schedule for issuing bills to encourage timely payment, though tax education campaigns are sometimes conducted.

(A) Fiscal Cadaster

Based on field observations and discussions at the Municipality and Ward Office levels, it was found that the municipality currently has access to property taxpayers who have paid taxes (actual tax revenue collected) through the existing system. Only 37.43% of all taxable properties have paid their taxes. Although approximately 86.91% of all taxable properties are recorded in the municipality's registry, this does not fully account for the total amount of tax revenue due *(see Table 18 below*).

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Identification and valuation of property are crucial for property taxation, as they define the tax base, help recognize taxpayers, determine taxable values, and ultimately lead to higher revenues through accurate assessments (Kayuza, 2006).To address this, it is crucial to update the existing GIS Map information of the municipality. Although the GIS was completed five years ago, it now requires upgrading to ensure it is synchronized with the current data and connected with the

software system effectively. Additionally, the municipality needs to upgrade the existing software to enhance coordination between the Building Permit Section and Revenue Section. Integrating the details of houses and land received for the building permit process into the fiscal cadaster and the Revenue Section's database will enable systematic updates of information on new property taxpayers. This integration is essential for improving overall revenue management and ensuring accurate tax assessments within the municipality.

Table 18:*BudhnilkanthaMunicipality : Analysis of Property Tax with Administration Variables*

Ratio and Indicators			Remarks
1. The Coverage Ratio (CVR)			
1.1 Number of Properties that paid tax (FY 2079/80)	Numbers	17566	Based on total households 46,930 (as per population census 2021)
1.2 Total Number of Taxable Properties (identified and recorded)- FY 2079/80	Numbers	40,786	
1.3 Unrecorded properties (FY 2079/80)	Numbers	6,144	
CVR =Number of Taxable Properties in Registry / Total Number of Taxable Properties	%	86.91%	Approximately 86.91% of all taxable properties are recorded in the municipality's registry.
Ratio = # of Properties that Paid Tax / Total Taxable Properties	%	37.43%	Approximately 37.43% of all taxable properties have paid their taxes.
2. The Valuation Ratio (VR)			
2.1 Assessed Value of Property (FY 2080/81	average amount (NPR in 000)	45,862	As per ***Annex 3*** below. Based on the data of top three tax payers paid by them in some wards. On average, municipal valuations are approximately 38.37% of market valuations, indicating that municipal assessments are about 61.63% lower than market values on average
2.2 Real Market Value of Property (FY 2080/81)		120,823	
VR = Assessed Value / Real Market Value	%	38.37%	
3. Total Liability Ratio (TLR)			
3.1 Actual Tax		*NA*	A TLR less than 1 indicates under-collection, while a TLR of 1 means perfect collection efficiency. This ratio is crucial for assessing and improving tax collection strategies.
3.2 Legally Mandated Tax Liability		*NA*	
TLR=Actual Tax / Legally Mandated Tax Liability Where, Estimated Legally Mandated Tax Liability = Total Assessed Property Value in Municipality × Effective Tax Rate		*NA*	
4. Collection Ratio (CLR)			
4.1 Actual Tax Revenue Collected		*NA*	Individual tax paid by tax

Ratio and Indicators			Remarks
4.2 Total Tax Revenue Owed.		*NA*	payers (collected) and to be paid by tax payers (owed) needs to calculate.
$CLR = \frac{Actual\ Tax\ Revenue\ Collected}{Total\ Tax\ Revenue\ Owed}$		*NA*	

Data Source: Budhanilkantha Municipality, June 2024, and market value based on taxpayers' locations.
Note: NA = Not Available data

(B) Assessment, Billing and Collection

*Assessment:*As per municipal sources, the current valuation for land and buildings (based on construction cost) adopted by the municipality is significantly lower than market values, typically ranging between two to three times less. For instance, the highest land value along the main road to Budhanilkantha exceeds NPR 70 lakh per aana in the market, whereas the municipality values the same area at NPR 2,057,000 per *aana.*The per square foot construction cost for a standard house in Nepal ranges from NPR 3,000 to NPR 3,500 (average NPR 3,250). However, following the 2023 recession, building estimates have increased, with costs for premium house construction potentially rising to NPR 5,000 per square foot. The municipality sets rates ranging from NPR 1,750 to NPR 3,000 per square foot for RCC buildings to luxury homes, respectively.

Photo 1: *Main Road of Budhanilkantha Municipality*

Based on the municipality's assessments of the top three taxpayers in various wards, compared to market values sourced by the municipality (location-based valuations), the average ratio between municipality and market valuations stands at approximately 38.37%, indicating that municipal assessments are about 61.63% lower than market values on average *(See in Annex 3 in details)*.

***Photo 2**: Road wide <4m road area with land and building for property tax*

*Billing and Collection:*Every taxpayer has to pay taxes, including property tax, at the ward office. Although there are records of taxpayers who owe property tax, they are not given advance notice for the payment. Bills are issued or provided to taxpayers when they visit the ward office to pay their taxes. The system could be upgraded to automatically provide notifications along with billing and collection through an online system.

(C) Compliance and Enforcement (Monitoring, penalty, property seizure).

Currently, there is no specific mechanism and process for enforcing property tax compliance in Budhanilkantha Municipality. However, municipal authorities such as the city police and ward offices enforce tax compliance among businesses in certain cases. Property owners who rent out their property for business purposes (such as a shutter, room, or building) are also required to comply with property tax obligations upon renewing their business registration (as practiced in Ward No. 9). Moreover, the municipality has introduced penalties for overdue property tax payments. This policy mandates the collection of past due amounts using the rates from FY 2074/75 plus a 10% penalty.

Further, administrative services are provided to citizens only after taxes, including property tax, are cleared. There are no stringent provisions such as property seizure in place in case of non-payment of property tax. Voluntary compliance remains a significant issue in Budhanilkantha, as many property owners pay taxes only when they require services or documentation from the municipality for other purposes, such as bank loans. This practice of tax payment undermines consistent and reliable revenue collection.

(D) Appeal Process

According to municipal sources from ward-level discussions, properly informing citizens that taxes are levied according to the municipality's Financial Act results in fewer complaints and grievances. When there is dissatisfaction, efforts are made to explain by comparing with neighboring houses as well.

There is no specific mechanism for addressing these issues. However, if dissatisfaction arises at the ward level, citizens can go to the municipality's Revenue Section. If the issue is not resolved by the Revenue Section, it is escalated to the Executive Level of the municipality.

Although this is not about property tax, we found that for rental tax, the assessed value of room sizes, based on sq.ft, had significantly increased from the previous year. Such issues were resolved through the municipality's Revenue Section and did not need to go to the Executive Level. Once the Revenue Section clarified the matter, taxpayers paid the tax according to the new increased rates.

(E) Staff Training & Development with Civic Education

To enhance the knowledge and skill, the municipality organizes training sessions for officials of the Revenue Section and Ward Offices involved in revenue collection. Tax Experts are invited to conduct these sessions, which are sometimes held outside the municipal area as well.

The municipality occasionally conducts civic education programs to inform taxpayers about tax-related matters. This program involves the participation of members from user committees and *tole sudhar committee*, which are formed by the municipality for local development. Despite the provision of a 15% discount, which encourages many taxpayers to pay their taxes in the first quarter, there has not been a significant increase in the number of taxpayers due to these civic education efforts.

(F) Reward System.

There is no reward system for employees involved in the revenue management system. Additionally, there is no policy for tax collection targets with reward system at the ward level. However, the top three taxpayers—among males, females, and institutions—who pay the highest taxes on time, both at the overall municipality and ward levels, are awarded and honored for their timely and substantial tax contributions.

4.5.3 Technology (Computer, Network, GIS, Drons, Software etc.)

Budhanilkantha Municipality uses a revenue software system to manage taxpayer information and facilitate online payments, a system that has been in operation for several years.As of June 9, 2024, the municipality has registered a total of 40,786 taxpayers across its Revenue Section and

all 13 Ward Offices with networking system. This number includes individuals who have registered to pay taxes, whether they have paid in the past or are current taxpayers. According to records from the fiscal year 2079/80, approximately 17,566 property taxpayers made their tax payments. This indicates that about 57% of property taxpayers have not paid their taxes annually.

Box5:Enhancing Efficiency and Accountability with QR Code Implementation

After implementing the QR code, efficiency in time management has increased. Previously, it was difficult and time-consuming to count money manually, but now, with the QR code, this issue has been resolved. In the absence of the QR code, there were instances where taxpayers took the bill but did not pay the tax, and the staff had to cover the amount themselves. Now, the QR code has made the process easier.
(Source: Budhanilkantha Municipality, Ward #9, June 2024)

In discussions with municipal revenue officials, it was noted that the municipality possesses GIS data developed more than five years ago, which requires updating and integration into the municipality's current systems. The Revenue Section also needs equipment such as Dron and vehicles from identification to collection of property tax with monitoring.

To facilitate tax payments, the municipality has introduced QR code payment options at both municipal and ward offices.

Additionally, an online payment system was launched two months ago. However, as observed during field visits and discussions with municipal officials at both levels, no taxpayers have utilized this new online payment system yet. Taxpayers need an ID for the online payment system. The municipality is actively working to familiarize taxpayers with this new payment option.

4.6 FOCUS GROUP DISCUSSION (FGD)

Based on questionnaire for the focus group discussion (FGD) in Budhanilkantha Municipality, this analysis explores the policy and administrative procedures regarding property tax. The discussion gathered responses from a diverse group of elected representatives, staffs of revenue section of the municipality and ward office who are directly engaging for tax collection including their experienced with taxpayers as well.

During the FGD, all respondents informed that all taxes, including property tax, are collected at the ward office using traditional payment methods. However, the implementation of the QR system has improved efficiency in tax collection at the ward office. Additionally, the online system introduced two months ago is expected to further enhance efficiency and increase property tax revenue in the future. According to the respondents, some taxpayers pay their property tax annually and on time, primarily motivated by the desire to avoid penalties and to access other government services, such as loan renewals from banks.

When asked about policy of tax rate and valuation method inconsistency with other neighboring municipalities and its fairness, they agreed for establishment of coordination mechanism with neighboring municipalities for consistent in valuation methodologies and tax policies. With this, as per their view, a model guideline also needs to guide for property tax collection in scientific approach i.e. willingness and affordability of tax payers, policy and strategy for property tax with urban services and minimum rate for maximum coverage.

Suggestions for improving the tax system included increasing citizen awareness and enhancing public services to raise the tax coverage ratio. Key recommendations for reforming the property tax system included updating tax mapping data using GIS, improving current software with upgrades and networking, implementing an online system, minimizing the gap between market value and government valuation, making the tax rate more practical, linking property tax with public services, and increasing public awareness about taxation and its benefits. The overwhelming support for an online payment system indicates that this would likely improve convenience and efficiency.

4.7 EXPERT VIEWS

Based on the survey conducted on tax experts, this analysis explores their experiences and attitudes regarding overall property tax management, from identification to collection. The survey gathered responses from a diverse group of 15 individuals with varied educational backgrounds and professional statuses, including both males (80%) and females (20%), predominantly in job or business roles. This diversity provided a comprehensive perspective on the challenges and potential solutions in property tax management.

Identification of Property Taxpayers: The identification of property taxpayers is hindered primarily by the lack of updated property records, cited by 94% of respondents, and resistance from property owners, noted by 6%. To improve the identification process, 73% suggested mandatory property registration updates, while 7% recommended regular property surveys and 20% integration of various government data.

In their open views, they emphasized the need for a compatible database system to provide necessary services for residents paying taxes, along with increased awareness and civic education by the local government to overcome resistance from property owners.

Setting Tax Rates:Views on the transparency and fairness of setting property tax rates varied, with 20% of experts finding the process opaque and unfair, 20% considering it neutral, 47% feeling it was somewhat transparent and fair, 6% feeling it was very transparent and fair, and 6% finding it very opaque and unfair. Policy recommendations included ensuring fair and transparent processes to build public trust.

Additional recommendations from 40% respondents regular rate reviews based on market trend while 20% responded public consultation before setting rates. Remaining 40% respondents as an expert recommended a clear guideline from GoN for setting rates.

Assessment Methods: Regarding property assessment methods, 13%Experts emphasized accurate and fair valuation practices based on market and 20% Experts government value based assessment. 60% Expertsfocused on mix based assessment (market and government value based) where remaining 7% emphasized other method such as income base assessment. In their open views, they also recommended a self-declaration model. Regardless of the model used, they emphasized the importance of public consultation in applying any assessment method.

Billing and Payment Methods:To improve the existing system's efficiency, 87% of experts emphasized the need for an online portal, while only 13% preferred in-person delivery. However,

all experts (100%) emphasized the importance of online payment methods, specifically mobile payments. In their open views, they highlighted the need for educating taxpayers on using mobile payment systems.

Enforcing Compliance: Enforcing compliance remains challenging due to weak laws (40% of respondents), lack of penalties (40%), and insufficient resources (30%). In their open views, respondents also emphasized the municipality's need to commit to enforcing law compliance to ensure urban services.

In other question of possibility to make compliance for property tax collection, 40% experts emphasized on penalty, 7% emphasized on legal action and remaining 53% public awareness.

Appeal Mechanisms:Based on the responses, many indicated that municipalities do not have a mechanism or process for appeals, while a few mentioned that such mechanisms exist but are often ineffective or not in favor of the citizens. There is a consensus that a proper mechanism for appeals should be in place.

Linking Property Tax to Public Services:Based on respondents' answers and their open views, they focused on costing of public services and accurate tax calculation are necessary. Once the cost of public services is determined, it can be included in property taxes, ensuring that the public service taxes vary according to the different values of properties. Additionally, property tax should be utilized for infrastructure and economic development within the respective municipality

Conclusion

Budhanilkantha Municipality's property tax system shows significant potential as a key revenue source, with improvements in budget realization over the past five fiscal years achieving an average realization rate of 99%. This performance indicates effective revenue collection practices, though challenges such as data inadequacies, taxpayer non-compliance, and a substantial number of unrecorded properties persist.

Property tax contributes significantly, averaging 13% to local taxes and 10% to overall own-source revenue for Budhanilkantha Municipality. The municipality has shown steady annual growth in tax collection, averaging 11%, which supports revenue stability but also reveals fluctuations in other revenue sources that require broader management strategies.

Approximately 86.91% of all taxable properties are currently recorded in the municipality's registry, with about 37.43% of these properties having paid their taxes. These figures highlight ongoing issues in tax compliance and revenue potential that require attention.

The Valuation Ratio (VR) suggests municipal property assessments average about 38.37% of market valuations, indicating assessments are approximately 61.63% lower than market values on average. This underscores the need for improved valuation practices to ensure accurate property tax assessments.

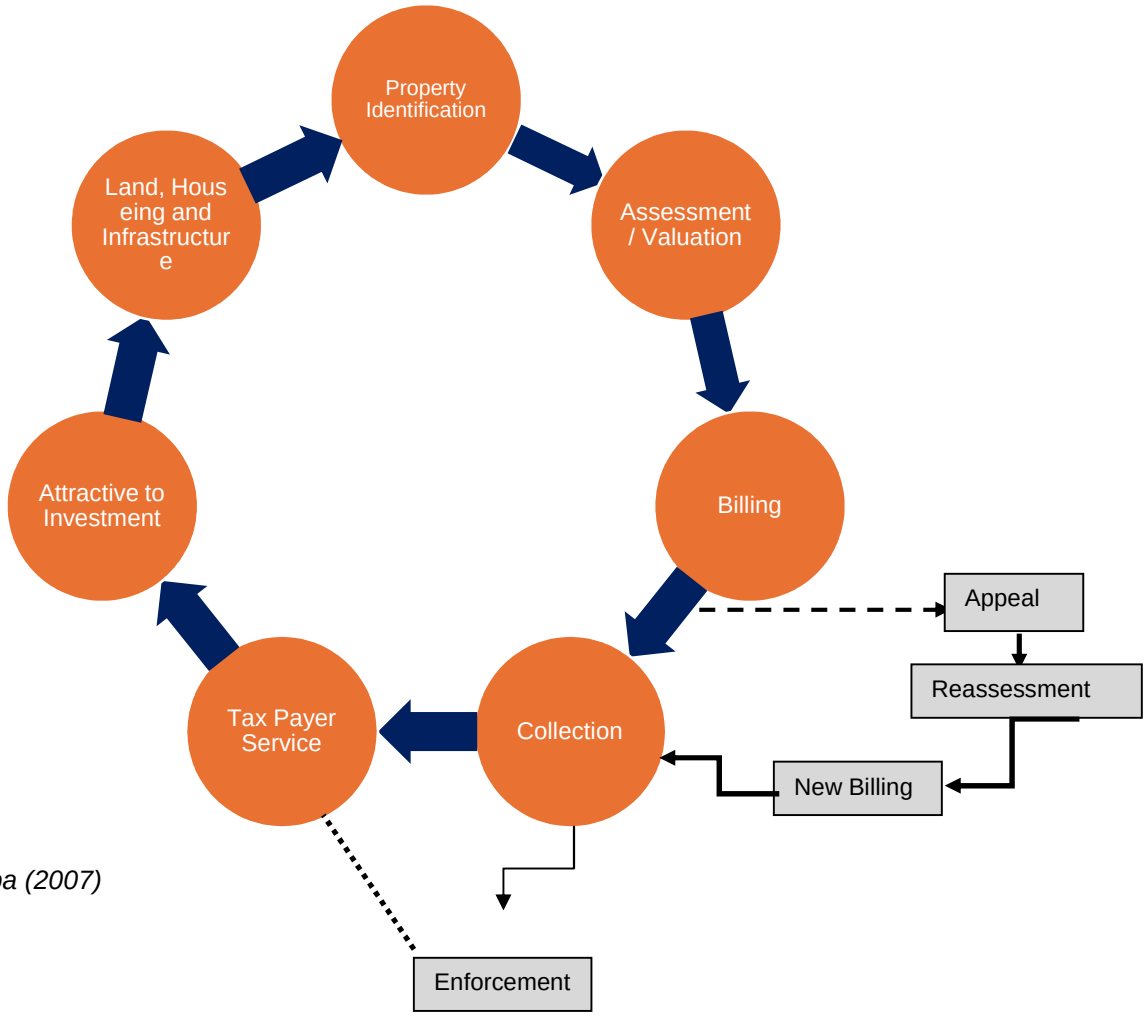
The analysis of property tax in Budhanilkantha Municipality reveals a comprehensive approach to policy, administration, and ICT integration. The focus group discussion (FGD) highlighted the effectiveness of QR payment methods, the potential of a new online system, and the need for consistent tax policies and valuation methods across municipalities. Key suggestions include enhancing citizen awareness, improving tax mapping, upgrading software, and linking property taxes to public services.

Expert views reinforced these findings, emphasizing the need for updated property records, transparent tax rate setting, and fair assessment methods. They advocated for online payment systems, stronger enforcement laws, and effective appeal mechanisms. The consensus is that linking property taxes to public services and ensuring accurate tax calculation can drive infrastructure and economic development within the municipality.

5. RESEARCH FINDINGS

This chapter focuses on research findings. The first section discusses the focused group discussion operating in a local context and the views of tax experts on the functionality of property tax*(figure 5)*, based on their experiences in various municipalities, including Budhanilkantha Municipality, within a national context. The researcher argues that developing reform strategies for any system requires a comprehensive analysis of its structure and functionality. The next section of the chapter proposes reforms aimed at enhancing urban service delivery through improved revenue collection.

Figure 5: *Functionality of Property Tax*



Source: Kamba (2007)

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5.1 ANALYSIS OF FUNCTIONALITY OF PROPERTY TAX IN BUDHANILKANTHA MUNICIPALITY

Based on the above Expert Viewsand Field Visit Observations, the three primary questions of the study, specifically Question One[5], Question Two[6] and Question Four[7], are mainly focused as referenced in Chapter One. The researcher emphasizes that to identify the gap for reforms, it is essential to understand the current practices in detail. This section outlines and analyzes the property tax with policy, administrative and technology prospective, pinpointing its weaknesses as follows.

***Table 19**:Analysis of Functionality of Property Tax in Budhanilkantha Municipality (Finding and Purpose for Reform)*

S.No	Property Tax - Function Researched	Policy		Administrative and Technology	
		Finding	***Purpose for Reform***	***Finding***	***Purpose for Reform***
1	Property Identification	⁾ Tax identification and collection is primarily driven by taxpayers seeking services like tax clearance certificates and administrative documentation, rather than active enforcement.		⁾ Only 37.43% are in tax net leaving 62.57% out of the tax net*(see Table 18 above)*. ⁾ Limited information and outdated GIS map from 5 years ago. ⁾ Lack of fiscal cadastre	⁾ Tax mapping including market valuation, ⁾ Needs to update GIS
2	Tax Rate	⁾ The municipality sets tax rates, but they are inconsistent with neighboring Local Levels. For example, for property values up to NPR 5 million, taxpayers in Budhanilkantha, Tokha, and Gokarneshwor pay NPR 1100, 2500, and 2000 respectively. *(see Table 14 & 15 above)*	⁾ Conduct a comprehensive review of property tax rates to ensure fairness and competitiveness, considering taxpayers' willingness and affordability, and establishing coordination mechanisms with neighboring municipalities for consistent valuation methodologies and tax policies. ⁾ Model guidelines need to develop to guide for property		

[5]How does the property tax system function in Nepal ?
[6]What obstacles are impeding the functionality of the property taxation system ?
[7]How is policy linked with public services in terms of the collected amount from property tax?

S.No	Property Tax - Function Researched	Policy		Administrative and Technology	
		Finding	***Purpose for Reform***	***Finding***	***Purpose for Reform***
			tax rate with scientific approach (strategy with property tax for urban services and minimum tax rate for maximum coverage).		
3	Valuation &Assessment of Property Values	) Valuation as per Annual Financial Act of Municipality) As per current policy for property valuation, approx38.37% of market valuations or 61.63% lower than market values in average*(see Annex 3 below)*.) Inconsistent property valuations with land revenue office and neighboring local levels.	) Valuation as per mix approach (municipality valuation and market valuation)		
4	Billing			) Taxpayers receive the bill at the ward office after making the tax payment.) A QR code payment system is available at the ward office, and the bill is received afterward.) An online system was introduced two months ago, but no one has used it so far, possibly due to lack of awareness. There are also issues with ID numbers, as taxpayers need to submit documents. Many are unaware of this, often because property owners or their children are abroad, or due to limited technical knowledge among the elderly.	) Initiate an awareness campaign and ensure the online payment system is user-friendly.
5	Appeal (revaluation with new billing)	) No provision of Appeal mechanism in any act/regulation or guideline of the municipality.	) A guideline with provision of appeal mechanism and process (an integrated guideline of property tax in details including appeal mechanism, collection process, enforcement mechanism and property tax fund for municipal services	) Appeal case very rare (one time in the past)) No formal mechanism. However, there is few cases and Revenue Section of the Municipality will review if any from ward office.	) An Appeal Mechanism needs to ensure fairness and justice or enhance transparency and accountability.
6	Collection			) Property Tax collection,primarily driven by taxpayers if they needed for services.	) Prepare an Annual Calendar for Property Tax with strategies for timely tax payments.

S.No	Property Tax - Function Researched	Policy		Administrative and Technology	
		Finding	***Purpose for Reform***	***Finding***	***Purpose for Reform***
					⁾ Set target or performance indicators for rewarding employees and allocating budgets to each ward office based on their performance in property tax collection.
7	Enforcement Mechanism	⁾ No provision of Enforcement mechanism in any act/regulation or guideline of the municipality.		⁾ Town Police, with the support of the Ward Office, are mobilized to collect Business Tax and Rent Tax, as these are correlated; businesses often operate by renting houses. Property tax is not collected through this enforcement mechanism since it is based on property valuation and not income.	
8	Municipal Service	⁾ There is no specific policy for property tax and its utilization for public services. However, the ward-level budget for public services is higher than the revenue from property tax, which contributes a maximum average of 23%.*(see Table 17 above)*			

The table above supports the conclusion of this chapter. Property tax, which is levied on immovable property or assets (land and buildings), relies on ***policy frameworks*** (Local Government Operation Act 2074 & Annual Financial Act of the municipality) that establish the tax base, exemptions, valuation standards, and procedures for collection and enforcement. ***Administrative Structures***, supported by the adoption of ***Technology***, play a crucial role in implementing these policies, including maintaining property tax records, ensuring accurate assessments and valuations, managing billing, and enforcing compliance. However, in the context of Budhanilkantha Municipality, significant challenges arise from both administrative inefficiencies and inadequate policies.

Box 6: Key Findings

- Only 37.43% of properties are currently included in the tax net, indicating substantial gaps in property identification and coverage.
- Property assessments average about 38.37% of market valuations, indicating significant undervaluation.
- The billing and collection processes are predominantly manual, with an underutilized online payment system.
- There is low taxpayer awareness and compliance, with a collection efficiency of approximately 37%.
- Despite these challenges, the municipality achieves nearly 100% budget realization, with a modest annual revenue growth from property taxes of 11%.

From the analysis presented, it is evident that while there is potential for improved property tax performance, the obstacles are substantial. This study concludes that implementing the proposed reforms, along with the necessary adoption of appropriate technology, could provide Budhanilkantha Municipality with a significant source of revenue. The study assumes that funds generated from property tax will be allocated to both capital and recurrent expenditures, noting that there is no specific policy for reinvesting in specific public services.

Field interviews and observations during the study revealed that a significant challenge to reform is the backlog of undelivered services. Budhanilkantha Municipality faces a considerable task in overcoming this gap and effectively implementing the necessary changes. Adopting modern technology will be essential to streamline processes, enhance accuracy, and improve overall efficiency in property tax administration.

6. CONCLUSION AND RECOMMENDATION

6.1 CONCLUSION

This study was mainly to examine the workings of the property tax system and identify potential improvements. The underlying assumption is that property tax can significantly contribute to financing urban services.

The literature review and analysis of various countries provided insights into the property tax system's functionality and the reform strategies implemented globally. This background was crucial for designing the field study.

The field survey was instrumental in understanding the functionality of property tax within the frameworks of Kelly (2020), Musgrave's Public Finance Theory (1959), and Bird and Slack (2004) and McCluskey (2019) concerning the property tax base with ICT based fiscal cadaster and the principles of equity and efficiency in tax implementation. The findings from the field survey highlighted gaps in policy and administration including required technology that need to be addressed. The fieldwork conducted during the study confirmed Kelly’s (2020) claim that the effectiveness of the property tax system relies on four essential factors: Tax, Collection, Valuation, and Coverage, in addition to the tax base. The municipality aiming for reform should note that these ratios, along with public acceptability, are essential considerations. These elements were treated as dependent variables in this study.

The major challenge to property tax functionality in Budhanilkantha Municipality is the poor performance due to inadequate public relations and services. Administrative inefficiencies, such

as lack of fiscal cadastre information, inadequate valuation systems, traditional method of payment and billing, collection inefficiencies (37.43%), and the absence of proper funding policies, also hinder the system.

Field visits and interviews revealed that administrative reforms could be addressed by updating the fiscal cadastre using the municipality's tax mapping database, developed with GIS five years ago. Simple reforms, such as ensuring fairness and transparency through a mixed-based assessment (combining government and market valuations), can be implemented with political will to improve collection and billing processes, including online payments. Additionally, setting tax rates based on willingness and affordability of tax payers can enhance compliance and revenue collection.

Although addressing these policy and administrative issues may seem straightforward, the field study identified several bottlenecks that could impede reforms. These include the lack of a policy linking property tax to urban services, limited political willingness for property tax collection andineffective administrationprocess.

6.2 HYPOTHESIS TESTING

This thesis research confirms that the situation in Budhanilkantha Municipality differs from that of African cities like Arusha (Tanzania) and Kiambu (Kenya), as noted by McCluskey (2019), and the Asian city i.e. Bangalore (India), as described by Rao (2013). In those cities, property tax revenue increased significantly due to the adoption ofICT systems and improved data collection.The experience in Kiambu (Kenya) also shows that without an ICT system, political

interference and enforcement alone are insufficient for effective revenue collection.Conversely, Budhanilkantha Municipality continues to rely on Property Tax collection, primarily driven by taxpayers if they needed for services or traditional database and payment methods (in-person at ward offices), resulting in revenue losses, with only 37.43% of properties in the tax net, leaving 62.57% untaxed in FY 2079/80. This suggests that Budhanilkantha Municipality has substantial tax arrears andneeds improvements in property identification, valuation and collection. This observation highlights the potential for property tax revenue and conditionally confirms the hypothesis that an effectively managed property tax system could generate more revenue to support urban services, provided that key factors such as enhanced administrative practices, updated technological tools, robust policy, tax payer willingness,political support, and efficient taxpayer services are addressed.

6.3 AREA FOR FURTHER RESEARCH

It has been observed by this study that a significant challenge to the functionality of the property tax system is the inadequacy of research on taxpayer perception. Future research should investigate property tax with a focus on taxpayer perception.

It is also essential to research onproperty tax rates based on cost for public service or budget requirements.

This study has assessed the first two ratios as per Kelly (2020); however, the remaining two ratios still need to be researched as the necessary data are not available in Budhanilkantha Municipality, and it would require more time to determine these. The ratios to consider for

further research are: (i) the Tax Liability Assessment Ratio (TLR), which assesses the precision of the tax administration in implementing legally prescribed tax rates and applying tax relief or adjustment policies, and (ii) property tax collection efficiency by comparing actual tax revenue collected to the total tax revenue owed (including arrears), known as the Collection Ratio. Both will provide valuable insights.

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Annex 1

Schedule for Municipal Office of Budhanilkantha Municipality and Key Persons[8]

Interview Guide:*This researcher will use the interview guide, open-ended interviews and focus group discussions (FGD); other sub questions will be used in the interview process but will depend on particular respondents.*

---

1. Introduction and brainstorming:
    a) What is your name and professional background and how did you end up working here?
    b) What is your level of responsibility?
    c) How does your responsibility relate to property tax?
    d) Have there been any changes in the property tax system since your arrival in this office or since you undertook that responsibility.
    e) What changes?
2. Property tax system and its functionality
    a) How the property owners are identified (new and old) and their records are updated ?
    b) Valuation system (market value, government value, market and government value both, self assessment or fixed assessment valuation for tax payers service i.e bank loan and others if any…….)
    c) What is the difference between property valuation by municipalities for tax purposes and self-assessed property valuation by taxpayers for bank loans and other purposes?
    d) Additionally, what are the main challenges faced by the municipality in the assessment process ?
    e) Which system has been adopted for billing and collection system (manual, online, if any……)
    f) Has the municipality prepared the action plan (calendar) for property tax collection (assessment, calculation, billing and collection) ?
    g) Is there any Enforcement Mechanism for making the taxpayerpayment the tax timely?
    h) What are the common challenges faced by the municipality in enforcing property tax collection?
    i) The Appeal process-
        a. Who is responsible for reviewing and making decisions on property tax appeals?
        b. Is it fair, well understood ?if yes, can you provide an example of a common issue that property owners appeal and how it was resolved?

[8]Mayor, Deputy Mayor (as Chairperson of Local Revenue Consultative Committee), Chief Administrative Officer, Ward Chairperson or Ward Member, Department Chief (including Revenue Department) and Ward Office Staffs (collecting revenue) etc.

c. What are challenges cases of appeal process you have encountered.

3. Governance and Public Acceptability
    a. How many tax payers have been registered and how many tax payers pay the tax ?
    b. Do you have documented revenue collections to prove its performance (whether good or bad). ***Can I have a copy of the document?***
    c. What are the incentives of paying tax? Are there incentives of paying tax?
4. Obstacles and reforms
    a. What obstacles do you encounter in tax administration?
    b. Do you think the systems need reform?
        i. If you think, why?..... Explain more?
        ii. How?.....
5. What kind of infrastructural developments or public services (water supply, road maintenance, and waste management) would you invest in if you had better property tax returns?
6. Do you have any policy of contributing property tax to the funding of such public services i.e. ?
    a. If yes, how does the municipality's tax policy contribute to the funding of public services ?
    b. What kind of infrastructure development or public services (water supply, road etc)
    c. If No, why has not this made provision ? reasons……...
7. How the tax rate is set and which basis ?
8. What are the policy for tax relief and abatement in your municipality ? Does it support to collect the property tax ?
9. Is there any practices for determination of tax rate considering expenditure needs for public services (budget driven approach for setting tax rate) ?
10. How many staffs are working in Revenue Management ? How often they are trained ?
11. Is there any provision of training to
    a. staffs of Revenue Management Sections
    b. staffs of ward office who are collecting the property tax
    c. Members of Local Revenue Consultation Committee

12. Is there any provision of tax education system for awareness to the tax payers ?
    a. how is it conducted ?
    b. when is it conducted ?
    c. Has it been effective. If yes,…… Explain more ?
13. Is there any policy for reward to employee to collect the tax ? If yes, has the target been set which based has been taken
    a. target amount -
    b. number of tax payers
    c. both
14. Has the municipality applied ICT based tax information management and collection ? If yes, has it enhanced the efficiency ? give example.

15. Is there onlinesystem ? If yes, how many tax payers pay the tax through online system ?
16. Is there any system to link between Building Permit Section and Revenue Section of the municipality to update the new household once the house is approved ? if no ? how does it link ?

End *-Thanking the interviewee and requesting to advice on any person who would be willing to discuss this topic and if necessary request him/her to more discussions at a later date.*

Annex 2

Schedule for Experts

Interview Guide:*In this research, the researcher will use open-ended questions sent through Google Forms to collect responses from key experts working in local tax policy and administration sectors.*

Name:

Position:

Organization:

Year of Experience in Local Tax including Property Tax:

Sex: ☐ Male ☐ Female

1. In your view, what challenges are the municipality facing to identify property taxpayers ?

   ☐ Lack of updated property records

   ☐ Incomplete databases

   ☐ Resistance from property owners

   ☐ Other (Please also your views- if any ?)

2. Which process would be better to improve the identification of property taxpayers?

   ☐ Regular Property Survey

   ☐ Integration of various government database

   ☐ Mandatory property registration updates

   ☐ Other (Please also your views- if any ?)

3. In Nepalese Municipality, they have the right to set the tax rate themselves. In your view and experience, how transparent and fair has been adopted the process of setting property tax rates in the Municipality?

   ☐ Very transparent and fair

☐ Somewhat transparent and fair

☐ Neutral

☐ Somewhat opaque and unfair

☐ Very opaque and unfair

☐ Other (Please also your views- if any ?)

4. What policy recommendations would you suggest for setting property tax rates?

☐ Regular rate reviews based on market trends

☐ Public consultation before setting rates

☐ A clear guidelines from Government for setting rates

☐ Other (Please also your views- if any ?)

5. What is the best method used for property assessment for the municipality?

☐ Market-based assessment

☐ Government value bases assessment

☐ Mixed bases assessment

☐ Cost bases assessment

☐ Income base assessment

☐ Other (Please also your views- if any ?)

6. What policy changes could improve the efficiency of the billing process ?

- ☐ Mail
- ☐ E-mail
- ☐ In Person Delivery
- ☐ Online Portal
- ☐ Other (Please also your views- if any ?)

7. What payment methods are the best for property taxpayers?

- ☐ Online payment (Mobile Payment)
- ☐ Bank transfer
- ☐ In-person payment at municipal or ward offices
- ☐ Other (Please also your views- if any ?)

8. What are the biggest challenge in enforcing compliance? -

- ☐ Weak Law
- ☐ No penalties
- ☐ Lack of resources
- ☐ Other (Please also your views- if any ?)

9. What is possibility way to make a compliance for property tax collection (please choose best as your experience in the municipality)

☐ Penalties

☐ Legal Action

☐ Property Seizure

☐ Public Awareness

☐ Other (Please also your views- if any ?)

10. Based on your experience, does any municipality have a mechanism or process for appeals? If yes OR No, please provide your views.

11. In your experience, how can we link the property tax in public services (water, road, drainage, sewerage, solid waste etc)

Annex 3

Valuation Ratio between Municipality Value and Market Value Based on the Dataset Provided.

Ward No	Area	Municipality valuation (NPR in 000)									Market Value as per survey (NPR in 000)								The Valuation Ratio (VR)
		Land (per anna)	*Land Value*	*Building area*	*Per Sq. foot*	*Depn Rate*	*Dep. Amount*	*Building Value*	*Total Valuation*	*Tax Amount*	*Land (per anna)*	*Land Value*	*Building area*	*Per Sq. foot*	*Dep. Amount*	*Building Value*	*Total Valuation*	*Tax Amount*	
10	128.1	1089	4387	6779.6	1800	0.75%	1556	10647	19,421	15	3500	14100	6779.6	3250	2647	19387	47,586	85	40.81%
	128.1	1089	4387								3500	14100							
10	149.36	1331	6252	6582.37	1800	0.75%	444	11404	23,908	25	4500	21137	6582.37	3250	790	20603	62,878	123	38.02%
	149.36	1331	6252								4500	21137							
10	111.83	1815	6384	7113.49	1800	0.75%	672	12132	25,000	28	6200	21808	7113.49	3250	1187	21932	65,889	130	37.94%
	113.59	1815	6484								6200	22149							
10	123.8	1089	4240	3098.76	1800	0.75%	418	5160	9400	4	3500	13627	3098.76	3250	730	9341	22,968	23	40.93%
10	143.11	1089	4901	2459.96	1800		166	4262	9163	4	3500	15752	2459.96	3250	295	7700	23,451	24	39.07%
9	1460.2	1331	61126	4770.21	1750	1.00%	1586	6762	78,054	160	4500	206662	4770.21	3000	2721	11590	235,632	555	33.13%
				1925.26	1750		404	2965					1925.26	3000	711	5065			
				1742	1750		366	2683					1742	3000	643	4583			
				1476.28	1750		491	2092					1476.28	3000	842	3587			
				995.27	1750		209	1533					995.27	3000	368	2618			
				419.32	1750		110	624					419.32	3000	191	1067			
				175	1750		37	269					175	3000	64	461			
9	572.29	1331	23956	14087.91	1800	0.75%	950	24408	48364	87	4500	80993	14087.91	3250	1691	44095	125,088	278	38.66%
9	353.5	1815	20179	6552.41	1800		1769	10025	30204	41	6200	68931	6552.41	3250	2977	18318	87,249	184	34.62%
9	951.32	1089	32582	12336.18	1800	0.75%	2332	19873	66047	130	3500	104717	12336.18	3250	4011	36082	165,344	379	34.62%
				7724.95	1800	0.75%	313	13592					7724.95	3250	561	24545			
9	557.98	1210	21234	12323.75	1800	0.75%	2994	19189	40423	67	4000	70195	12323.75	3250	5076	34976	105,171	229	38.44%
8	1087	1331	45502	35909.09	1800	0.75%	4363	60273	105775	230	4500	153838	35909.09	3250	7645	109060	262,898	623	40.23%
8	1099.2	1331	46014	29052	1800	0.75%	7060	45234	91248	194	4500	155569	29052	3250	11966	82453	238,022	561	38.34%
8	771.67	1452	35239	20991.38	1800	0.75%	1984	35800	71039	143	4500	109212	20991.38	3250	3502	64720	173,932	400	40.84%

Ward No	Area	Municipality valuation (NPR in 000)									Market Value as per survey (NPR in 000)								The Valuation Ratio (VR)
		Land (per anna)	*Land Value*	*Building area*	*Per Sq. foot*	*Depn Rate*	*Dep. Amount*	*Building Value*	*Total Valuation*	*Tax Amount*	*Land (per anna)*	*Land Value*	*Building area*	*Per Sq. foot*	*Dep. Amount*	*Building Value*	*Total Valuation*	*Tax Amount*	
8	129.2	2057	8358	10854.18	1800	0.75%	1905	17633	25991	31	7000	28442	10854.18	3250	3289	31987	60,429	117	43.01%
8	334.45	1089	11455	5308.35	1750	1%	1115	8175	19630	15	3500	36816	5308.35	3000	1809	14116	50,932	93	38.54%
7	1-9-2-1.8	1089	27894	17459.35	1750	1%	4889	25665	53559	99	3500	89650	17459.35	3000	7780	44598	134,248	301	39.90%
7	95.37	1089	3266	1572.05	1800	0.75%	127	2703	5969	2	3500	10497	1572.05	3250	226	4883	15,380	11	38.81%
7	230.92	1089	7909	2511	1800	0.75%	102	4418	16698	12	3500	25419	2511	3250	182	7979	41,445	69	40.29%
				2856.75	1800	0.75%	771	4371					2856.75	3250	1237	8047			
7	801.26	2057	51837	17069.24	1800	0.75%	461	30264	91039	193	7000	176402	17069.24	3250	829	54646	247,189	584	36.83%
				5003.79	1800	0.75%	68	8939					5003.79	3250	121	16141			
7	917	2057	59372	15674.09	1800	0.75%	1270	26943	86315	182	7000	202044	15674.09	3250	2250	48691	250,735	592	34.42%
Mean (NPR in 000)									**45862**	**83**							**120823**	**268**	**38.37%**
Meadian (NPR in 000)									**35314**	**54**							**96210**	**207**	**38.60%**
Standard Deviation (NPR in 000)									**31275**	**75**							**84578**	**211**	**2.49%**
Maximum									**105775**	**230**							**262898**	**623**	**43.01%**
Minimum									**5969**	**2**							**15380**	**11**	**33.13%**