



THIMPHU CITY DEVELOPMENT STRATEGY



Ministry of Works and Human Settlement
Royal Government of Bhutan
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Cities Alliance
Cities Without Slums

Foreword

The preparation of the Thimphu City Development Strategy (TCDS) dates back to 2005 when the government requested the Cities Alliance to support the formulation of Bhutan's national urbanization strategy. The Cities Alliance, however, was interested in supporting only the CDS for Thimphu. Since the formulation of urbanization strategy was priority of the government and since there was funding possibility only for the CDS, it was negotiated and compromised that both will be done with the available fund from the Cities Alliance. The government also did not feel the need for a CDS for Thimphu city since we already had the Structural Plan.

In normal practice the City Development Strategy (CDS) forms an initial exercise, which becomes the basis for preparing a structure plan, followed by the preparation of local area plans for implementation. The Thimphu CDS is, however, different because we already have a 25-years perspective Structure Plan which is under implementation through the Local Area Plans.

The TCDS was, therefore, initiated to have an interim, broad-based consultative review of the on-going implementation of the Thimphu Structure Plan (TSP) and Local Area Plans (LAP) from sectoral perspective. The strategy makes a review of the sectors that include local economic development, poverty and social inclusion, infrastructure and environment, heritage conservation, urban management and municipal finance and capacities, which were not focused in a very detailed manner in the TSP or which have emerged as priority sectors in recent times after the TSP was notified. Based on the review, the strategy makes various recommendations for the improvement and management of the city.

The TCDS focuses on a five-year perspective with a management based approach to city development, building on stakeholder participation and resource management. It is imperative that the CDS document be developed with a short term perspective in the current context as the nation and city itself is undergoing extensive transformation that will not only change it physically but also change the way it is managed. Over the next five years the city will have undergone first phase of its transformation and will require a re-look into its development strategy.

Being the largest and the capital city of Bhutan, I am hopeful that our development experiences from Thimphu City will provide good insights and lessons for the development of similar strategies for other cities in our country.

I would like to acknowledge with sincere appreciation the funding support received from the Cities Alliance and their flexibility to include the national urbanization strategy together with this TCDS. I also take this opportunity to convey our appreciation to Mr. Songsu Choi, Lead Urban Economist, The World Bank for his guidance and support.

Given the detailed analysis that has gone into developing the strategy document, I hope it will contribute positively for further growth and development of our capital city.

Tashi Delek.



Yeshey Zimba
MINISTER

Preface

The Thimphu Structure Plan (TSP) was notified in 2004 and consequently the Local Area Plans (LAPs) were formulated. Thus Thimphu City has ongoing plans under implementation already. However the draft final Bhutan National Urbanization Strategy (Dec., 2006) highlighted the important challenges Bhutan faces today due to rapid urbanization and the desirable role of Thimphu in the Nation's urbanization. Meanwhile, the approach paper to the Tenth Five Year Plan has identified poverty alleviation as the thrust area. The nation is working towards decentralization and also providing a greater role for the private sector and community involvement in local urban development.

In the context of such emerging national concerns and policies, it is only natural that the RGoB is keen on a review of the ongoing plans and also to review the capacities of Thimphu City Corporation (TCC) to implement the TSP, the LAPs and the newly emerging role it has to play in the management of the National City.

The Thimphu City Development Strategy (TCDS) is thus basically an interim, broad based consultative review of the ongoing implementation of the TSP and LAPs with respect to the following aspects (or sectors) which were not focused in a very detailed manner in the TSP or which have emerged as priority sectors in the recent times after the TSP was notified :

1. Local Economic Development
2. Poverty and Social Inclusion
3. Infrastructure and Environment
4. Heritage Conservation
5. Municipal Finance and Capacities

The two other projects, viz. the Second Urban Development Project supported by the World Bank and Urban Infrastructure Development project supported by the ADB focus on the technical feasibility, design and costings of the projects proposed by the TSP and the LAPs.

The World Bank is assisting the Ministry of Works and Human Settlements, Royal Government of Bhutan develop the Thimphu City Development Strategy (TCDS) to address the above concerns. Infrastructure Professional Enterprise Pvt. Ltd in association with Ghyaltshen Consultancy, Bhutan has been appointed consultant for this project funded by the Cities Alliance. The project has another major component, i.e. the Bhutan National Urbanization Strategy, the draft report for which has already been submitted and is presently under finalization.

Work on the project was initiated in the second week of April and the inception report was submitted towards the end of the first phase of the project during the second week of May. The second phase of the study culminated with the submission of the draft Bhutan National Urbanization Strategy in the first week of September. The submission of the draft Thimphu City Development Strategy in Oct., 2006 marked the end of the third phase of the project. The findings of the last phase were analyzed and presented to stakeholders at a national level workshop on 9th November 2006 at the MoWHS conference hall in Thimphu. This was followed by a public dissemination program wherein exhibits explaining the salient features of the TCDS were put up at the town square and also on the internet.

The Final Thimphu City Development Strategy report is primarily an outcome of consultations with the local stakeholders. The outcome is to be viewed against the fact that the time frame for the TCDS was only eight weeks.

During the final tripartite meeting at the MoWHS in March, 2007 It was noted that certain technical aspects have been left out of the scope in view of the limited budget and the relatively recent extensive consultation on the Structure Plan. It was suggested that the

TCDS may be finalized by including a summary documentation of important aspects covered by the Structure Plan, and the investment program .The consultants felt that an investment program would be more meaningfully developed in the ongoing 'Second Urban Development Project' and 'Urban Infrastructure Development project' as already mentioned and that it was outside the scope of a CDS developed in a eight week time frame. A very brief summary of the TSP is however added in Annexure 1and relevant references provided in various sections. It may also be noted that a brief review of the Local Area Plans is also included in Annexure V.

Table of contents

Preface	ii
Table of contents	v
List of Abbreviations	viii
1.0 Introduction	1
1.1 Background.....	1
1.2 Organization of the Report.....	1
1.3 Relationship of the CDS to the TSP, LAPs, and BNUS	2
1.4 The Terms of Reference	4
1.5 Overall Methodology for the BNUS and the TCDS	5
1.6 The TCDS Approach and Methodology	7
1.7 Inputs for the TCDS (Consultations).....	8
1.8 Component Outputs and Reporting	8
2.0 City: Overview of existing situation	10
2.1 City Profile.....	10
2.2 Location and topography	11
2.3 Climate	11
2.4 Main tourist attractions.....	11
2.5 Social economic profile	12
2.5.1 Population.....	12
2.5.2 Employment.....	12
2.5.3 Industries	13
2.5.4 Health Care.....	14
2.5.5 Education.....	15
2.6 Connectivity and transportation	16
2.6.1 Air Connectivity.....	16
2.6.2 Road Network and Vehicles.....	16
2.6.3 Thimphu City Public Transport System	16
2.7 Poverty profile	17
2.7.1 Informal settlements.....	17
2.7.2 Poverty and vulnerability.....	17
2.8 Ongoing projects and planned investments.....	19
2.9 Land Use.....	20
2.10 Service Levels in the city	23
2.10.1 Road network.....	23
2.10.2 Transportation.....	23
2.10.3 Water Supply	23
2.10.4 Sewerage system.....	23
2.10.5 Solid waste disposal.....	23
2.10.6 Others	23
2.11 State of the Urban Environment – environment, water, air, land, noise.....	24
2.11.1 Vegetation.....	24
2.11.2 Wildlife	24
2.11.3 Noise.....	24
2.11.4 Water	24
2.11.5 Air	25
2.11.6 Parks and Open Spaces	25
2.12 City management.....	26
2.12.1 Governance and institutional setup	26

2.12.2 Role of RGOB	27
2.12.3 Role of private sector	27
2.12.4 State of finances	28
3.0 City (Macro Level) Strategies.....	29
3.1 Key Problem Areas	29
3.1.2 Sector wise issues identified for the city:.....	30
3.2 S.W.O.T. Analysis.....	31
3.3 Vision and Mission	32
3.3.1 Existing Vision and Objectives	32
3.3.2 Additionally identified objectives:.....	33
3.3.3 Mission.....	34
3.4 Role of Thimphu in the Nation's Urbanisation.....	34
3.4.1 Population and Primacy	34
3.4.2 The National Capital Region	36
4.0 Sector Strategies.....	39
4.1 Local Economic Development	39
4.2 Poverty and Social Inclusion	41
4.3 Infrastructure and Environment.....	44
4.4 Heritage Conservation	46
4.5 Urban Management, Municipal Finance and Capacities	49
4.6 Summary of Strategies	51
 Annexes	
Annex I: Summary of the TSP 2004.....	64
Annex II: Poverty and Social Inclusion Study.....	68
Annex III: The Environment and Infrastructure situation.....	97
Annex IV: Thimphu City Corporation and its Capacities	109
Annex V : Thimphu City Local Areas Assessment	142
Annex VI : Detailed list of Proposed Strategies	162
Annex VII: List of people/officials met/consulted.....	169

List of Table

Table 1.1: Relating concerns of the T.O.R to the sectors / themes of the TCDS.....	5
Table 1.2: Updated data (2006) from four sources used in the TCDS:.....	7
Table 2.1: City profile	10
Table 2.2: Annual tourists to Thimphu	13
Table 2.3: No. of business licenses issued and operational as of June 2006	14
Table 2.4: Number of patients admitted in Jigme Dorji Wangchuck National Referral	15
Table 2.5: Number of schools and student enrolment in Thimphu City	15
Table 2.6: Number of vehicles registered in Bhutan by type, 2005	16
Table 2.7: Estimating the numbers	18
Table 2.8 Access to services in informal settlements	19
Table 2.9 Housing and livelihood in informal settlements.....	19
Table 2.10: Investments in capital city of Thimphu.	20
Table 2.11: Existing land uses Thimphu, 2002	21
Table 2.12: Major distribution of existing land use:.....	22
Table 3.1: Settlements in the proposed NCR	37
Table 4.1: S.W.O.T. analysis: Local Economic Development.....	39
Table 4.2: Proposed Strategies	40
Table 4.3: S.W.O.T. Analysis: Poverty and Social Inclusion.....	41
Table 4.4: Goals, objectives and proposed strategies for poverty reduction in Thimphu.	42
Table 4.5: S.W.O.T. Analysis: Infrastructure and Environment	44
Table 4.6: Objectives and Strategies	45
Table 4.7: S.W.O.T. analysis: Heritage Conservation	47
Table 4.8: Goals, Objectives and Strategies.....	48
Table 4.9: S.W.O.T. analysis: Municipal Finance and Capacities	49
Table 4.10: Objectives and Strategies:	50
Table 4.11: Key strategies to be implemented:.....	51
Table 4.12: Other important strategies to be implemented:	54

Figures, Maps and Images

Figure 1.1: The TSP and the TCDS.....	3
Figure 1.2: Relationship between the BNUS and the TCDS.....	3
Figure 1.3: CDS in general and the TCDS.....	4
Figure 1.4: Methodology for the BNUS and TCDS.....	9
Figure 2.1 Locations of Slum Areas in Thimphu	17
Image 2.1: Images from various informal settlements in Thimphu.....	18
Map 3.1: National Capital Region	38
Map 4.1: Map showing exiting heritage areas and structures in Thimphu.....	47

List of Abbreviations

ADB	Asian Development Bank
BCCI	Bhutan Chamber of Commerce and Industry
BHU	Basic Health Unit
BMA	Bhutan Municipal Act
BNUS	Bhutan National Urbanization Strategy
BPL	Below Poverty Line
CBO	Community Based Organisation
CDS	City Development Strategy
CDD/U	Community Development Department/Unit
DADM	Department of Aid and Debt Management
DBUDA	Draft Bhutan Urban Development Act
DUDES	Department of Urban Development and Engineering Services
DUDH	Department of Urban Development and Housing
DYT	District Planning Committee
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GDH	Gross National Happiness
GDP	Gross Domestic Product
GIS	Geographical Information System
GYT	Geog Yargye Tshongchug (Geog Development Committee)
HH	House Holds
HRD	Human Resource Development
LAP	Local Area Plan
LP	Land Pooling
MC	Municipal Corporation
MDG	Millennium Development Goals
MIS	Management Information System
MoF	Ministry of Finance
MoWHS	Ministry of Works and Human Settlement
NCR	National Capital Region
NEC	National Environment Commission
NGO	Non Government Organisation
NSB	National Statistic Bureau
Nu	Ngultrum
NUS	National Urbanization Strategy
NWAB	National Women's Association of Bhutan
O&M	Operation and Maintenance
PCS	Position Classification System
PPU	Policy Planning Unit
PT	Property Tax
PCC	Phuentsholing City Corporation
PIU	Project Implementation Unit
PMU	Project Monitoring Unit
PPD	Policy and Planning Department
PPH	Persons per Hectare
PPP	Public Private Partnership
RBA	Royal Bhutan Army
RCSC	Royal Civil Service Commission
RENEW	Respect, Educate, Nurture, Empower Women
RGoB	Royal Government of Bhutan
ROW	Right of Way
RSPN	Royal Society for Protection of Nature
SPV	Special Purpose Vehicle
TCC	Thimphu City Corporation
TNA	Training Needs Assessment
TCDS	Thimphu City Development Strategy
TOR	Terms of Reference
TSP	Thimphu Structure Plan, 2004-2027
ULB	Urban Local Body
UPO	Urban Planning Organization
ULGU	Urban Local Government Unit

1.0 Introduction

1.1 Background

1. The Government of Bhutan's vision for the country, "Bhutan 2020: A Vision for Peace, Prosperity and Happiness" provides a strategy for the country's distinct path of development over the next 15 years. It recognizes the country's unique challenges as it undergoes a profound and rapid demographic transition from a largely subsistence rural economy to an urban society. The document states that the urban population is expected to increase four times over the period of 20 years and reach 50 percent of the total by 2020. (The estimate in the BNUS based on the recent census data however shows that the urbanization rate is significantly higher than the previous estimates.) This is particularly challenging in the environment of high dependence on international resource flows – from hydropower and development assistance – and simultaneously high transportation costs between cities. The RGoB has recognized the need for embarking on a proactive approach to ensure that this urbanization leads to a balanced regional development. The vision document also recognizes that the country's relatively recent opening to the world economy offers many advantages, while at the same time it also carries risks to Bhutan's traditional values and fragile environment.
2. Given this perspective on its developmental challenges the Royal Government of Bhutan (RGoB) has placed a lot of emphasis on creating an environment, which would foster a balanced and effective system of local governments, and developing a strategy for the national urban development. The RGoB launched this initiative for the development of a National Urbanization Strategy (NUS) and Thimphu City Development Strategy (TCDS). Simultaneously as a part of the RGoB's effort to coordinate donor attention in the urban sector and act as guidelines for the preparation of subsequent investment projects, the Second Urban Development Project supported by the World Bank and Urban Infrastructure Development project supported by the ADB were also initiated.
3. This strategy initiative is financed and supported by the Cities Alliance jointly with the United Nations Environmental Program and the World Bank and prepared based on consultations with the staff of Government agencies and Thimphu City Corporation (TCC) and with citizens (conducted during several field visits and also through online surveys).

1.2 Organization of the Report

4. Chapter one introduces the background, establishing relationships and presents the methodology.
5. Chapter two presents a brief overview of the City and chapter three analysis its status identifying main issues and concerns. It builds on the city development strategy's relationship with the Structure Plan by underlining the vision, mission and objectives for the city. The chapter also reviews the city's role at the regional level and further at the national level in the urban context.
6. Chapter four lists out sector level goals, objectives and strategies, based on the preceding analysis and the interactions with the stakeholders.
7. Seven annexes are attached to the report of which first note is a brief summary documentation of the Thimphu Structure Plan developed 2002-04 and the next four are independent notes on the status of the city covering areas of poverty and social inclusion, infrastructure and environment situation, municipal finance and capacities and finally a rapid assessment of the local areas of the city has also been included as an annex.

1.3 Relationship of the CDS to the TSP, LAPs, and BNUS

8. Thimphu was initially a moderate town along the Wangchhu River before the capital was shifted here from Punakha in 1961. Since then it has seen constant growth and development. As an administrative capital of Bhutan, all the ministries are located in Thimphu and a large proportion of the employed population of Thimphu is in government services.
9. The Thimphu Structure Plan (TSP) 2004– 2027 was prepared in 2001- 02, and approved by the RGoB in 2004. The TSP was based on estimated population carrying capacity of the city (including the extended urban areas), and its main thrust was on formulating area development strategies based on land use planning which stressed the integration of conservation of the natural environment and the rich cultural heritage with the requirements for future urban development projected for the next 25 years.

Over the years Thimphu has grown from a cluster of houses around the old Tashi-Chho Dzong to the largest city in the nation. The earliest surveys were done for the city by the IIT, Kharagpur, India. The first plan for Thimphu was prepared in the mid-1980's, when the population was less than 15,000 people. Until then the valley was under-populated and the Royal Government used incentives to attract investors into land development and into building construction.

The scenario has changed dramatically over the last decade. There has been an influx of population into the capital with the growth of commerce and the expansion of government. During this period, several plan documents have been prepared. These were desk studies, which were not implemented, carried out hastily, with little data or analysis. Donor-sponsored missions prepared some rapid appraisals and plans during brief "missions". During this period the population has rapidly grown, and along with it construction has also mushroomed.

Source: Thimphu Structure Plan, DUDES, MoWHS 2004-2027

10. In the absence of a City Development Strategy, the structure plan also included a vision and set of objectives for the city. The structure plan is a detailed long term plan document that was to be implemented over next 25 years. The plan was prepared over three years through extensive consultations and surveys. The structure plan document was accepted as an official plan in the year 2003. The city's key issues have been identified and addressed in the TSP with long term implementation plan which includes funding plan, implementation plan and detailed proposals for action covering transportation, water supply, sewerage, SWM, housing etc plans and with specific focus on the environment and heritage conservation.
11. During 2003 – 2006, as a first stage of implementing TSP ten detailed Local Area Plans (LAPs) for the extended areas of the TCC were prepared. The local areas were identified in the TSP document and the LAPs were intended to detail out the steps to be taken at the local level to implement the TSP. Four of the LAPs are currently under implementation with demarcation on the ground either completed or under way. A modified version of the Land Pooling Methodology is being used to implement the LAPs. The World Bank and the Asian Development Bank under two different but related projects are assisting the RGoB implement the plans through provision of social and physical infrastructure. Detailed feasibility studies have been carried out under technical assistance projects and implementation will soon be underway under loan fundings by the donors.
12. During 2005 the RGOB conducted the first ever National Census of the population. The initial findings of the census revealed many interesting findings of which the following two were of national importance requiring immediate attention:
 - i. Very rapid rates of urbanization, and

ii. Limited land available for urban uses

And consequently the preparation of a Bhutan National Urbanization Strategy (BNUS) was initiated. Simultaneously under the same project, Thimphu City Development Strategy (TCDS) also was initiated so as to:

- Have an early review of the TSP and LAPs in light of the draft BNUS, and respond to the national level strategies evolved in the BNUS, examining the role of Thimphu City in the nation's urbanization,
- Also review the TSP and the LAPs from sectoral perspectives and from a city management perspective
- Use the experiences of Thimphu City's development in national level strategies in the BNUS

Figure 1.1: The TSP and the TCDS

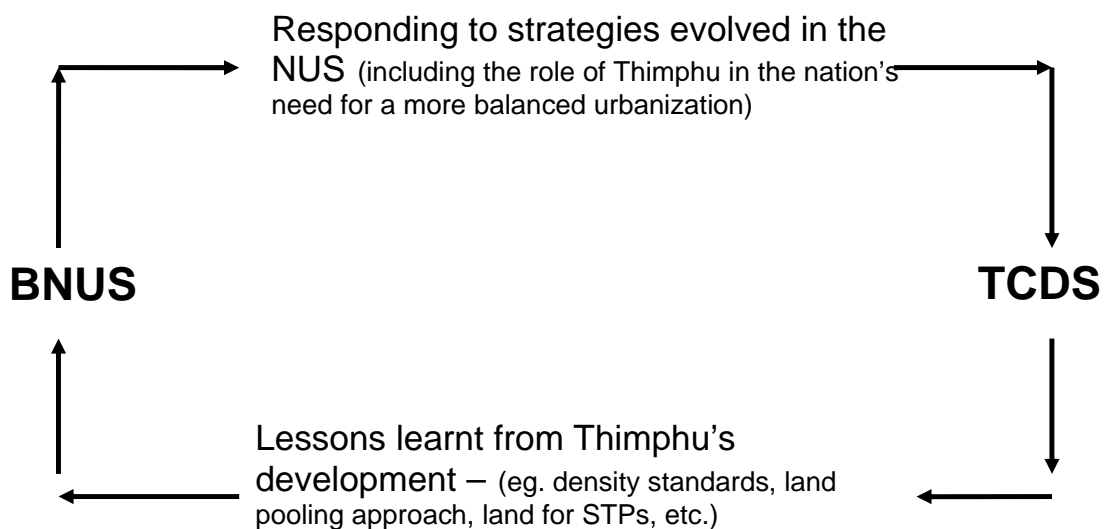
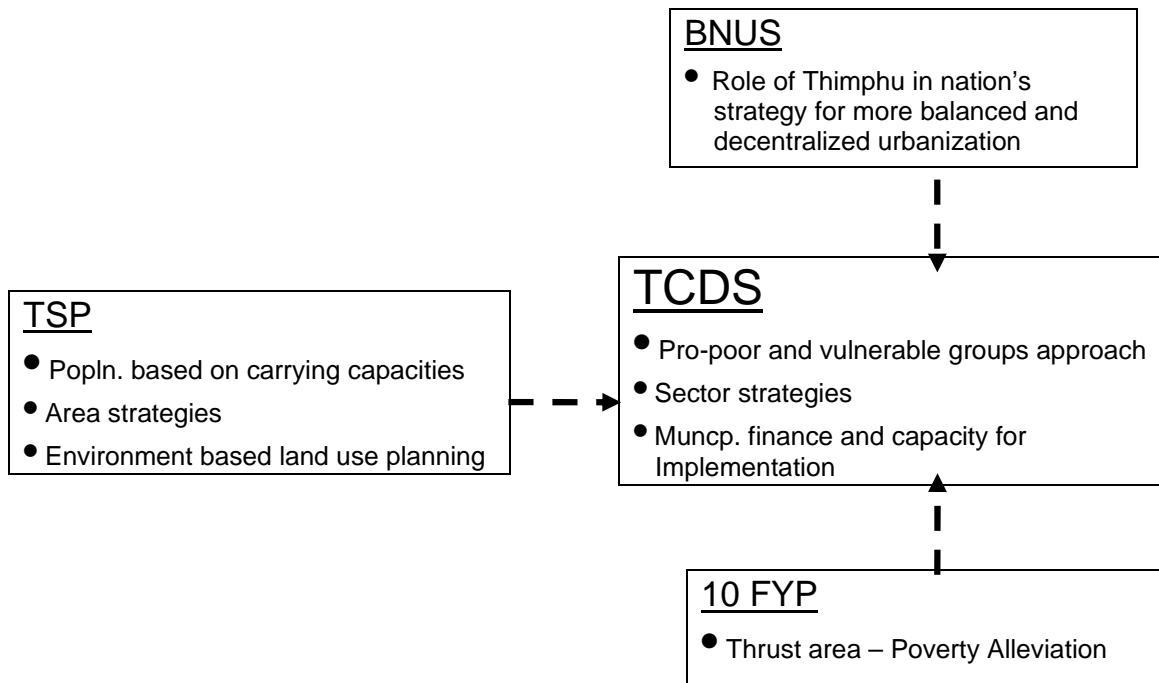
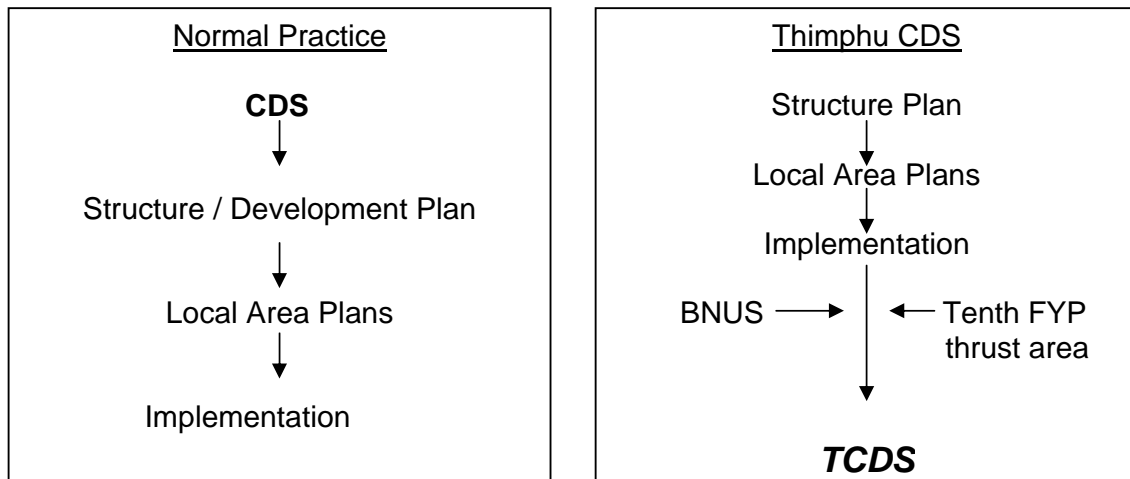


Figure 1.2: Relationship between the BNUS and the TCDS

13. In normal practice the City Development Strategy forms an initial exercise, which becomes the basis for preparing a structure plan, followed by the preparation of local area plans for implementation. In the case of Thimphu City however it is different. As already discussed, the 25-year perspective Structure Plan has been in place for sometime. The Local Area Plans have been finalized and are currently under implementation. The national urbanization strategy is under finalization and the thrust area for the next (Tenth) five-year plan has been announced. Hence the City Development Strategy for Thimphu City needed to be developed to respond to the following context.

Figure 1.3: CDS in general and the TCDS



14. The TSP was prepared under a traditional town planning approach to city development, which was more ‘physically’ oriented and ‘technical’ in its approach to development. The TCDS on the other hand intends to focus on a five-year perspective with a management-based approach to city development, building on stakeholder participation and resource management. It is imperative that the CDS document be developed with a short-term perspective in the current context as the nation and city itself is undergoing extensive transformation that will not only change it physically but also change the way it is managed. Over the next five years the city will have undergone first phase of its transformation and will require a re-look into its development strategy.

1.4 The Terms of Reference

15. The Thimphu City Development Strategy is expected to include: Review / analysis of the situation in Thimphu City, including projections for the long term requirements of its development, service levels, key issues in the city, results of public consultations, etc.; Policy and institutional reforms required to implement the city’s vision of economic growth and employment in an environmentally friendly manner, respecting cultural values and ensuring accountability and sustainable urban management, e.g.:
1. Policies for prioritization and financing of investments in municipal services (particularly, the 10 local areas) and greater involvement of the private sector and community in service provision;
 2. Enforcement of environmental protection policies;
 3. Incorporation and preservation of cultural heritage and local values in the city’s development;
 4. Institutionalizing public consultation process and ensuring inclusion of the vulnerable groups such as poor and women;

5. Requirements for adjustments in taxation, tariff, expenditure and other financial policies; and requirements for capacity building for the implementation of the TCDS.

16. According to the above description the project will cover the following areas:

1. Local Economic Development
2. Poverty and Social Inclusion
3. Infrastructure and Environment
4. Heritage Conservation
5. Municipal Finance and Capacity

The following table indicates the cross cutting relationship between the concerns in the T.O.R. and the sectoral strategies identified in the Draft TCDS.

Table 1.1: Relating concerns of the T.O.R to the sectors / themes of the TCDS

Concerns \ Sectors	Sectors				
	Local economy	Poverty and social inclusion	Infra. and Environment	Heritage conservation	Munc. finance and capacity
Employment / livelihood					
Pvt. Sector involvement					
CBO involvement					
Taxes and tariffs					
Land and shelter					

17. The TSP has dealt with ‘Infrastructure and Environment’ and ‘Heritage Conservation’ in quite detail and much of that is already being implemented by external funding. The TCDS will review the existing proposals in two sectors while initiating strategies and policies in the other three sectors.

1.5 Overall Methodology for the BNUS and the TCDS

18. Following is the description of the methodology developed for this project based on the preceding listed objectives and requirement of the contents of the two strategies. The project will be completed over a total period of eight and half months in four phases – the third phase is two months long with overlaps with the second and the last phase.
19. The first phase (six weeks) included a detailed background study, second phase (sixteen weeks) involved further data collection, field visits, consultations, detailed analysis and the drafting of the Urbanization Strategy, the third phase (eight weeks) overlaps the last two weeks of the second phase and concentrates on the CDS for Thimphu and the last phase (five weeks) will be the main discussion and dissemination phase when both the strategy documents will be put forward for public dissemination and a national level workshop will be conducted for formal discussion with the stakeholders.

Phase I – Background Study (Week 1-6)

20. The background study leading to a preliminary understanding of the present context was done through a brief review of key documents and through consultations with local and key stakeholders from various sectors. A general understanding of current perception and ideas and reasons for priority areas and issues was gained.
21. The first stakeholder workshop was conducted on 15th May 2006. The inception report presented the summary of the issues, observations, agreements and differences obtained as feedback from the stakeholders.

Phase II – Formulating Draft National Urbanization Strategy (Week 7-22)

22. Based on the understanding gained in the preceding phase a more focused second round of data collection, research and analysis on the potential regional and national growth centers was undertaken. A draft National Urbanization Strategy was formulated and formally presented in a Workshop. A week later, the Strategy, detailed further in response to the feedback received during the Workshop, was presented to the Working Group to steer the study further. A draft report incorporating, wherever possible, the suggestions received were submitted at the end of the phase.

Phase III – Developing the Draft Thimphu City Development Strategy (Week 21-28)

23. The third phase involved developing the Thimphu City Development Strategy based on the Draft National Urbanization Strategy. The CDS attempts developing appropriate strategies to implement some of the critical recommendations of the Structure Plan and identifies also giving advice on the necessary policy framework, capacity up-gradation, and resource mobilization for achieving the same.
24. Developing the TCDS involved the following:
 - Preparation: baseline information collection – assessment of services and facilities in various areas in Thimphu City, compilation of data and projections from the Structure Plan and the Local Area Plans
 - Analysis: analyzing strengths and weaknesses, the impacts of the recent past and ongoing projects, and identifying priorities as per perceived requirements; consensus building around a common understanding of the city's problems and priorities;
 - Strategy formulation: defining a vision and mission, formulating strategies, and developing policies / actions.
25. Consultations across the above three sub-stage with continuous participatory processes involved stakeholder meetings and consultations to arrive at a formal political commitment, agreed vision, and the strategic framework was finalized after the public hearing / final workshop in the fourth phase.
26. Activities and Outcomes: Phase III
 - Background study for the Thimphu City Development Strategy (household surveys of local areas under the project, results of household surveys conducted in the city by MoWHS recently, online surveys with assistance of Kuensel online.)
 - Detailed consultations under the existing Local Area Plan Framework (consultations at four local areas with assistance from TCC and at some identified informal settlements around the city).
 - Develop the Thimphu City Development Strategy.
 - Present to the TCC and stakeholders and make the necessary changes through the third workshop.

Phase IV – Public Hearing, Publicity Campaign and Approval of Documents (Week 29-33)

27. The fourth and final phase was initiated with a national level workshop (Workshop 4) to discuss the outcomes of the project and receive the feed back from various stakeholders and participants. The two day city level open consultation exercise was also carried out at the clock tower square in Thimphu. This was followed by internet based dissemination exercise at the national level that was informed to the citizens by the Bhutan Broadcasting Service at the national level.

28. The last phase was extended further through organizing a tripartite meeting also attended by representative from key ministries.

29. . Activities and Outcomes: Phase IV

- Conduct and document national level workshop for presenting the outcomes of the project.
- Public hearing of the draft documents
- Detail out and develop the materials for dissemination procedure and the awareness raising campaign.
- Finalize the two strategy (BNUS and TCDS) documents and submit for approval.

1.6 The TCDS Approach and Methodology

29. Steps in the CDS

Data compilation

- 1) Compiling data, profiling the state of the city

Analysis

- 2) Summarizing key problem areas for the sectors /themes
- 3) S.W.O.T. analysis of key themes/ sectors

Strategy Formulation

- 4) Defining a vision / mission and supporting objectives
- 5) Formulating interventions, strategies
- 6) Developing policies / actions

30 In addition to the data in the TSP and the LAPs, the TCDS is supported by city level surveys conducted by the DANIDA, household surveys conducted in the local areas, area level consultations and an online survey conducted by the project team through the local national newspaper Kuensel.

Table 1.2: Updated data (2006) from four sources used in the TCDS:

Data source	<i>Field visits Sample HHs in the 10 local areas (IPE)</i>	<i>Field visits covering entire city uniformly Sample HHs (DANIDA)</i>	<i>Focus group discussions (IPE)</i>	<i>Online query (Kuensel)</i>
Data	Access to services	Services, perceptions and attitudes	Access to services, land / shelter problems, perceptions	Vision for city, perceptions - key areas for improvement
No. of responses	156 HHs	456 HHs	10 poor settlements, and 4 local areas	45 responses

1.7 Inputs for the TCDS (Consultations)

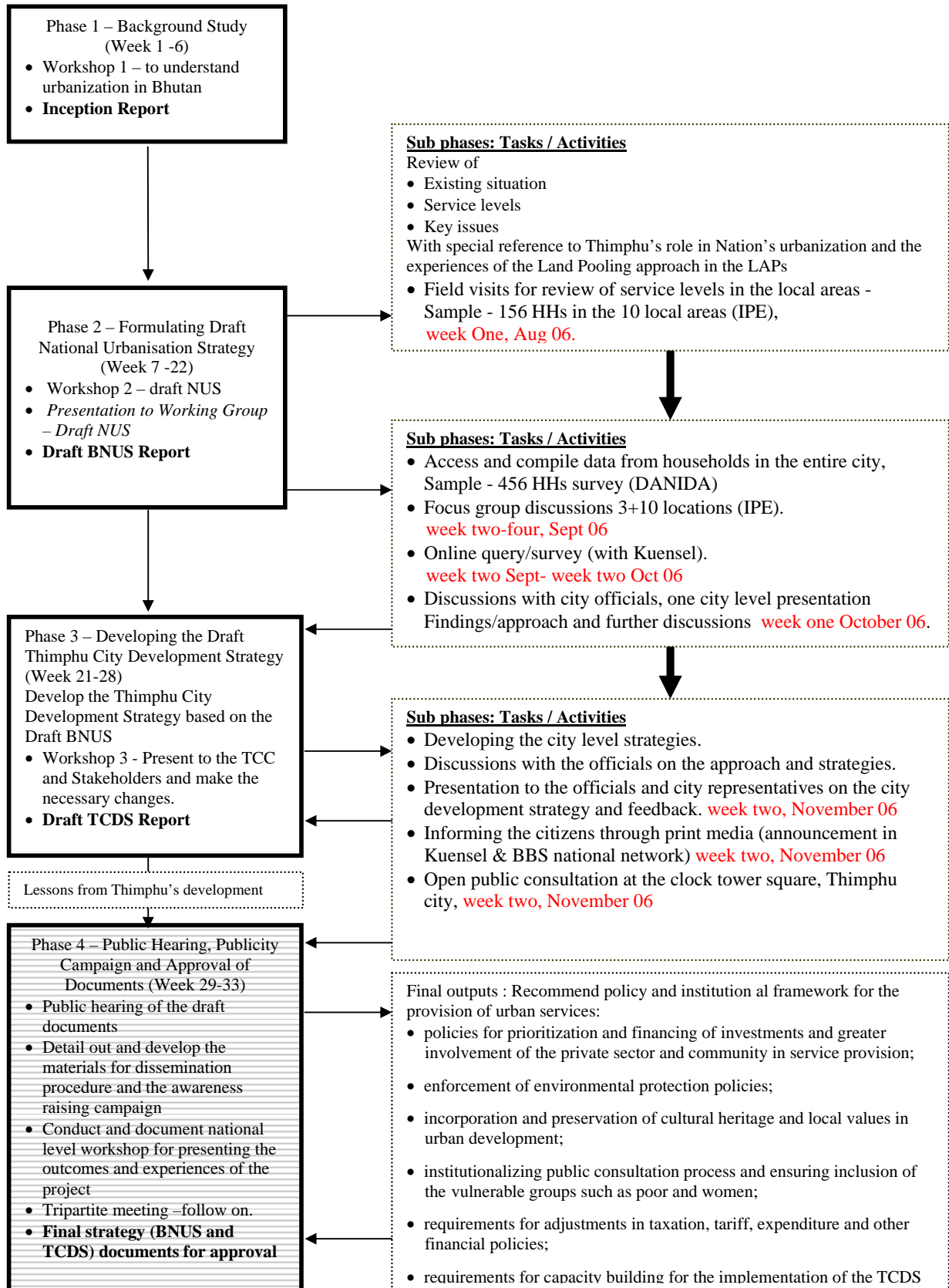
31. Questionnaire based surveys were conducted in 10 local areas to identify the level of services and implementation of the structure plan in the extended areas of Thimphu during the first and the second weeks of August 2006 covering 156 households. Based on the initial findings of the surveys and consultations within the extended areas, discussions were held with the sector/department heads of the Thimphu City Corporation. A review of the complaints received till date in the last four years by the corporation was also carried out.
32. Three local area level consultations with assistance from City Corporation were held in Babesa, Lanjophaka and (workshop area) Changzamtong areas (Thimphu city is subdivided into 10 local areas for implementing the TSP). Seven poor areas of the city were covered in detail through consultations on site that included :- areas opposite the vegetable market; around the three water tanks in Motithang; behind RMA in Kawajangsa; near Youth Hostel; behind Ministry of Labour and Human Resources in Motithang; Kala Bazaar; and Changzamtong areas.
33. Based on our initial findings and understanding of the ground situation another discussion with the officials of the Thimphu City Corporation was conducted that included the Thrompon (Mayor) and the deputy administrative officer.
34. A four week long online survey was initiated with assistance from the Kuensel online (web based version of the Bhutan national newspaper). The questionnaire was structured to receive from the citizens the main issues and concerns within the city and also to obtain from them the future outlook of the city they envisioned. The survey was on during Sept./Oct. 2006 and 45 responses have been incorporated in the report.
35. The first city level consultation workshop was conducted on the 6th Oct 2006 and was attended by the officials and representatives of the City Corporation, NGO's and concerned citizens. The main suggestions and recommendations of the participants were incorporated, detailed assessments of TCC's capacities were included and the draft report was submitted towards the end of the month.
36. The second consultative workshop with the city representatives and concerned officials of the various departments and ministries was carried during the second week of November, 2006. This was followed by a two day long public consultation at the Clock Tower Square in Thimphu.
37. During the second city level consultative workshop the city committee members raised a lot of issues and concerns. Most of the concerns related to the delay in implementation of the local area plans, lack of infrastructure in the city and the lack of decision-making capacity of the TCC. Most of the concerns and issues raised were addressed and strategies agreed upon in the workshop.

1.8 Component Outputs and Reporting

38. The key outputs of the CDS component for this project are:
 - (a) The Thimphu City Development Strategy;
 - (b) Two workshops; (one at city level, final workshop at city/national level)
 - (c) Assisting the MoWHS deliver the public information and awareness raising campaign and materials including one city level open consultation.

The Consultants were required to report to the Project Coordinator, Policy and Planning Division, Ministry of Works and Human Settlement.

Figure 1.4: Methodology for the BNUS and TCDS



2.0 City: Overview of existing situation

2.1 City Profile

Table 2.1: City profile

Size and Shape	26.13 sq. km; Linear. 15 km long and 3 km wide (max.)
Topography	River valley running in a north-south direction
Population	79,185 (2005)
Poor Households	4 to 12 % of the HHs (ref. annex 2)
Social facilities	
Schools	4 nursery, 9 primary, 6 junior high school & 5 high schools
Health facilities	The citizens mostly rely on the National Referral hospital and BHU's in RBA, RBG and DANTAK Dispensary
Open spaces	Changlimithang Sports Ground, Royal Botanical Garden, Clock Tower Square, which has a small children's play area, existing golf ground with restricted access to the public
Public Facilities	
Public toilets	Located mainly in the core area
Post boxes	General Post Office and boxes in institutes
Bus stops	Located in all developed areas in the city, and also in the extended areas
Police posts	Located in central core area
Infrastructure	
Water need per capita	150 L/capita /day
Water to be supplied	13,000 m ³ /day
Waste Water generated	10000 m ³ /day (assuming 80% of water supplied)
Extent sewerage Network	12% city area
STP (Sewage Treatment Plant)	Stabilization ponds (Lagoons)
Capacity STP	1,750 m ³ /day
Retention Time	54 days
Land area	13 acres
Flow waste water to STP	1450 m ³ /day
Disposal point of treated effluent	To river
Discharge standard	BOD 25 mg/L
Compliance with standard	Good, never exceeded the limits
River flow - summer	135 cumecs
River flow - winter	10 cumecs
Water quality river	Generally good
Solid Waste Generated	40 tones / day
Recycling	Virtually non-existent
Composting of organic waste	New plant constructed, not operational
Medical waste	1 hospital incinerator not operational
Collection frequency	Every 1-3 days

Source: Thimphu Structure Plan, DUDES, MoWHS, 2004-2027

2.2 Location and topography

1. Thimphu City, the capital of Bhutan is located in western Bhutan at 27° 30' N latitude and 89° 30' E. Its approximate altitude ranges from 2,240 to 2,648 msl with the surrounding hills rising over 3800 msl.
2. Thimphu is accessible by road, from India through the southern town of Phuentsholing, which is about 175 km away. It is also accessible by air from Paro, which is about 55 km. away.
3. Dechencholing in the north and Serbithang in the south mark the administrative extremities of the city. Geographically, the city is spread along the Wangchhu River valley in a linear fashion. The city may be divided into the southern parts of Babesa and Semtokha, the settlements of Lungtenphu and Changjiji near the river, the elevated area of Motithang, the flat areas of Hejo and Jongshina, the northern parts of Taba and Dechencholing, and the city core along the river on flat land. (Refer annex 5 for more details of the local areas)
4. The northern region of the country comprises the High Himalayas having many peaks and plateaus. The central region has north-south running ranges and deep valleys with rugged foothills which run into the alluvial plains of India in the southern region. Thimphu city falls in the region of north-south running ranges.
5. Bhutan is located within a seismically active belt, the Himalaya region being a geologically young and still active area. Though the more active belt lies in the southern part of the country and Thimphu is in the north, the concerns over earthquakes in Thimphu is reflected in the heights of the buildings planned / permitted. Currently no building in the city has more than six floors.
6. The area in and surrounding Thimphu has been surveyed and demarcated into zones of varying slopes. The gradient of the slope is a factor in deciding whether building should be allowed. Also removal of forest or vegetative cover can encourage loss of slope stabilization and landslides due to heavy rain or other forms of inclement weather. Areas with slope gradients greater than 30 percentage are not considered safe for development.

2.3 Climate

7. The city part of the valley enjoys a warm, temperate climate with an average annual rainfall varying between 500–1000 mm. The average daily winter temperature varies between 5–15°C and the average daily temperature during summer varies between 15–30°C. The southwest monsoon brings rainfall to the valley during the months of mid-June to September. The average annual rainfall is typically 813 mm with a maximum average of 167.5 mm during June and often no precipitation at all during November. The rainfall is marked with lightning and thunder and can often continue for days causing streams and rivers to swell up carrying huge amounts of debris from forests. Cold winds, low temperatures at night, and moderate temperatures during the day, cloudiness, light showers and snowfall mark winter weather in the valley.

2.4 Main tourist attractions

8. Thimphu, as the capital city, plays an important role in tourism development and has a number of tourist sites such as museums, monasteries, a small zoo, traditional buildings and designated scenic walks. Tourist groups flying into Paro airport 55 km. from Thimphu use the city as an arrival point before departing to remote regions for trekking.

Structures with importance on National Level:

1. Tashichho Dzong
2. Simtokha Dzong
3. Dechenphodrang Lhakhang
4. Changangkha Lhakhang
5. Tandin Ney Lhakhang
6. Gongzu (Memorial) Chorten
7. Khamzug Chorten
8. Tashichho Dzong Footbridge
9. SAARC Building
10. National Library and National Archives
11. Folk Heritage Museum
12. Textile Museum

Structures with importance on City or Regional Level:

13. Zhabdrung (Shabdrung) Lhakhang
14. Dechenphu Lhakhang (Outside Municipal Boundary)
15. Dechencholing Goempa (Outside Municipal Boundary)
16. Zangdo Pelri Lhakhang
17. Hejo (East) Chorten
18. Hejo (West) Chorten
19. Hejo (South) Chorten
20. Tashichho Dzong (North) Chorten
21. Tashichho Dzong (South) Chorten
22. Tashichho Dzong (Traffic Circle) Chorten
23. Chang Bangdu (South) Chorten
24. DANTAK (River) Chorten
25. Babesa (North) Chorten
26. Babesa (South) Chorten
27. Chorten near Direction Deity Statue
28. Serbithang Chorten
29. Pangri Zampa Mani Wall
30. Hejo Mani Wall
31. Dechenphodrang Mani Wall
32. Prayer Wheel at Dechencholing Traffic Circle
33. Prayer Wheel at Simtokha Traffic Circle

2.5 Social economic profile

2.5.1 Population

9. According to the National Housing and Population Census report, in 2005, the Thimphu Dzongkhag population was 98,676. Thimphu city limits cover a total area of about 26 km² and the town population was recorded as 79,185, implying a population density of 3,046 people per km². Thimphu city contributes 40 percentage of the nation's urban population and 12.5 percentage of the national population.
10. The Thimphu Structure Plan acknowledges the high population growth rate for Thimphu and is based on projection for the year 2025 (162327 persons) please refer TSP, section 5.0 on population and carrying capacity,

2.5.2 Employment

11. The unemployment rate in Thimphu Dzongkhag is the highest at 5.4 percentage compared to the 2-3 percentage for the country as a whole and 4.1percentage in urban

areas in Bhutan. Since Thimphu City accounts for more than 70 percentage of the Dzongkhag’s population this implies a relatively high unemployment rate in the city.

12. Tough details of employment pattern are not available for Thimphu City, it is generally stated that around 40% of the employed population is likely to be in government service. The main source of employment in the private sector is tourism and related activities of the travel and hospitality sector. Bhutan has adopted a “low volume, high value” approach to tourism which has limited negative environmental and social impacts. As the capital city Thimphu is the starting point for most of the tourists and general visitors. The infrastructure development must be planned to cope with indigenous population growth as well as growth of transient visitors.
13. Some 77.5 percentage of all tourists to Bhutan spend most of their time in Thimphu aside from visiting Dzongs in other districts, monasteries and going on treks. The average length of the stay of tourists in Bhutan is 8.6 days.
14. The Thimphu Structure Plan acknowledges employment to be one of the key issues that need to be addressed through encouraging the private sector. It proposes neighbourhood nodes and urban hubs within each local area that will essentially be a service node giving employment and entrepreneurship opportunities to the citizens. For further details please refer TSP, introduction, section 4 and 4.1

Table 2.2: Annual tourists to Thimphu

Year	Total no. of tourists in Bhutan	No. of tourists visiting Thimphu (Total Bhutan x 77.5%)
2001	6393	4955
2002	5599	4339
2003	6261	4853
2004	9249	7168
2005	13626	10560

(Source: International Tourism Monitor Annual Report 2005, Kingdom of Bhutan, Produced by the Department of Tourism, Ministry of Trade and Industry, Royal Government of Bhutan).

2.5.3 Industries

15. Thimphu city has a significant number of service industries (vehicle repair, sawmills etc.) located in the Changzamtog industrial area. Licenses for a total of 317 processing and manufacturing industries have been issued from 1977 to June 2006. 184 of them are operational. Most common types of ‘production units’ operational within Thimphu City are:
 - 1) Video and audio production = 58
 - 2) Furniture manufacturing/selling = 32
 - 3) Printing (press, photocopying, digital printing, t-shirt printing etc.) = 20
 - 4) Bakery = 7
 - 5) Sawmill = 5
 - 6) Incense production = 5
16. Licenses for 3757 construction contractors have been issued from April 1983 to June 2006. These include only commercial type of constructions such as contracted house construction, construction of infrastructure such as roads, bridges etc. and not personal house constructions. Only 663 of these contractor firms are currently operational.
17. Licenses for 4157 service industries such as shops, restaurants, bars, consultancies, travel companies, ticketing agents, beauty salon, telephone booth, tailoring etc. have been issued from 1977 to June 2006. Of them 2752 are operational.

18. The Thimphu Structure Plan proposes only agro based light industries, workshops and garages within the city limits and these can be operationalised only after clearances from the NEC. For details please refer section 4.7 precinct sangtity, TSP

Table 2.3: No. of business licenses issued and operational as of June 2006

(PAM: Processing and Manufacturing Industries,
SVC: Service Industries,
CON: Construction Industries)

	2001	2002	2003	2004	2005
PAM: Licenses issued	18	22	29	31	30
PAM: Operational	15	16	21	30	30
PAM: % Operational	83.3%	72.7%	72.4%	96.7%	100%
SVC: Licenses issued	270	375	435	485	578
SVC: Operational	169	271	274	440	545
SVC: % Operational	62.6%	72%	63%	90.7%	94%
CON: Licenses issued	654*	297*	81	69	76
CON: Operational	68	72	53	69	74
CON: % Operational	10.4%	9%	65.4%	100%	97%

* No. of licenses issued in 2001 and 2002 is very high because multiple licenses were issued for the same contractor for different kinds of construction work such as painting, construction, electrical wiring etc. The system was changed from 2003 onwards where each contractor was issued one license for all kinds of work.

Source: MTI, Thimphu

2.5.4 Health Care

19. The national referral hospital is located in Thimphu City. In addition the city has an army hospital in Lungtenphu, an indigenous hospital in Kawajangsa and an Indian military hospital. Between 2000 and 2003, the highest number of patients (125,300) was reported at the Jigme Dorji Wangchuck National Referral Hospital in Thimphu¹.

20. According to the PHCB, 2005, a total of 14,192 households² of Thimphu City visited a health facility in the year preceding the census date. This is 84 percentage of the total population of the city and the second highest percentage of visits to a health facility in an urban area for the whole country. The highest percentage of reported visits to a health facility was 93 percentage for Damphu town in Tsirang.

21. Table 2.4 shows the number of patients admitted in the Jigme Dorji Wangchuck National Referral Hospital in Thimphu categorized by nature of disease. This includes patients referred from hospitals in other districts also. It will be seen from the table that 'complications of pregnancy' and 'others' account for a large proportion of the patients. 'Other respiratory diseases' such as common cold, tonsillitis, laryngitis, asthma, pharyngitis, sinusitis, bronchitis etc. do not indicate unduly high proportion of the numbers. Therefore air pollution or environmental problems may not be a very significant causative factor for the high percentage of patients in Thimphu.

22. The Structure Plan proposes BHU's in all local areas that do not have a health facility already located there. The health facility plan is fairly well detailed in terms of capacity, location and implementation. For details refer TSP, section 4.9.7.3 and tables 5.16 and 5.17.

¹ RGoB, 2005

² According to PHCB average household size for Thimphu city is 4.7.

Table 2.4: Number of patients admitted in Jigme Dorji Wangchuck National Referral Hospital in Thimphu categorized by nature of disease

No.	Diseases	2001	2002	2003	2004	2005
		No.	No.	No.	No.	No.
1.	Pneumonia	326	418	375	330	372
2.	Ankylolysis and Acquired skeletal defect (accidents/injuries)	364	338	317		
3.	Other respiratory diseases	377	440	354		405
4.	Neoplasms (cancer)	303				
5.	Other abnormalities of delivery and Puerp.	378	389	486	588	
6.	Other diseases of the digestive system	162	143		226	309
7.	Complications of pregnancy	164			241	2105
8.	Other gynecological diseases	267	207		225	
9.	Cataract		216		233	
10.	Gall bladder diseases	337	389	409	377	190
11.	Hyperbilirubinemia (Jaundice, hepatitis etc.)	181	146	181	258	
12.	Other diseases of the Musculo-skeletal system		198	234		
13.	Skin and other infections			228		
14.	Appendicitis			219	204	
15.	Other bacterial, virus or parasitic infections				329	197
16.	Other cancers					475
17.	Kidney, UTI and other genital disorders					501
18.	Conditions originating in the perinatal period					398
19.	Injuries and poisoning					485
	Others	4012	4216	4228	4838	2651
	TOTAL	6871	7100	7031	7849	8088

2.5.5 Education

23. According to the PHCB report, 10,983 males and 10,548 females above 6 years in Thimphu city are currently attending a school or institute. This means there were about 21,531 students attending schools or institutes last year. Of this 17,934 are attending school and the remaining 3,597 are attending institutes such as computer training institutes, the Royal Institute of Management at Semtokha, the Painting School and others.

24. The PHCB report also says that 17,811 males and 9,804 females attended a school/institute in the past and 8,905 males and 11,813 females never attended school.

Table 2.5: Number of schools and student enrolment in Thimphu City

	HSS		MSS		LSS		PS		TOTAL	
No. of schools	5		1		6		13		25	
No. of students	4407		916		6952		5659		17,934	
No. of girls and boys	G	B	G	B	G	B	G	B	G	B
	2301	2106	527	389	3581	3371	2790	2869	9199	8735

HSS: Higher Secondary School (Class 9 – 12), MSS: Middle Secondary School (Class PP – 10), LSS: Lower Secondary School (Class PP – 8), PS: Primary School (Class PP – 6)

Source: MoE, Thimphu

25. National Board examinations are carried out at the levels of class 6, 8, 10 and 12 in the country. In general the proportions of students passing through these levels are above 90 percentage for the whole country and more or less the same for Thimphu City³.

26. The Thimphu Structure Plan proposes to have school facilities at various levels across the local areas to address growing needs and provide education facilities locally. The detailed plan provides location, capacity and further details for these schools for details please refer section 4.9.7.2 and tables 5.14 and 5.15 of Thimphu Structure Plan.

³ Royal Government of Bhutan, Ministry of Education, Policy and Planning Division, General Statistics 2006

2.6 Connectivity and transportation

2.6.1 Air Connectivity

27. The only international air access to Thimphu City is via Paro airport which is 55 kms by road from the city. Druk Air is the national carrier and the only airline that operates through this airport. Most tourists arrive by this route and use Thimphu as a staging point for trekking in the more remote regions.

2.6.2 Road Network and Vehicles

28. Vehicles are registered in four regions: Thimphu, Phuentsholing, Gelephu and Samdrup Jongkhar. These are mainly light vehicles, e.g. cars, pick-ups and small vans, two-wheeler / motorbikes, heavy vehicles such as trucks, buses and large vans, and other miscellaneous vehicles such as cranes, road rollers, and tractors.

Table 2.6: Number of vehicles registered in Bhutan by type, 2005

Vehicle Type	Vehicles in Thimphu	Total Vehicles in country	Type % of the Total
Heavy	1,668	4,352	14.6
Light	11,645	17,424	58.2
Two-wheeler	3,417	7,138	23.9
Others	372	1,000	3.3
Total	17,102	29,914	57

(Source: RSTA)

29. The total length of roads in Thimphu City is 78.6 km. (as per the Department of Roads, Ministry of Works and Human Settlements). In the 2005 Population and Housing Census, it was found that 4,741 households out of the 15,728 households in Thimphu City owned one or more vehicles implying that only 30 percentage of the households owned a motor vehicle. Even at this level of vehicle ownership, a serious concern was raised regarding the increasing traffic and parking problems in the city.

2.6.3 Thimphu City Public Transport System

30. The Thimphu City bus service was introduced by the Thimphu City Corporation in 1999 with a fleet of four buses covering Dechencholing, Hejo, Motithang and Babesa areas. In 2000, the Bhutan Post took over the Thimphu City bus service and after one year they increased the fleet size to ten buses, including one bus maintained as a standby. The coverage of the city bus service was expanded to the two additional areas of Jungshina and Changbangdu. The city bus service operates 72 trips a day on weekdays and 63 trips a day on Sundays and public holidays. During the winter period, i.e. from December to February, the frequency is reduced to 63 trips a day on weekdays and 54 trips a day on Sundays and public holidays. In terms of distance, the Thimphu city bus service covers 1,100 to 1,500 km. each day⁴.

31. The Thimphu Structure Plan acknowledges that the vehicle ownership rate in Bhutan is high (1.2 vehicles/household). It proposes a transportation plan for intra and inter city connections by suggesting an appropriate mix of pedestrian linkages and efficient public transportation system, hierarchical road networks, to limit further private vehicle ownership. The plan elaborates a circulation plan, Public transportation system and

⁴ Bhutan Post

transportation project map to detail. For further details please refer section 4.6 proposed traffic and circulation, page 151, Thimphu Structure Plan.

2.7 Poverty profile

2.7.1 Informal settlements

32. It is difficult to establish who exactly constitutes this segment of the population because some residents choose to live in poor dwellings despite having reasonable incomes. As they illegally occupy land they are reluctant to improve the buildings and they have no legal right to demand provision of municipal services. Also people move into and out poverty in response to shocks such as loss of a job. However it is estimated that somewhere between 800 to 2,900 households in Thimphu are on the poverty line. Their locations are shown in figure 5.

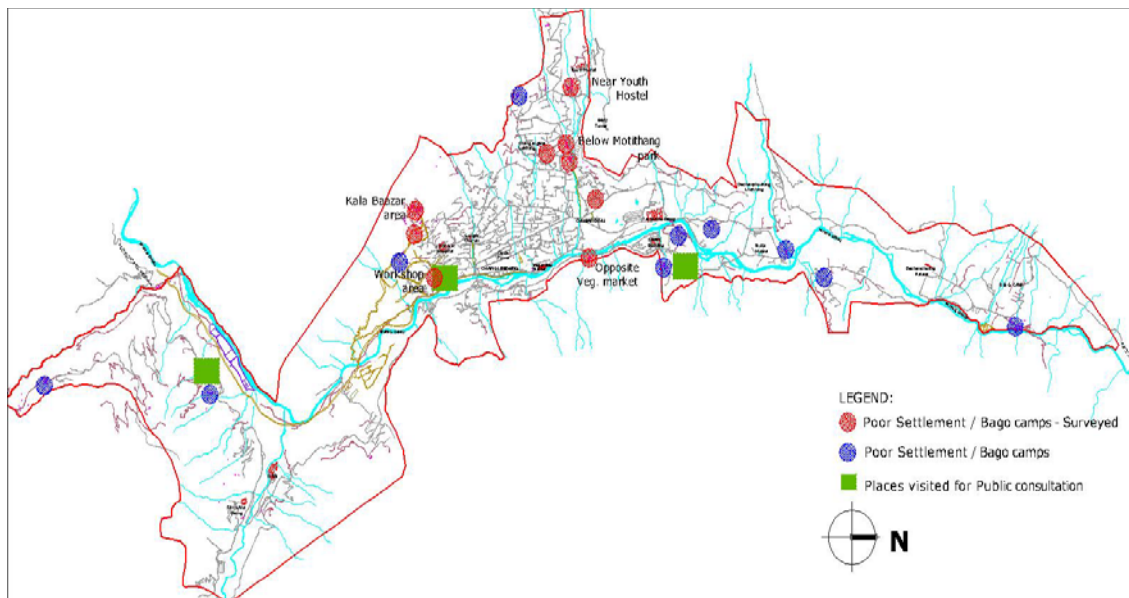


Figure 2.1 Locations of Slum Areas in Thimphu

2.7.2 Poverty and vulnerability

33. Although extreme poverty is virtually absent, by international standards, Bhutan still remains a poor country. The Poverty Analysis Report (PAR) 2004 established the overall poverty line at Nu. 740.36 per capita per month. The relatively high level of poverty is attributed to the country's harsh terrain which limits infrastructure development, lack of available land for economic activities, low and scattered population which leads to a shortage of labor and markets, a largely subsistence-based traditional way of life, and minimal involvement of the private sector.

34. There is a vulnerable sector in Thimphu. Indicators can be used as proxies to give approximate quantitative data.

Image 2.1: Images from various informal settlements in Thimphu



Table 2.7: Estimating the numbers

Indicator	Bhutan Urban	Thimphu Dzongkhag
GDH (% unhappy)	2.7%	3.4%
Unemployment Rate	3.1% (combined Rural+Urban)	5.4%
Housing type		
Roof material temporary	30.4%	12.8% (Number=1267 urban area)
Wall material temporary	22.3%	76.3% (Number=4347, urban area)
Not House owners	9.7%	23.7% (Number=4673)
No access to safe water	15.5%	3.8% (Number=203, urban area)
No access to toilets	10.8%	7.4% (Number=791, urban area)
Main source of lighting not electricity	39.5%	3.7% (Number=166, urban area)

Source: PHCB, 2005

35. At present no concrete numbers of poor or vulnerable in the capital are known. The project team has made use of the above national census figures to estimate the possible number of poor in the city. For 'Bhutan Urban' the percentages indicated are mostly of the national urban figures available, while for Thimphu Dzongkhag the percentages indicated are total unless otherwise indicated (total numbers in the category in urban areas). Number of poor and vulnerable in the city of Thimphu may lie between 4-12 percentage; which translates to about 4800-14400 population; 800-2900HH.

Table 2.8 Access to services in informal settlements

Tenure	Ownership	settlements	Access to Basic Services					Access to Social services	
			Water	Sanitation			Power	Health	Education
				Toilets	SWM	Waste Water			
TCC/ PWD/ disputed / Old village	Govt/ Disputed/legal	4-40 HHs	Untreated stream water/ Piped/ with common taps	Open defecation with some shared/ private toilets/ VIDPLs	Collected by TCC	Informal drains/ Clean /unclean	Metered	BHU/ Govt. hospital	Govt. school

Table 2.9 Housing and livelihood in informal settlements

Housing Type	Age of settlement	Sense of security	Livelihoods
Temporary material for roof and walls	10-30 years	Low to High	TCC /PWD employees, plumbers, gardeners construction labour, Govt employee, self-enterprise, small business, homemakers.

36. Sustainable use of environmental resources can help poor communities to break out of the poverty trap. At the same time, poor communities may engage in activities detrimental to the environment and society such as deforestation and poor waste management in order to survive.

37. The Thimphu Structure Plan, provides only a basic overview and a concept related to poverty in the section 1.3.9 facilitating access to shelter and section 1.2.6 opportunity matrix. Since poverty has since then emerged as a thrust area (in spite of its current low level of incidence) it needed to be addressed in more detail by the TCDS

2.8 Ongoing projects and planned investments

38. There are two major donor funded projects that are going on to assist the government implement the Thimphu Structure Plan and improve urban infrastructure. The projects funded by the World Bank and the ADB are mainly working towards provision of water supply, wastewater management, roads and other urban infrastructure for the city.

39. Besides these a number of other projects have been going on and are proposed in the near future. Numerous investments to improve city infrastructure for 2008 coronation celebrations are also planned.

Table 2.10 Investments in capital city of Thimphu.

S.No.	Funding source	Area	Investment	
			Other currencies	In million Nu.
1	Danida	water Supply		50.100
2	Danida	Housing		8.600
3	Danida	Toilet upgradation		2.080
4	ADB	Infrastructure	5.11 million USD	204.400
5	ADB*	Infrastructure	30.75 million USD	1230.000
6	Danida	Infrastructure and others		76.246
7	Danida*	sewerage	85 million DKK	637.500
8	RGoB	Redevelopment of Changlimithang Sports Ground and Periphery, Coronation Park		231.3
9	RGoB	Ministers' Enclave Project		455.7
10	RGoB	Improving Tshechhu Ground		59.9

2.9 Land Use

40. Thimphu consists of a mixture of residential, commercial, light industrial and government buildings with supporting infrastructure such as water, energy supplies, sanitation and transport.
41. The city is surrounded by forest-covered mountains. About 19 percentage of the total area within Thimphu Municipal Corporation limits is under forest cover, mainly on the hill slopes. The second major land use is residential, accounting for nearly 18 percentage of the total area.
42. The economy is dependant on agriculture. Most of the land currently under cultivation lies in small and isolated pockets along the main river valley. Land under agricultural use accounts for more than 15% of the area of Thimphu city, and land under orchards (mostly apple orchards) accounts for another 11percentage.
43. The following table presents the pattern of use of land in the TCC as surveyed in 2002 and the likely pattern that will emerge after the TSP and the LAPs are implemented. More than 50 percentage of the area was unbuilt, being under forest, agricultural, orchards, water and vacant. This will reduce to 40 percentage (approx) by 2027 assuming that all the proposals of the TSP and the LAPs are implemented.

Table 2.11 Existing land uses Thimphu, 2002

Land Use	Existing Uses, 2002		Land Use / Precinct	Likely pattern after implementation of TSP and LAPs	
	Area (in Ha)	Percentage of Total Area		Area (in Ha)	Percentage of Total Area
Agriculture	410.24	15.7	E-3	22.95	0.88
Orchard	290.30	11.1	E-4	415.04	15.88
Commercial	37.64	1.4	UV-1	86.29	3.30
Defense	174.55	6.6	Endowment	174.55	6.68
Forest	488.11	18.6	E-2	399.13	15.27
Industrial	11.76	0.4	UH	9.786	0.37
Recreational	49.12	1.8	G-1 & G-2	131.63	5.04
Religious	1.04	0.0	H	39.28	1.50
Residential	467.21	17.8	UV-2	531.99	20.36
Vacant	187.61	7.1			
Institutional	221.84	8.4	I (Institute)	303.61	11.62
Surfaced Road	74.73	2.8	Roads		
Unsurfaced Road	14.11	0.5			
			Others		
			NN (amenities)	22.21	0.85
			E-1	291.79	11.17
Water	60.62	2.32	Water	60.62	2.32
Data unavailable	124.12	4.75	Data unavailable	124.12	4.75
Total	2613.00	100.0		2613.00	100.0

Source: Thimphu Structure Plan, DUDES, MoWHS, 2004-2027

Table 2.12 Major distribution of existing land uses to other uses as per Thimphu Structure Plan:

	Existing Uses, 2002		Likely pattern after implementation of TSP and LAPs
Land Use	Percentage of Total Area	Land Use / Precinct	Percentage of Total Area
Agriculture	15.7	E-3	0.88
Orchard	11.1	E-4	15.88
Commercial	1.4	UV-1	3.30
Residential	17.8	UV-2	20.36
Vacant	7.1		
Defense	6.6	Endowment	6.68
Forest	18.6	E-2	15.27
		E-1	11.17
Industrial	0.4	UH	0.37
Recreational	1.8	G-1 & G-2	5.04
Religious	0.0	H	1.50
Institutional	8.4	I (Institute)	
Surfaced Road	2.8	Roads	11.62
Un-surfaced Road	0.5		
		Others	
		(amenities) & UH	0.85
		E-1	11.17
Water	2.32	Water	2.32
Data unavailable	4.75	Data unavailable	4.75
Total	100.0		100.0

44. The above table shows that the most significant change proposed in the TSP is converting agricultural land into a variety of uses including commercial, residential infrastructure and amenities (mainly roads and residential areas).

2.10 Service Levels in the city

2.10.1 Road network

45. The central area of the city has a well-developed road network for external as well as internal connectivity. Most of the extended areas in the north and the south of the city have connectivity through the Dechen Lam, Chagchhen Lam and Samtiling Lam (in the north) and Thimphu-Phuentsholing highway and expressway (in the south).

2.10.2 Transportation

46. The intra-city bus service run by the Bhutan Post accesses most of the developed areas within the city. Only the core area has designated parking areas mainly identified along the major streets. A few formal parking areas have also been identified like the ones near milk booth and Lugar Cinema.

2.10.3 Water Supply

47. Water supply by the City Corporation is mostly limited to the core city, along with Changjiji. A major portion of the extended areas relies on Rural Water Supply System and some communities rely on untreated stream water. Presently two treatment plants supply water – one in Upper Mothithang and second in Hejo.

2.10.4 Sewerage system

48. The existing sewerage system of Thimphu City functions completely on the gravity system and covers mainly the core city with one 225 mm branch catering to the JDWNR Hospital and the area around it, and the other branch serving the Tashichho Dzong and the ministry offices. The unserved areas mostly rely on private septic tanks and soak pits. The treatment plant located in Babesa is utilized for wastewater treatment, which functions on the “waste stabilization pond” principle.

2.10.5 Solid waste disposal

49. City Corporation has a system of collecting the solid waste from door-to-door, largely in areas where there is a motorable road access. Where there is no direct road access either there are common bins or the citizens have their own method of disposing the solid waste, either by burning or by burying. The waste is collected in compression trucks and transported to the waste disposal site located on a hill outside the city.

2.10.6 Others

50. Street lighting currently is limited only to the main roads and the secondary and tertiary roads are excluded from the street lighting system.

51. Most of the citizens either have a landline or a mobile phone. Only the economically upper class has personal computers with internet connection and this is mostly concentrated in the core area.

52. City level household surveys, online surveys and discussions suggest that most citizens in the local areas are eagerly awaiting the implementation of the local area plans. The extended areas lack most of the civic infrastructure and the survey’s report their expectations of having access to proper infrastructure.

53. The Thimphu Structure Plan addresses all the above concerns and provides long and short term actionable solutions to each of the above in part 4, Proposals for Action in

much detail. The current World Bank and ADB funded infrastructure projects are essentially implementing these proposals after detailed feasibility studies.

Water supply in areas with or without municipal supply lines is one of the priority concerns as communities with municipal lines also feel the supply most certainly could be improved. The solid waste management and sanitation is the other very important concern of the city dwellers as the people feel that there is tremendous scope for improvement.

Source: City level HH survey, survey of HHs in local areas and Kuensel online survey. (Please Refer Annex 3 section 2)

2.11 State of the Urban Environment – environment, water, air, land, noise

54. Shortage of developable land for urban uses is a factor, which permeates all aspects of environmental management in Thimphu. It is common to all issues and is a limiting factor.

2.11.1 Vegetation

55. Bhutan has a wide variety of plants, many of which have conservation significance. There are three main eco-floristic zones: the alpine zone; the temperate zone and the sub-tropical zone. Towns and cities currently occupy only a small portion of the total land area. Trees and shrubs are planted extensively within urban areas around the country and are an important part of the urban environment.

56. Falling in the temperate zone, the Thimphu City is surrounded mainly by coniferous forests dominated by blue pine. Riparian vegetation, marshland vegetation and paddy fields are the dominant types of vegetation within the valley. A number of ornamental plants and trees such as willow, poplar, juniper, cryptomeria, cupresses (local and imported species), beech and hibiscus have been planted along streets, the river and in open spaces, adding significantly to the city's appeal. Areas of the city are designated as preserved areas to protect the indigenous flora and fauna.

2.11.2 Wildlife

57. The forests within and surrounding the city harbor a few wild life species such as, the himalayan black bear, sambhar, leopards and macaws. The forested area between Langjophaka and Taba, and along the eastern banks of Wangchu act as corridors for bears and leopards. The city valley served as a bird's paradise in the past. Increases in population and reduction in vegetative cover and open spaces has significantly changed the bird populations. Some common bird species that can be spotted within the city currently are choughs, crows, sparrows, doves, pigeons, wagtails, hopoe and white throated laughing thrushes. Common species found in marshy areas and along the river are black tailed craig, rudy craig, wood snipe, ground diper and Ibis bill.

2.11.3 Noise

58. Noise is generally not a problem in Thimphu city, except for the barking of street dogs in the core area, which tourists and visitors find disturbing.

2.11.4 Water

59. Water availability for the city is not an issue currently due to the river and various spring sources. Water quality is fairly good. However traces of pollutants in the streams and

rivers are found to be slowly increasing. It has been estimated that about 11 percentage of the reported medical cases in a year are due to water borne diseases. Water consumption is around 135 m³/day. Drinking water is provided mainly by four streams flowing above the city. There are only two water treatment plants in upper Motithang and Samteling which supplies treated water to approximately 44 percentage of the city(households). There has been an actual reduction in proportion of population with sustainable access to improved water source mainly due to increase in city boundaries. Most of the newly included areas in the city boundary have access to water from springs, irrigation lines and rivers, the quality and safety of which is increasingly doubtful with the reported increase in trace pollutants.

60. 12 percent (households) of the city is connected to current sewerage system. The WWT plant was initially designed for a population of only 12,500 people. There has been an actual reduction in proportion of population with sustainable access to improved sanitation mainly due to increase in city boundaries (though it is anticipated to increase in future due to the implementation of ongoing projects). The presence of faecal coliforms in the river water confirms septic tanks overflowing and polluting open drains. River water quality is deteriorating and corrective measures need to be taken.

2.11.5 Air

61. The proportion of households using clean energy (electricity) is 48 percentage in Thimphu. Presently specific city data for Thimphu relating to number of vehicles is not available. However based on the number of registrations of vehicles for the region there has been an increase by over 250 percentage in last 15 years. Still ambient air quality measured purely in terms of “respirable particulate matter” (PM10) is 24.5 that favorably matches international standards. The census shows(PHCB 2005) that 4 percentage of the city household population use kerosene, 2 percentage uses fuel wood and about 45 percentage use LPG for cooking purposes.
62. Municipal solid waste and medical waste generation is 36.5 MT/year; this has risen from 8 MT/year in 1994. Though the waste collection network is well established in the city, concerns raised relate to regularity and cost recoverability.

2.11.6 Parks and Open Spaces

63. The city currently has only one children’s recreational park. The policy of the TCC prohibits any type of construction along the boundaries of rivers and streams in order to have a green buffer zone along the streams and the river.
64. The Forest and Conservation Act of 1995 prohibits the felling of trees within a 30 meter corridor of the river or any streams to protect the watercourses. This law is not respected within the city limits.
65. Visual impact is a concern as much of Bhutan’s attractiveness is based on its natural beauty. Urban areas such as Thimphu are connected to the national high voltage grid and so require step down transformer substations before local distribution can be effected. These require large land areas. One such area is located near the river. Local supplies can be above ground on strung cables or underground in protected conduits. Above ground systems have greater visual impact whereas underground systems tend to be at least four times more expensive and have higher maintenance costs as breakages are harder to detect. However, if the pleasant pedestrian areas in central Thimphu are to be preserved, underground cables should be used despite the higher costs.
66. To preserve scenic beauty, the existing sight lines should not be blocked by new development. Underground or multistory car parks, or “park and ride” public transport

schemes could be implemented to attract more pedestrians, whilst remaining visually acceptable.

67. The Thimphu Structure Plan focuses on protecting and minimizing negative impacts to the environment. It visualizes Thimphu mature as a green city and the whole plan is developed towards that aim with addressing environmental concerns to detail. The principle one of the intelligent urbanism concept is balance with nature. Please refer section 1.2.1, 2.14 and part three, existing scenario of the TSP for more details.

2.12 City management

2.12.1 Governance and institutional setup

68. The Thimphu City Corporation (TCC) is mandated for civic governance of the national capital city of Thimphu. The Bhutan Municipal Act (BMA), 1999 provides the legal framework for the TCC for urban governance. Policy stance for its day-to-day functioning flows from the Ministry of Works and Human Settlements (MoWHS). The law at present does not have the following:

- (i) It does not grant autonomy to the TCC that constrains functioning of TCC as a self-government institution,
- (ii) It does not permit a political executive system which is the hall mark of local self-government,
- (iii) It does not grant TCC the authority to set its own rates,
- (iv) It does not contain provisions for participatory and accountable local government.

Note: with the change in the political system in 2008, TCC is likely to get complete autonomy and a political/elected person as its head.

69. Autonomy of TCC is diluted due to

- (i) Provisions in the Charter issued in 2003,
- (ii) System of appointed members in the Committee, and
- (iii) The Committee being chaired by an appointee of the government.

70. These gaps in the existing legal framework require an amendment of the BMA. These need to be addressed by incorporating appropriate provisions in the legal framework for promoting:

- (i) Autonomous decision making process and procedure by the Committee,
- (ii) Political executive system wherein the elected Mayor will preside over the Committee and will be the chief executive of the MC, and
- (iii) Dispensing with the provision of nominated members in the Committee. Such an executive system will make the appointed Thrompon responsible for performing executive functions (not having executive powers) and making him/her responsible to the Mayor and the Committee.
- (iv) TCC should also have the authority to decide the rates of tax and non-tax sources that should not be subject to approval by the government.

71. Granting of autonomy to the TCC would, however, need to be accompanied by certain checks and balances by putting in place appropriate structure and processes for participatory governance initiatives as mentioned below:

- Creation of Community Development Department in the TCC for putting in place local electoral ward based community structures for participatory governance.
- Involving the community organizations in plans, programs, and activities of the TCC and even in budgeting and tax collection.

- Creation of Ward Committee in each local government electoral Ward to be chaired by the elected local representative from the Ward and providing representation of civil society groups on the Ward Committee.
 - Electoral Ward based budgeting system and involvement of the focus groups within the electoral Wards in prioritizing and implementation of local development schemes.
72. Urban governance and delivery of civic services and basic urban infrastructure are presently overviewed by the Thrompon who is vested with performance of executive functions and is accountable to the Committee of the TCC. He is assisted in the discharge of his functions by a Policy and Planning Unit (PPU) and a legal cell. Existence of PPU in TCC is an innovative practice for looking ahead and planning the city systems for the anticipated demographic and physical growth. However, in its present form (limited expertise in terms of number and quality); it is not in a position to look ahead and meet the civic needs of the city.
73. Functions devolved to the TCC are presently discharged by five division's viz. (i) Engineering Division, (ii) Development Control Division, (iii) Environment Division, (iv) Urban Planning Division, and (v) Administration and Finance Division.
74. Issues of governance, management and administration have not been addressed in the Thimphu Structure Plan and hence is being covered in the TCDS.

2.12.2 Role of RGOB

75. Bhutan is presently faced with a dilemma with regard to autonomy to be given to the ULGUs and the need for handholding and control especially during the nascent phase of experimentation with urban local government institutions. Too much of autonomy may at times prove counterproductive. Keeping this in view perhaps, the BMA has elaborate provisions for control. It provides for handholding of the MC as well. Handholding and control measures are mentioned below. Steps and mechanisms required to promote institutions of local self-government as provided for in the BMA are the following:
- The Competent Authority is required to recommend to the RGoB for incorporation of a municipal corporation.
 - The Competent Authority to guide and assist the Thrompon in carrying out of functions referred to in Sections 13, 14, 15, 16, and 17 at the time of holding of local elections.⁵
 - The Competent Authority to recommend to the RGoB for extension of the local government boundaries at the instance of the MC.
 - Upon creation of a MC, the RGoB to determine the assets and the liabilities to be transferred to the municipality.
 - The Competent Authority to recommend to the RGoB giving of grants for operating and capital budgets of the MC and for its inclusion in the national budget.
 - The Competent Authority to assist Municipal Corporation facing extraordinary or emergency situations in obtaining assistance from the Royal Government.

2.12.3 Role of private sector

76. Public-Private Partnership constitutes an important element of local government capacity building and enhancing efficiency and effectiveness in delivery of services. Much of these, obviously require to be put in law and hence these issues should very much form part of the legal framework of local governance. An important aspect of mitigating the problem of (i) accessibility to skills, (ii) effective, efficient and responsive delivery of services, and (iii) constraints on the availability of financial resources is privatization and

⁵ These Sections contain provisions and steps required to be taken for holding of local elections by the Thrompon.

contracting out of local services. The existing BMA provides for entering into contract with any promoter or individual. However this would need to be specified in terms of forms of privatization and/or management contract further.

2.12.4 State of finances

77. At present, TCC is faced with mounting operating losses. Its own revenue collections from tax and non-tax sources are inadequate to recover operating and establishment expenditure. The annual losses are currently met out of the budget support provided by RGoB. But TCC would soon be accorded the status of 'local government and this is contingent upon attaining financial self-sufficiency. Financial sustainability is also critical for reducing dependence of the corporation on external funding.

3.0 City (Macro Level) Strategies

3.1 Key Problem Areas

1. The main concerns of the city are:
 - Questionable capacity to absorb economically and socially, the young, educated migrants attracted to the capital
 - Protecting the environmentally sensitive areas and resources in the face of land pressures
 - Integrating the heritage into the evolving built environment
 - Financing the development and operations and maintenance of physical infrastructure
 - Providing housing and basic facilities for the poor in an inclusive and participatory approach
 - Enhancing the capacities of the TCC to manage all the above tasks

2. The city of Thimphu is currently undergoing major physical and structural reorganization that will be complete mostly by the end of 2008. Following are the key issues that are affecting the city:
 - a) Recent expansion of the city area by more than three times
 - b) Infrastructure for these extended areas does not exist as of now- plans prepared- feasibility and project design underway- water supply, sewerage, transportation, SWM, etc.
 - c) Local area plans covering necessary amenities and facilities prepared and approved- awaiting implementation- schools, hospitals, shopping, banks, vegetable markets etc
 - d) The Thimphu City Corporation functioning under the Municipal Act can take decisions at its level, but can always be challenged and referred to the Competent Authority to revert the decision taken
 - e) The City Corporation has limited or almost nil financial capacity of its own to manage or develop the city as of now
 - f) The corporation also has limited technical manpower capacity to manage the development of the city
 - g) Many short term, but priority projects (particularly infrastructure projects) are being implemented within the city for the forthcoming 2008 celebrations- that will impact development which may not necessarily be the same as envisioned in the TSP
 - h) The democratic local government system is currently underway and will change the way urban areas are managed.
 - i) The Draft Urbanization Strategy proposes a particular development future for the city that demands intervention into the city's growth and expansion potential for the future.
 - j) The city of Thimphu has been developed till date mainly by government funding and external sources of finances –this might have to change but how? In what direction?
 - k) The structure plan has been prepared in 2001-2002 and the citizens have been awaiting implementation of the project since then. Currently the citizens do not want anything more than to see the plan implemented. This may change the city completely

The Key problem areas in each sector are summarized in the following sub-chapters.

3.1.2 Sector wise issues identified for the city:

A) Local Economic Development

- Not enough surveys or studies to assess the current status of the local economic sectors,
- There are no city level roadmaps for economic development,
- The tourism and hospitality sector is likely to be the largest generator of private sector employment,
- The transport sector, health care and education sectors are the other fast growing sectors that may be privatized later,
- Excluding the tourism, hospitality and transport sectors, skilled and trained manpower for the health and education sectors are not adequate,
- Real estate sector is another area that is likely to emerge in future,

B) Poverty and Social Inclusion

- The definition or mapping of vulnerable groups has not been conducted,
- All groups and communities do not seem to have been included in decision-making. There exists no framework or mechanism to ensure participation or inclusion of all groups – as per survey carried out during project,
- All services are not equally accessible to all groups,
- Due to high land and house prices affordable housing is becoming an issue, which is leading to existence of residential areas that lack proper housing,
- Thimphu has a very high migration ratio and a high percentage of the cities population does not belong to Thimphu. The limited availability of land and high prices has made security of tenure an important issue,
- The changing physical, political, social and economic situation has also started affecting the employment options for the citizens. Often the citizens are not skilled enough to take advantage to these emerging opportunities. There is a need to identify, outline and train the willing citizens to benefit from these situations,
- There exists no long-term plan or perspective for the poor that can act as a guideline for addressing their issues.

(Please refer to annex 2 for more details.)

C) Infrastructure and Environmental Management

- Appropriate technology for local conditions,
- Implementation of the many existing environmental policies is an important issue,
- Cost recovery and charges for services,
- Management issues for the various services,
- Effective control of building on slopes.

(Please refer to annex 3 for more details.)

D) Heritage Conservation

- Guidelines and policies for implementing conservation measures,
- Economic framework for implementing conservation programs,
- People's participation –community.

E) Municipal Finance and Capacities

- Lack of adequate and trained manpower,
- Limited financial capacities,
- Absence of identified roadmap for the future.

(Please refer to annex 4 for further details.)

3.2 S.W.O.T. Analysis

STRENGTHS

1. Capital and administrative center.
2. Easy application and opening procedures for shops/private enterprises.
3. Tourism center and entrance to the nation- well connected.
4. Most of residents are committed to land pooling, a key criteria for starting implementation.
5. Environmental acts, regulations and ECOPs exist for city level development.
6. High literacy level exists in the city.
7. The existing structure plan is based on the environmental carrying capacity of the city.
8. No major pollution concerns till date.
9. Most of the heritage sites have been identified in the Structure Plan.
10. A separate cell of the MoHCA specially to address the heritage issues. DoAHC already exists with the required expertise.
11. Enough tourists' impetus to explore the possibility of protecting the heritage areas through its own earnings.

WEAKNESS

1. Terrain makes intercity and intracity connectivity difficult.
2. City economy not documented or studied.
3. High rentals and limited commercial (high opportunity) areas do little to promote private enterprise.
4. While land owners/empowered residents are aware of intended plans, other stakeholders such as employees, farm labor, poor residents, etc. seem to have only vague knowledge of the proposals.
5. Housing for poor has not been adequately addressed in the LAPs.
6. City lacks capacity to engage local communities, in particular the poor, in a dialogue.
7. City lacks qualified human resources (planners with a social development expert) to deliver the plans on ground.
8. No action plan for alternate employment and re-skill-ing in sectors where demand for employment has gone down has been prepared.
9. Only 12% of the city is connected to the WWTP. High levels of raw sewage and domestic waste water flowing in the storm drains and river.
10. High population growth rate hence increasing scale of environmental problems in the city.
11. Increasing pressures due to modernization, traffic, waste generation.
12. Lack of staff and capacity with TCC at present.
13. Absence of live examples to demonstrate locally the economic benefits of conserving heritage.

OPPORTUNITIES

1. Projects proposed in the TSP can act as generators of economic opportunities for the city.
2. Focus on eco and bio products for the increasingly conscious-global clientele.
3. Area development has resulted in land value escalation, giving rise to opportunities for wealth creation.
4. New opportunities for income generation have opened up (rental from housing, commercial rental, shops along expressways etc.)
5. Since most agencies implementing environmental policies are located in Thimphu it could be easier to carry out environmental monitoring activities within the city.
6. Better response to environmental awareness campaigns due to higher level of literacy

7. The three ongoing urban development projects (2 World Bank and 1 ADB) presents many opportunities for developing Thimphu into a better planned city with reduced environmental impacts.
8. Environmental management practices of Thimphu city could serve as a model for replication in other towns of Bhutan in future.
9. Areas in the city exist that have been identified as traditional villages however a framework for developing these tourist sites needs to be developed.

THREATS

1. Relation between overall economic development and rate of immigration.
2. Moratorium on development till implementation of plan will cause development to occur outside boundaries.
3. Changing economic options of livelihood for many people.
4. Unemployment in some areas is already manifest as demand for certain skills no longer exists (eg. Farm labour).
5. Delayed implementation has stalled growth of particular enterprises (e.g. investment in new technologies in businesses in anticipation of relocation, discontinuation of farming activity in expectation of building housing).
6. Rising levels of urbanization prompted by housing development will also increase poverty levels. In the absence of social housing strategies/plans, growth of slum like settlements (on private land) is a distinct possibility.
7. Even if the city is able to implement the plans, they will need to plan for O&M; especially as indigenous technology options have not been adequately explored.
8. Delay in implementation of structure plans and improper management of services will have effect on the environment.
9. If the population is not capped higher pressures on the environment.
10. In the absence of guidelines, surrounding development may island the Heritage areas.
11. If the economic benefits of retaining a heritage structure are not explored the heritage structures may actually give way to modern structures.

3.3 Vision and Mission

3.3.1 Existing Vision and Objectives

1. The Thimphu Structure Plan 2004-2027 outlines a vision for the city, based on identified objectives for the development of the city. Interventions and recommendations were further proposed to achieve the same.

Vision (as per the TSP): Thimphu is the mirror of Bhutan. It must be the best of what the country can be. It is a reflection of the hopes, aspirations and dreams of the people. The capital should be a message of what the future can be. It is a media that transfers ideas!

Objectives to achieve the Vision

2. Following are the objectives which were kept in mind while preparing the vision for the TSP:
 - Identification of various precincts to facilitate mixed use development
 - Identification and demarcation of environmentally sensitive areas as no development zones or Environmental Enhancement Zones,
 - Identification and demarcation of Traditional Villages and Heritage places, as conservation precincts – to encourage tourism,
 - Designation of urban villages (local areas), each with a nucleus of Neighborhood Node (for daily needs),
 - The facilities within Neighborhood Node for sustainability:
 - 1) Health,
 - 2) Recreation,

- 3) Essential Commerce,
 - 4) Public convenience,
 - 5) Public Utility,
 - 6) Public management
- Identification of Urban Hubs, one in south and one in north, to release the pressure on the core area,
 - Extensive redevelopment of core area, to have a attractive urban setting,
 - Identification of Central spine, which continuously runs from north to south, to improve the connectivity and also developing designated pedestrian movement system, linking the open spaces and other land uses,
 - Main theme of transportation system:
 - 1) Urban Corridor,
 - 2) Road Classification,
 - 3) Pedestrian and Bike movements,
 - 4) Public Transit System,
 - 5) Integration of transport stops, with walking areas,
 - To have local network for services, to tap the local resources and increase efficiency – by dividing the city into various zones.
 - Though the Thimphu Structure Plan has successfully proposed a plan to address the identified objectives however certain important areas and concerns were not focused upon as they did not form a part of the identified objectives then. The City Development Plan attempts to look at the development of the city through a perspective to address those concerns under the broader framework of the already identified Vision.
 - The Structure Plan Treats Thimphu as a “Dream city of all Bhutanese”, above all
 - People friendly,*
 - Culturally vibrant - Center of constructive social change and a balance with tradition;*
 - Environmentally sustainable – a balance with nature*
 - Creator and distributors of information leading to regional and national integration;*
 - Home of transparent and civil institutions adding to the conviviality, security and identity;*
 - Arena of self-discovery and personal reinvention.*

Strategies to achieve the principles were listed as:

- 1) Decentralize growth (multiple nodes),
- 2) Densification,
- 3) Urban precincts (for identity and management),
- 4) Increase public assets,
- 5) Facilitating access to shelter and services,

3.3.2 Additionally identified objectives:

3. Besides the above, it is also important to include the following emerging concerns. The TCDS thus identifies five additional objectives to make the progress towards the identified vision smoother:
 - 1) Social inclusion and support to the vulnerable,
 - 2) Better economic and livelihood opportunities,
 - 3) Improving the access and quality of services to citizens,
 - 4) Conservation of heritage,
 - 5) Better management of the city.
4. It is also true that at the current juncture the onus of realizing the vision does not (and cannot) solely lie with the government or the City Corporation. All the stakeholders within the city will have to work together sharing roles and responsibilities and supporting the implementing authority to achieve the same.

3.3.3 Mission

5. To work **together** towards a better tomorrow that is guided by an enterprising and innovative spirit to take initiatives so as to improve living conditions building on the existing resources and using them judiciously.

<p><u>Resources:</u></p> <ul style="list-style-type: none"> • Heritage and culture • Hardworking population • Environment • TCC's resources • Capital city and administrative seat • Best infrastructure and connectivity • Positive development guidelines- the TSP

<p><u>Working together:</u> Sharing roles and responsibilities towards the mission.</p> <ul style="list-style-type: none"> • Role of City Council • Role of Business groups • Role of Communities • Role of RWAs • Role of special groups: youth, old, handicapped, women etc. • Role of the common man • Role of NGOs

3.4 Role of Thimphu in the Nation's Urbanisation

3.4.1 Population and Primacy

1. The Draft BNUS highlighted the skewed pattern of distribution of the urban population in the nation and the relative concentration of the nation's urban population in Thimphu City, making it a primate city. Since the primary aim of the BNUS was to achieve a balanced urban development at the regional level, a counter magnet was proposed in the form of a second national city – Gelephu. The Draft BNUS also identified 'Regional Growth Centers' in the eastern part of the country to facilitate a relatively more balanced distribution of urban population by 2020.
2. In both the large urban cities, Thimphu and Phuentsholing, a high proportion of the employed population is civil servants. The pull factor for rural-urban migration in these regions at least, may be related to the administrative decisions to locate the government offices in these two cities⁶. Spatial distribution of government offices will be one strategy for mitigating migration to these two cities⁷.
3. At present based on the published information of the Census 2005 the capital city of Thimphu houses approximately 40 % of the nation's urban population. Over 70% of the Dzongkhag population resides in the city. The city will house approximately 88% of the nation's urban population by the year 2020 if the current growth rates were to continue. Thus a proactive intervention is desirable in the context of the nation's overarching aim of balanced regional development.
4. If the recommendations of the BNUS were to be implemented and the population of the city capped as per the recommendations, the population of the city will reach a maximum of 26% of the total urban population of Bhutan, by 2020.
5. The city's population is 79,185 based on the 2005 census. This is nearly 4 times the next sized city (Phuentsholing's popln. = 20,537). That implies that Thimphu is a primate city. The draft BNUS recommends Thimphu's desirable population by 2020 as 120,000 which

⁶ Ninth Plan Main Document (2002- 2007), Planning Commission, RGoB

⁷ *Ibid*

will be only twice the targeted size of the second largest city (Gelephu – 60,000) in 2020. Thimphu City will thence be no more a primate city in 2020 and this will lead to a more regionally balanced pattern of resource distribution including human resources.

6. The rationale for the above projections are based on the following:
 - The Royal Government of Bhutan has an overarching policy of an equitable and balanced development for the nation.
 - The limited capacity of land available in Thimphu City to accommodate population without endangering the environment.
7. The city authorities need to concentrate on larger issues and areas such as:
 - Population influx into Thimphu
 - Urban –rural linkages
 - Areas under direct influence of Thimphu
 - Employment opportunities and population absorption capacities of the city
 - Newer and improved systems for the city including, infrastructure, participation, employment, transportation etc.
8. At present no policy framework recognizes the advantages of providing reciprocal linkages between the urban and rural areas. Regional interaction between the urban area and the rural hinterland exists and is strengthening in spite of lack of formal / state support. The NCR strategy is built on the assumption that connections with the hinterland will have to be improved for all the following purposes:
 - Decentralization of urbanization for a more balanced distribution of economic activity and population in the region,
 - For preserving the environment’s natural carrying capacities,
 - Settlements and local growth centers identified will act as contact and feeder points for rural urban interface and interactions.

There are reciprocal linkages between the city and the countryside. The former absorbs excess population from the rural areas and provides markets and services, and the latter provides food, raw materials, and recreation. The cities are also sources of pollution and are heavy users of certain natural resources. Peri-urban areas are frequently under great pressure to produce food and building materials, to provide recreational areas, and the necessary space for infrastructure of all kinds, and at the same time to absorb additional population, industry, and to dispose of pollution and other human and industrial waste. Cities and their associated infrastructure usually develop from settlements on land initially selected for its high agricultural potential, such as a fertile plain or valley, which is eventually built over and lost.

9. Surrounding Gewogs can serve as hinterland for the activities in the urban areas and plans developed and detailed accordingly. Till now urban or district level development activities have not been developed keeping in mind this kind of linkages. (Larger urban- Smaller urban- service center- Gewog- rural and so on and for few interactions some of the levels in this chain may not exist or be bypassed)
10. Developments of surrounding Gewogs and towns will also assist take off the load from the main town as migration may be scattered to surrounding areas. At the same time development of the main town will be supported by economic inflows and the development of the surrounding small towns and rural areas will be self supported. This can be developed as an ideal symbiotic relationship.
11. At present the regional issues include access and connectivity to remote Gewogs and settlements like Lingzhi, Soe, Naro in the north and Dagala in the south. Surrounding Gewogs like Kawang, Chang, Bapisa, Toepisa, Mewang and Genye also have potential

for development that has extensive cultivation of rice presently. Adjoining dzongkhags like Punakha and Wangdue are at present moderately developed.

3.4.2 The National Capital Region

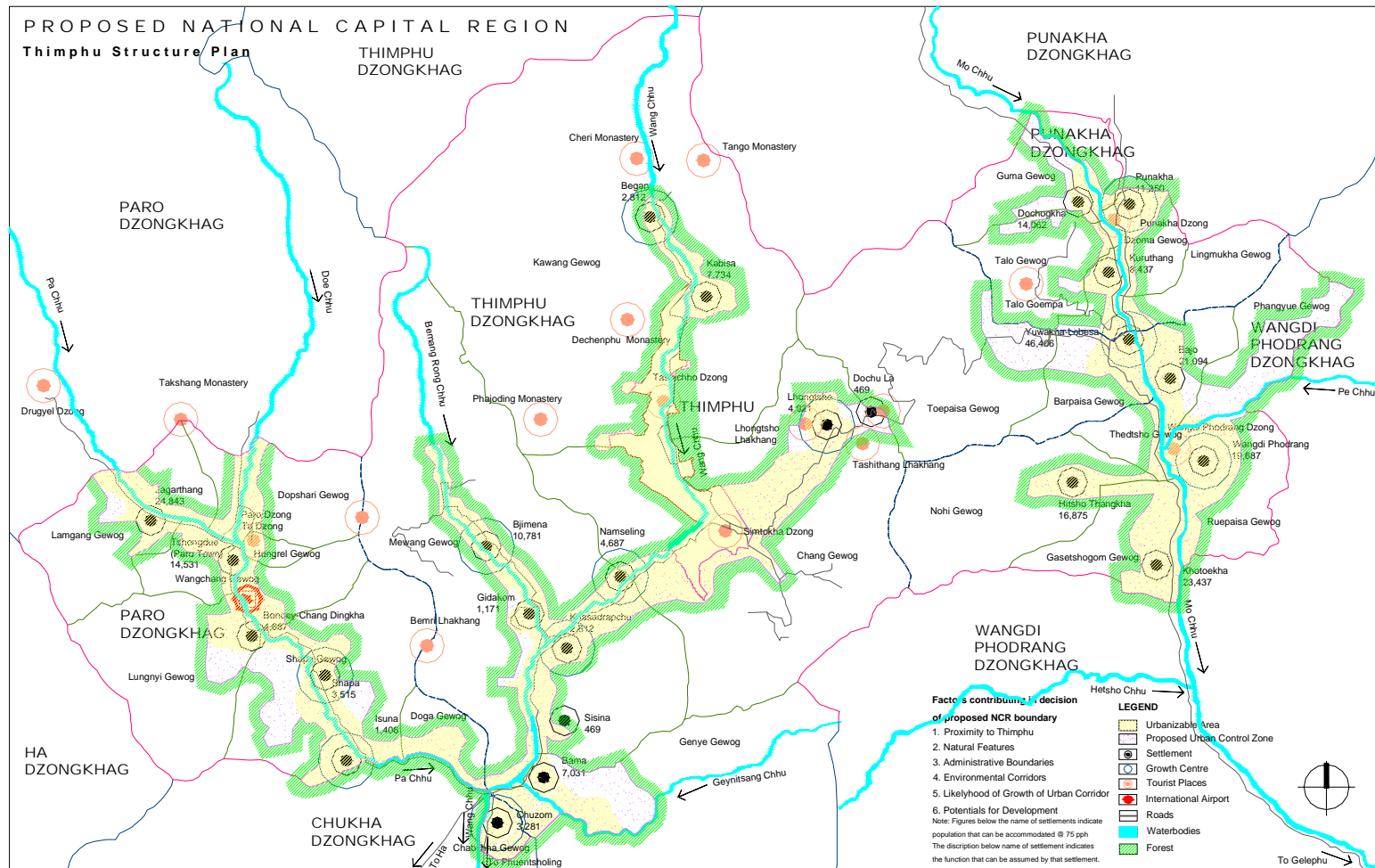
12. The Thimphu Structure Plan identifies National Capital Region consisting of the national capital and regions under its direct influence that mostly consist of Gewogs, towns and settlements in its immediate vicinity. The NCR consists of settlements within the Thimphu Dzongkhag and surrounding dzongkhags of Punakha, Paro, Chukha and Wangdue Phudrong.
13. Table 3.1 lists the settlements identified as a part of the NCR. The structure plan goes a step further and suggests possible population intake capacity of each settlement. Based on the existing and past trends, settlements are identified as local growth centers, residential settlements and tourist destinations.

Table: 3.1 Settlements in the proposed NCR

S.No	Gewog (Block)	Settlement	Proposed Role/use	Predominant economic activity	Potentials	
					Area available for development) ha	Population that can be accommodated @100pph
THIMPHU DISTRICT						
1	Kawang	Kabisa	Tourism, Recreation RBP Campus	Subsistence agriculture, access to road and power	103.12	10312
2		Begana			Orchards and workshop existing	37.5
3	Chang	Lhongtsho	Tourism, Woodcraft Centers	Subsistence agriculture, access to road and power negligible agriculture	65.62	6562
4		Dochu La			negligible agriculture	6.25
5	Toepaisa	Yuwakha Lobesa	Housing	Subsistence agriculture	Refer to Sr. No 22	Refer to Sr. No 22
6	Mewang	Namseling				
7		Khasadrapphu	Housing, Commercial Facility		37.5	3750
8		Sisina	RBA Campus	Orchards and few shrubs	6.25	625
9		Gidakom	Industries, ware- houses, Wholesale Markets, Truck Terminus	Subsistence agriculture and timber extraction, construction material, quarries and unit roads	15.6	1562
10		Bjimena			143.75	14375
11	Genye (Partly)	Bama			93.75	9375
CHHUKHA DISTRICT						
12	Chabchha (Partly)	Chuzom	Transport Node	Subsistence agriculture, access to roads and power	43.75	4375
13	Shapa	Isuna	Satellite Town	Progressive agriculture (Wide and flat valley, rich soil), Orchards (Horticulture), Advantage of Agriculture Mechanization Centre, National Seed Production Unit, Access to roads and power	18.75	1875
14		Shapa	RBA Campus		46.87	4687
15	Wongchong	Tshongdue (paro Town)	International Gateway, Canning & Bottling units, Housing, technical units of Ministry of Agriculture		193.75	19375
16		Bondey (Chang- Dingkha)				62.5
17	Lamgong	Jagrathang	Satellite Town		331.25	33125
18	Dzoma	Punakha	Housing, RBP Campus, cultural, Religious Institutions	Better yields (Broad valley, Rich soil, Warmer climate), access to roads and power	150.0	15000
19		Kuruthang	Satellite Town		112.5	11250
20	Guma	Dochogkha			187.5	18750
21	Chhubu (Partly)				68.8	6875
WANGDI PHODRANG DISTRICT						
22	Barpaisa	Lobesa Yuwakha		Better yields (Broad valley, Rich soil, Warmer climate), Advantage of Agricultural Training Centre, Natural Resources Training Institute, Central Agricultural Research Division (CARD), access to roads and power.	618.8	61875
23	Thechtshe	Bajo			281.3	28125
24	Rue Paisa (Partly)	Wangdi Phodrang (Wangthrom)	District Town, technical units of Ministry of Agriculture, Cantonment		262.5	26250
25	Nohi	Hitsho Thangkha	Satellite Town		225.0	22500.0
26	Gasetshogom (Partly)	Khotoekha	Satellite Town		312.5	31250.0

Source: Proposal for NCR, and Thimphu Structure Plan, DUDES, MoWHS, 2004-2027

Map 3.1: National Capital Region



Source: Thimphu Structure Plan (2004-2027)

4.0 Sector Strategies

4.1 Local Economic Development

Issues:

- No surveys or studies available at present to assess the current status of the city's local economy,
- There are no city level roadmaps for economic development,
- The tourism and hospitality sector is likely to be the largest generator of private sector employment,
- The transport sector, health care and education sectors may be the other fast growing sectors that could be privatized as population increases,
- Skilled and trained manpower for the health and education sectors are not adequate,
- Real estate sector is another area that is likely to emerge in future,
- The unemployment rate in Thimphu Dzongkhag is the highest at 5.4% compared to the 2-3% for the country as a whole and 4.1% in urban areas in Bhutan. Since Thimphu City accounts for more than 70% of the Dzongkhag's population this implies a relatively high unemployment rate in the city
- Recent expansion of the city area by more than three times, impacting economic (livelihood) options for many people
- Unemployment in some areas is already underway as demand for certain skills no longer exists (eg. farm labour),
- No action plan exists for alternate employment and re-skilling in sectors where demand for employment has gone down has been prepared,
- Delayed implementation has stalled growth of particular enterprises (e.g. investment in new technologies in businesses in anticipation of relocation, discontinuation of farming activity in expectation of building housing).

Table 4.1 S.W.O.T. analysis: Local Economic Development

Strength	Weakness
<ol style="list-style-type: none"> 1. Capital and administrative center and largest city in the country 2. Concentration of the nation's elite 3. Easy application and shop opening procedures 4. Has a structure plan – a positive development plan 5. Tourism center and entrance to the nation 6. Highest 'floating' population 7. Availability of land for 'planned' infrastructure as a base for development 	<ol style="list-style-type: none"> 1. No city level socio economic assessment available 2. No city level economic development policy/mandate in place 3. Terrain makes inter-city and intra-city connectivity difficult 4. Natural setting (fragile ecology and mountainous topography) constrains development 5. High rentals and limited commercial space result in high startup costs for private enterprise 6. No pro poor policies or approaches yet 7. Inadequacy of trained manpower for the health and education sectors
Opportunities	Threats
<ol style="list-style-type: none"> 1. Various projects proposed in the TSP can act as generators of economic opportunities for the city 2. Focus on eco and bio products for the increasingly conscious-global clientele 	<ol style="list-style-type: none"> 1. The high rate of immigration of young and educated with high aspirations 2. TCC's financial and development control capacities in the context of increasing demand for land and services in a fragile

3. Main opportunities for growth of the private sector and community based organizations in transport, tourism, hospitality, health care and education sectors.	ecological setting
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Goal: To make Thimphu an equal opportunity city with no unemployment and with a vibrant rural - urban interaction

Table 4.2: Proposed Strategies

Goal	Objectives	Strategies
Improving opportunities for city level local economic development	Better and improved infrastructure and more employment opportunities	<p><i>Plan for and encourage community based organizations and private sector involvement in the development of the following sectors.</i></p> <ul style="list-style-type: none"> • Health, • Education, • Tourism and hospitality • <i>Water supply, solid waste collection and disposal, street cleaning and other community services</i> <p>Priority may be given to community-based ventures and initiatives with tax holidays and indirect subsidies</p>
	Improve opportunities and promote entrepreneurship	<p><i>Develop neighborhood nodes and Urban Hubs as economic activity hubs and develop them on a priority basis to guide further development. Being commercial and service nodes they will open up economic opportunities within the local areas of the city.</i></p> <p>Include in the LAP's also short guidelines to suggest possible economic activities within local areas that could be taken up.</p>
	Improve capacities and facilitate city economy development	<p>Conduct city level surveys and studies to know the existing conditions, status and need for interventions</p> <p><i>A city –hinterland livelihood chain analysis could be conducted and the following steps could be initiated:</i></p> <ul style="list-style-type: none"> -<i>Training, re-skilling, skill-opportunity matching, micro enterprise development</i> -Linkages with formal FIs/ mobilize SHGs -<i>PPP projects/ access to markets</i> -Mobilize Micro enterprise groups <p>At a regional scale to detail out the proposed NCR strategy for promoting decentralized regional economic development.</p>

Note : Strategies in ***bold and italics*** are the priority ones within the sector

4.2 Poverty and Social Inclusion

Issues:

- Housing for poor has not been adequately addressed in the LAPs,
- Rising levels of urbanization prompted by housing development will also increase poverty levels.
- In the absence of social housing strategies/ plans, growth of slum like settlements (on private land) is a distinct possibility,
- While land owners /empowered residents are aware of intended plans, other stakeholders such as employees, farm labour, poor residents, etc. seem to have only vague knowledge of the proposals,
- City lacks capacity to engage local communities, in particular the poor, in a dialogue.
- Area development has resulted in land value escalation, giving rise to opportunities for wealth creation. Start of real estate speculation by the landowners (based on the LAP), making land unaffordable to poor/non affluent classes
- The existing slum areas may increase in no. or deteriorate in conditions if problems of the poor are not addressed soon
- Rising levels of urbanization prompted by housing development will also increase poverty levels. In the absence of social housing strategies/plans, growth of slum like settlements (on private land) is a distinct possibility.

Table 4.3: S.W.O.T. Analysis: Poverty and Social Inclusion

Strength	Weakness
<ol style="list-style-type: none"> 1. The LAPs with their plans for high density residential development respond to the demand for higher intensities of utilization of scarce land 2. All land owning residents are aware of, and generally satisfied with proposed plans 3. The proportion of the poor and vulnerable to the total city's population may not be too high to be unmanageable. 	<ol style="list-style-type: none"> 1. While land owners /empowered residents are aware of intended plans, other stakeholders such as employees, farm labour, poor residents, etc. seem to have only vague knowledge of the proposals. 2. No fixed procedures or guidelines for conducting consultations have been laid out yet. 3. Housing for poor has not been adequately addressed in the LAPs 4. No action plan for alternate employment and re-skill-ing in sectors where demand for employment has gone down. 5. City lacks capacity to engage local communities, in particular the poor, in a dialogue.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Area development has resulted in land value escalation, giving rise to opportunities for wealth creation. 2. New opportunities for income generation have opened up (rental from housing, commercial rental, shops along expressways etc.) 3. Public-private partnership is yet to be explored, in all the sectors of the economy. 4. Citizen –municipality forums should be created where based on peoples initiatives through formal groups such as resident associations etc. responsibilities can be shared 5. During the land pooling exercise a higher percentage of land could be pooled to 	<ol style="list-style-type: none"> 1. While most of the paddy land has been converted to developable land no thought or discussion has been started on the complete turn around on the economy of the affected people. Unemployment in some areas is already underway as demand for certain skills no longer exists (eg. farm labour). 2. Start of real estate speculation by the landowners (based on the LAP), making land unaffordable to poor/non affluent classes. 3. The existing slum areas may increase in no. or deteriorate in conditions if problems of the poor are not addressed soon 4. Rising levels of urbanization prompted by

<p>contribute towards rental housing for the service class and also for the poor.</p> <p>6. Consultations with residents in developing the LAPs have opened space for dialogue between people and local administration. This needs to be institutionalized.</p>	<p>housing development will also increase poverty levels. In the absence of social housing strategies/plans, growth of slum like settlements (on private land) is a distinct possibility.</p> <p>5. Delayed implementation has stalled growth of particular enterprises (e.g. investment in new technologies in businesses in anticipation of relocation)</p> <p>6. Even if the city is able to implement the plans, they will need to plan for O&M, especially as indigenous technology options have not been adequately explored.</p>
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Urban Poverty Reduction: The Vision, Goal and Objectives

RGoB is committed to poverty alleviation as indicated in its recent commitments to the MDGs and SAARC and have made poverty reduction a thrust area of the Tenth Plan. The following **Goal** has been developed for social sector development in Thimphu based on the several consultations with local communities.

Goal: To eradicate urban poverty by 2015 and to contribute to the achievement of the MDGs in a sustainable manner. Create an inclusive city in balance with nature and tradition, where all people, in particular the poor, slum dwellers and women, are happy, integrated and enjoy an equitable quality of life

Table 4.4: Goals, objectives and proposed strategies for poverty reduction in Thimphu.

Goal	Objectives	Strategies
To Eradicate Urban Poverty by 2015 and achieve the MDGs in a sustainable manner	To improve access of urban poor to sustainable livelihoods for an improved quality of life.	To generate wide range of opportunities for livelihoods linked with local economy of the city To enhance physical, human, social and financial capital for sustainable livelihoods To mobilize and organize people for micro enterprises To promote private sector partnerships for livelihood generation To focus on pro poor housing
	To improve access of urban poor to proper housing with equitable access to /provision of in-the-house and sustainable municipal services, education and health care.	To make a micro analysis of LAPs to identify space for housing for the poor Setting up housing cooperatives at the slum level To create access to affordable housing credit for the poor and enabling systems To set up community based information and monitoring systems To mobilize, organize, federate communities and empower them to engage with municipal government using a rights based approach
	To mobilize and	To enter into partnerships with NGOs and civil society To set up systems for community-local government interface

organize poor communities and create space for dialogue for inclusive and integrated planning	To set up institutional structures in TCC with capacity for pro poor inclusion and integrated planning
Enhance Incomes through livelihoods for all	Increase employment opportunities/add to the range
	Capacity Creation
	Improve Access to credit
	Private sector partnerships
Promote Access to Housing with Basic Services	Organize livelihood/ micro enterprise groups
	Thrust on pro poor Housing
	Micro level analysis of LAP's
	Housing 'Cooperatization'
	Access to housing credit
	Set up monitoring systems
Develop a pro poor housing policy/ convergence plans	The Social Housing policy will have to be linked with livelihoods
	Identify land for housing in the LAP's/ examine land pooling options
	Mobilize and Organize housing
	Cooperatives for community housing planning /design
	Linkages with formal FIs/ mobilize SHGs
Space for Inclusion and Voice, in particular the most vulnerable and women	Develop a CBIS
	Partnerships with NGOs/ civil society
	Mobilize, Organize & Federate community groups
	Empower communities to dialogue/ negotiate/plan
	Create awareness of Rights
Community mobilization processes, awareness generation, engage NGOs, develop their capacity	Set up systems for community-local government interface
	CBIS with web interface for two-way information flow
	Institutional arrangements
	SDU at TCC with capacity
Future initiatives should be pro poor Inclusive planning	Regular meetings
	Creating space for the poor to be heard – linked to decentralization planning
	Specific plans for the provision of housing and basic services to the poor should be part of layout regulations
	Quality and reach of the public transport provision should be improved
	Analysis of all policies for their poor sensitiveness

Note : Strategies in **bold and italics** are the priority ones within the sector

Projects / Actions:

Community Based Tourism Project

- Expand development protection for hill slopes to urban agriculture lands
- Provide incentives for community based tourism- access to subsidized finances- capacity creation-tax holidays

- Win-Win Options: Sustain livelihoods for farm labour – generate incomes for land owners through alternate option – tourism promotion through protection of green spaces

Social Housing Project

- Develop government housing for slum dwellers-no free rides
- Poor people organized-cooperatives-part of identification of space, housing design- access to housing credit-amortized

Linking Heritage with Livelihoods

- Incentives preservation of rich cultural and architectural heritage
- Paid tourist visits to traditional homes (fee charged by Min/Private agencies/locals)
- Traditional houses maintained with private sector participation /support (hotels) or Min. of Culture
- Families trained to host tourists, walk them through homes/offer tea/suja
- Demonstrate weaving craft and handicraft development, traditional customs

4.3 Infrastructure and Environment

Primary Issues:

1. Water Supply
2. Waste Water Collection and Treatment
3. Drainage and Flooding
4. Solid Waste Collection and Disposal

Secondary Issues:

1. Traffic Noise and Air Pollution
2. “Greening” of Open Spaces
3. Conservation of Natural Resources
4. Preservation of River Quality
5. Soil Erosion and Unstable Slopes
6. Loss of Fertile Land

Institutional Issues

1. Identification of Key Actors in Urban Environment
2. Implementation of Environmental Policies
3. Schools and Education

Financial Issues

Cost Recovery & Charging For Services

Table 4.5: S.W.O.T. Analysis: Infrastructure and Environment

Strength	Weakness
<ol style="list-style-type: none"> 1. All amenities and services required by the local people are provided in the TSP and appreciated by the people 2. Enough serviced land will be available to cover the local housing problem 	<ol style="list-style-type: none"> 1. At present most of the areas outside the core are partially or not served by the service lines 2. The TCC lacks manpower to even operate and maintain the systems that will be put in place soon.

<ol style="list-style-type: none"> 3. Areas around and in the Core already have infrastructure network established 4. Most other areas currently have rural or other independents systems existing 5. Area plans appear to have addressed needs of residents as appears from the lack of demand for additional services 6. A well spread and accessible system of public bus transport, electricity and communication lines exists all over the city 7. Environmental acts, regulations and ECOPs exist for city level development 8. Thimphu is underlain by a stable geology 9. High literacy level exists in the city 10. No major pollution concerns till date 	<ol style="list-style-type: none"> 3. Inadequate funds for monitoring the implementation of environmental regulations such as sector specific codes of practice for city development. 4. Only 12% of the city is connected to the WWTP. High levels of raw sewage and domestic waste water flowing in the storm drains and river 5. Increasing pressures on modernization, traffic, waste generation
Opportunities	Threats
<ol style="list-style-type: none"> 1. Better response to environmental awareness campaigns due to higher level of literacy 2. The three ongoing three urban development projects (2 World Bank and 1 ADB) presents many opportunities for developing Thimphu into a better planned city with reduced environmental and social problems 	<ol style="list-style-type: none"> 1. Delays in implementing the plan as promised may make the people build on their land making implementation of LAPs later difficult 2. Low level of willingness to pay more for city services by consumers hence more difficult to have a economically sustainable development plan 3. Resources from two sources will artificially split the city into two and could cause a disharmony in implementation strategies/proposals based on donor requirements in the north and south.

Goal: Well provided, environmentally conscious modern city with equitable access to basic infrastructure.

Table 4.6: Objectives and Strategies

Goal	Objectives	Strategies
Well provided, environmentally conscious modern city with equitable access to basic infrastructure.	Provide all households with potable water supply	1. Construct more water treatment plants.
		2. Extend reticulation system to all dwellings where cost effective.
		3. If dwellings or communities have private connections to other sources such as wells or springs, implement some form of permit system.
	Ensure all dwellings are connected to or provided with adequate sanitation system	1. Provide sewerage network in all areas with residential densities > 50 pph. If less than 50 pph then provide functioning septic tanks.
		2. Increase capacity of STP to cope with flow from the whole city.
		3. Select appropriate technology for STP in terms of O&M costs, necessary operator technical skills, affordability, willingness to pay and elimination of subsidies.
	Prevention of localized flooding	1. Establish coordination between agencies to prevent cross connections of utility lines
		2. Improve solid waste disposal
	Improve extent of coverage of collection and	1. Improve solid waste disposal, which blocks drains
		2. Increase collection frequency to minimum of once per day in all areas.
3. Implement recycling to reduce load to landfill by 50%		

Goal	Objectives	Strategies
	collection frequency	4. Initiate privatization of environmental management by public / private sector partnerships
	Air pollution reduction	1. Ban sale/ supply of fuel wood within TCC 2. Formulate rule and regulation 3. Phase out burning of fuel wood in households 4. Discourage wood burning by provision of affordable electricity
	Reduce traffic congestion	1. Increase public transport to cover all of core area 2. Increase frequency of public transport to reduce waiting time to 15 minutes maximum 3. Increase taxes, duties on private vehicles 4. Increase parking charges 5. Introduce road pricing
	Conservation of Natural Resources	1. Maintain status quo and do not diminish areas of protected and ecologically valuable natural resources 2. Phasing our burning of wood for cooking reduces cutting of forests 3. Discourage taking of fertile agricultural lands in riverine areas 4. Increase housing density by construction of higher buildings 5. Greening of Public Open Spaces 6. Discourage taking of slopes for residential building
	Implementation of polluter pays principle	1. Ensure provision of sustainable services by charging realistic tariffs for full cost recovery
	Determine Willingness to Pay for Services	1. Determine Ability to Pay for Services 2. Encourage consumers to raise their expectations on level of service and complain if not satisfied 3. Extend existing program of fiscal incentives for cleaner technologies 4. Eliminate subsidies
	Increasing Environmental Awareness	1. Identification of Key Actors in Urban Environment 2. Determining who should implement Environmental Policies 3. Environmental Curricula in Schools and Education 4. Encourage sense of "ownership" among citizens on environmental issues 5. Publicizing State of Environment Reports

Note : Strategies in **bold and italics** are the priority ones within the sector

4.4 Heritage Conservation

Issues

- As the speculation of land prices is increasing within the city, if the economic benefits of retaining a heritage structure are not explored the heritage structure may actually give way to modern structures.
- Detailed and comprehensive strategies will be required to protect the structures including their surroundings otherwise conservations efforts may create heritage islands within modern development as in Changjiji.
- Sudden use of external construction material and technique needs to be reconsidered

- absence of recorded documentation or inventory of heritage structures that are of importance locally and may need protection
- There is absence of any guiding document that can suggest, to the citizens ways of conserving the heritage monuments and the need to do so.

The TSP classifies heritage structures in the following categories:

- Historical importance
- Socio-Cultural Importance
- Religious importance
- Architectural importance

Map 4.1: Map showing exiting heritage areas and structures in Thimphu

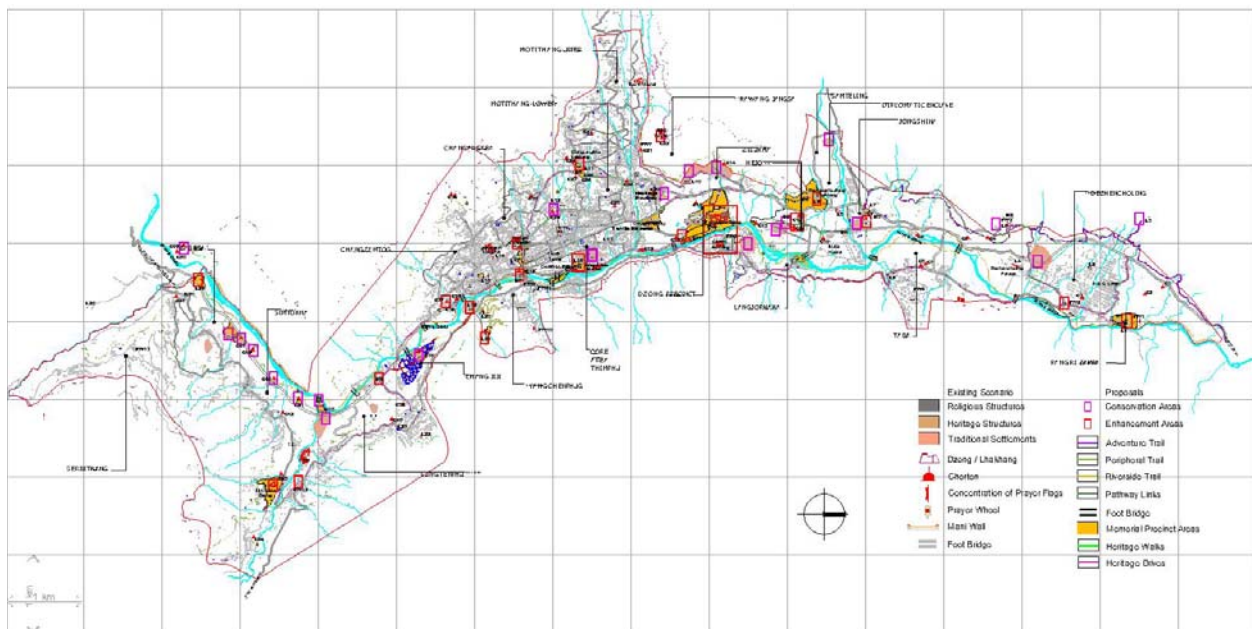


Table 4.7: S.W.O.T. analysis: Heritage Conservation

Strengths	Weakness
<ol style="list-style-type: none"> 1. Most of the heritage sites have been identified in the Structure plan 2. The Plan takes into cognizance principals of heritage conservation. 3. A separate cell of the MoHCA specially to address the heritage issues DoAHC already exists with the required expertise. 4. Enough tourists impetus to explore the possibility of protecting the heritage area through its own earnings 	<ol style="list-style-type: none"> 1. Lack of staff and capacity with TCC 2. No guidelines exist at the moment to conserve heritage areas within the town 3. No framework exists to allow the economic potential of heritage areas to make their conservation independently of partially 4. Absence of live examples to demonstrate the possibilities
Opportunities	Threats
<ol style="list-style-type: none"> 1. Economic option for making the preservation of heritage private structures more attractive needs to be explored 2. Areas in the city exist that have been identified as heritage villages however a framework for developing these a tourist site needs to be developed 	<ol style="list-style-type: none"> 1. Surrounding development may island the Heritage areas 2. If the economic benefits of retaining a heritage structure are not explored the heritage structure may actually give way to modern structures. 3. It is important to ensure that the heritage give economic benefits, however it does not become

	commercialized
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Goal: a modern city that respects its living heritage.

Table 4.8: Goals, Objectives and Strategies

Goal	Objectives	Strategies	
Conservation of heritage and culture	Sustainability of existing heritage structures and spaces	<i>The financial requirement of the heritage and religious structures for their maintenance, enhancement and in some cases, survival should be met through the following means:</i> <i>-Grant from the Royal Government</i> <i>-Entry charges for tourists</i> <i>-Parking charges for all vehicles (tourist or otherwise)</i> <i>-Lease charges for small shops selling “pooja requirements” or souvenirs</i> <i>-Donations from patrons and common public</i>	
	Creation of responsible authority/dept. capable of taking decisions	Constitution of Central Heritage Committee comprising of MoWHS / TCC, NCCA of the MoHCA, and Monk Body. <i>Ensuring that the local and associated population is also involved and their viewpoints taken</i>	
	Implementation of General Guidelines related to listed heritage Structures mentioned in the TSP		<i>Promotion of vehicular access ways to the heritage site till a certain point</i>
			Promotion of pedestrian access ways
			Discouragement of vehicular access ways
	Increasing ownership and concern for these structures and spaces		<i>Integration of heritage sites with the city and the open space system through access ways</i> <i>Introduction of heritage walks, drives</i>
		<i>Promoting local festivals and ceremonies with a target to include that youth and younger generations</i> <i>Ensuring that the presence of such spaces and structures are actively beneficial to the locals and do not turn into a bane</i>	

Note : Strategies in ***bold and italics*** are the priority ones within the sector

New Projects:

1. Memorial Chorten Precinct Development
2. Tashichho Dzong Precinct Development
3. Development of Tashichho Dzong Gateways
4. Development of Cultural Center at Kawang Jangsa
5. Development of Heritage (Artisans) Village at Chang Jiji

4.5 Urban Management, Municipal Finance and Capacities

Issues:

- Delay in implementation of structure plan and improper management of services will have effect on the environment,
- The city of Thimphu has been developed till date mainly by government funding, external sources –this might have to change but how? In what direction?
- City Corporation lacks capacity to engage local communities, in particular the poor, in a dialogue. It also lacks qualified human resources (planners with a social development expert) to deliver the plans on the ground.
- Lack of staff and capacity with TCC at present.

Granting of autonomy to the TCC would, however, need to be accompanied by certain checks and balances by putting in place appropriate structure and processes for participatory governance initiatives as mentioned below:

- Creation of Community Development Department in the TCC for putting in place local electoral ward based community structures for participatory governance.
- Involving the community organizations in plans, programs, and activities of the TCC and even in budgeting and tax collection.
- Creation of Ward Committee in each local government electoral Ward to be chaired by the elected local representative from the Ward and providing representation of civil society groups on the Ward Committee.
- Electoral Ward based budgeting system and involvement of the focus groups within the electoral Wards in prioritizing and implementation of local development schemes.

Table 4.9: S.W.O.T. analysis: Municipal Finance and Capacities

Strength	Weakness
<ol style="list-style-type: none"> 1. There is a general consensus on land pooling. 2. The largest and independent municipal corporation. 3. The BMA provides for its functions to be performed by contracting out of services to private operators and agencies. But limited to only O&M. 4. Both tax and non-tax sources have been devolved to the MC for financing of services to be provided by it, however few of these have not been clearly defined. Before levying and collecting any of the taxes devolved to it the MC is required to get an approval of the RGoB 5. Municipal Corporations are permitted to borrow for financing of capital works but only with the permission of the RGoB. 	<ol style="list-style-type: none"> 1. The current municipal act does not spell out the criteria creating a municipality. 2. Functions of the municipal corporation are quite elaborate however financial systems for financing of these services are not specified in the Act 3. The TCC lacks financial, technical, and manpower capacity to manage and guide development within the city. 4. Lack of internal Financial and technical capacity to implement the Structure Plan. 5. Lack of qualified staff and manpower. 6. The budget prepared is oblivious of the objectives of a budget and a format. (Comprises of a few tables relating to budget estimates for revenue generation and estimated expenditures)
Opportunities	Threats
<ol style="list-style-type: none"> 1. Public Private Participation based exploratory 2. Improve financial tariff collection and improve own resource base 	<ol style="list-style-type: none"> 1. Increase in the discontent and disconnect between the population and TCC

Goal: Well managed and sustainable city
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Table 4.10: Objectives and Strategies:

Goal	Objectives	Strategies			
Well Managed and Sustainable City	Develop systems to improve citizen's interface:	Create systems and provisions to promote participation by citizens			
		Assist formation and working of citizen groups within the city			
		Assigning jobs and sharing responsibilities			
		Creating formal protocols and procedures			
		Create frameworks for constant feedback			
	Create and agree on roles and procedures with superior and subordinate organizations	<i>Establish clear roadmaps for activities/projects jointly developed or implemented with/under other organizations/ministries etc.</i>			
		Also create guidelines/frameworks for encouraging PPPs			
	Better Organization structure and reporting	There is a need to give greater importance to the finance division. -building its capacity -Equip with expertise -greater power to decide taxes	<i>Include a public health dept: consisting of the environment division, sanitation and water supply components.</i>		
			Include or constitute a Community Development Department- to take care of the peoples interface and building community structures.		
			Develop a Disaster cell constituted of members from all divisions but with a two member qualified permanent staff.		
			Having IT and Survey cells to support all divisions when required with prime reporting to administrative head.		
			Define roles and responsibilities and develop a procedure manual for simple and quick delivery.		
			Increase financial capacities:	Creating a system and procedure for government transfers Effective tax administration Preparing more appropriate budget documents Attempt to define the tax base for the variety of fiscal tools devolved to the TCC Revise the taxation policy Develop revenue-earning systems (asset base) Charge higher for services-improving the quality of services	<i>Phasing all development activities</i>
					Community based organizations (Co-operatives)
	<i>User charges and cost recovery</i>				
	<i>Composite Property tax rates linked to market value</i>				
Pro-poor tariff settings (targeted subsidies)					
Device systems to improve services at lower costs	PPP systems ensuring proper control	<i>ICT, and computerization of records and activities</i>			

Note : Strategies in ***bold and italics*** are the priority ones within the sector

New projects: Developing the TCC headquarters and the town hall

4.6 Summary of Strategies

A list of strategies for each of the sectors based on the S.W.O.T. analysis is presented in Annexure 6. This sub-chapter presents key strategies in each of the sectors, which were evolved on the basis of the considerations listed below and the citizens' priorities identified through surveys and interactions (on the internet and at the clock tower square).

Main considerations (including challenges and constraints):

1. The governance structure is currently undergoing transformation nationally and will have major implications on the way Thimphu City is managed and governed.
2. At present the City Corporation does not have autonomy. However it is anticipated that the Corporation will start functioning as an independent body after the switchover to a democratic form of governance post 2008.
3. The City Corporation lacks organizational clarity in terms of job descriptions and activities to be performed by the various officials and cells of the City Corporation.
4. No citizen representation groups exist or are active in the city. Also no frameworks exist to promote participation and address important concerns at the city level.
5. The city being the capital of the nation is believed to provide the best infrastructure and opportunities thereby attracting maximum in-migration (In the last two and a half decades the population of the city has increased from 15,000 to approximately 80,000).
6. A systematic implementation framework for the city's development is yet to be put in place, even though a detailed and well-made Structure Plan exists for the city –'TSP-2020'.
7. The TCC and other departments of the city lack the capacity to guide the development of the city in a co-ordinated manner.
8. No documentation of the city's economic potential and drivers for development have been carried out till date.

Citizen's priorities:

The main priorities of Thimphu residents, as gleaned from the surveys and interactions can be summarized as follows:

- The citizens envision a Thimphu City that is **clean, green, beautifully planned and modern but still respects its living heritage**. (While many expressed 'clean' as a preferred quality, many others stated 'green' and some others as 'beautiful', 'planned'. Another clear preference that was expressed was that of respecting the heritage even while wanting a 'modern' city)
- Other major priorities expressed by the citizens, related to services, were improved **water supply** and **cleanliness** in the city.

The key strategies needed to address these considerations and priorities are given in Table 4.11 (though not necessarily in any order of priority):

Table 4.11 Key strategies to be implemented (related to the citizen's priorities):

Sr. No.	Key Issue	Key agencies/ groups involved	Strategy	Key Indicators
1.	Green City	TCC, consultants, ongoing urban sector project groups, city	Ensuring Thimphu's position as a modern but environment friendly green city.	<ul style="list-style-type: none"> ○ Maintaining green guidelines as stipulated in the TSP. ○ Ensuring that the

		citizen groups.		city population does not exceed its carrying capacity
			Maintain status quo and do not diminish areas of protected and ecologically valuable natural resources	<ul style="list-style-type: none"> ○ Increase in trees population ○ Visible increase in the city green cover
			Greening of Public Open Spaces	<ul style="list-style-type: none"> ○ Following TSP guidelines for construction on slope areas
			Discourage taking of slopes for residential building	<ul style="list-style-type: none"> ○ Visible decrease in pollution levels ○ Adoption of green technologies and principles by population and business community at their own accord
			Extend existing program of fiscal incentives for cleaner technologies	
			Encourage sense of “ownership” among citizens on environmental issues	
2.	Preserving living heritage without compromising development	TCC, heritage conservation department, religious groups, ongoing urban sector project groups.	Measures to integrate and conserve heritage areas as living community spaces and places	<ul style="list-style-type: none"> ○ Increase in the number of living community heritage spaces ○ Positive impact and earnings also from these revived spaces and structures ○ Involvement of the young and youth in heritage and community activities.
			The financial requirement of the heritage and religious structures for their maintenance, enhancement and in some cases, survival should be met through various means: Grants, entry charges, leasing area for commerce, donations by willing people, etc.	
			Ensuring that the local and associated population is also involved and their viewpoints taken	
			Promotion of vehicular access ways to the heritage site till a certain point	
			Integration of heritage sites with the city and the open space system through access ways	
			Introduction of heritage walks, drives	
			Promoting local festivals and ceremonies with a target to include the youth and younger generations	
			Ensuring that the presence of such	

			spaces and structures are actively beneficial to the locals and do not turn into a bane	
3.	Efficient water supply and cleanliness	TCC, funding agencies, Ongoing Urban project groups, Citizen groups	Improve efficiency of water supply and waste water management.	<ul style="list-style-type: none"> ○ Efficient water and waste water management ○ Clearer duties ○ Improvement in quality and supply of potable water ○ Improvement in river water quality ○ Visible fall in water related diseases ○ Check and control over quality of water used in the city
			Include a public health Section, consisting of the environment division, sanitation and water supply components	
			Construct more water treatment plants.	
			Extend reticulation system to all dwellings where cost effective. (Provide sewerage network in all areas with residential densities > 50 pph. If less than 50 pph then provide functioning septic tanks.)	
			If dwellings or communities have private connections to other sources such as wells or springs, implement some form of permit system.	
			Increase capacity of STP to cope with flow from the whole city. (Select appropriate technology for STP in terms of O&M costs, necessary operator technical skills, affordability, willingness to pay and elimination of subsidies.)	
			Improve solid waste disposal	
			Increase collection frequency to minimum of once per day in all areas.	
			Implement recycling to reduce load to landfill by 50%	
			Initiate privatization of environmental management by public / private sector partnerships	

Table 4.12 Other important strategies to be implemented (related to the main considerations):

Sr. No.	Key Sector	Key agencies/groups involved	Strategy	Key Indicators
1.	Local Economic Development	TCC, Business groups.	Develop neighborhood nodes and Urban Hubs as economic activity hubs and develop them on a priority basis to guide further development. Being commercial and service nodes they will open up economic opportunities within the local areas of the city.	<ul style="list-style-type: none"> ○ Commercial activity in the designated urban core areas(TSP 2004)
2.	Local Economic Development	TCC, Funding agencies, training establishments, Youth groups, NGOs.	A city –hinterland livelihood chain analysis should be conducted followed up by-Training, re-skilling, skill-opportunity matching, micro enterprise development.	<ul style="list-style-type: none"> ○ Survey reports, training events, trained groups, better employment opportunities ○ Better knowledge of city economy ○ Higher employment rates ○ Better services
3.	Poverty and Social Inclusion	TCC, local and external consultants, NGOs.	To mobilize, organize, federate communities and empower them to engage with municipal government using a rights based approach.	<ul style="list-style-type: none"> ○ Existence of participatory frameworks ○ Number of communities and citizen groups
4.	Poverty and Social Inclusion	TCC, external consultants, poor citizen groups, NGOs.	Set up institutional structures in TCC with capacity for pro poor inclusion and integrated planning (Community Development Unit - Pt 15).	<ul style="list-style-type: none"> ○ Creation/formation of pro poor regulations ○ Number of established/registered poor groups
5.	Municipal Finance and Capacities	TCC, City Committee, Citizen groups.	There is a need to Phase all development activities planned under different initiatives and projects, to set targets and allocate budgets and human resources.	<ul style="list-style-type: none"> ○ Phasing plans ○ Budget allocation and implementation

6.	Municipal Finance and Capacities	TCC, local and external consultants.	Improve ICT systems for efficiency and better management through initiating computerization of records and activities.	<ul style="list-style-type: none"> ○ Computerization of records ○ e'-systems and governance framework.

Thimphu City Development Strategy

ANNEXES

Annex I: Summary of the TSP 2004.....	57
Annex II: Poverty and Social Inclusion Study	61
Annex III: The Environment and Infrastructure situation.....	89
Annex IV: Thimphu City Corporation and its Capacities.....	101
Annex V : Thimphu City Local Areas Assessment.....	134
Annex VI : Detailed list of Proposed Strategies	154
Annex VII: List of people/officials met/consulted.	160

Annex I: Summary of the TSP 2004

Summary of the Thimphu Structure Plan, 2004

The following is an extract from the foreword to the Thimphu Structure Plan (TSP) by the **Honorable Minister of Works and Human Settlement**, RGoB. It presents an overall, comprehensive introduction to the TSP

"Thimphu, our capital city, is a melting pot, and it has tremendous growth potential. We have seen it grow very rapidly since establishment of the capital in 1955. The first town plan was prepared in 1964 that remained unimplemented. A structure plan was prepared in 1986 that guided the development of Thimphu through 1990s. In 1998 a strategic plan was prepared that influenced the need for extending the municipal boundary covering a larger area. In 1998 the Council of Ministers issued directives to further guide the urban development with the objective to make Thimphu a dream city of all Bhutanese that is culturally vibrant, environmentally sustainable and above all people friendly. The preparation of the new Structure Plan was given high priority and involved a process of consulting all stakeholders in an effort to have ownership of the plan. Unlike the traditional approach of making a blue print the structure plan has been equipped with management tools like investment plan and development control regulations for the rational growth of the city.

This Structure Plan of Thimphu lays out the basic themes upon which the strategy of Thimphu's development is based. It identifies the national imagery of the country as that of the **Tashichho Dzong**. As such this national treasure must become the central element of the plan, and all of the other features must be subservient to it. The Structure Plan proposes that this national icon rests at the head of a **National Open Space System**. This vast river garden extends down the Wang Chhu to a capital Gateway, which anchors this landscaped system at the southern entrance of the city.

The **environment of the Thimphu Valley** is also a major feature of the city that must be conserved and developed as an integral element of the plan. The magnificent hills, the streams coming into the valley, their water sheds and the Wang Chhu itself, are the central features of this theme. A system of pedestrian footpaths integrates into this natural structure, paralleling the river, with stairways up along the streams to a high level "ring path" which marks the beginning of the forests. Thimphu must mature as a **green city**, and the landscaping must be developed around colors, scents and even the sounds of rustling water and numerous species of birds.

Another theme of the Structure Plan is the **religious and cultural heritage** of the nation that is evidenced in Thimphu through the presence of Chortens, Gateways, Monasteries, Lhakhangs and sacred places. These are further sanctified by Prayer Flags, Mani Walls and Prayer Wheels that are auspicious markers throughout the urban setting.

To reinforce the river, which is the main feature of the city, the infrastructure system will be organized around a central spine, or **Urban Corridor**, which carries a public transport system and major underground utilities. This spine will link neighborhood service nodes, which support and help define a system of **Urban Villages**. Urban Hubs, in the north and south of the city, will decentralize pressure from the Urban Core. These will also be located along the Urban Corridor.

Finally, the city is a convivial urban setting that must be enriched through the enhancement of its **Urban Core**, so that the city becomes a vital, walkable human ambience. There must be symbolic entrances to the core, which are marked by monuments and gateways. Inside of the Urban Core there will be arcaded walkways, plazas, courtyards and outdoor cafes and exhibitions. Automobiles will be kept at the edge.

The Structure Plan of Thimphu is tempered by a set of Principles of Intelligent Urbanism and strategies of urban development and management which emanate from them. These are principles which have emerged from the process of preparing this plan.

The Thimphu Structure Plan envisions the capital as embracing settlements beyond the city that are highly influenced by the activities in the urban area. This **urban region** has a symbiotic relationship with the city, both feeding each other.

The document lays out the Thimphu Structure Plan in broad detail. It is presently being enhanced by the preparation of Local Area Plans, which interpret the structure into detailed urban components in the form of compact, walkable urban villages.

The Thimphu Structure Plan is not a static document, but a living plan that will guide the numerous incremental projects and improvements, such that the small parts assemble into a beautiful and efficient whole. The Structure Plan identifies investments in the form of projects which can be taken up when they are prioritized.

The plan will act as a **channel** for a democratic process of growth and development involving the people of the city. Through consultative meetings, media releases and the placement of downloadable information on internet, the Structure Plan has been made a highly accessible, public document. The comments and feedback of the people have been integrated into the plan. At the local level **people's participation** is used to learn from future stakeholders about their requirements, and to teach them how the plan enhances them in creating a civil society and a well tempered urban environment and infrastructure system."

The Structure Plan of Thimphu lists the following principles and strategies as its basis:

PRINCIPLES

A balance with nature
 A balance with tradition
 Conviviality
 Efficiency
 Human Scale
 Opportunity Matrix
 Regional Integration
 Balanced Movement
 Institutional Integrity
 Intelligent Urbanism

STRATEGIES

Decentralize growth
 Regionalize growth
 Densification
 Transport oriented growth
 Resource utilization
 Urban precincts
 Public assets
 Defining the urban core
 Facilitating access to shelter

The TSP deals with many issues and concepts such as:

'Population and Carrying Capacity of Thimphu'
 Community, Conviviality and Human Scale
 Public Policy and Urban Form
 The Bhutanese Dream
 The Parable of Archery, or the Tragedy of the Power Bow
 Limiting Urban Growth
 The Domain of the Automobile
 Reclaiming the Public Domain
 The City Core
 The Gateway to the Capital
 Urban Corridor
 Urban Villages
 Open Space System and the Wang Chhu
 Footpath System
 Forest Boundary and City Landscape
 Peripheral Zone Control
 Shelter Systems
 The National Capital Region
 Ecologically Fragile Areas
 Development Suitability Matrix

The TSP's proposals include:

Proposed Urban Villages, Neighbourhood Nodes and Urban Hubs
 Proposed Environmental Enhancement Zones
 The Riparian Protection Zone
 Flora, Fauna and Avifauna Protection Zones
 Slope and Soil Stabilization Zones
 Proposed Watershed Management Zones
 Proposed Open Space System - Zoning of the Open Space System

Main Themes and Elements of the Transportation Plan
Proposed Traffic and Circulation
Proposed Pathway System - SideWalks, Off-Street Pathways, Cycle Ways
Proposed Heritage Precincts
Precinct Sanctity (Regulation on Use, Building Bulk and Height)
Shelter Programme
Facilitating Access to Shelter
Social Services and Amenities
Proposed Strategies for Urban Growth

Utility Systems

Water Supply
Sewerage Management System
Storm Water Drainage System
Solid Waste Collection and Disposal System
Electrical (Power) Distribution System
Street Lighting
Telecommunications Network

Annex II: Poverty and Social Inclusion Study

The Annex outlines issues related to the poor and vulnerable in Thimphu based on various discussions, consultations and site visits and the subsequent presentation to the stakeholders.

2.1 Poverty Reduction: The Main Development Priority for Bhutan

Bhutan's concept of development engendered in its notion of Gross National Happiness, believes development to be more than an outcome of economic growth, and seeks to maximize happiness by putting people in the centre of all developmental effort and addressing their material, emotional and spiritual needs.

The approach to the Tenth Plan recognizes that “despite strong pro poor development policies and interventions, poverty continues to be a serious concern a situation (that) is incompatible with our development of GNH”. Hence poverty reduction has been identified as the main development priority for the nation. In particular, the effort would be to reduce the proportion of poor by nearly half.

This focus on poverty reduction is also in line with RGoB commitment to achieving the Millennium Development Goals especially Goal #1 of eradicating extreme poverty and hunger by 2015. This obligation has been reiterated in the SAARC Declaration of 2006-2015 as the Decade for Poverty Alleviation, to which RGoB is a signatory.

2.2 Poverty and Vulnerability in Thimphu

Urban poverty is a complex phenomenon. Conventionally poverty is seen to be a lack of income for meeting basic food needs. However, in urban areas, it has also been re-defined as lack of access to basic services, housing, livelihoods and voice or empowerment. By this definition, HHs with incomes over the designated poverty lines is generally deemed vulnerable if they lack access to the above services/ opportunities.

Bhutan uses a calorie-based indicator to estimate poverty including in urban areas. The RGoB has set the calorie-based (amount of income required to provide 2124 calories per person per day) poverty line at Nu. 458 per capita per month, the lower poverty line including food and a minimum allowance for non-food goods at Nu. 612.1 per capita per month, and the upper poverty line with food and greater allowance for non-food goods at Nu. 748.1 per capita per month.

As per the Tenth Plan Approach paper, 31.7% of the total population in the country falls below the national poverty line¹. The mid term report prepared for the Urban Municipal Development Project-in November 2005 by the ADB reported 27 percent of all households (urban and rural) living below the upper poverty line and 18 percent below the lower poverty line. Further, 1 in 4 persons may suffer from food poverty and 1 in 3 from income poverty. For Thimphu, ADB estimates 4.5% HHs or 6% population to be poor with 1.7% being food insecure. The Gini coefficient analysis for Thimphu (0.440) indicates relative equality of income in Thimphu as across the country.

¹ Bhutan Poverty Analysis Report (August 2004), National Statistics Bureau, RGoB in Guidelines for Preparation of the Tenth Plan (2007-2012), Planning Commission, Thimphu, March 2006.

2.3 Estimating Level of Urban Vulnerability

There is no comprehensive data on urban poverty and vulnerability in Thimphu. It has therefore been decided to use a set of proxy indicators drawing from the Census survey of 2005 to analyze and forecast extent of poverty in the city. Four indicators on which data was available in the Census include:

- Gross domestic happiness
- Employment
- Housing type
- Access to basic services of water supply, sanitation and power

A review of data against the above indicators (Table 1) suggests that between 4 and 12% (N ranging between 150 to 4500 houses) of Thimphu population may be deemed as vulnerable². While many of the actual 'at risk' HHs will have multiple vulnerabilities, a few may be vulnerable on just one of the above counts. In that case, percentage and number of poor may in fact go up.

Table 2a: Estimating poor in Thimphu

Indicator	Bhutan Urban	Thimphu Dzongkhag
GDH (% unhappy)	2.7%	3.4%
Unemployment Rate	3.1% (combined R+U)	5.4%
Housing type		
Roof material temporary	30.4%	12.8% (N=1267 urban area)
Wall material temporary	22.3%	76.3% (N=4347, urban area)
Not House owners	9.7%	23.7% (N=4673)
No access to safe water	15.5%	3.8% (N=203, urban area)
No access to toilets	10.8%	7.4% (N=791, urban area)
Main source of lighting not electricity	39.5%	3.7% (N=166, urban area)

Source: PCBH, 2005

Forecasting the rise in urban population by 2020 based on the urbanization trends reported in the Bhutan National Urbanization Strategy draft report, Thimphu is likely to grow rapidly in the next few years. Further, the BNUS has recommended steps to cap Thimphu population at 120000.

Clearly a rise in city population means that the population of the poor and the vulnerable is also likely to go up. Using a constant rate of growth of the poor/vulnerable at today's rates, the number of poor HHs in the city by 2020 may range between 800-2900 HHs. However, across the world, slums are seen to grow at a rate much faster than the rest of the city; almost 4 times as fast. So the expected number of poor HHs could be much higher unless concrete efforts are taken now to address the problem.

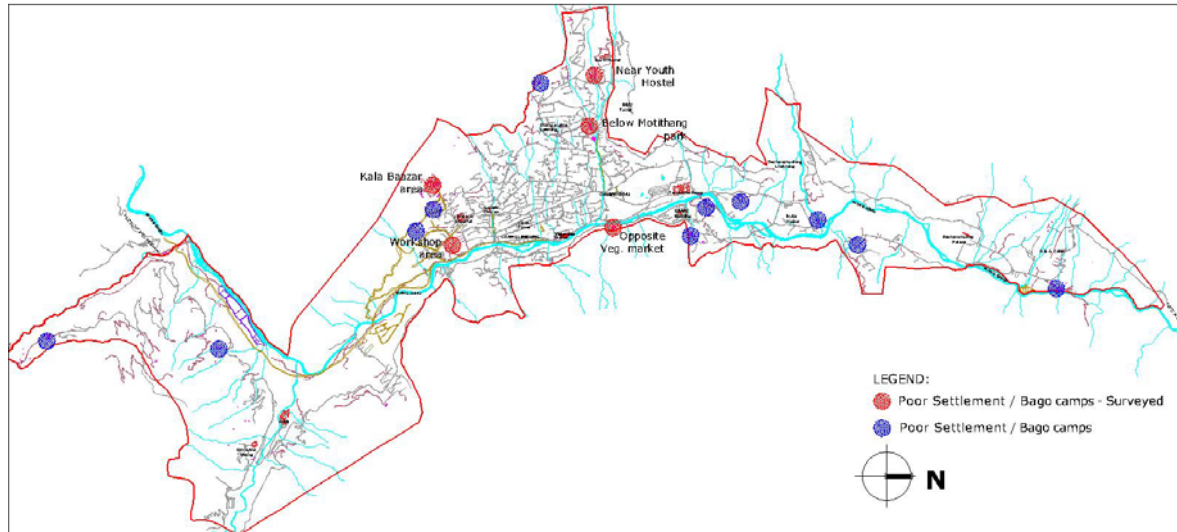
² Incidence of temporary housing structures (walls) and lack of house ownership has not been included in the vulnerability analysis as bulk of the people in Thimphu who do not own land may not necessarily be poor and temporary roof is more critical in housing development.

2.4 Poor in Thimphu: A Situational Analysis

a. Types of Settlements

Thimphu's 28 squatter settlements in 2004³ with 353 households and approximately 1600 residents have shrunk, owing to a deliberate and planned policy of eviction with rehabilitation. The present squatter settlements (N=16 approx⁴) range from the very small (3 households) to the large (40 households). From being largely located within the urban core and in proximity to their livelihoods in 2004, those that remain are now more spread out across the city.

Map 2a: Identified slum settlements in Thimphu



The Housing study 2004 had categorized 7 types of informal settlements. Of these, only the following types remain; government settled squatter settlements, illegal squatter settlements of government employees, settlements on private legal/ illegal land with ownership/renting. In addition however, a few peripheral villages have begun to urbanize with characteristics of low-income areas.

Squatter settlements of and by the government in existence for over 5 years or more, have sustained in spite of planned attempt at removal of slums, due to public patronage. Residents here largely comprise government employees/ workers such as drivers, gardeners, plumbers, sanitation workers, etc. Housing is free of cost and self-constructed and residents perceive tenure security.

Prior to the Ministry of Agriculture's tough stand disallowing urbanization of agricultural land in the fringe areas, some villages have been swallowed up in city expansion. While lower rentals have made these attractive /alternate housing options for the poor and low middle income families, a lack of adequate basic services has led to their densification and 'ghettosization'. Still 2-3 families need to share the house and its basic amenities (toilets and cooking areas) to make the rental affordable.

Underdeveloped areas on private land are both illegal and legal. Where legal, the landowner is disinclined or lacks resources to build better housing. A group of families live in the

³ Bhutan Housing Sector Reform Project. Final Report. Vol 1- Executive Summary, Introduction & Existing Situation, July 2004.

⁴ This number is based on an analysis of the Thimphu City Map from the Thimphu Structural Plan

temporary housing and share taps and toilets. Water and power is legal and paid as per use. Where illegal (households have paid for purchase of land that actually belonged to the government) residents are in litigation but fear of eviction is high.

Illegal squatter settlements of mixed group of employees from various departments are under demolition notice but sustain due to agency patronage.

b. Status of services in Squatter areas

Housing Structures

Housing itself is self-constructed using temporary material across all types of settlements. Most dwellings have between 2-3 rooms with separate cooking and bathing space. Many also have private VIDPLs/pit latrines, built within or at a distance from the house. Some households have shared toilets (both renters and others). In one settlement though, residents indicated a preference for open defecation. This settlement had very few toilets and most people used the open.

- **Access to Basic Services**

Municipal services are provided equitably to all settlements; piped water supply, solid waste collection and power irrespective of land ownership. The city does not provide toilet services in squatter settlements. This is in keeping with the Country's policy on equity and environmental conservation.

Water is available 24x7, as treated/piped supply through community taps from either the rural or urban water supply schemes or from streams. Although sources were shared no line-ups, social tensions or opportunity losses in water collection were observed due to plentiful supply.

Access to toilets varied from none to shared to private. In few settlements such as that below the Youth Hostel and near the Hotel management Institute Mothithang people indicated that they used the open for defecation. Many households on private lands had shared toilet facility. Private toilets were connected to water supply and O&M was a personal responsibility. Pit toilets generally filled up every 2 years and residents paid for their cleaning, unable to access free cesspool service provided by TCC.

Solid waste collection service through dumper collection by TCC covers all in Bhutan. Poor people also stockpile waste in household bins and dispose in the dumper on appointed days/timings resulting in a cleaner city with little waste ending up on hillsides. Power supply is metered, paid and provided to all households irrespective of ownership.

The Cinderella services under sanitation are toilets and wastewater disposal. Even as part of the city has sewerage and storm water drainage, squatter settlements generally discharged gray water downstream and into the rivers through both built or organically formed drains, leading to adverse environmental consequences. The other missing service relates to toilets. Increasing use of open spaces for defecation too is likely to affect the environment.

- **Livelihoods**

Residents in the squatter settlements are largely government employees. Others worked in the private sector, which although organized, seems to lack protection and benefits, especially the free housing. Most families had more than one worker and often workers did two jobs to make extra money. However daily wage rates were quite low. Women crushing stones at a construction site said that they were paid Nu15 for a large bag of stone and managed to pound about 5 bags a day. Construction labour in Bhutan however, being more

expensive, is generally hired from outside, denying low-income households opportunities for employment.

- **Household size**

Households are large sized and extended, the latter because of expediency and rent saving. In fact high rentals that take away a major (up to 50%) of the family income in the city may be seen as a major factor in squatting. However, despite high rentals and poor living conditions, the preference is to stay in the city.

Note: All people living in squatter settlements may not be poor with respect to income. Then again, all poor and vulnerable people may not be living in squatter settlements.

c. Housing Vulnerability: Excluded from Local Planning Consultations

Land ownership is deemed to be a critical element in Gross National Happiness for Bhutan residents, in particular the urban dwellers, and the endeavor of each family is to invest in a piece of land for building a house. From the census data, between 13 and 27 percent people in Thimphu live in poor quality housing and are therefore vulnerable. It may be assumed (as mentioned above) that these households have incomes below or just above the poverty line. With increasing urbanization the number of HHs requiring low cost housing is also likely to double by 2020.

A much larger group (about 76%) are non land owners as per Census 2005, suggesting that three fourth of Thimphu population lives in rental housing. Although house ownership information has not been disaggregated by income, it is assumed that majority of these residents may not be poor or housing vulnerable, may possibly own land outside of Thimphu or have sufficiently high incomes to afford better housing. However, there may be a band of HHs just above the upper poverty line that may be housing vulnerable. This group of non-landowners finds housing in self-built hutments on private land (garage mechanics), in government assisted squatter settlements (Kala Bazaar, Mothithang), in low rental-shared housing at the city fringes (Changzamtog), in government housing (police quarters for workers⁵) or in high rental apartments in the city core. Bulk of these families may also use shared facilities. Despite high levels of aspiration, these families lack affordability / entitlement for land purchase in the city.

Local Area Plans have however, not provided for housing of the most vulnerable families; those who do not own, lack affordability or lack entitlement for purchasing land in the city. The last housing complex developed in Changjiji, gave out only a very few apartments to low income HHs⁶. Discussions with residents and officials alike suggest that housing for the poor should be market driven, without governmental intervention. However, since these residents are largely from the lower socio economic group, they are unlikely to be able to afford to purchase land/house in the city.

The city also has a large rental market, as per discussion with local community members and city officials. The official expectation is that market processes will help meet demand for housing among all social groups, including the poorest. This in fact, is unlikely to happen for the following reasons:

1. The city planning process has whipped up aspiration levels on a broad scale. There is wide spread belief that development plans will yield higher land returns in the form of rents /land value escalation, and bulk of residents are eagerly awaiting

⁵ Police quarters although concrete are small and cramped, with a single small room that serves as the kitchen, bedroom and living area, lack proper ventilation, use community toilets that are poorly maintained, and share water supply services without proper waste water disposal arrangements leading to degraded environmental conditions.

⁶ Discussion with the Thrompen

implementation so that they could start building and renting. Where, people lack personal savings to construct, they hope to be able to generate resources through bank borrowings. Over time all banks in Bhutan barring one, have stopped lending for housing due to a lack of funds. The bank may not have sufficient funds to meet demand for housing loans at a mass scale.

2. Rental value will be driven by level of incomes in the city. Some families that live in rented housing may have lower incomes, although there is no data to support this. Lower income families living in rental areas are unlikely to be able afford massive hikes in rent and in probability will move further out to city fringes where rents may be cheaper by displacing the poor who may be currently living there. In such a scenario large amounts of housing space will become idle, eventually driving down the rents and leading to dissatisfaction among residents.
3. Poor HHs have not been specifically engaged in a dialogue in the area development exercises, which seems to have missed the most vulnerable communities/HHs. As a result their key concern of housing has not been adequately addressed in the planning process.

d. Gender Vulnerability

Even as Bhutan is a gender sensitive society where women are empowered, from discussions in the community, it appears that they may still be vulnerable. The following observations were made by the consultant to arrive at her conclusions.

1. Women were generally unaware of the LAPs. Men appeared to be the repositories of HH knowledge on development plans and were led in the discussion process. Women appeared to be generally guided by male oriented decision-making.
2. In a consultation in Lanjophaka, all women sat on the ground and preferred to sit behind the circle of men seated on chairs, despite repeated requests to come and sit on chairs in the front.
3. Separate discussions had to be held with the women's group to understand their concerns.

Women in Lanjophaka

Land ownership among women in Lanjophaka varied from 2 decimals to over 70 decimals. Ownership of land was not necessarily by women and the share of male to female owners was indicated as 50-50. Women headed households was high, although women were unable to give any estimates. Quote; "Most men leave the women after 3-4 children are born and marry other women" Unquote. Since alcoholism is high among men and women, incidences of gender violence were not uncommon, albeit unreported.

e. Voice Vulnerability: Consultations Exclude the Poorest

Consultations in Lanjophaka and Workshop area have suggested that the most vulnerable among the entire community i.e. families with very small land parcels, women, women heads of households, garage mechanics, owners of garages have been excluded or have remained marginal to decision making, which has been entirely dominated by the wealthier land owners, who are expecting to derive huge benefits in the process. This is evident from the following observations.

1. Stakeholder mapping process used in the present consultation (see Mapping trees in the Social Assessment for Babesa and Workshop area) led to the identification of other stakeholder groups at the lower end of the chain, likely to be adversely affected, yet missed during stakeholder consultations by the TCC. Discussions with these groups not only pointed to lower levels of awareness and aspirations from the

area development, but revealed uncertainties about the future in the wake of such development.

2. Garage owners indicated that they should have been involved in the design stage, when plans for workshops were being drawn up. According to them, they should have been consulted in developing workshop layouts to improve work /movement efficiency and to discuss issues of labour housing.
3. Local area plans have not addressed the issue of pro poor housing as described in the previous section.

f. Community Organization and Structures

Urban poor communities do not appear to be formally organized. Sometimes the communities designate the oldest resident/most respected member of the community as their spokesperson and this person becomes the repository of public knowledge.

Not being organized is not unusual as squatter communities are largely heterogeneous in nature and with missing social networks. While talking to a group of women filling water/washing utensils at a public water supply point below the Youth Hostel, women wished to return to their villages because of these social safety nets.

g. Reinventing Livelihoods for the Poor

A key area of concern in urban Bhutan relates to unemployment. Urban unemployment rate in the country is 3.1% and in Thimphu 5.4%, bulk (68.7%)⁷ of who are young people. Consultations with local communities over the implementation of the Local Area Plans have recognized other distinctive livelihood concerns.

- Urban areas are switching from subsistence (shared labour, farming for personal needs, exchange of goods and services) to a monetized economy (purchase of services and goods). **People need monetary incomes.**
- Urban agriculture is no longer permissible /possible under the new development planning and is paving the way for construction and rent based incomes. As per Census 2005, agriculture is the predominant occupation of people in urban areas (65,556 people in all ages and both sexes in all urban Bhutan with 28,840 (or 43.99%) in Thimphu being engaged in it). **People need to reinvent employment and develop a new set of skills for urban employment (e.g. from agriculture to construction workers)**
- Urban education has upped the demand for white-collar secure (especially government) employment among the youth, who are unwilling to do farming activities. **People need a broader range of opportunities and a shift away from government generated employment to private employment/micro enterprise development).**
- Redevelopment of the city is reducing demand for employment in certain sectors (farming labour). **New employment opportunities need to be explored for such people with chances for getting training in alternate skills such as ICT, micro enterprises etc., revival of traditional crafts such as weaving, mask making, wood carvings and paintings, etc.**
- Fear of unemployment is high (e.g. Mechanics in the workshop area, farmers that have become construction contractors). **Consultations with groups that may be adversely affected in the process of redevelopment are essential to allay fears.**

h. Needs and Aspirations

Aspirations were identified by meeting residents of five largest low income /squatter settlements in the city: below the Youth Hostel, Near Mothithang Park, Opposite the

⁷ PHCB, 2005

vegetable market, Workshop area and Kala Bazaar. Table 2b summarizes the level of basic services in these areas and key problems.

Table 2b: Low Income/squatter settlements Service Analysis

SI No	Name of settlement	Tenure status	Ownership status	No of houses	Access to Basic services					Access to social services	
					Water	Sanitation			Power	Health	Education
						Toilets	SWM	Waste water			
1.	Opposite the Vegetable market	TCC	Government	22	Untreated stream water	Open defecation with some shared /private toilets	Collected by TCC	No proper drains	Metered	Govt hospital	Govt school
2.	Three water tanks, Mothithang	TCC	Government	4	Piped	VIDPLs	Collected	Drain	Metered	BHU/Govt hospital	Govt school
3.	Behind RMA, Kawajangsa			3							
4.	Near Youth Hostel	PWD	Government	17 approx	Untreated stream water	Open defecation with some shared /private toilets	Collected	No proper drains	Metered	BHU/Govt hospital	Govt school
5.	Behind Ministry of Labour & Human Resources, Motithang	TCC	Government	40 approx	Piped with common taps	Private toilets	Collected	Clean Drains	Metered	BHU/Govt hospital	Govt school
6.	Kala Bazaar, Changzamtog	Disputed land ownership	Disputed	10	Piped	Private toilets	Collected	Clean Drains	Metered	BHU/Govt hospital	Govt school
7.		TCC									
8.		PWD									
9.	Changzamtog, above the new expressway	Old village	Legal/rented		Piped	Private toilets/shared	Collected	Unclean drains	Metered	Govt hosp	Govt school

Table 2c: Contd. Low Income/squatter settlements Service Analysis (contd.)

SI No.	Name of settlement	Housing Type	Age of settlement	Sense of security	Livelihoods
1.	Opposite the Vegetable market	Temporary material for roof and walls	17 years	High	TCC employees
2.	Three water tanks, Motithang	Temporary material for roof and walls	10		TCC plumbers
3.	Behind RMA, Kawajangsa	Temporary material for roof and walls			
4.	Near Youth Hostel	Temporary material for roof and walls	10		PWD and construction labour
5.	Behind Ministry of Labour & Human Resources, Motithang	Temporary material for roof and walls			TCC employees (better off)
6.	Kala Bazaar, Changzamtog	Temporary material for roof and walls	30	Low	Govt employee, self-enterprise/small business, homemakers/weaving
7.	Changzamtog, above the new expressway	Temporary material for roof and walls		Medium	Service industry, government employees, businesses

The above analysis was used to generate discussion with community women on their levels of satisfaction with their current conditions and needs and aspirations for the future. The following table summarizes needs of some of the poorest people living in slums in the city.

Table 2d: Aspirations of the poor

Settlement name	Needs/Aspirations
Youth Hostel	Big concrete house with all basic services, especially toilets and near the house water supply; incomes that can enable them to afford such housing
Mothithang Park settlement	Government quarters with four rooms and all basic services, houses made from cement so that these are more hygienic and safe; houses with private toilets and near the house water supply; incomes that will enable them to afford such housing

Community aspirations follow Maslow's Needs Hierarchy. Aspirations grow as people move up the needs ladder from meeting physical needs to address social and empowerment needs. Poor people's visioning is thus controlled by their circumstances and current conditions of stay/livelihoods. Being primarily concerned about addressing day-to-day needs, it is difficult for the poor to spell out their aspirations. Besides, in Bhutan as elsewhere in the world, there is a sense of fatalism and acceptance of one's situation in life that blocks thinking. To unblock thinking and allow an articulation of needs, a process of community engagement and community action planning will need to be set underway. NGOs in the city will need to develop capacities for community mobilization and planning.

j. Gross National Happiness

In Bhutan progress is a factor of happiness and is measured in more than infrastructure or economic terms. In the TCDS context, land ownership and owned housing are seen as critical for happiness of Thimphu residents. Besides ensuring security, this provides access to disposal incomes for families, which can be used for education or purchase of goods/materials for a better quality of life. It is important for TCC to review development plans and to ensure availability of housing for all residents of the poor as described above.

1. Urban Poverty Reduction: Goal and Objectives

RGoB is committed to poverty alleviation as indicated in its recent commitments to the MDGs and SAARC and have made poverty reduction a key thrust of the Tenth Plan. The following **Goal** has been developed for social sector development in Thimphu based on the several consultations with local communities.

To eradicate urban poverty by 2015 and to contribute to the achievement of the MDGs in a sustainable manner by

Creating an **inclusive city**

in balance with nature and tradition,

where all people, in particular the **poor, slum dwellers and women**,

are happy, integrated and enjoy an **equitable quality of life**.

The following table (Table 4) sets out the Goals, objectives and proposed strategies for poverty reduction in Thimphu.

Table 2.e: goals- objectives- strategies

Goal	Objectives	Strategies
To Eradicate Urban Poverty by 2015 and achieve the MDGs in a sustainable manner	To improve access of urban poor to sustainable livelihoods for an improved quality of life.	To generate wide range of opportunities for livelihoods linked with local economy of the city
		To enhance physical, human, social and financial capital for sustainable livelihoods
		To mobilize and organize people for micro enterprises
		To promote private sector partnerships for livelihood generation
		To focus on pro poor housing
	To improve access of urban poor to proper housing with equitable access to /provision of in-the-house and sustainable municipal services, education and health care.	To make a micro analysis of LAPs to identify space for housing for the poor
		Setting up housing cooperatives at the slum level
		To create access to affordable housing credit for the poor and enabling systems
		To set up community based information and monitoring systems
		To mobilize, organize, federate communities and empower them to engage with municipal government using a rights based approach
	To mobilize and organize poor communities and create space for dialogue for inclusive and integrated planning	To enter into partnerships with NGOs and civil society
		To set up systems for community-local government interface
		To set up institutional structures in TCC with capacity for pro poor inclusion and integrated planning

2.5 The Strategy

a. Inclusive Planning

Participation of communities in public policies and planning is increasingly being seen as critical to sustainable development, with most development interventions designed to encourage citizens of all kinds to participate in public life and to more closely align with decisions that affect their lives. City governments, the lowest tier of urban governance, are critical to promote public participation.

Inclusion of citizens, in particular the poor and the marginal communities, in urban policy development, intervention planning and operations and management of services is however both complex and potentially conflict ridden. It requires setting up mechanisms for engaging with communities and the creation of an enabling environment (capacities and institutional structures) for such participation to happen.

The key to poverty reduction is in the building of inclusive processes and systems for community engagement and dialogue. This will lie at the core of achieving the goal of poverty reduction/eradication in Thimphu.

The City Development Strategy for Thimphu (TCDS) supported by Cities Alliance is about developing a framework for implementation of local area plans with the aim of ensuring inclusive and pro poor planning. Towards this end a social assessment was undertaken to understand issues of social inclusion (Please see section on Social Assessment). Based on the series of consultations and observations, a framework has been evolved for institutionalization of community participation, specifically pro poor participation, in implementation of Local Area Development in Thimphu.

b. Defining Vulnerability

Since urban poverty is not a function of income alone and as it is not necessarily concentrated in squatter settlements, there will be a need to redefine poverty as vulnerability.

In the absence of data on income, poverty lines cannot be used as one of the criteria of vulnerability. Proxy indicators from table 1 may be used as indicators of vulnerability, especially for housing. The adjoining box provides three additional criteria for identification of housing vulnerability. However, lack of house ownership cannot be taken as a criterion for vulnerability as explained above. For the latter, a detailed survey of housing linked to a set of proxy poverty indicators will be required.

Possible criteria for Identification of the Vulnerable Groups for Housing

1. HH is women headed and there are many young /dependent children in the family
2. Poor family has no plot of land or a plot of land that is too small for constructing a house (< 13 decimals)
3. Family is affected adversely by the Area Development Planning wrt job loss, change in nature of employment, lack of skills for urban employment, rise in HH expenditure, children at risk of dropping out from school, etc.

c. Community Structures and Institutional Arrangements

The following structures and institutional arrangements will be required for community mobilization and action planning.

At the slum level, communities will need to be mapped, mobilized with the support of local NGOs and civil society organizations. Community Based Organizations (CBO) may be formed with representatives to engage with TCC. Special groups may include women's groups, worker groups (mechanics, labour) etc.

CBOs will be facilitated to develop community level action plans as also engaged in the process of housing planning once the social housing project gets underway.

CBOs may be federated at the Thimphu city level for a continuous interface.

CBOs will also form a part of the monitoring and evaluation system, by monitoring service delivery and providing feedback to TCC.

The consultation process followed for the present report needs to be followed for all 10 LAPs and in all the squatter and low-income settlements identified during the mapping process. Consultations with CBOs will be required before implementation of the LAPs and in the core areas to identify and address concerns of the poor. Joint consultations with Resident Welfare Associations

(RWAs) and CBOs will also be needed to address common concerns (For eg. in Langephaka and Babesa area, vulnerable households were found within the communities, less aware and informed of the process).

At the City Level since TCC is not mandated to/will lack the capacity for such community mobilization this must be undertaken with the support of local NGOs, who must enter into a partnership with TCC. TCC will need to set up a Social Development Unit for this purpose (details of which are provided later).

Local NGOs too will need to be capacitated in mobilizing and organizing low-income communities. Experience exchange visits to see best practices in India and Bangladesh may be planned to develop local civil society capabilities.

d. Increasing access to credit/micro finance

There will be a need to improve poor people's access to credit (micro for livelihoods or personal needs and large lump sums for housing). This can be done through:

- Mobilizing self-help groups for micro financing in the low-income areas with the support of NGOs. This would enable poor to save and access micro credit for livelihoods and personal needs.
- Establishing linkages with formal finance institutions for credit for livelihoods/housing/access to services with amortized systems of payment and bendable rules with respect to documentation /collateral which the poor are unlikely to have facilitated by TCC.
- Establishing Community Credit Facilities (CCF) along the lines of CLIFF (Community Led Infrastructure Financing Facility) for organized groups of low income HHs, with a start up capital fund provided to the CBO and community led systems enabling poor households to access credit.

e. Private Sector Participation

A key strategy will be to engage the private sector, in particular for generating livelihoods for the poor and for housing development. The Ministry of Works and Human Settlements will facilitate linkages between the private sector and CBOs as also oversee the process to prevent exploitation.

2.6 Projects for Livelihoods

In order to achieve the above goals three projects are being recommended here. Two of these cut across the sectors of Heritage, Local economic development and Livelihoods promotion.

a. Linking Livelihoods of Poor with City Heritage Conservation

Bhutan has a rich cultural and architectural heritage, with several monuments dating back to the 7th century. Concerned at the rapid deterioration of these monuments in 2005, the Division of Conservation of Architectural Heritage in the Department of Culture, Ministry of Home and Cultural Affairs drew up a set of guidelines /road map for Dzongkhags for the conservation of the cultural heritage of Bhutan. The road map mandates conservation and seeks proposals from Dzongkhags on sites to be preserved with requirements for funds and technical assistance.

Urbanization can however have undesirable impacts on heritage conservation as people begin to modernize. Modernization vis-à-vis housing entails construction of newer houses built from modern materials, with less stringent architectural style. According to

the Thrompon, there is a growing demand from among the indigenous residents in traditional mud houses for permission to upgrade. Besides, there is adverse impact on the livelihoods of indigenous communities and poor people, as was noted during the Babesa consultation.

The project on livelihoods linked to heritage conservation is being proposed under TCDS for the Babesa area. A review of the Babesa LAP, transect walks to the area and discussion with the local community suggests that the following heritage features exist in the area, Barpa Lhakhang, the old Mule route marked by Chortens, traditional mud houses/village and the guardian deity statue. Traditional housing structures exist at the base of the mountain. Families owning these structures are possibly farmers/poor who have lacked the financial capability to upgrade. Because of low affordability, they will not be able to conserve these traditional houses without outside support. However, they could have high tourism potential.

A business plan will need to be developed. Some of the elements of the plan are given below

- Traditional houses may be conserved with financial support from the private sector (hotels and tourism agencies) or the Ministry of Culture. Families are also assisted to modernize without significantly affecting the traditional architecture i.e. add toilets, improve the animal sheds, etc.
- The Ministry /private sector puts local house visits on the tourist circuit and advocate through the media/brochures and tour agents. The Ministry /private sector decide on a fee for the visit (covering the cost of conservation and payments to the HH) and a fee sharing arrangement.
- Families may be trained to play host to the tourists, show them around their homes, narrate local stories and serve traditional *suja*.
- Houses to demonstrate processes such as *suja* brewing, chillie drying, *bangchu* making, weaving, handicraft making. Only the poorest households to be employed in these activities to be set up in the different HHs. Other opportunities for livelihoods for the poor will be conservation /upgrading the houses, cleaning up, tourist facilitation, sale of handicrafts and foods etc.

It is expected that 20% of the livelihoods generated from the project will be among the poorest /unemployed youth and women.

Cost of the Pilot Project: Nu 50,00,000 approx. shared between the Private sector, Ministry of Tourism, and fees from Tourism.

b. Community Based Tourism

Urban agriculture in Thimphu is slowly giving way to built-up areas and there is huge demand /premium on housing in the city. Thimphu is also a tourism-based economy and the impact of converting agriculture land, in particular at the doorway of the city/along tourist routes, has not been adequately explored. Besides affecting the landscape, possibly affecting tourism adversely in the long term, such a shift as explained earlier is likely to affect livelihoods of the agriculture labour. Community based rural tourism, being tried out in several parts of the world, including in India offers a unique tourism experience to the tourists, at the same time preserving the livelihoods of the poor, in particular the farm labour.

A tourist village may be developed in any of the fringe areas of the city. Possible locations include villages *enroute* to Tango and Cheri monasteries, Babesa, Lanjophaka,

etc. Land pooling for community based tourism for the poorest. Landowners with less than 13 decimals of land be pooled together, formed into cooperatives for a community based tourism project.

The project will have the following components:

- Broadening the scope of building regulations/byelaws on mountain slopes as means of protection of the fragile environments to include urban agriculture land, with farmer landowners permitted to develop only up to about 20% of the agriculture land.
- Deeming these villages as Special Zones and offering tax subsidies/ tax holidays to residents who maintain urban agriculture practices.
- With financial and technical support from the private sector (hotels and tourism agencies) or the Ministry of Culture, families assisted to provide guest house rooms (1-2) with modern and clean facilities (toilets, improve farm environments).
- Ministry/private sector facilitates setting up of displays of traditional systems of farming, processes related to *suja* brewing, chillie drying, *bangchu* making, weaving (from spooling of thread to cloth making), handicraft making, wood carvings and paintings, mask making etc. These to also be available for sale to the tourists. Night stay visitors to be served traditional Bhutanese meals. Only the poorest households to be employed in these activities to be set up in the village.
- Families trained to play host to the tourists, keep clean facilities, employ housekeeping staff etc. Training on the range of skills required for management of the village to be provided by the Ministry.
- The Ministry /private sector puts tourist village on the tourist circuit and advocate through the media/brochures and tour agents. The Ministry /private sector decide on a fee for the visit / night stays and a fee sharing arrangement.

It is expected that 20% of the livelihoods generated from the project will be among the poorest /unemployed youth and women.

Cost of the Pilot Project: Nu50,00,000 approx. shared between the Private sector, Ministry of Tourism, and fees from Tourism.

c. Social Housing Project

Provision of housing for the poor and vulnerable will be critical to reduction in urban poverty. Based on estimates of vulnerable HHs made above, it is expected that there will be need to construct approximately 3000 dwelling units for the poor.

It is suggested that housing for poor be developed in partnership with the private sector, which will be facilitated in the process by the government. In particular, the role of the government will be to ensure that these houses are provided only to the vulnerable families by helping identification of the poor families. Women headed households must be given preference for housing allotments and efforts must be made to identify the most vulnerable families.

- The housing standards for the poor may be lowered from the current 4000 square feet to 500 square feet that will enable a nuclear family to have two rooms, a kitchen, a toilet and a prayer room. There will be need to identify nearly 1500000 square feet of space or approximately 400 decimals for single storied housing and one fourth for G+3 housing.

- The current squatter areas could be redeveloped into such housing projects, provided they do not fall in the non-developable areas. This will ensure that the poor are not displaced from their present livelihoods and spaces.
- Additional housing space may be identified within LAPs/structural plan that can be used for social housing projects through a micro level analysis/from land pooling options. All area Development Plans in particular where large commercial activities are planned such as the Urban Hub (workshop area) must have a housing project for workers.
- For settlements that may need to be relocated, location of new housing must be identified in consultation with the community members for minimum displacement.
- An Area Redevelopment Scheme on the lines of the Mumbai Slum Redevelopment Scheme (SRS) may be drafted. The SRS permits a relaxation in the Floor Area Ratio (FAR) and lets the private developer recover development costs /profits from sale of 30% of the area developed for commercial purpose.
- In case of squatter settlements, the families may be assisted to form housing cooperatives, which will remain in dialogue with the developer over design issues and oversee the construction process. Poor families that are spread across the city, and who may get apartments allotted together, Resident Welfare Associations may be formed with the support of NGOs for O&M of common spaces.
- Poor families may pay a small amount decided in consultation with them and based on an affordability analysis for the house. In case of lump sum /up front payments, the poor will need to be supported with a credit line from the formal finance institutions at subsidized rates of interest. Alternately, the price may be amortized over a period with fixed monthly installments as monthly rentals.
- Housing designs may be developed in consultation with the people, especially women. Separate consultations may be held with women from the low income HHs while developing the designs.

Cost of the Pilot Project: The cost of construction in Thimphu ranges between Nu800-1200 per square feet. At Nu800, total funds required for constructing 3000 housing units or 1500000 square feet will be Nu1200000000 approx. There will be additional costs for procurement of approximately 100 decimals of land @Nu100000 per decimal or Nu10000000. Or US\$ 223463.69 (@ Nu. 44.75 per US\$)

This cost will be shared between the Private sector and poor HHs. The RGoB may like to set up a Housing Development Fund with the Ministry of Finance or various other financing agencies to facilitate the private developer to borrow capital for the project at subsidized interests for pro poor housing.

2.7 City Wide Community Based Information System

A key concern of TCC, as indicated by the Thrompon, is lack of technical capacity (IT) for delivering work efficiently. TCC staff is planned on the basis of much smaller population size, whereas the city population has grown significantly.

In order to monitor social development interventions, TCC may develop Community Based Information Systems as has been done for cities in India by CURE, India. CBIS are organic systems of data collection. Qualitative and perception based information is collected from the community using participatory learning and action instruments and the community is engaged in a dialogue on change management. Data from these

discussions is harmonized with the sophisticated GIS based spatial city maps and customized for use by local governments.

CBIS data may be integrated with local area plans and maps developed by TCC. Staff at the TCC can be trained to review and analyze the information for planning and need based service delivery.

Image 1a: Community participation based development processes



2.8 Institutional Arrangements

Following institutional arrangements will be required for implementing pro poor projects and in meeting the Vision, Mission and Goals set out under the TCDS.

- Steering committee in the TCDS with representatives of all concerned Ministries /departments that will provide the overarching umbrella for project implementation with periodic reviews.
- Social Development Unit in TCC for project implementation with a development officer at a senior level. The cell will be staffed according to requirements of the task and the numbers of staff members may increase as the projects are scaled up. One of the staff members should be specialized in GIS for managing the CBIS for identification of the poorest for housing and monitoring implementation of the different projects.
- The concerned Ministries (MoHCA, MoWHS, MoTI etc.) may be strengthened by creating the post of a Social Development Advisor.

2.9 Policy Implications

Key policy implications for MoWHS for a significant reduction in poverty identified are:

1. **Defining Vulnerability:** Based on the above analysis the Ministry of WHS may set up a committee with representatives of the poorest and NGOs/civil society organizations to firm a definition of vulnerability and to finalize the indicators for identification of the poorest. These indicators must be objective, transparent, verifiable and measurable. These must be developed in broad based consultations with vulnerable groups and low-income households. Names of selected HHs should be publicly announced. Safeguards may be put in place to

- prevent leakages of resources i.e. non-poor HHs being allotted housing. This will be critical to successful achievement of the target.
2. Revisiting the National Housing Policy to integrate specific provisions for housing of the poor and vulnerable. The RGoB has a National Housing Policy that it drafted in 2002. There has been an attempt in the Policy to include the poor within its framework. However, in view of the above analysis, more specific provisions for the poor may need to be included within its scope. This consists of the definition of vulnerability and housing vulnerability indicators finalized above, the proposed process for identification of the poorest /vulnerable, the cost of housing, relaxation of housing requirements for smaller units, private partnership arrangements etc.
 3. Creating Spaces for the Poor through the Municipal Act Specific provision for dialogue between the TCC and the organized groups of poor will need to be made. These guidelines will be included in the proposed Municipal Act to make it a mandatory function of TCC from 2008, when the decentralization process gets underway in the country. TCC would need to develop the capacity to implement the social guidelines.
 4. Convergence Issues Some of the projects proposed above in particular for livelihoods will need to be implemented in partnership with other departments such as the Ministry of Tourism or Trade and Commerce. Ownership issues may ensue which may jeopardize the projects and subsequently affect attainment of the goals. It is important that TCC takes decision now and integrates these provisions within its Act.

2.10 The Social Assessment

Thimphu City Corporation (TCC) has prepared a structural plan and 10 local area plans covering the larger part of Thimphu city under planned development. The local area plans were an attempt at examining the spontaneous development in the city with a view to formalize existing arrangement of houses and infrastructure services in a planned and coordinated manner to improve their effectiveness and people friendliness. They are also aimed at futuristic and integrated development.

Specifically, the Local Area Plans aim to facilitate a development pattern that can accommodate projected increases in population through a process of rationalization; make available a planned, efficient and environmentally sustainable infrastructure with a required / equitable level of access to public services.

Each local area plan caters to population rises through planned densification and housing with choice for all classes of residents from low to high income. The approach of reconfiguring and land pooling is expected to free up space for generating high density housing with adequate and sustainable infrastructure built through personal and private sector participation under the regulation of the Royal Government of Bhutan. This approach is expected to resolve both shortage of affordable housing in the city as also reinvigorate the shaky private sector in the country. At the same time minimum threshold densification will permit creation of cost effective and sustainable urban infrastructure.

a. The Process

In an attempt to understand the processes of inclusion and exclusion followed in the development and implementation of local area plans, a series of consultations were designed and undertaken by the social consultant.

In order to plan the consultation process, local area plans were reviewed with detailed discussions with local planners and with the TCC. Due to time constraints, consultations could be held in only four areas. The areas were selected keeping the following criteria in mind:

- An area at the city fringe, where the plan is yet to be implemented to understand the intended and unintended impacts on indigenous groups. From a review of the 10 LAPs, Babesa was identified for the consultation process.

Babesa is located at the city margins in the south part of the city. It has been exposed to several development interventions; the expressway, the sewage treatment plant and the intended area development planning.

- An area within the city core with settlements of poor, where no plans have yet been developed for implementation. Kala Bazaar has hutments of poor, who are likely to be affected during area improvements.

Kala Bazaar in the city core is home to a few low-income settlements and landowners who are in court to resolve land ownership issues.

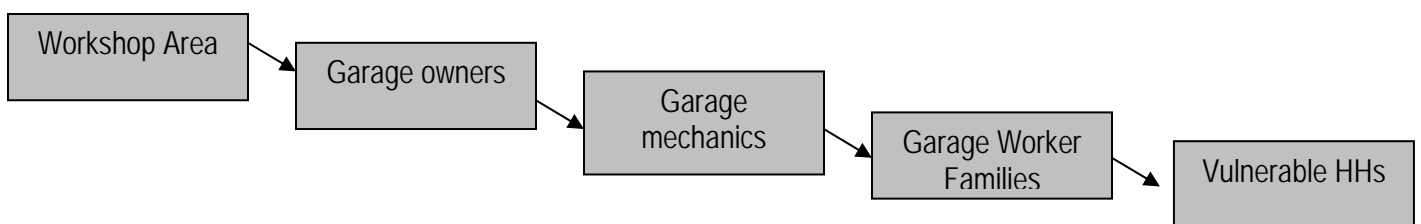
- An area where large number of groups are likely to be affected through relocation. Workshop area, which is proposed to be completely relocated near Neighbourhood Node at Simtokha was identified.
- An underdeveloped area in the north of Thimphu, with large number of vulnerable residents.

Lanjophaka is a settlement to the north of Thimphu that was part of the first round of structural planning.

b. The Consultations

Stakeholder Mapping: All consultations began with a detailed stakeholder mapping to identify the direct (better known) beneficiaries and other affected groups (unintended groups). The latter in particular, are important stakeholders and likely to be adversely affected by the area planning process.

In order to include all stakeholders, mapping trees were developed as indicated below:



Workshop Planning: A set of leading questions was developed to serve as a guide for the consultation. Separate discussions were held with each group of stakeholders, followed by a more formal discussion at the TCDS. The guidelines were fitted to meet

the specific requirements of each group. Tools were identified for initiating the discussion (maps, chart papers, markers etc.).

SWOT Analysis: Discussions focused on four key aspects of the plan: Strengths, weaknesses, opportunities and threats. Stakeholders' knowledge of plans, expected benefits and potential problems was conferred. Based on the 3 area consultations, the following summary has been generated.

Table 1f: S.W.O.T. of Thimphu

Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ All land owning residents are aware of, and generally satisfied with proposed plans, in particular the anticipated connectivity through better and more roads and rising land markets ▪ Area plans appear to have addressed needs of residents as appears from the lack of demand for additional services ▪ Bulk of residents are committed to land pooling, a key criteria for starting implementation ▪ Heritage sites within each local area have been clearly identified. 	<ul style="list-style-type: none"> ▪ While land owners /empowered residents are aware of intended plans, other stakeholders such as employees, farm labour, poor residents, etc. have not been engaged with and have only vague knowledge of the proposals. They expressed fears that have not been addressed through any form of dialogue. ▪ No action plan for alternate employment and re-skilling in sectors where demand for employment has gone down has been prepared. ▪ People have not been given a choice to decide from a range of options. ▪ Consultations have not been held with key stakeholders (business and trade related) in preparing area plans and designs (eg. garage owners have not been involved in alternate strategy development, site selection, or workshop designing) ▪ While the structural plan tries to create opportunities for growth and development, it fails to envisage the unintended impacts of such development in particular neighborhoods,. As a consequence, the residents too have not explored the changes that may happen in their areas following implementation of the LAPs. This is evident from the lack of awareness among residents of possible area impact of development in Neighborhood Nodes (through traffic, more visitors to the area, parking problems etc.) ▪ While LAPs have considered the relationship of local residents to Thimphu, the links of the rest of Thimphu to the local areas has not been fully explored (Babesa has an institutional area and its employees come from different parts of Thimphu, or the proposed sports stadium and the botanical garden will increase visitors to the area) ▪ Commitment to land pooling has not come from all residents due to expected losses in land sharing ▪ Housing for poor has not been adequately addressed in the LAPs (While garages are to be moved, no plans for the housing of the approx 600-1000 mechanics and their families has been developed) ▪ City lacks capacity to engage local communities, in particular the poor, in a dialogue. City lacks qualified human resources (planners with a social development expert) to deliver the plans on the ground. ▪ Alternate options for housing development have not been adequately explored in development of local area plans, in particular for conversion of agriculture fields into housing. ▪ Heritage and conservation plans that are people friendly and linked to tourism have not been developed.
Opportunities	Threats

<ul style="list-style-type: none"> ▪ Area development has resulted in land value escalation, giving rise to opportunities for wealth creation. ▪ New opportunities for income generation have opened up (rental from housing, commercial rental, shops along expressways etc.) ▪ Consultations with residents in developing the LAPs have opened space for dialogue between people and local administration. This needs to be institutionalized. 	<ul style="list-style-type: none"> ▪ Area planning is causing major land use conversion with resultant change in employment patterns and possible rise in unemployment in certain sectors ▪ Unemployment in some areas is already underway as demand for certain skills no longer exists (eg. Farm labour). ▪ Un-employability (agriculture based skills versus urban skills) has already pushed families into poverty conditions (shifting from subsistence to urban based economy). ▪ Fear among workers wrt loss of employment is high. ▪ Delayed implementation has stalled growth of particular enterprises (e.g. investment in new technologies in businesses in anticipation of relocation, discontinuation of farming activity in expectation of building housing). ▪ Rising levels of urbanization prompted by housing development will also increase poverty levels. In the absence of social housing strategies/plans, growth of slum like settlements (on private land) is a distinct possibility. ▪ City lack resources/is dependent on external funding for implementation of plans. The planning process has however raised aspiration levels, which have also become speculative (land market prices, increased land buying activity). Inability of the TCC to implement the plan could result in unforeseen problems wrt to unemployment/dissatisfaction. ▪ Even if the city is able to implement the plans, they will need to plan for O&M, especially as indigenous technology options have not been adequately explored. ▪ Resources from two sources will artificially split the city into two and could cause a disharmony in implementation strategies/proposals based on donor requirements in the north and south.
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A. Babesa Consultation: Process and Outputs

Stakeholder mapping: Babesa consultation began with a preliminary stakeholder mapping with local consultants. The following stakeholders were identified

Direct Beneficiaries

- a. Residents (Farmer land owners, land owners and tenants, government housing)
- b. Institutional users (Min of Agriculture; organized recreational area, sewage treatment plants)
- c. Commercial shop owners (general stores, bars cum restaurants)

Likely to be affected groups

- d. Farm labour, likely to loose their jobs/ belonging to army camps
- e. Poultry workers, seasonal labour at sewage treatment plants, expressway construction labour

Arrangements were made with the *Chimmi* to meet with a group of farmland owners. However, on arrival, it was found that he had left for Punakha. It was therefore decided to collect a group of local residents and hold the consultation.

The following attended the consultation: former farm owners who had stopped farming following instructions from TCC, non-farm landowners, a government resident, a commercial shop owner, and poor families.

Map of Babesa was used as a discussion starter followed by a SWOT analysis. Residents were shown the local area map and elements of the proposed plan were described to the group. This was followed by a SWOT analysis, details of which are presented below.

Table 1g: SWOT of Babesa area

<p>Strengths</p> <ul style="list-style-type: none"> ▪ All residents are aware of, and satisfied with proposed development plans ▪ All residents committed to land pooling, a key criteria for starting implementation ▪ Aspirations for better quality of services were high 	<p>Weaknesses</p> <ul style="list-style-type: none"> ▪ Not all residents, in particular non-land owners, are aware of LAPs. ▪ There is very little awareness of the unintended impacts of area development among residents
<p>Opportunities</p> <ul style="list-style-type: none"> ▪ Area development has resulted in land value escalation, likely to add to family wealth 	<p>Threats</p> <ul style="list-style-type: none"> ▪ Changing nature of land use has resulted in unemployment/ change in type of employment. This has resulted in a few families being pushed into poverty due to inadequate skills/job opportunities for new livelihoods. ▪ Delays in plan implementation have interrupted existing livelihood activities of people and affected income levels. ▪ Some poor families in Babesa have been affected adversely by waves of development changes in the area (highway and local area plans) ▪ Land values are likely to remain depressed due to the presence of the sewage ponds/lagoons

Key Concerns

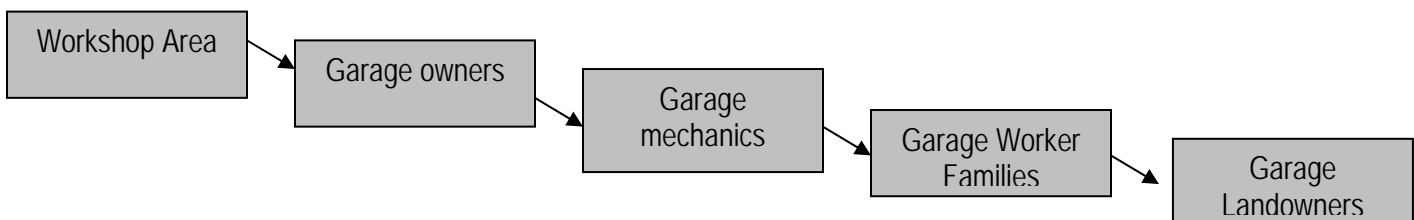
1. Changing nature of local economy: Development planning has significantly altered the nature of the local economy from agriculture to urban based. Most farmers have stopped farming activities on instructions from TCC and in anticipation of local area development about two years back when the plans had been notified. (The Thrompon however, refuted that TCC had given any instructions). Most hope to construct rental housing on their property and to earn high incomes through that.
2. Poor likely to be affected: Such a change has affected farm labour, who got seasonal employment in these farms. It was however, not possible to meet any farm workers as the farming activities had been abandoned a few years ago. These labours either moved back to their villages or may have switched livelihoods.
3. Deepening Vulnerability: In Babesa, the consultants met with two families who have been doubly disadvantaged by waves of development in the area; the expressway and the LAP process. Even though the families were compensated for land acquired, against which they bought smaller parcels of land up the hill, these were too small for agriculture. The families had to switch from agriculture to construction work. About six men in the area formed a cooperative for contractual construction work on the

Expressway. Work is ad hoc and the family earns about Nu6000 in a month from such work. An additional income is earned through housing rental. According to the family members, as farmers and in the traditional labour-barter economy, they were at least able to grow food for themselves. In the modern-cash based economy, they need to purchase for all their needs and find this difficult. The family received no support for livelihood rehab.

B. Hub (Workshop) Area Consultation: Process and Outputs

The Workshop area was identified for a consultation because this area was to be moved en masse to a new site and Simtokha area.

A Mapping tree was developed for the consultation at the workshop area. This was done in consultation with local consultants.



The tree helped to identify other linked stakeholders who have not been part of the community dialogue, in particular the poor.

Separate meetings could be held only with the Garage owners and Garage mechanics to discuss their understanding of the LAPs and level of satisfaction with these.

Discussion with the Garage Owners:

- Garage owners were aware of the plan to move the entire area en masse to the new site by 2007. They were also conscious of the fact that they could pool investments for setting up a treatment plant to distill oil and prevent lubricants etc. from directly discharging into the river.
- While garage owners appreciated the need for TCC to initiate a more planned development process for the city, they felt that not enough consultations had been undertaken with them in the development of the Plans. These consultations would have helped the planners understand the nature of garage operations that could have resulted in more user friendly planning. They felt that the current consultation was perhaps too late as plans had already been finalized.
- According to the LAP, 60% of the proposed 42 acres of land allocated for the workshops was to be a green area and only the remaining 40% could be developed.
- LAP proposes that the new site will be developed by private landowners to be let out to the garage owners. There was also apprehension that private development for garages was likely to drive up rents, making the business untenable. This was most likely, as LAP have used a land pooling process to redevelop the city.
- At present too, most garage owners were leasing sheds from a private landowner albeit at affordable rents. Only a few garage owners also owned the land. They had invested in shed improvements to improve work efficiency. These investments were likely to go waste.

- Garage owners also felt that they would need to bear the cost of dismantling the infrastructure and for the relocation. They also apprehended that they might have to increase salaries of mechanics or provide for their housing near the new site.
- Garages according to the owners should also be located close to car owners' homes rather than be bundled together at one end of the city. Owners feel that putting the facility out of town will add to user costs. (There is provision to create a service center in all LAPs. However this option of decentralizing the workshops across the city has not been provided to the owners. It is not clear, if the planned sheds in local areas will be in addition to those presently located and being moved to the identified site).
- Owners also felt that there could have been alternate options such as:
 - Redevelopment of the existing site with owners agreeing to invest in treatment plant.
 - Long term leasing of land at the new site by the local government rather than through private owners. At present the private landowners will develop the land and make it available on lease basis. This makes the business vulnerable to the whims of the landowner and the rental market, adding to garage owner's insecurity. TCC's suggestion that landowners will be bound by the lease agreement was untenable as the penalty for escape was too small to be a deterrent.
 - Temporary /short-term lease will prevent business houses from investing in new technologies due to uncertainty of stay unless government agrees to witness the lease/mediate between the land owners and garage owners.
 - Design of garages could have been better developed if done in consultation with the garage owners. E.g. amount of space allocated for cars inside and outside the garages needs to be reversed.
 - Improved access to affordable credit from FIs to enable garage owners to buy land for the workshop. Presently, banks are unwilling to risk investing in the business.
- Subsequent to the notification of LAP, garage owners had stopped technology upgrading in the current premises. With significant delays in the relocation, this has resulted in outdated technology for the service industry.
- There were complaints that despite LAP notification, TCC has continued to sanction new workshops in the area, which it should not have done.
- There was trepidation about a second wave of relocation if the city densified further and swallowed up land in the neighborhood of the new workshop for housing purposes.
- The Garage owners formed an association about a year back when they realized that they needed to have a greater voice in the process of planning and to serve as a pressure group to address key issues affecting their work such as access to training and technology. They have tried to influence the LAPs through their nodal ministry, the Ministry of Trade and Commerce, albeit with little impact. They feel that since this sector generates employment for young people they need to be supported.
- **There is a need to set up a joint working group of the Ministry of Works and Human Settlements, Ministry of trade and Commerce and the TCC to discuss the above concerns.**

Discussion with Garage Mechanics

- There are nearly 600-800 mechanics that are employed in the workshop area. Garage mechanics were aware that there was a plan to move the garages to a new site. Besides, this they had limited awareness about the LAP.
- There had been no consultations with the group even though they were residents in the same area and their fears /apprehensions never addressed.
- Garage mechanics expressed the following concerns over relocation:
 - i. At present they stayed in hutment like structures built on private land with common basic services at low rentals (Nu500 per month). Power supply and water was paid with an average cost of Rs70 for water and up to Rs350 for power.
 - ii. Preference was to continue staying in the area even after relocation so as not to disrupt education of children. According to them, school admissions were not very easy to obtain and it was easier to let the children continue in the same school.
 - iii. There was apprehension about rising rentals in the new site as housing would be private and built.
 - iv. Household expenditures on transportation will rise due to additional traveling to the new site. In order to save that money, workers may decide to walk to work daily, adding to the time costs. Even if the workers wished to avail of public transport, its timings were unsuitable; the last service being at 6pm whereas their closing time was 8pm. Additional costs (time and money) will be incurred in picking and dropping children to school.
 - v. People aspired to own a house in Thimpu but could not do so because of exorbitant land values (Nu1400000, as quoted). At an average monthly salary of Nu3000, they could not save up or hope to buy a house.
- Greatest fear among mechanics related to a loss of jobs, in particular if the garage owners found it unsustainable to move from the present low rental areas to higher rental sheds. In case the garages shifted and lost business, they were afraid of salary cuts. According to them, only about 3 workshops may actually move and continue and the remaining may just hut shop resulting in joblessness, alcoholism, violence, stealing, withdrawal of children from schools etc. In particular, school admissions will be affected, as status of employment was an essential criterion. Women may need to enter the job market, but because of a lack of skills, will get low paid employment.
- Alternate avenues for employment for mechanics could be to work as drivers (if one had the necessary experience and no objection certificate) for private vehicles such as tourist buses, heavy truck vehicles, bull dozers, public bus services etc. or helper to drivers, set up their own units i.e. garages, driving schools etc.
- New employment will demand new set of skills (from BTI/RTI), cooperative formation, and access to credit.
- No effort has been made by the government to plan housing for workers around such development agendas as in the case of the Workshop.

C. Lanjophaka Consultation: Process and Outputs

Lanjophaka area is the oldest area development plan. TCC has held several consultations with the community including one in July 2006. As a result most people

/landowners were well aware of the LAP and had signed up for land pooling. Women landowners were largely unaware of the details of the plan/intended and unintended impacts of the plan on quality of lives of people. And the poorest HHs (HHs with smaller parcels of land), were unsure of the pooling system.

Most people in Lanjophaka area were active/retired government employees and as in other areas expected to derive huge benefits from the development process through land value escalations/rents. It was expected that the land value will more than double once the plan is implemented. Others had small businesses. Among the poorer families, men were employed as drivers/tourism workers in the private sector.

Large number of women in the group indicated that they owned land. Fifty percent of HHs in the area was estimated to be women headed.

Lanjophaka is still linked to the erstwhile rural water supply system. Residents have made personal arrangements to bring supply closer/inside homes. With increases in population this system is being rendered ineffective. Richer landowners have constructed huge water tanks and draw more than their share of water. Especially during SAARC meetings, the area is completely deprived of water supply. People also constructed personal water tanks but the city water supply is yet to start. Transportation systems were easily accessible.

A Resident Welfare Association was set up about 2 years ago at the request of TCC, to create a platform for government-community interface.

Some key concerns of residents were:

Land Pooling Arrangements: While the rich people expressed concern over the poor having to contribute land to the land pool, they were unwilling to share the burden in case the poor are let off from the arrangement. These HHs were not very happy with the proposed plan to develop apartments for housing through land pooling arrangements. Some with 2-3 small parcels in different sections suggested that they be allowed to combine these for land pooling purposes, with land being deducted only from one parcel. Some with larger pieces of land too preferred this system. However, it appeared that TCC was unwilling to be flexible about this.

Delayed implementation of the Plans: Residents complained about deferral of plan implementation. While they understood that it was a resource issue, they still felt that they have not been allowed to undertake any construction in the interim period.

Land value and Housing Market: The city does not have a formal land market. There is however, anticipation that development will enhance property values and enable people to build more for rental purposes. The latter is aimed at increasing disposable income. However, in the absence of any formal land markets, it was not sure how this is likely to happen. Besides, cost of construction being high, most people would need to access housing credit, which may not be very easily available as only one of the banks has a housing finance window.

Women lack voice/were vulnerable: In spite of land ownership and a non-hegemonic society vis-à-vis gender, almost all women during the consultation sat behind the men and on the floor. This suggests that women may be less empowered than believed. Talking to them separately after the consultation, the consultant observed

that many of the women owned huge parcels of land but lacked awareness about the plans and could not indicate how the development is going to change their lives. There were several women headed households among the group, although it was difficult to come up with a number. These women were especially vulnerable, as they had to raise families by themselves. Women indicated that it was common for men to move away after a few children were born and to begin living with another. All also did not have access to credit systems (formal banking).

The poorest missed in the planning process: A few very poor families were identified in the community, with very small parcels of land. One family of 6, with four younger siblings in her care had very little information on LAP. She was far too busy caring for the children and tending the small land for food for the family. Many of her siblings in the school going age group were out of school because of lack of family resources to send children to school. They lack access to formal financial services and monetary savings stayed at home. For credit, women borrowed from the rich neighbours and repaid in the form of services. Sometimes they need to borrow from moneylenders @ an interest rate of 5-10%.

Annex III: The Environment and Infrastructure situation

Section - 1

This annex brings to fore the issues concerning the environment and infrastructure status of the city and what are the priority issues to be considered to address the same.

3.1 Land Use

Thimphu consists of a mixture of residential, commercial, light industrial and government buildings with supporting infrastructure such as water, energy supplies, sanitation and transport. The city is surrounded by forest covered mountains. About 19% of the total area within Thimphu Municipal Corporation limits is under forest cover, mainly on the hill slopes. The second major land use is residential areas accounting for nearly 18% of the total area. The economy is highly dependant on agriculture. Most of the land currently under cultivation lies in small and often isolated pockets along the main river valley. Despite the shortage of flat land for farming, agricultural land on the Wangchhu valley floor near Thimphu has been converted to residential or industrial use.

3.2 Potable Water Supply

a. Water Resources

The Wangchhu River which flows through Thimphu is the principal river of the Wangchhu basin, one of the four river basins in the country. The river flow varies from a low of 3m³ /s in January / February to around 135m³ /s in August / September. Two tributaries near the southern part of the city, the Olarongchhu and the Nagberongchhu, are similarly fast flowing. Drinking water is provided mainly by four streams flowing above the city. There are two water treatment plants in Upper Motithang and Samteling which supplies treated water to approximately 49% of households in the city.

b. Water Quality

The Wangchhu river is clean in comparison to other rivers in Himalayan towns but does contain significant levels of pollutants and pathogens. Waste from the city is a significant source of contaminants. The two tributaries near the southern part of the city are relatively clean.

NECS conducted baseline water quality survey and monitoring along major rivers and tributaries. Based on this, NECS has concluded that the state of Bhutan's water resources at the macro level is very healthy. The data indicate that the main rivers and their major tributaries, with a few exceptions, are still of a pristine quality. The natural water quality can be characterized as highly oxygenated, slightly alkaline with low conductivity and no recorded salinities. However, there are localized water pollution problem due to frequent unsanitary conditions along banks of streams and rivers. This problem is worse in Thimphu, where surface drainage, grey water sullage from domestic households and uncontrolled seepage or overflow from septic tanks and pipes enter into the watercourses. There are a large number of automobile workshops in Thimphu. Discharges of waste oil and other effluents from these workshops is a significant source of water pollution.⁸ At locations downstream of Thimphu vegetable market, the coliform count is found to be much higher than upstream of the market. The coliform count, however, decreases as distances downstream from the market increases.

⁸ Automobile Services Association of Bhutan (ASAB)

Testing was undertaken in October 2005 for sulphate, nitrate, phosphate and turbidity for the river Wangchhu, the mouth of the Olerangchhu, and for three stormwater drains in the city. Faecal coliforms were detected in each location, but not quantified. No sulphates were detected in stream water. The figures for the Wangchhu show increasing turbidity through the city, though levels of nitrate and phosphate show no marked increase, despite the distinct presence of these in the city's stormwater drains. Concentrations of pollutants are likely to rise in the winter, when flows in the Wangchhu are markedly lower.

Levels of sulphate, nitrate and phosphate in storm water drains suggest some household wastewater enters the drains. In the storm water drains faecal coliforms were detected in each location, but not quantified. It should be noted that the drain in South Thimphu also serves as an irrigation channel

c. Water Supply

Thimphu City currently obtains water from mains supplies, and uncontrolled sources such as streams and springs. Mains supplies are treated with chlorine, informal sources are not. The demand for water is based on the population growth rate and allowance per person per day. Although the annual population growth rate of the country as a whole is around 1-2%, for Thimphu the figure is variously reported between 5-9% per annum. In fact by year 2027 the population of Thimphu is estimated to be 150,000. This will require a water supply in excess of 20,000m³/day.

The amount of potable water supplied to households is currently taken to be 135 Litres / person / day and the population serviced assumed to be 35,000 persons. This means a supply of around 5,000m³ /day. In Thimphu there are four streams above the city, two drinking water treatment plants, 10 water reservoirs and 70 kms of distribution pipelines, The first plant at Mothithang supplies 6,500m³/day and the new plant at Samtheling will give 8,500m³/day⁹.

For design purposes this supply is to be increased to 180 L/P/day. These treatment plants employ conventional flocculation, sedimentation and chlorination. However not all households are supplied from municipal sources with water treatment plants which purify the water. Other houses connect unofficially to streams and other sources. Also due to the topography the pressure is not maintained 24 hours a day and so the flow may only be available for 3-4 hours a day. In this case, households store water in plastic roof tanks. Despite the presence of residual chlorine this can lead to bacterial contamination and disease. The supply is divided as domestic 70%, commercial 27% and industrial 3%. It has been reported that 30% of supply is lost through "distribution losses" (theft). (Reference Interview with TCC Water Supply Department) If one assumes all properties are to receive municipal supplies to WHO standard (chlorinated) and be metered this will require a 50% increase in supply capacity in the future.

3.3 Waste Water

a. Sewerage System

Assuming the water supply to the city is 5,000 cubic metres per day, and taking a figure of 80% of drinking water becoming waste water, this means that over 3,000 cubic metres per day of waste water is generated. The main sewer collection system is in Thimphu

⁹ Thimphu City Corporation

city. About 19% of the core area, or 12% of the city is sewered. The sewerage network covers 36kms of pipeline utilizing 110 to 500mm pipelines¹⁰. This network connects to individual households and then flows under gravity to the sewage treatment plant downstream of the city. The rest of the buildings are connected to septic tanks which overflow, or in fact discharge directly to surface drains which then lead directly into the river. Industrial waste is minimal but is required by regulations to be pretreated before discharge to the sewers. Waste oil is not permitted to be discharged but must be recycled.

b. Waste Water Treatment Plant

The Waste Water Treatment Plant (WWTP) is located at Babesa, south of the city core, and is based on “waste water stabilization ponds” or “lagoons”. They were designed in 1993 and commissioned in 1996. They were designed to take effluent from a domestic population equivalent of 12,500 persons. They currently take around 1,450 cubic metres per day and are designed to take 1,750 cubic metres per day.

The lagoons consist of two series of ponds in parallel, which receive gravity flow from the city. No pumping is necessary unless the treated effluent failed to meet discharge standards in which case it would be pumped back to the influent channel. The raw BOD input is around 350mg/L with a COD: BOD ratio of 2:1. The BOD removal efficiency is about 80% so that the effluent discharge is around BOD 45mg/L and SS varies between 60-120 mg/L depending on algal content. The discharge standard is BOD 50 mg/L. The effluent is monitored weekly and has never exceeded permitted discharge levels¹¹.

Lagoons are an excellent form of wastewater treatment if BOD loads are not too high, chemical impurities are absent, oil and grease is excluded, and land and sunshine is available. Disadvantages are the large land take, and the fact that they are inefficient below 10^o centigrade. This can lead to odours. In ten years of operation no serious complaints have been received on smell. The land can be recovered for use after the lagoon life is expended and there is no sludge disposal problem. The staff consists of one chemist, who has limited academic qualifications yet excellent experience, and five maintenance staff. The only operating expenses are chemical test kits and grass cutting.

At the moment the lagoons are working more than adequately. However if the population of Thimphu continues to rise as predicted, by 7-9% per annum, then in 10 years time the city will need ten times the sewage treatment capacity if all houses are to be connected to sewers. At the moment the lagoons cover 13 acres of land. Adjacent to the lagoons is another 13 acres of empty land under private ownership. Owners are reluctant to sell as government compensation rate is US\$6/m² whereas the market rate is much higher.

For the moment the river is not under severe stress and lagoons are recommended, as the way to go until new cheaper better technology, such as hollow fiber membranes, can be adapted.

c. Septic Tanks

Residences which are not connected to the sewerage system are required to have septic tanks. Thimphu City Development Plans require all houses not within 80 metres of

¹⁰ Danida Operations Manual Document

¹¹ Thimphu City corporation

a sewer to have a septic tank installed. Septic tanks are designed to work in areas of low residential density and rely on the assimilative capacity of the soil to biological treat organic waste and render it harmless. Many septic tanks in Thimphu are bypassed or are not connected to a soak pit, so allowing untreated or semi treated sewage, to flow directly into the river. The soak pit, which is the exit from the tank, should be below the soil and not accessible from ground level except by grease sealed manhole cover.¹² If the soak pit simply leads to the open surface monsoon drains then the effects of the septic tank are very limited. Gross solids are captured in the first chamber but the liquid effluent is still high in BOD, so placing a high oxygen demand on the river, and it is highly contaminated with potentially disease causing organisms.

d. Drainage and Flooding

Poor road surfaces and inadequate provision of drains leads to surface ponding. This situation is worsened by uncollected garbage blocking drains. Often the drainage system is blocked by electrical, TV or fibre optic cable crossing the drain and causing blockages¹³.

3.4 Solid Waste

a. Municipal Waste

Solid waste has increased as Bhutanese society becomes more consumer orientated. In Thimphu, solid waste generation was estimated to be 8 MT in 1994, 22 MT in 2003 and 36.7 MT in 2005. Based on 2005 population census figures of 79,185 people in Thimphu urban area¹⁴ in August 2005 solid waste accumulated at the landfill is estimated to be 0.46 kg per capita per day or 168 kg per capita per annum for Thimphu city. At the moment residents transport the waste to bins, skips or vehicles fitted with compactors themselves. This is then removed to the landfill tip site¹⁵.

b. Landfill

The current landfill in Thimphu is overflowing and possibly structurally unstable. It is not operating efficiently as access is up a steep incline and in bad weather trucks cannot drive up the slope. They are forced to tip at the bottom of the slope and then a bull dozer or Front End Loader must be used to transfer the waste to the actual landfill site. This double handling is inefficient. The current landfill is located 13 kms from the city and is almost at full capacity. A new site has been identified at a distance of 18 kms from the city.

c. Recycling

There is little attempt at recycling and hauled garbage is a mix of food waste, bottles, cans, paper, plastic bags etc. Segregation at source is essential for effective recycling and could generate useful resources. It would also reduce the load to the landfill, thus extending its life. Local people are allowed to act as scavengers and recover any useful materials.

d. Composting

Organic waste is generated by the weekend vegetable market. A compost plant has recently been constructed to transform organic waste to soil conditioner. This is

¹² Sewage Section, Thimphu City Corporation

¹³ *ibid*

¹⁴ Royal Society for the Protection of Nature (RSPN)

¹⁵ Final project report, Urban Infrastructure Project, Asian Development Bank.

suffering from lack of an access road and no connection to a power substation. Composting requires removal of all glass, broken bottles, sharps, cans, plastics, PET bottles, waste toilet cleaner chemicals, aluminium cans, paper and cardboard. It also requires a market to offtake the finished product which is not fertilizer but a soil conditioner. Viability can be dubious. It is accepted that the composting plant will not make a profit but will reduce the load to landfill.

e. Transfer Stations

Thimphu city currently generates about 40 tonnes of waste a day. This is removed from bins and skips by compactor vehicles which then have to make a 13 km trip to a landfill. This will involve a 26 km round trip. Using compactor vehicles for such long distances is not a cost effective use. It would be feasible to construct a small transfer station at the edge of the city, use regular rear tipping trucks for haulage and use the compactors to increase collection frequency. Recycling can also be implemented at the transfer station.

f. Medical Waste

Medical waste and industrial solid waste are a concern. Data on industrial solid waste is currently not available. Approximate figures for health care waste given in Health Care Waste Management Plan ¹⁶ provides a figure of 73.2 MT of infectious waste per year. The Thimphu hospital has a medical waste incinerator which is currently reported to be non operational¹⁷.

g. Construction Waste

Much construction waste is dumped by the side of the road to save on haulage and transport costs. Such tipping is illegal and unsightly.

h. Waste Management

The collection network should be extended to cover the whole city and the collection frequency increased to once a day for all areas if feasible. Composting is successful financially only if heavily subsidized. Privatisation and transfer stations are seen as an option to increase efficiency.

3.5 Air Pollution

a. Ambient Air Quality

Ambient air quality monitoring on a regular basis was done in Thimphu between June 2004 and May 2006. NECS recorded ambient air quality data on 100 sample days in the premises of Tashichhoe Dzong. In particular they examined “respirable particulate matter” PM₁₀ which are particulate matter of 10 micron diameter or less. They are fine enough to enter into the respiratory tract, remain there and lead to respiratory health problem. The United States Environmental Protection Agency’s guideline has set the PM₁₀ concentration standard at 50 µg/m³ while the European Union’s guideline has set it at 40 µg/m³. The data collected showed an average PM₁₀ concentration of 24.5 µg/m³ which is significantly lower than internationally set air quality standards although there were occasional excursions above this level.

¹⁶ Ministry of Health in 2004

¹⁷ Thimphu City Corporation

b. Air Quality and Traffic Management

NEC has been monitoring ambient air quality in Thimphu since 2002. The quality of air is reasonable although CO levels are quite high. This is attributed to the growing car ownership in the city. Currently there is no traffic management, bypass, circulatory system, car parking or attempt to separate vehicles from pedestrians in the city centre.

c. Fuel

Some 38% of the total households in the country use fuel wood as the primary source for cooking and in rural areas 56% of households use wood. Fuel wood use has declined with the increased availability of modern fuels, more modern cooking / heating appliances, and the expansion of electricity distribution across the country. According to the PHCB 2005, 48% of the households in Thimphu city use electricity for cooking, 4% use kerosene, 2% use fuel wood and about 45% use LPG.

d. Meteorological Effects

Thimphu has higher population and more traffic than other towns in Bhutan. The major sources of air pollution are vehicular emissions and burning of wood in traditional wood stoves (bukharis). The city is located in a high altitude valley, surrounded by mountains. The combination of high elevation and low temperatures during the winter cause temperature inversions, which prevent pollutants from dispersing.

3.6 Noise

Noise is generally not a problem in Thimphu, however the city has a high number of stray dogs that create a lot of noise by continuously barking till late at night. This is regularly reported by disturbed tourists and hotel guests.

3.7 Environmental Costs

Bhutan has made considerable headway in terms of improving access to safe drinking water and improved sanitation. Some 84% of the population had access to a secure water source in 2003 compared with 45% in 1990. Similarly, population with access to improved sanitation had grown from 67% in 1990 to 92.6% in 2003. Further efforts to improve access and upgrade the quality of drinking water and sanitation facilities need to be expanded to cover more households and people. A water supply network and extended sewerage network is planned for Thimphu.

All basic urban services involve a cost which must be paid for in some manner. At present such services are heavily subsidized by government, but if the coverage of the services is to be extended, and the services improved, then some allocation of costs to the individual consumers must be considered. Charges are made monthly for water supply. These include a charge for sewage treatment. At the moment sewage treatment is charged at a 50% surcharge on the water supplied. Garbage collection costs are allocated to a charge levied against the property management fee. The charges are shown below.

Table 3.a: Water Supply Tariff (Source: Interview with TCC Water Supply Department)

Volume water used m ³	Residential	Commercial	Sewerage Charge	Solid Waste
0-20	2.15 N/m ³	2.15 N/m ³	50% of water	Based on Property Management Fee
21-40	2.6 N/m ³	3.0 N/m ³	50% of water	As above
>40	3.2 N/m ³	4.3 N/m ³	50% of water	As above

These charges are known to be low and are being increased by TCC at 7% per annum. Similar costs in other countries are shown below.

Table 3.b: Charges for water supply (Source - Consultant)

Country	Bhutan	Philippines	Malaysia	Singapore
Charge for water US\$ in cents / m ³	4.7	12	50	150

As shown, the costs of drinking water and sewage treatment are very low and probably unrealistic in terms of cost recovery.

For sewage treatment the current system of lagoons is generally accepted as being the most appropriate in terms of operating costs and necessary technical skills. If the sewage treatment plant is to be expanded to accept all the waste water from Thimphu City then an increase 10 times in area may be necessary. This could possible be reduced to five times if surface aeration is included in the lagoons but then an increase in operating costs would be incurred due to higher electricity needs of the aerators. If a more technological solution is considered than the “footprint” of land needed is much smaller. Less land is needed, but it is necessary to accept high construction costs, higher operating costs and the need for skilled operators. Also the visual impact can be significant. Some typical costs are given below. A design figure of 2000 m³/d has been taken for comparative purposes.

Table 3.c: Typical Costs of STPs

Location	Cost USD million	Capacity m ³ /d	Cost per m ³ USD	Cost for 2000 m ³ /d	Source	Process	Operating Costs
JAFZA STP6, UAE	2	6,000	363	726,000	Constructed Value	SBR	10-20%
Bangkok	1.25	2,000	625	1,250,000	Engineers Estimate	MBR	5%
Mafraq Phase 3, UAE	191	300,000	635	1,270,000	Engineers Estimate	Conventional	10-15%
Saadiyat, Saudi Arabia	76	56,000	1361	2,722,000	Engineers Estimate	Conventional	8 years operating costs included in Construction

Lagoons are undoubtedly cheaper to construct and run if land is available. SBR (Sequenced Batch Reactors) are tricky to operate, rely on skilled operators and can be run by computers. MBR (Membrane Batch Reactors) are a development from hollow fibre membranes. Once constructed, they are relatively simple to operate. Conventional

plants are based on activated sludge or trickling filters. They require large concrete tanks and pumps, chemicals and trained operators. They can have high running costs.

Based on reported interviews, most households will be willing to pay for a good quality reliable water source and good municipal services, if they are available. If a “high tech” solution is selected then MBRs are probably the most appropriate choice but a detailed techno-economic study, which considers land values and location, is needed. At the moment, extension to the existing lagoons seems to be the preferred choice as an interim solution, as expansion of the sewerage reticulation system will itself take several years.

Section - 2: Citizen Satisfaction surveys by MoWHS

During the first half of 2006, Ministry of Works and Human Settlement (MWHS) Royal Government of Bhutan (RGOB) carried city level surveys in sixteen towns benefiting from DANIDA and World Bank funded projects and initiatives to know the status and impact of urban services. The Survey initially intended to cover 30% of households from smaller towns and approximately 10% of the households from large towns such as Thimphu and Phuentsholing. The number of households calculated were approximate numbers as per the then existing DUDS population surveys carried by the National Statistical Bureau. The households were selected using the then existing census maps to ensure that all the areas of the city were well represented. Results of the surveys have been recently brought out and present a revealing view of the status of infrastructure in the surveyed towns and level of satisfaction of the people.

It is to be noted here that the samples were selected on the basis of the then existing population figures that are much lower than the current census figures, which however does not dilute the findings of the survey.

The survey covered many aspects of service provision including electricity, public transport services, piped water supply, roads and footpaths improvements, sewerage connection, markets, garbage collection, public spaces, street maintenance, lighting, education, Health. The findings of the survey are presently being compiled, However the MoWHS have been kind to share the preliminary compilation of the survey to be used in this study.

The household sample survey covered various aspects of urban services provision. Three of the main findings that are of relevance to this study are being discussed below:

1. Access to services
2. Level of dis-satisfaction
3. Requirement of higher spending in some sectors (need for improvement)

Over 421 households of the 15728 households from the city were surveyed. The survey covered various areas spread across the city based on the census city map to ensure an even representation.

Table 3.1a: Access to services (percentage of respondents)

Services	% of respondents
Electricity	86
Public bus	37
Piped water supply	88
Road improvements	34
Footpath improvements / extensions	34
Septic tank cleaning	60
Market improvements	38
Garbage collection	96
Improve. public spaces	62
Education	100
Street lighting	37
Health services	100

Source: Citizen satisfaction survey, DANIDA

The adjoining table clearly demonstrates that most of the respondents have good access to electricity, piped water supply, septic tank cleaning, garbage collection, improved public spaces, education and health facilities.

There is however quite low access levels in areas of public transport, road and footpath improvements, market and street lighting. It is assumed that through the implementation of Structure Plan stipulations under the local area plans by ADB and WB funding most of the above areas will be well

addressed.

Table 3.1b: Level of Dis-satisfaction (percentage of respondents)

Services	% of respondents
Electricity	1
Water supply	13
Sewer connection	9
Septic tank cleaning	7
Garbage collection	4
Street cleaning	15
Street lighting	16
Public bus service	0
Road improvements	1
Footpath improvements	9
Market place improvements	7
Improvement to public places	18
Education / schooling	0
Health services	0
TOTAL	100

Source: Citizen satisfaction survey, DANIDA

The adjoining table demonstrates the services that the respondents are most dis-satisfied with.

It is interesting to note that most people feel that the public places in Thimphu are not in satisfactory conditions. Many respondents also feel that street lighting, cleaning and water supply systems are not satisfactory.

There are nil cases of dissatisfaction against the education and health facilities.

Based on the above a comparison was also made between the level of satisfaction between water

supply and electricity supply

Table 3.1c: Comparison with power and water supply-Satisfaction (percentage of respondents)

Services	% of respondents
water supply	14
electricity	86

Source: Citizen satisfaction survey, DANIDA

It is observed that most respondents feel that electricity supply is much more satisfactory compared to the water supply facility

Table 3.1d: On which service would you like the municipality to spend more?

(Percentage of respondents)

Services	% of respondents
Electricity	1
Water supply	18
Sewer connection	10
Septic tank cleaning	7
Garbage collection	5
Street cleaning	16
Street lighting	18
Public bus service	0
Road improvements	0
Footpath improvements	8
Market place improvements	7
Improvement to public places	11
Education / schooling	0
Health services	0
Total	100

Source: Citizen satisfaction survey, DANIDA

The adjoining table presents the respondents view on need for improving spending on services priority wise.

A majority of the respondents felt that the municipal corporation needed to increase its spending on supply of water and street lighting. Other important areas needing increase in spending was found to be street cleaning and improving public spaces.

As observed earlier also none of the respondents felt that the education or health facilities needed higher spending.

Household survey by the project team:

The project team with the help of research students from JNTU Hyderabad carried out household sample surveys to know the status of the 10 local areas covering 156 h/h of the total 3800 h/hs. Respondents were asked questions about the kind of services they were receiving, the quality and satisfaction of services, and need for improvement. **(Details of the survey in annex IV)**

The survey essentially covered:

1. Basic information to know the status of the household – occupation, income, duration of stay at current location, tenure, expenditure on various services, ownership of assets.
2. Status of various services and levels of satisfaction- water supply, drainage, power, telecom, roads and transport, solid waste, internet and entertainment.

Following are the findings of the household survey:

- Power supply received a unanimous satisfactory response
- Almost all the surveyed households had landline or mobile phones
- In the case of garbage collection people with no service opted for the facility, ones with collection service weekly asked for bi-weekly collection where as the ones with bi-weekly asked for daily collection
- Majority asked for proper roads with street lighting
- Most respondents opted for connection to the sewerage lines
- Majority opted for water supply system, on priority basis

4-week online survey by the project team through Kuensel (Bhutan's National Newspaper)

The project team attempted conducting area level consultations in various parts of the city, to know the views of the current status of the city and their image of the city over a long term (20 years). The consultations intended to find out from the people their concerns and main issues about the living conditions and vision for the city over 20 years.

The consultations were initially held in four areas of the town, later including numerous poorer locations in the city also. The concerns of the citizens were mainly short term and mostly concentrated on the implementation of the delayed LAPs and Structure Plan however it did help the team appreciate immediate concerns of the people. Based on the findings of our area level consultations it was decided that assistance of media could be taken to conduct online survey to know from the young and the educated their concerns and vision for development.

The survey was initiated on the website of Kuensel- the national newspaper following an announcement about the survey in the newspaper. The survey was started on the 21st September and was on till the 20th October. The responses till 20th October have been listed out below:

Table 3.1e: Main concerns of Thimphu

Concerns	Responses
Affordable housing	11
Cleanliness	22
Dogs	4
Ethical education	1
More greenery	1
parking	4
Poor Drainage system	6
Sewerage	10
Transport	7
water supply	11
Wider roads	10
Youth employment	7
Source: online survey by kuensel- Bhutan's National Newspaper.	

The online survey till date lists cleanliness as the main concern of the citizens, next to that is water supply and affordable housing and sewerage lines. It is worth noting here that most of the participants are from middle and upper income groups but still affordable housing figures as an important concern. Also that the TCC maintains a fairly good garbage collection system still cleanliness remains the top concern, thereby implying tremendous scope of improvement.

The online survey also enquires the citizens about their vision of the city- twenty years hence. It is notable here that maximum citizens have envisioned a beautiful, clean and green city that is systematic and better-planned. Few respondents also envisioned Thimphu as a well developed city, where as some saw it as a mix between tradition and modern that could become a role model.

The Draft CDS and the findings from our survey was shared with the citizens in an open forum on the 12th and 13th of November. The media's assistance was taken to organize a city level open forum to share with the people the progress on the project; the BBS also covered the project on the national news, inviting citizens to share their comments.

Annex IV: Thimphu City Corporation and its Capacities

Section 1

This Annex flags issues for capacity building of Thimphu City Corporation (TCC) for effective urban governance and management and delivery of civic services by TCC. Capacity building is driven, among other things, by (i) policy and legal framework, (ii) organizational structure, (iii) fiscal capacity, (iv) staffing and HRD, and (iv) participatory urban governance.

4.1 Legal Framework

The Thimphu City Corporation (TCC) is mandated for civic governance of the national capital city of Thimphu that presently has a population of about 80, 000 which, in view of the total population of the country, is quite substantial. The Bhutan Municipal Act (BMA), 1999 provides the legal framework for the TCC for urban governance. Policy stance for its day-to-day functioning flows from the Ministry of Works and Human Settlements (MoWHS). BMA, however, has several laws that are dealt with in greater detail in Annex-1. To re-iterate them briefly, (i) the law does not grant autonomy to the TCC that constrains functioning of TCC as a self-government institution, (ii) it does not permit a political executive system which is the hall mark of local self-government, (iii) it does not grant TCC the authority to set its own rates, (iv) it does not contain provisions for participatory and accountable local government.

Autonomy of TCC is diluted due to (i) provisions in the Charter issued in 2003, (ii) system of appointed members in the Committee, and (iii) the Committee being chaired by an appointee of the government.

These gaps in the existing legal framework require an amendment of the BMA. A better course of action will, however, be enactment of altogether a new law. The existing legal constraints need to be addressed by incorporating appropriate provisions in the legal framework for promoting (i) autonomous decision making process and procedure by the Committee consisting of elected members from the different zones (the zones should be better renamed as Wards), (ii) political executive system wherein the elected Mayor will preside over the Committee and will be the chief executive of the City Corporation¹⁸, and (iii) dispensing with the provision of nominated members in the Committee. Such an executive system will make the appointed Thrompen responsible for performing executive functions (not having executive powers) and making him/her responsible to the Mayor and the Committee. TCC should also have the authority to decide the rates of tax and non-tax sources that should not be subject to approval by the government.

Granting of autonomy to the TCC would, however, need to be accompanied by certain checks and balances by putting in place appropriate structure and processes for participatory governance initiatives as mentioned below:

- Creation of Community Development Department in the TCC with a mandate to create local electoral ward based community organizations and interaction with them on a regular and sustained basis for promoting participatory governance.
- Involving community organizations in plans, programmes, and activities of the TCC including budgeting and tax collection.¹⁹

¹⁸ TCC would as well need to be renamed as the Thimphu City Municipal Corporation as the present nomenclature gives an impression that TCC is a company.

¹⁹ CBOs could even be given some incentive in the form of a small proportion of sharing in the revenue collected through their initiative. This will help TCC enhance tax collection

- Creation of Ward Committee in each local government electoral Ward to be chaired by the elected local representative from the Ward and providing representation of civil society groups on the Ward Committee for need based budget allocations and promoting local government accountability.
- Electoral Ward based budgeting system and involvement the focus groups within the electoral Wards for prioritizing and implementation of local development schemes.

4.2 Organizational Structure

Urban governance and delivery of civic services and basic urban infrastructure are presently overviewed by the Thrompon who is vested with performance of executive functions and is accountable to the Committee of the TCC. He is assisted in the discharge of his functions by a Policy and Planning Unit (PPU) and a legal cell. Existence of PPU in TCC is an innovative practice for looking ahead and planning the city systems for the anticipated demographic and physical growth. However, in its present form (limited expertise in terms of number and quality); it is not in a position to look ahead and meet the civic needs of the city.

Functions devolved to the TCC are presently discharged by five Divisions viz. (i) Engineering Division, (ii) Development Control Division, (iii) Environment Division, (iv) Urban Planning Division, and (v) Administration and Finance Division. Structure of these Divisions and the support system presently available for urban governance and municipal management are depicted in **Organizational Chart 1**. However, the present organizational structure seems to be too much oriented towards planning that is limited to land management, ensuring development control. This is not to suggest that these are not needed. Planning for physical, economic and social development of the city does not constitute a serious agenda in such a scheme of organizational structure. Also the existing organizational structure seems to be taking a tunnel view of finance (tax administration, budgeting and accounts). Finance constitutes the most important parameter in any scheme of development. TCC would, therefore, need to have a separate Finance Division to be headed by a qualified Finance Officer. The Finance Officer will devise systems for effective tax administration, budgeting, accounts and internal and statutory audit and closely overview these.

Yet another flaw in the existing organizational framework is the conspicuous absence of a (i) Public Health Department/Division that must ensure an effective system of preventive health through focused attention on conservancy and sanitation, including potable water supply, sewer and sanitation, and (ii) Community Development Department. An institution of local self-government that has to deal with the citizens on a much more intense and regular basis at the cutting edge level, must have a unit for facilitating participatory initiatives that also promotes local government accountability.

TCC has also proposed organizational restructuring that is presented in Chart II. It has proposed a Design and Construction Section under the existing Engineering Division and a Building /Sanitation Inspection Section under the existing Development Control (Regulation) Division. Other changes proposed are shown in organizational Chart II.

The changes suggested by us as mentioned above, are depicted in organizational Chart III. In the organizational restructuring suggested by us, the number of Divisions continues to be five. The Environment Division is proposed to be replaced by the department of Public Health under the Engineering Division. It will perform some of the important functions of the environment division. We suggest that Public Health could as well be created into a Division that will be reporting directly to the chief executive officer of TCC. The Department of Community Officer is proposed to be placed under the direct supervision and control of the chief executive officer as another division.

4.3 Fiscal Capacity

Apart from developing technical and managerial competences, it is also imperative for Thimphu City Corporation achieve financial sustainability. At present, TCC is faced with mounting operating losses. Its own revenue collections from tax and non-tax sources are inadequate to recover operating and establishment expenditure. The annual losses are currently met out of the budget support provided by RGoB. But TCC would soon be accorded the status of 'local government and this is contingent upon attaining financial self-sufficiency. Financial sustainability is also critical for reducing dependence of the corporation on external funding.

4.3.1 Financial Trends of TCC

a. Mounting operating deficits

TCC has never been financially self-sustainable. Its own revenue collection has always fallen short of the operating and establishment expenditure. Over the five-year period since 2000-01, operating deficits of TCC grew at an average rate 15 percent per year (*Table 1 & Figure 1*).

During 2005-06 (the latest year for which actual data are available), revenue expenditure of TCC was Nu 48.0 million as against its own revenue collection of Nu 33.6 million, leaving a operating deficit of Nu 14.3 million or 30 percent of the expenditure (*Table 1 & Figure 1*). Taking into account 79,185 urban population of Thimphu as well as the fact that TCC covers roughly 80 percent of the population, per capita deficit works out to be NU 226. This is expected to go up significantly to Nu 421 by the end of the current fiscal year 2007-07.

Though the revenue deficit in each year is met out of budget (current) support provided by RGoB, the mounting operating losses are matter of great concern. As mentioned at the outset, TCC would be accorded the status of 'local government very soon and it is imperative that it attains financial sustainability by that time.

b. Revenue collection

The annual revenue collection from tax and non-tax sources is close to Nu 34 million (2005-06). However, bulk of the revenue (64 percent) comes from non-tax sources.

The revenue collection from land tax and urban house tax is only Nu 4 million or 13 percent of the total revenue of TCC (*Figure 2*). These two heads not only provide a low tax base but also exhibit very slow growth, little over one percent (*Table 1*). Given the low tax revenue base and unimpressive buoyancy, there is an urgent need for rationalization of land and house tax structure.

Figure 3a: Operating deficits & budget support by RGoB

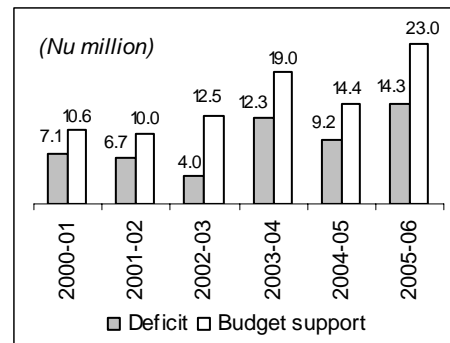
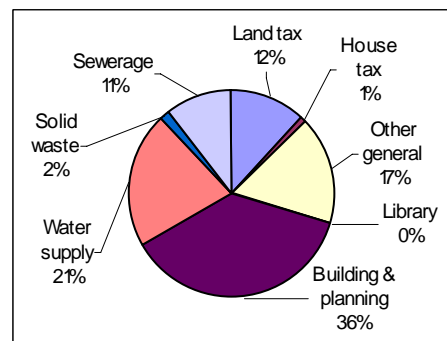


Figure 4b: Break-up of Revenue (2005-06)



The tax and fee collection related to building and planning activities accounts for the largest share, 36 percent, in the total revenue of TCC (*Figure 2*). The annual collection is little over Nu 12 million and the main revenue components are the property transfer tax (Nu 7.87 million) and building plan processing fees (Nu 3.61 million). Property transfer tax alone accounts for nearly one-fourth of the total revenue collection by TCC.

Table 4a: Income and revenue expenditure of TCC

	(Nu in '000)	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	CAGR
1	Revenue Collections	15,479	20,836	23,426	21,719	28,003	33,643	16.8%
1.1	General *	6,750	11,833	11,025	5,561	10,594	10,018	8.2%
1.2	Library membership fees	7	7	6	16	14	26	31.2%
1.3	Building and planning	1,948	2,503	4,431	6,707	6,775	12,259	44.5%
1.4	Water supply	3,736	3,849	4,739	5,606	6,112	7,188	14.0%
1.5	Solid waste collection	1,070	617	730	943	1353	579	-11.6%
1.6	Sewerage	1,969	2,026	2,494	2,887	3,156	3,573	12.7%
2	Expenditure	22,576	27,491	27,413	34,015	37,169	47,977	16.3%
2.1	Operational cost	10,591	12,132	13,426	17,716	16,815	21,666	15.4%
2.2	Establishment cost	11,986	15,358	13,987	16,299	20,353	26,312	17.0%
2.2.1	Personal emolument	7,712	7,620	8,552	10,933	13,967	16,593	16.6%
2.2.2	PF & retirement benefits	904	677	741	654	716	1,051	3.1%
2.2.3	Other expenses	3,370	7,062	4,693	4,713	5,670	8,667	20.8%
3	Operating surplus/ (deficit)	(7,097)	(6,655)	(3,987)	(12,297)	(9,165)	(14,334)	15.1%
4	RGoB budget support	10,630	10,000	12,508	19,000	14,400	23,000	16.7%
5	Net surplus/(deficit)	3,533	3,345	8,521	6,703	5,235	8,666	19.7%
* General income includes land tax and urban tax as given under:								
	Land tax	3,778	7,335	5,099	3,661	4,240	3,998	1.1%
	Urban house tax	285	279	300	283	326	347	4.0%
	Total	4,063	7,614	5,399	3,944	4,565	4,345	1.4%
Source: Year-wise trial balances of TCC								

The next high ranking sources of revenue are water and sanitation fee (21 percent) and sewerage fee and charges (11 percent). In 2005-06, collections from these two sources were Nu 7.2 million and Nu 3.6 million respectively (*Table 1*).

In contrast, the solid waste collection fee and charges fetched a little over half-a-million during the same period, which cannot cover even the operational costs (discussed later).

Among the sources of general revenue, proceeds from sale of excess land have been an erratic source. In 2004-05, parking fee was introduced and TCC collected Nu 3.6 million (*Table 1*). However, it is not clear why parking fee collection declined to Nu 2.7 million during the subsequent year.

c. Expenditure

Figure 4c: Break-up of operational expenditure (2005-06)

The revenue expenditure of TCC for providing municipal services in Thimphu city is about Nu 48 million (2005-06) per year or NU 757 per capita. Out of this amount, operational cost is Nu 22 million (45 percent) and the balance Nu 26 million (55 percent) represents establishment cost (Table 1). Over the five-year period since 2000-01, the operational cost grew at 15.4 percent, while the establishment cost increased at a faster rate of 17.0 percent per annum.

Maintenance of vehicles (NU 7.7 million) is the single largest component of the operational cost. It accounts for 35.5 percent of the total operational cost (Figure 3). Other significant heads of operational cost are the maintenance expenses for water supply (12 percent), street light (8 percent), and sewerage (7 percent). A little over 6 percent is the outlay for solid waste collection and disposal. TCC also spends Nu 1.4 million (6 percent) for removal of stray dogs and livestock.

About two-third of the establishment expense of TCC represents employee cost, comprising of salary and wage bill of Nu 16.6 million and provident funds and retirement benefits of Nu 1 million (Figure 4). Thus, non-employee cost (such as maintenance of building, equipment and furniture; travel; telephone and fax; electricity charges, etc.) accounts for the balance one-third of the total establishment expenditure.

d. Cost recovery

Segment-wise revenue and expenditure of TCC reveals that not all of them are loss making. The municipality service segments such as building and planning services, water supply and sewerage services generate operating surplus; cost recovery is more than 100 percent (Table 2). However, operating and establishment expenses for providing general services as well as for solid waste collection and disposal are much higher than the corresponding tax/fee collection.

For general services, cost recovery was 49 percent during 2005-06 (Table 2). The shortfall of revenue has been mainly on account of low base of land and house taxes and lack of tax buoyancy. As mentioned earlier, it is important and urgent to rationalize the property tax structure.

In case of solid waste collection and disposal, cost recovery is abysmally low, 6.3 percent of the operating and establishment expenditure. In fact, revenue collection (Nu 0.6 million) through service charges, sabji bazaar fees and sale of dustbins cannot even cover operational cost (Nu 7.3 million). The total deficit is over Nu 8.5 million which accounts for 60 percent of overall deficit of TCC. Thus, there is an urgent need to enhance service charges and fees keeping parity with the rising costs of service provision.

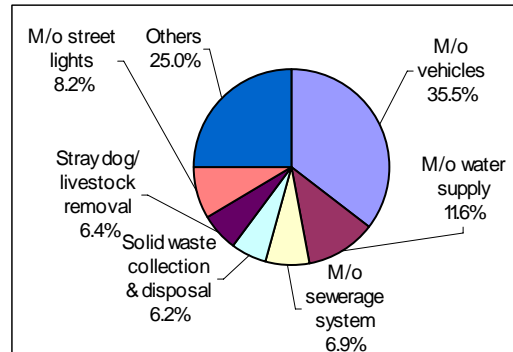


Figure4d: Break-up of establishment expenditure (2005-06)

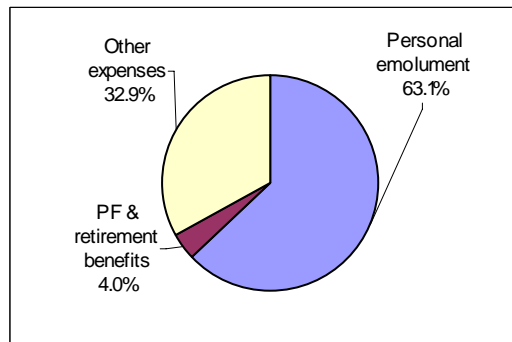


Table 4b: Segment-wise income and revenue expenditure of TCC

	(Nu in '000)	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
1	General*						
1.1	Revenue Collections	6,756	11,840	11,031	5,577	10,607	10,044
1.2	Expenditure	9,872	13,732	11,032	13,310	13,570	20,438
1.2.1	Operational cost	3,978	4,439	4,012	6,033	4,967	7,852
1.2.2	Establishment cost	5,894	9,294	7,020	7,277	8,603	12,586
1.3	Cost recovery	68.4%	86.2%	100.0%	41.9%	78.2%	49.1%
2	Building and planning						
2.1	Revenue Collections	1,948	2,503	4,431	6,707	6,775	12,259
2.2	Expenditure	2,680	2,842	3,672	6,205	7,290	8,929
2.2.1	Operational cost	397	452	744	1,313	924	1,299
2.2.2	Establishment cost	2,284	2,390	2,928	4,892	6,366	7,630
2.3	Cost recovery	72.7%	88.1%	120.7%	108.1%	92.9%	137.3%
3	Water supply						
3.1	Revenue Collections	3,736	3,849	4,739	5,606	6,112	7,188
3.2	Expenditure	3,511	3,644	4,396	4,721	5,568	6,039
3.2.1	Operational cost	1,736	1,915	2,418	2,739	2,886	2,921
3.2.2	Establishment cost	1,775	1,728	1,978	1,982	2,682	3,118
3.3	Cost recovery	106.4%	105.6%	107.8%	118.7%	109.8%	119.0%
4	Solid waste collection						
4.1	Revenue Collections	1,070	617	730	943	1,353	579
4.2	Expenditure	4,398	5,460	5,868	7,349	8,069	9,138
4.2.1	Operational cost	3,268	4,128	4,651	6,105	6,385	7,306
4.2.2	Establishment cost	1,129	1,331	1,217	1,244	1,684	1,832
4.3	Cost recovery	24.3%	11.3%	12.4%	12.8%	16.8%	6.3%
5	Sewerage						
5.1	Revenue Collections	1969	2026	2494	2887	3156	3573
5.2	Expenditure	2,116	1,813	2,444	2,430	2,671	3,433
5.2.1	Operational cost	1,212	1,198	1,600	1,526	1,653	2,288
5.2.2	Establishment cost	904	615	844	904	1,017	1,146
5.3	Cost recovery	93.0%	111.8%	102.0%	118.8%	118.2%	104.1%
6	Total						
6.1	Revenue Collections	15,479	20,836	23,426	21,719	28,003	33,643
6.2	Expenditure	22,576	27,491	27,413	34,015	37,169	47,977
6.2.1	Operational cost	10,591	12,132	13,426	17,716	16,815	21,666
6.2.2	Establishment cost	11,986	15,358	13,987	16,299	20,353	26,312
6.3	Cost recovery	68.6%	75.8%	85.5%	63.8%	75.3%	70.1%
6.4	Surplus/(Deficit)	(7,097)	(6,655)	(3,987)	(12,297)	(9,165)	(14,334)
* Includes library							

e. Capital expenditure

The assets of TCC are worth Nu 119 million (Table 3). This includes, *inter alia*, building and infrastructure (Nu 72.7 million), compensation for land (Nu 14.6 million), vehicles (Nu 15.6 million), and equipment, furniture & fixtures (Nu 12.6 million). In addition, the cash and bank balance of the corporation amounts to over Nu 71 million.

Capital expenditure in various projects stands at Nu 236 million as at June 2006 (Table 3). About 52 percent of the total project funding (Nu 290 million), however, is provided by DANIDA. In addition to revenue budget support (which leaves some surplus after setting off the losses), RGoB also provides grant for capital investments.

Though TCC balance sheet appears sizeable (over Nu 400 million), the major weakness lies in the fact that the balance sheet growth so far has been on account of external funding support and RGoB grant. To be self-sufficient in maintaining the existing assets as well as for new capital formation, TCC must earn adequate operating surplus.

Local Fiscal Tools: Local fiscal tools devolved to the TCC are analyzed in greater detail in Section 1. The impressive range of local fiscal tools devolved to TCC notwithstanding, some of them do not have an explicitly defined base. Land Tax and Urban House Tax are examples. Unlike several countries both in the developed and the developing, Bhutan does not have a composite tax on lands and buildings with defined base that could have imparted buoyancy to the tax. Some of the fiscal tools are not yet administered by the lone TCC. Advertisement Fee is an example of this. A unit of local self-government is supposed to have the authority to set its own rates for taxes, fees and fines or of whatever fiscal tool it is devolved with. The BMA does not grant this authority to the municipally. Before levying and collecting any of the taxes devolved to it the MC is required to get an approval of the RGoB of the rates of taxes to be imposed and the manner in which these are to be collected.²⁰

Table 4c: Balance sheet of TCC

As at June 2006		Nu in '000
Sources of funds		
Capital & reserves		151,361
RGoB - current budget	15,062	
RGoB - capital budget	29,140	
Other funding (ADB/DANIDA/etc.)	245,329	
Total project funding		289,531
Total sources of funds		440,892
Application of funds		
Building & Infrastructure	72,696	
Compensation of Land	14,629	
River side walk way	1,389	
Plant & Machinery	2,306	
Electrical Rewiring	242	
Vehicles	15,604	
Equipments, furniture & fixtures	12,573	
Total fixed assets		119,439
Advances	2,938	
Cash & bank balances	71,408	
Sub-total	74,346	
Less: Payables	2,813	
Net current assets		71,532
Capital investment in projects		235,587
Operating loss during the year		14,334
Total application of funds		440,892

²⁰ Section 122, The Bhutan Municipal Corporation Act of 1999.

Revenue generation effort is constrained also because the rates of taxes have not been revised since 1992. Taxes are administered even now on the basis of a tax policy devised in 1992.²¹ This gets exacerbated further due to lack of effective tax administration.

Tax on lands and buildings constitute the prime source of local revenue through the globe. TCC presently has separate taxes on lands and buildings. It would be, therefore, prudent for the TCC to move towards a composite property tax on land and buildings. One of the suggestions for base of this tax is to make the capital value as the base of the proposed PT. The reason given is that such base will be in conformity with land management issues and the valuation of land in terms of the market value. It needs to be emphasized that all the developing countries have been trying to grapple with capturing the market value without much success largely because a competitive real estate market is non-existent that could provide the market evidence for the obtaining value. Developing countries across the world have distorted land and real estate market that does not enable getting at the capital value. Rental value system as well is infested with a host of valuation problems largely due to the prevalence of Rent Control Acts that provide for determination of fair/standard rent. In view of these, Bhutan should move on the unit value system of PT as in India where some of the states aggrieved by the Rental Value System of PT have moved on to the Unit Value. Base of the Pt is determined on the basis of a standard value per square feet of land. The standard unit value itself varies in different zones of the town/city into which they are divided; the unit rate declining with the increase in distance from the core of town. This system of property tax has been elaborated in Sub-Section A.

Refurbishing of the existing Land Tax and the Building Tax would need to be accompanied by giving the local government units autonomy to set their own rates. Autonomy to set various tax rates and user charges is another ingredient of tax authority. A level of government should have autonomy to decide its own rates of taxes, fees, user charges and even fines that it wishes to levy. Setting these in the enabling laws militates against the ethos of self-government. To begin with, the local government should have autonomy to set their own rates within a range of minimum and maximum rates that should be provided for in law. Autonomy for choosing the rate within these limits could be left on to the local government units. In order to prevent profligacy and use of populist measures, the law could provide for central government approval in case the local government units intend to reduce the tax rate.

TCC already has a GIS section working in its Engineering Division. This unit would need to develop a GIS based Property Tax system that will impart transparency and buoyancy to this tax. Revenue generation would then need to be accompanied by innovative tax collection system like tax-payer friendly payment gateways (decentralized collection system, involvement of banks in collection, incentives for prompt payment of tax, online payment of tax etc).

Incentives to tax collectors and taxpayers, taxpayer friendly payment systems, strict implementation of filing of returns of lands and buildings to be provided for in the law and using it for introducing a system of self-assessment, high panel rate of interest on tax arrears and provision for attachment of bank accounts are likely to enhance tax collection

4.4 Introduction of a composite property tax system

²¹ Revised Taxation Policy, 1992, Thimphu City Corporation.

Unlike several developed and developing countries, Bhutan does not follow a composite property tax system. As noted earlier, TCC levies taxes separately for land and buildings. It is recommended that TCC adopt a composite property tax system similar to one now followed in India (Box 1). It is a simple, transparent and easy to compute self-assessment system. Under the system, onus for assessing tax liability, filing returns and paying taxes will be of the individual owners or occupiers as the case may be. TCC will not be required to raise demand and issue bill.

The above is just one step forward to augment revenue from property taxes. TCC must also take appropriate legal and institutional measure to strengthen tax collection system and procedures for minimize tax evasion and leakages. For instance, TCC may consider imposition of penal rate of interest on tax arrears and attachment of bank account (by suitably amending the definition of 'movable property') of the tax defaulter.

Box 1: Unit area system of property tax assessment in Indian context.

In India, the unit area based system is being implemented for urban areas in Delhi and Hyderabad. In the earlier prevalent system of property taxation the onus for raising demand for tax rested with the Municipality Corporation and unless a demand was raised and bill issued, the owner was not liable for payment of the property tax.

However, in the new system of property taxation, concept of self-assessment has been introduced for the first time whereby the onus for filing returns and paying taxes will be of the owner or occupier as the case may be. Property tax can be self assessed by the individual property owners or by any other person liable to pay the tax following the steps as given under.

1. Measure the covered area of the property.
2. Take into account the unit area value of the locality/category notified by the Municipality Corporation.
3. Calculate the annual value by using the following formula:
Annual value = Unit Area Value X Covered Area X Multiplicative Factors
4. In cases where different portions of property are put to different uses or where the other parameters like concessions/rebates applicable are different, the annual value will be calculated for each such portion separately.
5. Annual Value (AV) = (AV of Portion 1) + (AV of Portion 2) +
6. Calculate tax by multiplying the above value by the respective rate of tax as notified by the Corporation for the relevant year. From this deduct any rebates or concessions applicable.

$$\text{Tax} = (\text{Annual Value} \times \text{Rate of Tax}) \text{ minus Rebates/ Concessions applicable}$$

Refurbishing of the existing Land Tax and the Building Tax would need to be accompanied by giving the local government units autonomy to set their own rates. Autonomy to set various tax rates and user charges is another ingredient of tax authority. A level of government should have autonomy to decide its own rates of taxes, fees, user charges and even fines that it wishes to levy. Setting these in the enabling laws militates against the ethos of self-government. To begin with, the local government should have autonomy to set their own rates within a range of minimum and maximum rates that should be provided for in law. Autonomy for choosing the rate within these limits could be left on to the local government units. In order to prevent profligacy and use of populist measures, the law could provide for central government approval in case the local government units intend to reduce the tax rate.

Enhancing revenue from a composite PT (by integrating the existing separate taxes on land and buildings) would need to go for tax mapping. Survey of all lands and buildings within the TCC boundaries will help widen the tax-net, address the practice of under-assessment, and put in place a transparent system of PT. TCC already has a GIS section working in its Engineering Division. This unit would need to develop a GIS based Property Tax system that will impart transparency and buoyancy to this tax. Revenue generation would then need to be accompanied by innovative tax collection system like tax-payer friendly payment gateways (decentralized collection system, involvement of banks in collection, incentives for prompt payment of tax, online payment of tax, a package of incentives and penalties etc).

Incentives to tax collectors and taxpayers, taxpayer friendly payment systems, strict implementation of filing of returns of lands and buildings to be provided for in the law, high panel rate of interest on tax arrears, ABC Analysis, and provision in the law for attachment of bank accounts are likely to enhance tax collection

4.5 Enhancing service charges for solid waste collection and disposal

As mentioned earlier, cost recovery for provision of solid waste collection and disposal is abysmally low (6.3 percent) and the annual deficit is now over Nu 8.5 million. It is, therefore, recommended that service charges and fees be enhanced suitably so as to recover fully operation and maintenance cost.

In fact, it was agreed in the fourth Joint Annual Sector Review (JASR) in the Urban Sector Programme Support (USPS) between DANIDA and RGoB that TCC would make a plan to introduce tariff for solid waste and O & M costs would be fully recovered by 2006. This has not happened and RGoB is now urgently required to initiate the process.

The following provisions of the Bhutan Municipality Act provide the legal basis for increasing service charges:

- a. A Municipal Corporation shall, among others, provide such civic and other services as are essential for the general well being of the residents of a Municipality. [BMA, Part III, Subpart 1, Item 48i]
- b. The Municipal Corporation shall, among others carry out the following specific functions: waster collection/disposal establishment and operation. [BMA, Part III, Subpart 1, Item 49 i]
- c. The Municipal Corporation may impose the following fees, charges, fines and penalties in a manner, and at rates approved by the Committee: [BMA, Part VII, Subpart 4, Item 95 (deals with non-tax revenue) x (refers to 'other service charges')]
- d. The Municipal Corporation shall manage its finances prudently and in a manner, which is consistent with sound financial practices. [MA, part III, Subpart 3, item 58]

In addition to enhancing service charges, it may be worth exploring the option of outsourcing solid waste collection and disposal to private agencies or developing a public-private partnership. This will reduce the burden of operating cost to the tune of Nu 7 million and cut down more than half of the present operating deficit. Privatization will further lead to release of about 40 to 45 employees (including the drivers of the collecting vans) who may be suitably retrained and redeployed in the organization.

4.6 Budgeting:

TCC presently has a very weak budgeting system. In fact, it does not have a budget document in true sense of the term. Its budget consists simply of a table depicting estimated revenue and the recurrent expenditure. This does not give any account of organizational vision, goal, objectives, and the strategic approach to translate organizational vision. Budget in the present form does not serve as a tool for strategic planning, procurement, and execution of organizational objectives. It does not contain estimates of revenue from the internal sources of revenue individually. The estimates are, by and large, based on wild guess. This results in wide variation in the estimated and the actual revenue. On the expenditure side, it follows a very simple classification of recurrent expenditures in terms of (i) operational costs, and (ii) establishment costs. It does not follow the expenditure heads suggested in the BMA. Though it has a separate capital budget again in the form of a table, it does not have any nexus with creation of capital assets and their implications for operations and maintenance expenditure. It does not have any linkage between budgeted expenditure and resource realization. Budget formulation is devoid of any participatory process. It is not output oriented.

TCC, therefore, needs to reform its existing budgeting practices as suggested below:

Budget should be prepared in a manner that gives an account of organizational vision, and strategies to effectuate it.

- Budgeting needs to come out of the incremental approach and revenue and expenditure estimates would need to be based on practical norms and standards.
- The Budget should contain details of classification of revenue and expenditure heads.
- Revenue heads would need to be detailed out with pragmatic revenue generation estimates. Once the revenue estimates from each tax and non-tax sources are arrived at, it should give an account of initiatives to be followed for revenue generation.
- It should contain proposals for revenue generation in terms of rates for different tax and non-tax sources to be effective for the next fiscal.
- On the expenditure side, each head of expenditure should contain details of expenditure on establishment, procurement, operations and maintenance, and contingencies.
- Capital budget should as well give a glimpse of long-term and short term capital improvement plan and the strategy for implementation.
- Operations and maintenance implication of capital development programme would need to be reflected in the recurrent budget.
- TCC would need to generate resource for financing of the capital improvement plan.
- Borrowing from government and financial institutions for financing of capital budget would promote financial discipline in TCC and will as well insulate it from financial profligacy.

TCC though follows commercial accounting system, it is not actually based on double entry accrual based accounting system. It does not prepare the balance sheet containing profit and loss account. In the present form the accounting system does not help generate management information system especially relating to innate financial strength of the TCC and its financial performance. TCC will, therefore, need to switch over to accrual based double entry accounting system in true sense of the term.

4.7 Staffing and HRD:

TCC presently has staff strength of 107 against the sanctioned position of 139. Recruitment to the sanctioned positions is made by the central Royal Civil Service

Commission (RCSC). TCC presently does not have recruitment and promotions Rules; these are still guided and influenced by the Bhutan Civil Service Rules. Creation of new positions and promotion against sanctioned positions are made at the instance of the Recruitment and Promotion Committee (RPC) located in the TCC. RPC has two senior members of the TCC besides its Thrompon, who chairs it. Proposals relating creation of new positions are firmed up by the RPC. Routed through the Ministry of Works and Human Settlements (MoWHS), it then finally goes to the RCSC for necessary action. RCSC examines the proposal and takes necessary action on the basis of merit of proposals. The existing system thus appears to be centralized. However, in view of small size of Bhutan, the jurisdiction of RCSC over recruitment seems to be justified.

Under the existing system, proposals for recruitment and promotions are subject to evaluation and control by MoWHS and RCSC. In order to do away with this system of dual control, the Government has recently decentralized functions such as recruitment, selection, promotions including authority to approve short term courses to the ministries, autonomous agencies and Dzongkhags.²² Accordingly, TCC now has the authority to deal with the RCSC. Nevertheless, TCC does need to have its own recruitment rules based on required educational qualifications and experience for various positions that should form the basis for recruitment, promotion, job description and performance evaluation. It also needs to have a data base of its existing staff having all these information. The data base could then be profitably used for human resource management and for providing institutional incentives to the staff.

TCC will, therefore, need to take initiative to put in place (i) comprehensive and premeditated recruitments rules, and (ii) a data base on its staff.

It is worth mentioning that RCSC has recently developed a commendable document on Position Classification System (PCS)²³ for providing the managers in general and the human resource officers in particular, with guidelines for effective utilization of existing human resource in terms of position identification, job analyses, job descriptions, job evaluations, performance management and the associated tasks.²⁴ The MoWHS, therefore, requires the existing two city corporations to create an HR Committee to deal with matters of recruitment, transfers, promotion, selection, training in an autonomous manner according to the ToR firmed up by the RCSC. TCC will, therefore, need to take early action on this for laying a solid foundation for HRD and performance management.

4.8 Training:

TCC presently does not have any system for need based training. Training as well presently operates under a centralized system. RCSC sends the information relating to training whenever training slots are available within the country or outside. These are circulated through the MoWHS which in turn circulate the same in the TCC. Staff is then nominated to the training course according to the training need perceived by the Thrompon. Training is thus sporadic and not need based. Therefore, institutional arrangement for demand driven training based on formal training needs assessment (TNA) does not exist. Institutional arrangement for TNA, preparation of training plan, and conducting of training as well does not exist in TCC. Besides legal framework and organization development, training constitutes an important aspect of capacity building. TCC will, therefore, need to strengthen its existing HRD section that does not presently have an HRD Officer even though the post is sanctioned by the government. The presently sanctioned positions within the HRD section need to be reviewed as some of

²² Letter of Royal Government of Bhutan, MoWHS, addressed to TCC, dated September 21, 2006.

²³ Position Classification System contains processes for grouping together positions that are sufficiently similar with respect to duties and responsibilities so that these can be treated the same way for all human resource actions.

²⁴ Royal Civil Service Commission, Position Classification System Manual, 2006.

the sanctioned positions (Assistant Property Officer, Receptionist, and Caretaker) are not required for the HRD related activities. Besides the HRD Officer, it will need a Training Officer that will (i) conduct TNA, (ii) prepare a training plan, (iii) arrange to implement the training plan, and (iv) review and evaluate the impact of training

4.9 Participatory Urban Governance:

An appropriate participatory structure outlined above under the legal framework, would need to be created for community participation that will promote accountability and transparency as well. Participatory structures could also be created in the form of Ad-hoc subject/sectoral committees (public health, solid waste management, sanitation, etc.) as mentioned above for each Division and important departments of TCC. TCC would need to create a Community Development Department (CDD). CDD should be headed by a qualified community development officer who would create residents' associations or neighborhood development committees in each Ward and link them with the community development department of local government units for participation. NGOs could be identified and put in place on a neighborhood basis (one NGO for a number of Wards) to mobilize participation. Such a system would be instrumental in promoting participatory development and getting the much desired feedback and suggestion of the local communities in relating the plans, programmes, activities and budgets of local governments with the felt needs of local communities. It could as well be used for involving neighborhood committees (Resident Welfare Associations) in enhancing tax collection by giving them some incentive for enhancing tax collection.

Section 2

Municipal Institutional and Legal Framework in Bhutan

People's participation in their own development has been a key policy in Bhutan since 1974 when His Majesty, the King was coronated. Decentralization through devolution to the people of Bhutan was formalised in 1981 by creating Dzongkhag Yargye Tshogchung (DYT -District Development Committee). The new wave of decentralization was consolidated further in 1991 with the creation of Geog Yargye Tshogchung (GYT - Block Development Committee) in 1991.²⁵ Decentralization initiative especially for large urban centres was taken with the enactment of the Bhutan Municipal Act (BMA) of 1999. The Act enables establishment of municipal corporations (MC) as legal entities though it does not spell out the criteria for creation of MC. Hence which size category of towns/cities should have MC form of urban local government is still unsettled. The first municipal Corporation in Bhutan was created in the capital city of Thimphu through a Royal Decree of 1995 that granted it an autonomous status. Provisions of the new BMA were extended to the Thimphu City Corporation (TCC) in 2003 through a Charter issued in accordance with the provisions of the BMA of 1999. Though the Charter created the TCC according to the newly enacted Act, it also withdrew the autonomy granted to the TCC by the Royal Decree mentioned above. Phuentsholing, another large city of Bhutan, is presently functioning as the second municipal corporation next to TCC though the Royal Government of Bhutan (RGoB) has not yet issued the required Charter for formally extending provisions of the BMA to Phuentsholing. Though enacted relatively in the recent past, the BMA has deficiencies and gaps for effective functioning of Municipal Corporation in the country.

The RGoB also has plans for effectively regulating urban planning and development in the country. For this a Draft Urban Development Act (DBUDA) has been prepared that provides for creation of Urban Planning Organisation (UPO) and Urban Area Development Agency (UADA). The draft legislation has certain provisions that overlap and even conflict with some of the provisions in the BMA.

In view of the above, Section I of this Annex evaluates the existing Bhutan Municipal Corporation Act of 1999 for identifying gaps that would need to be addressed for putting in place an effective and vibrant system of local government in large cities. Section II suggests a new institutional and legal framework for decentralised, devolved and empowered units of urban local self-government in Bhutan.

I

The Bhutan Municipal Act: An Evaluation

BMA provides for constituting a Committee of the Municipal Corporation that is designated in the Act as the highest decision making body to perform the following functions:

- Formulate policies and development priorities in respect of functions of the Municipal Corporation.
- Adopt Rules to enable the Municipal Corporations to carry out its functions.

²⁵ Royal Government of Bhutan (Planning Commission), Ninth Plan, Main Document (2002-2007), P. 22.

- Establish procedures and guidelines for the Municipal Corporation that are consistent with the laws and policies of the Royal Government to operate efficiently and equitably.
- Review and approve the annual budget and related proposals of the Municipal Corporation.
- Promote traditional architecture.
- Any other functions that the Competent Authority or the Royal Government may assign to the Committee.

BMA contains provisions for the Committee consisting of not more than nine Committee Members who are to be elected or appointed in accordance with the provisions of the BMA. Through an amendment in the BMA in 2003, the number of such Members was increased to 15. The number of Members elected and appointed is to be decided in the Corporation Charter.²⁶ Besides the Members, the Act provides for a Chairman appointed by the RGoB²⁷, and a Thrompon as the executive head of the MC of the TCC. S/he is required to manage the affairs of the Corporation under the direction of the Committee.

Democratic processes and autonomy constitute the very essence of units of local self-government. As mentioned earlier, TCC was given autonomous status in 1995 through a Royal Decree. However, even though the BMA provides for this Committee to be the “highest decision making body of the Municipal Corporation”, it does not enjoy any autonomy after the issuance of the Charter. Section VII of the Charter provides that the decisions to be taken by the TCC relating to performance of its devolved functions under Section 10 and especially with respect to provisions under Sections 70, 71, 76, 110, 115, and 116²⁸ of the BMA need to be placed before the Competent Authority for approval and adoption. The Charter also provides that obtaining approval of the Competent Authority is not to be limited to only these Sections.

Provisions in the BMA and the Charter have certain aberrations for promoting and functioning of autonomous and democratic form of local self-government in urban areas. These are mentioned below:

- Not all the Members of the Committee are to be elected, some are to be appointed. Representative character constitutes the hallmark of democratic and representative government institutions. Representation of appointed Members on the Committee is an important dilution to the concept and functioning of democratic local self-government institutions.
- Units of autonomous, democratic and representative local self-government entails that it should be headed by a political executive who should preside over the meetings of the Committee. The BMA installs an appointed person to act as the Chairman. This as well does not conform to the concept of self-government.

²⁶ Royal Government of Bhutan (Ministry of Works and human Settlements), Letter No. PPD/DUDH/12/MoWHS/175 of 27th November, 2003

²⁷ Presently, the Secretary, Ministry of Works and Human Settlement is the Chairperson of the TCC Committee.

²⁸ The Charter of Thimphu Municipal Corporation, 2003; Sections 70 and 71 relate to preparation of an urban Development Plan, and plan implementation, Section 76 has provisions about acquisition of land and property by TCC, Section relates to the number and election of Committee Members, Section 115 provides for consideration by the Competent Authority of all Rules passed by TCC, and Section 116 relates to examination by the Competent Authority of all Urban Development Plan or modification in it and seeking guidance from any authority and persons.

- Before the Charter was issued, the Committee consisted of eight elected Members who enjoyed a majority in the Committee. Amendment to the BMA in 2003 by the 81st National Assembly of Bhutan provided for appointment of seven Committee Members from the government and corporate agencies in addition to the eight elected Members. This has resulted in giving a majority to the government. Decisions of the Committee, therefore, are not expected to be guided by political process; these are likely to be apolitical decisions.
- Though the Charter applies only to the TCC, it indicates the official policy stance for abhorrence to giving autonomy to the Municipal Corporations (MCs). This is an indicative of similar approach and policy for other MCs to be constituted in future.

Election of Committee Members and Term of Office

The provisions in the BMA relating to election of Committee Members are hazy and are such that are unlikely to promote local government accountability in general and accountability of the elected Members in particular. It envisages division of the local government area into “geographical area”, election by consensus and in the event of lack of consensus, election through ballot. Section 17 provides that the candidate with the largest number of votes will be the first elected member. The “candidate with the second number of votes” will be the second Committee Member and so on until the required number of Committee Members is elected. Such a provision gives an impression that local elections are held at the city level according to proportional representation. In actual practice, elections are held on zonal basis. The city of Thimphu is divided into six zones. These zones elect one member each to the Committee except zone six that is subdivided into two parts; each electing one member each. The existing ambiguous proviso in the BMA, therefore, needs to be appropriately changed.

The BMA provides the election of Committee members only for three years. This means that the MC has a term of only three years. The term of office of the MC is thus too short for the members to develop a vision and perspective for governance and municipal management. It should be at least for five years.

Functions

The BMA contains provisions for performance of (i) general functions, and (ii) specific functions. General functions to be performed are in the nature of giving a sense of direction to the MC for broader areas of functions. These include the following:

- Provide such civic and other services as are essential for the general well-being of the residents of a municipality.
- Ensure that the development and other activities within the boundaries of a Municipal Corporation occur in a planned and harmonious manner.
- Undertake any activity, consistent with other relevant LGUs and policies of the Royal Government, which may preserve and promote the environment within the limits of a Municipal Corporation.
- Perform any other function that the Royal Government may assign.

Specific functions contain a long list of activities under various spheres of municipal functions as mentioned below.

1. General Public Services
2. Social and other Public Services
3. Planning and land Use
4. Property Related Services
5. Recreation and Cultural Services
6. Roads, Bridges, Street Lighting and Drainage
7. Residual services like transport; parking; encouragement of commerce and industry; environment control, protection and conservation; urban census etc.

The list of function to be performed is quite elaborate. Some of the functions are quite resource intensive (transport, environmental control, protection and conservation. Some others are in the nature of state functions (encouragement of commerce and industry). Financial arrangements for financing of these services through specific local fiscal tools and mechanisms are not specified in the BMA. This is discussed in Section III under Municipal Legal Framework.

The BMA provides that the municipal functions could be performed by the urban local government units (ULGUs) on their own or by contracting out of services to private operators and agencies. But this is to be limited to only operations and maintenance of service. Contracting out of operations and maintenance is required to be adhered to, according to the BMA, keeping in view the best interest of the municipal corporation and its residents. In case the municipal corporation takes any such initiative, approval of the competent authority will be essential.

Devolution of Tax Authority

Devolving of functions to a level of government needs to be accompanied by devolution of matching sources of revenue. Tax authority devolved to the MCs in the Act makes an impressive reading. Both tax and non-tax sources have been devolved to the MC for financing of services to be provided by it. These are mentioned below:

Tax Sources:

Land Tax
Urban House Tax
Under Development Land Tax
Property Transfer Tax
Entertainment Tax

Non-Tax Sources

Land Development and Sub-division Fee
Land Demarcation Fee
Building Plan Processing Fee
Land Registration Fee
Site Plan Fee
Vehicle Parking Fee
Market Vendor Fee
Advertisement Fee
Water & Sewerage Charges (including pipe Realignment & connection Fee)
Fines & penalties
Environmental Surcharge
Other Service Charges

The impressive range of local fiscal tools devolved to the municipality notwithstanding, some of them do not have an explicitly defined base. Land Tax and Urban House Tax are examples. Unlike several countries both in the developed and the developing, Bhutan does not have a composite tax on lands and buildings with defined base that

could have imparted buoyancy to the tax. Some of the fiscal tools are not yet administered by the lone TCC. Advertisement Fee is an example of this. A unit of local self-government is supposed to have the authority to set its own rates for taxes, fees and fines or of whatever fiscal tool it is devolved with. The BMA does not grant this authority to the municipally. Before levying and collecting any of the taxes devolved to it the MC is required to get an approval of the RGoB of the rates of taxes to be imposed and the manner in which these are to be collected.²⁹ Tax authority devolved to the MCs in the BMA is discussed in greater detail in Section II along with steps that could be taken to rationalize the local fiscal tools and the tax authority.

Fiscal Transfers

Fiscal transfer in Bhutan is presently ad-hoc. This is largely due to absence of a system of municipal government in the country. TCC is the lone MC; Phuentsholing being the other MC presently functioning without a Charter. The forms of local government in rural areas such as DYT and GYT are presently not within the purview of any fiscal transfer; these get financial allocation by the Ministry of Finance (MoF) directly. In view of these specific situations, a rational, objective and transparent system of fiscal transfers has not yet evolved in Bhutan. The BMA is, therefore, silent on these aspects of a regulated transfer system. BMA, nevertheless, provides for grants from the Royal Government to the MC in the following situations:

- The Municipal Corporation is required to undertake special responsibilities or provide additional services on behalf of the Royal Government.
- The Municipal Corporation is disadvantageously located or has an inadequate financial resource base.
- The Municipal Corporation faces emergency situations.

With multiplication in the number of ULGUs, Bhutan will need to have a rational transfer system based on the local resource base and needs of the different types of ULGUs in the country.

Local Government Borrowing

Municipal Corporations created under the BMA are permitted to borrow for financing of capital works. But they can borrow only with the permission of the RGoB. The Act, however, restricts them to borrow through issuing of shares. The MC is also prohibited to pay any dividend. Decentralisation entails devolution of planning and development functions down below the central government to the local authorities. Augmentation of basic urban infrastructure and services would require mobilisation of funds for financing capital projects in a big way. This will necessitate accessing the capital market that will need appropriate legal framework. The modalities of borrowing by the ULGUs will, therefore, have to be revisited.

Financial Management

Budgeting, accounting, and audit constitute basic elements of a financial management system. Budget constitutes an important tool for an organisation for enunciation of organizational vision, goals, objectives and the strategy to achieve these policy statements through appropriate programmes, projects and activities. Budget also

²⁹ Section 122, the Bhutan Municipal Corporation Act of 1999.

determines allocations for the envisaged programmes, projects and activities. BMA provides that the MC is required to prepare a budget for its regular operations at least two months prior to the beginning of fiscal year and submit the same to the Committee for consideration and approval. The Act requires the MC to prepare separately operating and capital budgets. However, it does not specify the type of budget to be prepared and the formats to be followed for preparation of budget. It stipulates that the MC shall manage its finances relating to the operating budget in accordance with financial management practices as laid down in the Financial Manual of the Corporation.

As the TCC is the only MC right now in Bhutan, the budget prepared by it is oblivious of the objectives of a budget and the budget format. The TCC budget comprises of a few tables relating to budget estimates for revenue generation and estimated expenditures to be incurred. For financing the capital budget, the BMA provides that appropriations need to be approved by the RGoB.³⁰ Audit of MC accounts is performed by the RGoB

Supervision and Control

Bhutan is presently faced with a dilemma with regard to autonomy to be given to the ULGUs and the need for handholding and control especially during the nascent phase of experimentation with urban local government institutions. Too much of autonomy may at times prove counterproductive. Keeping this in view perhaps, the BMA has elaborate provisions for control. It provides for handholding of the MC as well. Handholding and control measures are mentioned below.

Handholding Measures:

Steps and mechanisms required to promote institutions of local self-government as provided for in the BMA are the following:

- The Competent Authority is required to recommend to the RGoB for incorporation of a municipal corporation.
- The Competent Authority to guide and assist the Thrompon in carrying out of functions referred to in Sections 13, 14, 15, 16, and 17 at the time of holding of local elections. For the first time.³¹
- The Competent Authority to recommend to the RGoB for extension of the local government boundaries at the instance of the MC.
- Upon creation of a MC, the RGoB to determine the assets and the liabilities to be transferred to the municipality.
- The Competent Authority to recommend to the RGoB giving of grants for operating and capital budgets of the MC and for its inclusion in the national budget.
- The Competent Authority to assist Municipal Corporation facing extraordinary or emergency situations in obtaining assistance from the Royal Government.

³⁰ Section 102(iii), The Bhutan Municipal Corporation Act of 1999.

³¹ These Sections contain provisions and steps required to be taken for holding of local elections by the Thrompon.

Control Measures

- The Competent Authority is required to recommend to the Cabinet for adoption of regulations and amendments with respect to the number and election of the Committee Members.
- The Competent Authority determines the conditions under which the Thrompon is to be employed in a MC and also the circumstances in which s/he may be dismissed.
- The Competent Authority is to approve the plans prepared by the MC and is to overview the implementation of the approved plan.
- The Competent Authority is required to appoint the Committee Members when required by a regulation of the MC.
- The Competent Authority is required to consider all the Rules passed by the MC and revoke them if the Rules are ill founded or are against the interest of the MC.
- The Competent Authority to examine every Urban Development Plan or modifications proposed in them and in doing so, s/he can consult any authority or person. S/he can approve the plan and the amendment, direct changes to be made, and can even refuse approval of the plan.
- The Competent Authority can carry out planning audit in any municipality at any time to determine whether or not any violation of the Development Plan has happened.
- The Competent Authority to seek the RGoB's approval of the rates of taxes to be imposed and the manner of collection before a MC levies and collects any of the taxes devolved to it.

Evaluation of the existing Bhutan Municipal Act thus reveals several gaps. These would need to be addressed appropriately by the RGoB for putting in place an effective, efficient, responsive and equitable system of local governance in the urban areas especially the larger ones. These are discussed in greater detail in Section II that follows.

II

Broader Contours of the Proposed Municipal Legal Framework

Although the system of local governance in rural areas (Dzongkhags and Geogs) is by now quite consolidated, Bhutan is presently debating the nature and contents of an enabling legal framework for creation, regulation, and sustaining an effective system of local governance in the urban areas. Institutional and legal framework is presently in an evolutionary process. Thoughts on the right type of local government institutions in urban areas and the nature of legal and regulatory framework most appropriate in the obtaining conditions in Bhutan is presently in the process of evolving. There exist broader guidelines that should guide articulation of institutions of urban local self-government and the nature of legal framework. These are manifested in the rationale for urban local self-government institutions and the new wave of decentralisation sweeping Bhutan.

Rationale for Local Government

Institutions of local government are said to be the best form of government primarily because of its close interface with the local citizenry. This particular characteristic of local government makes it subject to the close public gaze that enhances local government accountability. In fact the local government is the only institution of self-government of the local communities, by the local communities and for the local communities. Local governments are, therefore, expected to provide effective, efficient,

equitable, and responsive governance and delivery of basic urban infrastructure and services to the local communities. Attributes of decentralisation, local governance and delivery of local services entail strengthening of institutional capacity of urban local self-government institutions in ample measure. Designing of an enabling legal framework for urban local governance will, therefore, need to keep in mind the much needed institutional capacity of the urban local government institutions. Institutional capacity, amongst other things, is largely driven by (i) the nature of executive system, (ii) nature and extent of autonomy granted to the ULGUs, (iii) nature and extent of local government functional domain and assignment of expenditure responsibility, (iv) tax authority corresponding to the assignment of expenditure responsibility, (v) expertise and skills available through staffing and personnel system, (vi) participatory processes for the local communities' involvement in local plans, programmes and activities, (vii) system of accountability, and (viii) external environment.³²

Legal Framework for the Urban Local Government Units: Suggestions

Local Government Autonomy

BMA does not provide autonomy to the Municipal Corporation (MC) due to the (i) provisions in the Charter, (ii) system appointed members in the Committee, and (iii) the Committee being chaired by an appointee from the government. These need to be addressed by inserting provisions in the legal framework for (i) autonomous decision making process and procedure by the Committee, (ii) political executive system wherein the elected Mayor will preside over the Committee and will be the chief executive of the MC, and (iii) dispensing with the provision of nominated members in the Committee. Such an executive system will make the appointed Thrompon vested with the responsibility of performing executive functions (not having executive powers) and making him/her responsible to the Mayor and the Committee.

Local Government Function

Legal framework for local government functions would need to be revised for clarifying functions of different tiers of government and devising mechanisms for rationalizing the existing functional overlapping and conflicting provisions. Local governments are vested primarily with functions that are in the nature of provision of infrastructure and utility services and its operations and maintenance.

We feel that instead of looking at functions in a piecemeal manner, there is a need for rationalizing the local government functional domain. This could be done by dividing functions into three categories such as (i) Core Local Government Functions, (ii) Agency Functions and (iii) Transferred Functions. Core local government functions should comprise of the traditional local government functions such as basic infrastructure, services and amenities (such as water supply, sewerage, storm water drains, street lighting, solid waste management, and public health) and operations and maintenance of these by the LGUs. Revenue income accruing to LGUs from various sources should be used for financing of these functions. Agency functions could include functions that are local in nature but are performed by other public, private or non-government agencies. Such functions should be entrusted to LGUs as agency functions and funded by the

³² Davey, Kenneth (1989). Strengthening Municipal Government, Discussion Paper, Washington D.C.: The World Bank.

agencies/departments entrusting the discharge of these functions to LGUs. Transferred functions could include such functions that are in nature of local functions but performed by central/provincial government departments and are transferred to LGUs due to localized nature of such functions. Such functions would need to be transferred to LGUs along with the funds that go to finance performance of these functions.

Instead of looking at functions in a piecemeal manner, there is a need for rationalizing the local government functional domain. One prudent way to do this is to develop a typology of local government functions with accompanying financing arrangements

Revenue Assignment and Tax Authority

Some of the deficiencies in the existing devolution to the MC have been already alluded to earlier in this Annex. It needs to be mentioned that unlike several countries both in the developed and the developing, Bhutan does not have a composite tax on lands and buildings with defined base that could have imparted buoyancy to the tax. The existing separate tax on land and a separate tax on buildings would need to be converted into a composite tax on land and building popularly known as Property Tax (PT) with defined base for its administration. One of the suggestions for base of this tax is to make the capital value as the base of the proposed PT. The reason given is that such base will be in conformity with land management issues and the valuation of land in terms of the market value. It needs to be emphasized that all the developing countries have been trying to grapple with capturing the market value without much success largely because a competitive real estate market is non-existent that could provide the market evidence for the obtaining value. Developing countries across the world have distorted land and real estate market that does not enable getting at the capital value. Rental value system as well is infested with a host of valuation problems largely due to prevalence of Rent Control Acts that provide for determination of fair/standard rent. In view of these, Bhutan should move on the unit value system of PT as in India where some of the states aggrieved by the Rental Value System of PT have moved on to the Unit Value. Base of the Pt is determined on the basis of a standard value per square feet of land. The standard unit value itself varies in different zones of the town/city into which they are divided; the unit rate declining with the increase in distance from the core of town.

Besides the standard zonal rate, lands and building have to pay surcharges or additional levies on the basis of (i) location, (ii) quality of construction, (iii) age of buildings, and (iv) land use. All these parameters are divided into more than one grade for introducing element of progression in the rates. Each grade of these parameters is assigned values that decline in the subsequent grades. Such a system of PT becomes fairly transparent and objective that becomes instrumental in reducing the scope of subjective elements in valuation and assessment of PT and corrupt practices.

Refurbishing of the existing Land Tax and the Building Tax would need to be accompanied by giving the local government units autonomy to set their own rates. Autonomy to set various tax rates and user charges is another ingredient of tax authority. A level of government should have autonomy to decide its own rates of taxes, fees, user charges and even fines that it wishes to levy. Setting these in the enabling laws militates against the ethos of self-government. To begin with, the local government should have autonomy to set their own rates within a range of minimum and maximum rates that should be provided for in law. Autonomy for choosing the rate within these limits could be left on to the LGUs. In order to prevent profligacy and use of populist

measures, the law could provide for central government approval in case the local government units intend to reduce the tax rate.

Tax Collection

It is felt that the law should contain provisions for imposition of a panel rate of interest on tax arrears. It would need to be fairly high so that it could act as a deterrent for non-compliance. It would be also worth considering that the term “movable property” used in the law could be defined to include the bank account. Attachment of bank account, wherever provided for in law or Rules, has led to prompt payment of tax arrears. Also, in case of litigation the law should have a provision requiring the taxpayers to first deposit the tax before entering into litigation. It would be advisable to introduce a system of self-assessment for payment of PT. The legal framework should place the onus on the property owners for filing an annual return of their properties along with self-assessed tax. Panel provisions would need to be provided for in the law for non-compliance to self-assessment and filing of wrong self-assessment.

Incentives to tax collectors and taxpayers, taxpayer friendly payment systems, strict implementation of filing of returns of lands and buildings to be provided for in the law and using it for introducing a system of self-assessment, high panel rate of interest on tax arrears and provision for attachment of bank accounts are likely to enhance tax collection

Public-Private Partnership

Public-Private Partnership constitutes an important element of local government capacity building and enhancing efficiency and effectiveness in delivery of services. Much of these, obviously require to be put in law and hence these issues should very much form part of the legal framework of local governance. An important aspect of mitigating the problem of (i) accessibility to skills, (ii) effective, efficient and responsive delivery of services, and (iii) constraints on the availability of financial resources is privatisation and contracting out of local services. The existing BMA provides for entering into contract with any promoter or individual. This would need to be specified in terms of forms of privatisation and/or management contract.

Participatory Process for Governance

In order to introduce participatory processes that strengthens accountability of local government as well, every local government electoral ward will need to have a Ward Committee that will form an important link between the local communities and the local government. The Ward Committee will be chaired by the elected Councillor from the Ward and it will have representation of civil society of the Ward on the Ward Committee. The Ward Committee will be devolved with such functions that affect the lives of the people in the Ward on a daily basis such as collection of garbage, repairing of leaking water taps, broken drains etc. redress of citizens’ grievances etc. Nomination of civil society representatives or the focus groups provides a mechanism to put in place participatory structures in local government that also ensures accountability. The Ward Committees should have a panel of community representatives. This would build a system of local government with greater transparency and responsibility to the public. An appropriate structure, therefore, would need to be created in the legal framework of local governance for community participation that will promote accountability and transparency. This could be also in the form of Ad-hoc subject/sectoral committees (public health, solid waste management, sanitation, etc.) as mentioned above for each principal local government department. The local government units would create

Community Development Departments (CDD). The CDD should be headed by a qualified community development officer who would create residents' associations or neighbourhood development committees in each Ward and link them with the community development department of local government for participation. NGOs could be identified and put in place on a neighbourhood basis (one NGO for a number of Wards) to mobilise participation. Such a system would be instrumental in promoting participatory development and getting the much desired feedback and suggestion of the local communities in relating plans, programmes, activities and budgets of local governments with the felt needs of local communities. It could as well be used for involving the neighbourhood committees in enhancing tax collection by giving them some incentive for enhancing tax collection. It needs to be mentioned that the three ways of building participatory process for municipal governance and management discussed above are not exclusive.

Even though institutions of local government have the closest interface with the citizens, people's participation is conspicuously absent. This has largely alienated the local communities from local government and governance.

These participatory processes, in order to be implemented effectively, would need to form part of the legal framework for local governance.

Participation of people in local government affairs would need to create appropriate participatory structures and processes as delineated in this Annex

Local Government Accountability

Even though local government institutions are said to be highly communitarian that make them subject to intense public gaze, lack of accountability has become a common phenomenon across South Asia. The existing legal framework of local government in Bhutan does not have even a rudiment of accountability. The Chairman of the Committee is not elected but appointed by the government.

A formal system of redress of citizens' grievance (RCG) with respect to local services constitutes an important element for promoting accountability. Citizens' charter is an important pre-requisite for putting in place an RCG structure. Citizens' Charter is a useful instrument for the citizens to be aware of their rights and avenues available to them for address their grievances within a pre-determined time frame. This would need to be considered in Bhutan as well.

There are a number of innovative good practices abroad both in developing and developed countries for RCG. Some of the local government units have put in place a time-bound system of redress of citizens' grievance within a strict framework of punitive measures as part of the citizens' charter. In case the grievance is not redressed within the prescribed time frame, the LGU has to pay the penalty to the complainant. The penalty paid is recovered from the salary of the staff accountable for it. Some of the local government units abroad have introduced a system of sanction of building plans across the counter provided that the papers are complete, it is signed by a licensed surveyor or an architect and the applicant is agreeable to pay a marginally higher fee for availing of fast track service. Such a system has largely addressed corrupt practices involved in getting the building plan sanctioned.

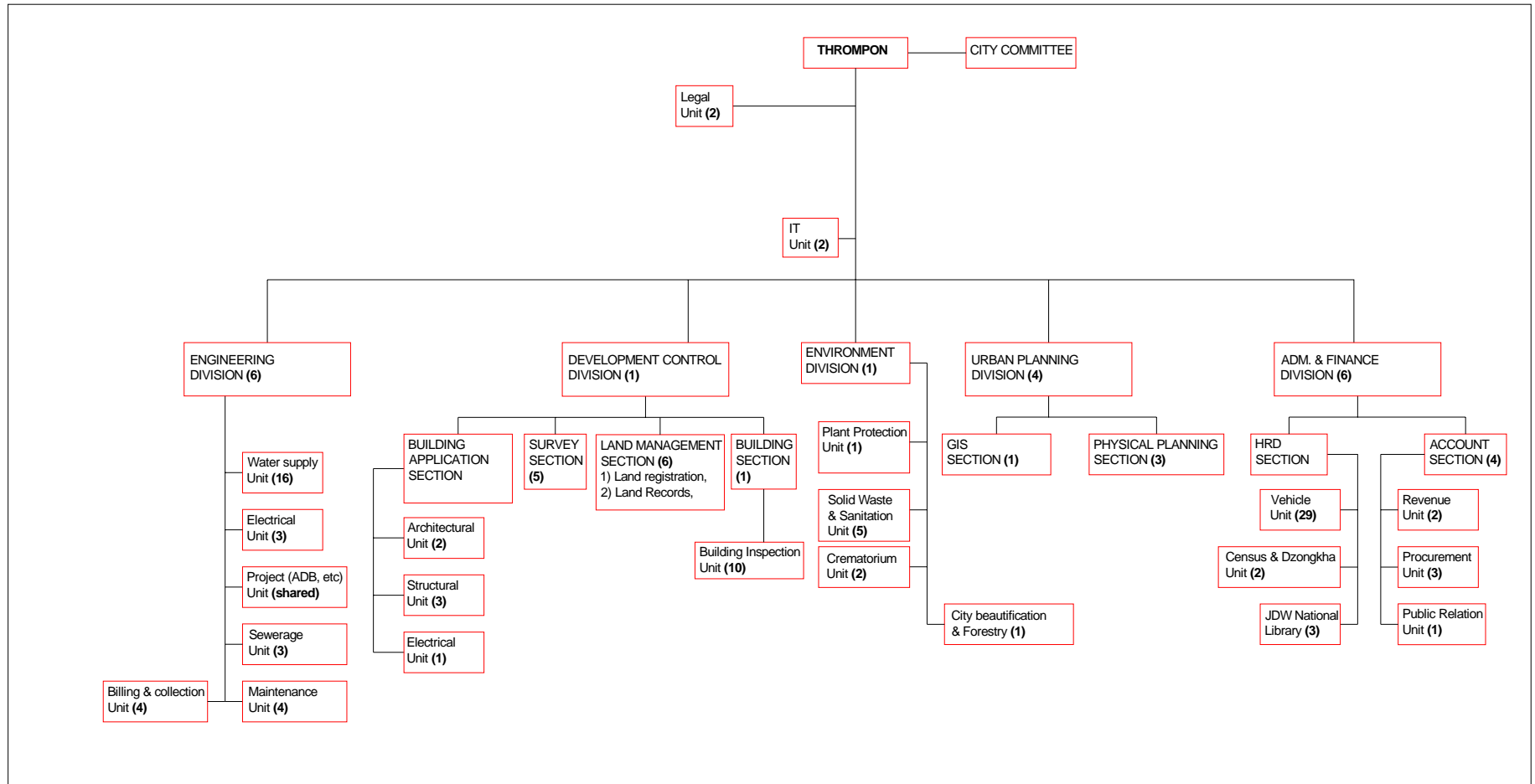
E-governance is yet another effective mechanism for ensuring accountability especially if it is interactive.

These are new emerging areas of local governance for ensuring accountability that would need a receptivity to be formalized as part of the legal framework.

Local government accountability requires (i) giving representation of civil society groups on Standing Committees and subject Committees as provided for in the existing laws, (ii) reviewing the existing system of local elections, (iii) putting in

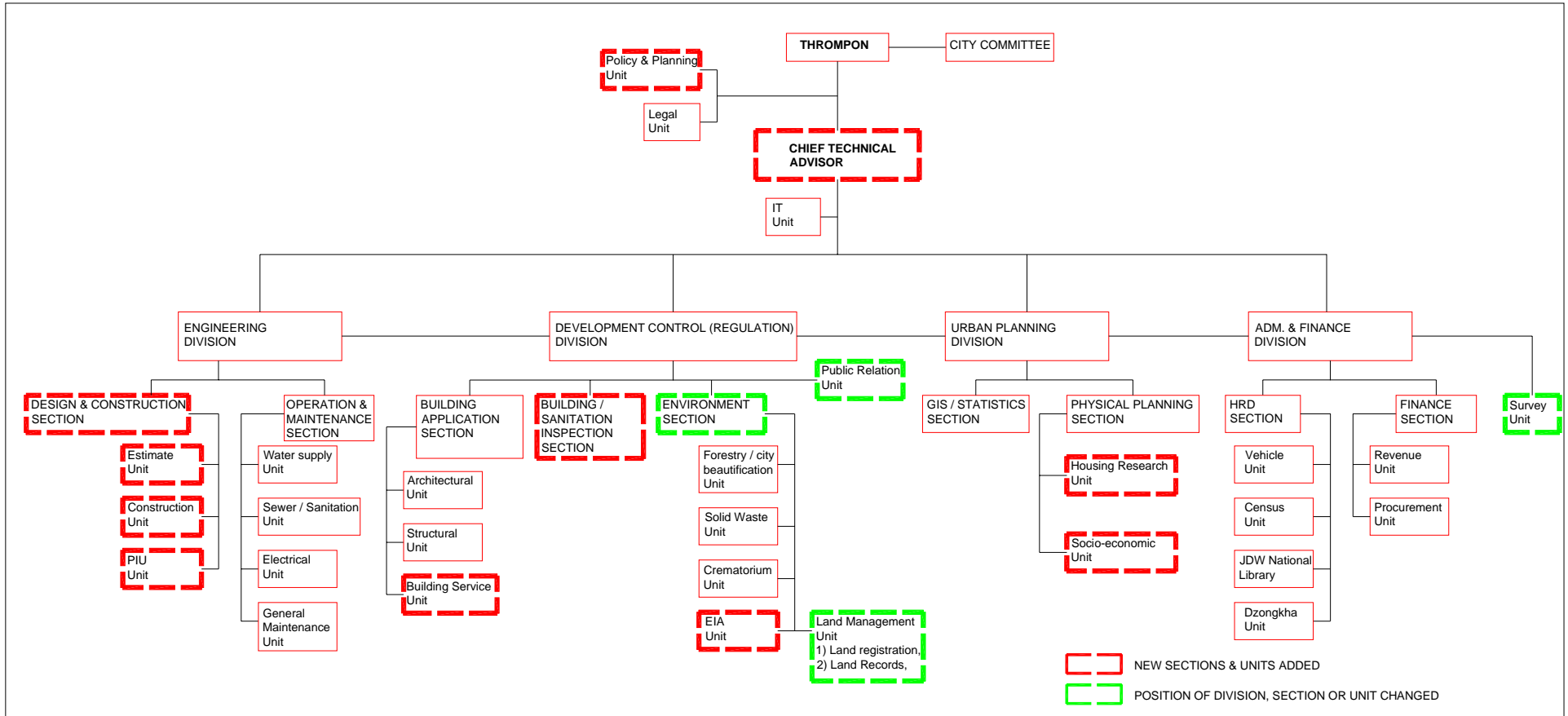
place a formal structure for redress of citizens' grievances, and (iv) promoting an interface with the citizenry

Flow chart 4.1: Existing organogram of Thimphu City Corporation:



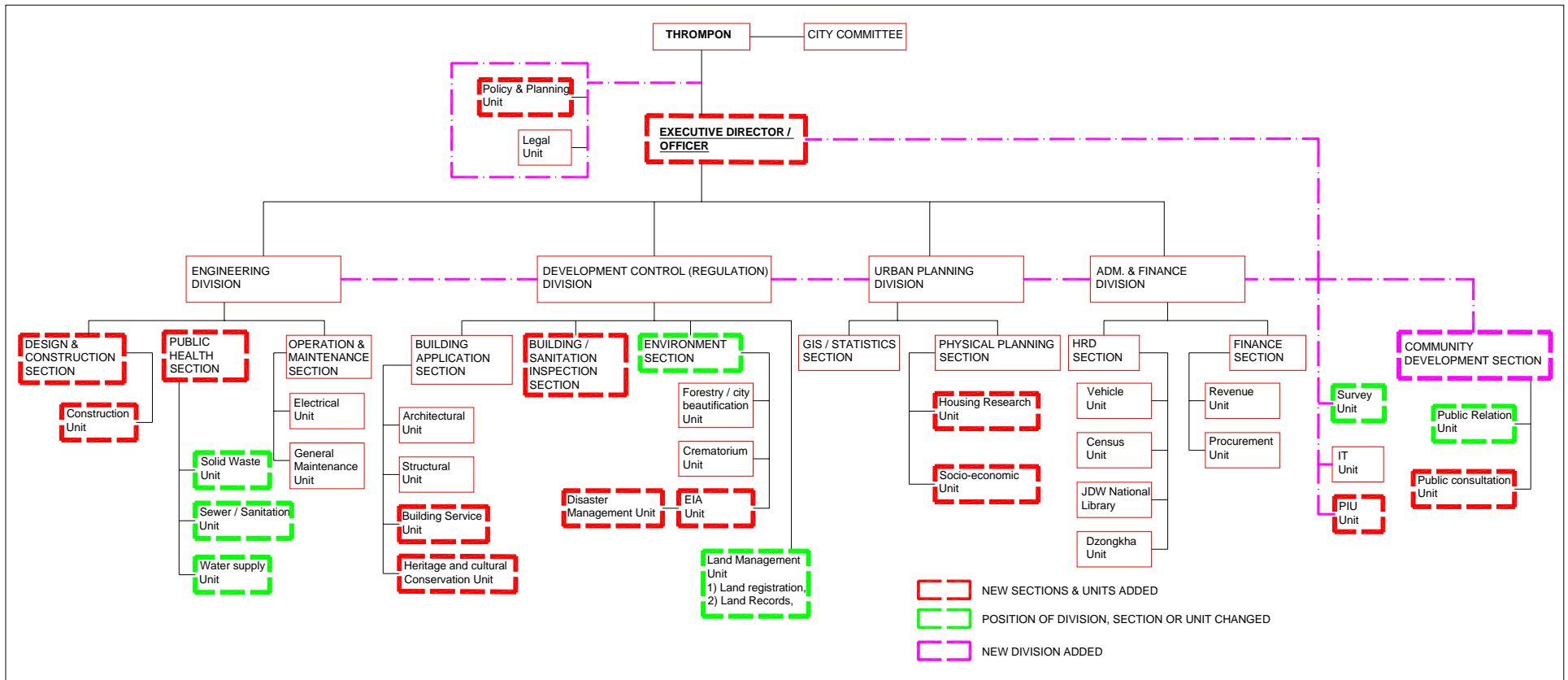
The above organogram is the present working system in TCC. This organizational structure is also based on the present duties, which are been carried out; it does not include the future responsibility, which it has to carry out, basically that of implementation of local area plans.

Flow chart 4.2: Organogram as proposed by Thimphu City Corporation:



The above organogram is the proposed by TCC based on the future requirements. The system takes into cognizance the 2008 change in the political system, when the Thrompon will be more of a political figure, as compared to the present administrative person. The chief technical advisor is expected to play a major role in decision making in future.

Flow chart 4.3: Proposed Organogram for Thimphu City Corporation:



The organization structure proposed by TCC is taken as a base for proposing the structural changes as per the studies carried out in this project. Two more Sections are proposed, one is the Public Health Section under Engineering Division and other is Community Development Section, which will be responsible to establish and coordinate the relation with the community or the citizens, all public consultations, presentation will be taken care by this Section and it is directly under the Thrompon. A Disaster Management unit is also proposed under Environment Division along with EIA Unit.

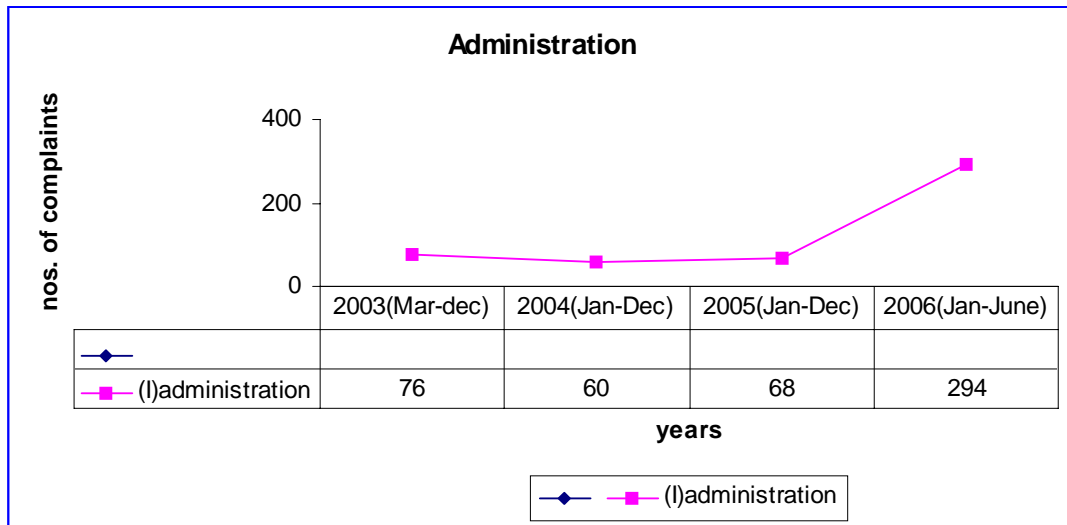
Section 3: Analysis of complaints and request received by TCC

Graphical presentation of the written complains received on daily basis by TCC:

The complains are categorized based on the exiting Divisions in TCC, collected from 2003 to 2006, not all the Divisions are mentioned below, as no written complains were received addressed to that particular Division:

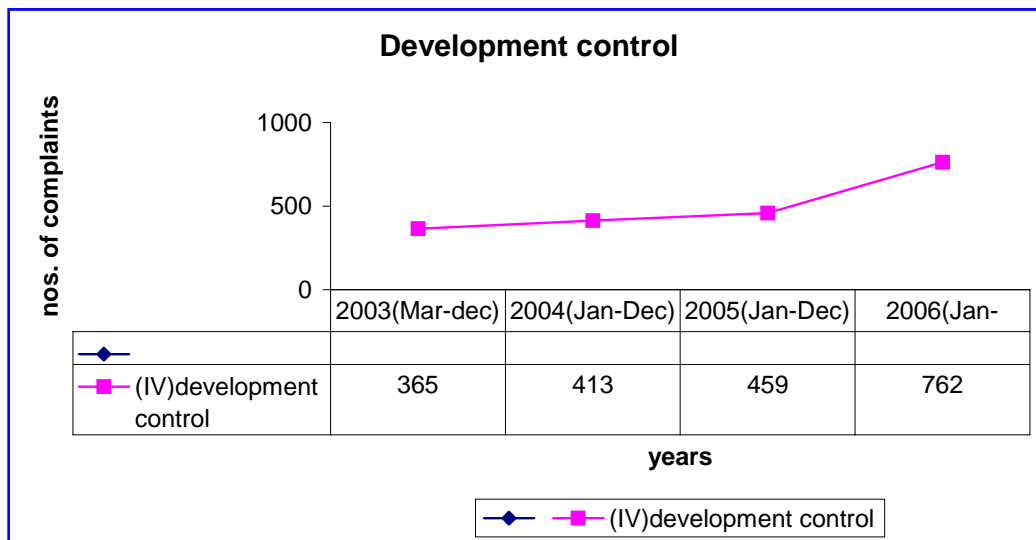
1. Administration,
2. Development Control,
3. Urban Planning,
4. Engineering,
5. Environmental,
6. Health,

1. Administrative Division:



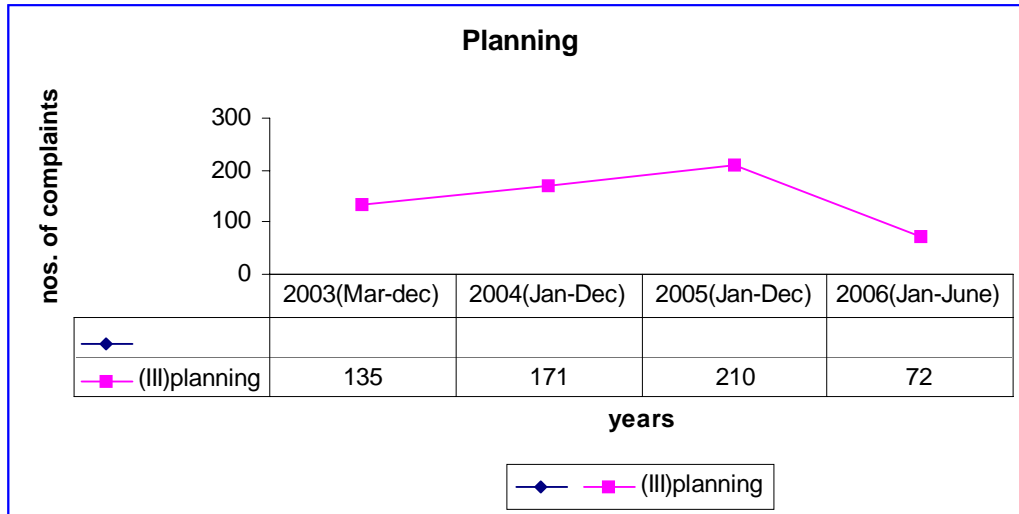
The figures are not only consists of the complains but also request for a particular aspect, like clearing of bills, tax collection, etc. a detail of the same is attached in the annexure -1

2. Development Control Division:



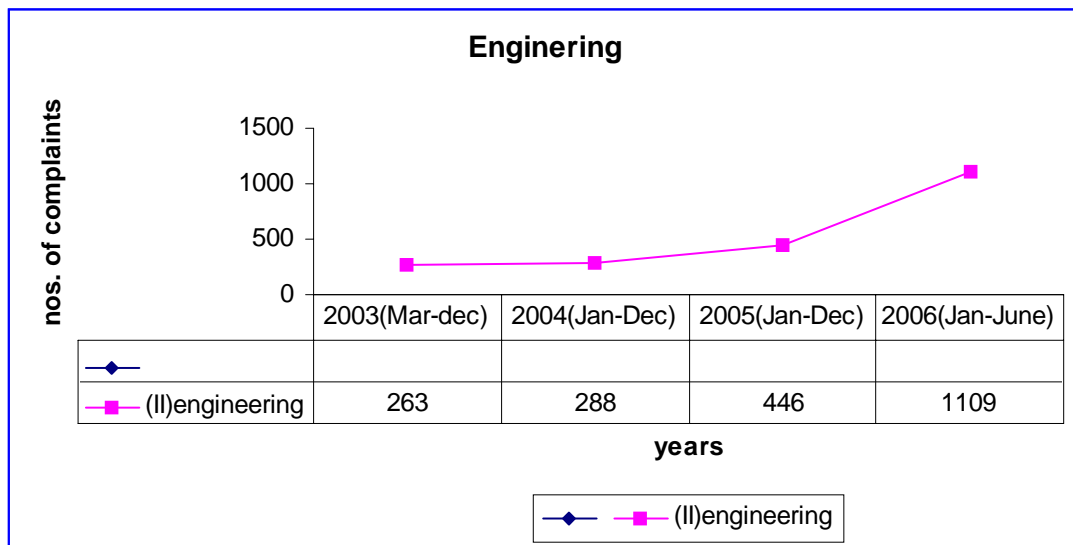
DCD includes sections like building, architectural, land records, survey, etc. as major constructions are coming up in Thimphu, putting up pressure on TCC to address the issues, the graph seems rising up since 2003.

3. Urban Planning Division:



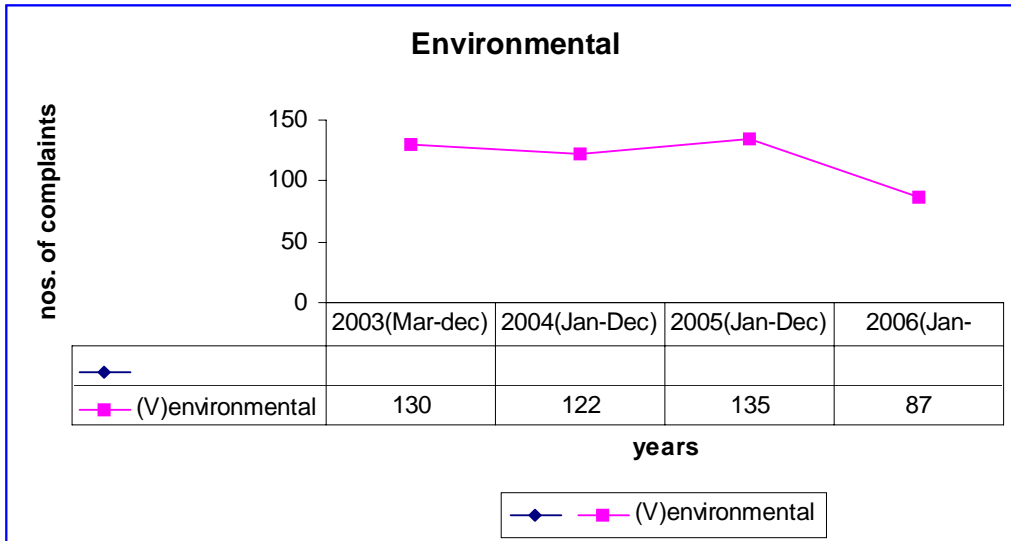
The graph shows a rise in complains and other request in the year 2005, that is when the implementation of plans was started, where as in 2003 and 2004, just one plan was under the process of implementation. As the year 2006 is still not complete, it wont be wise to say that the complaints are reduced in 2006, but can be inferred that there is a growing understanding amongst the landowners about the LAP's and its mechanism.

4. Engineering Division:



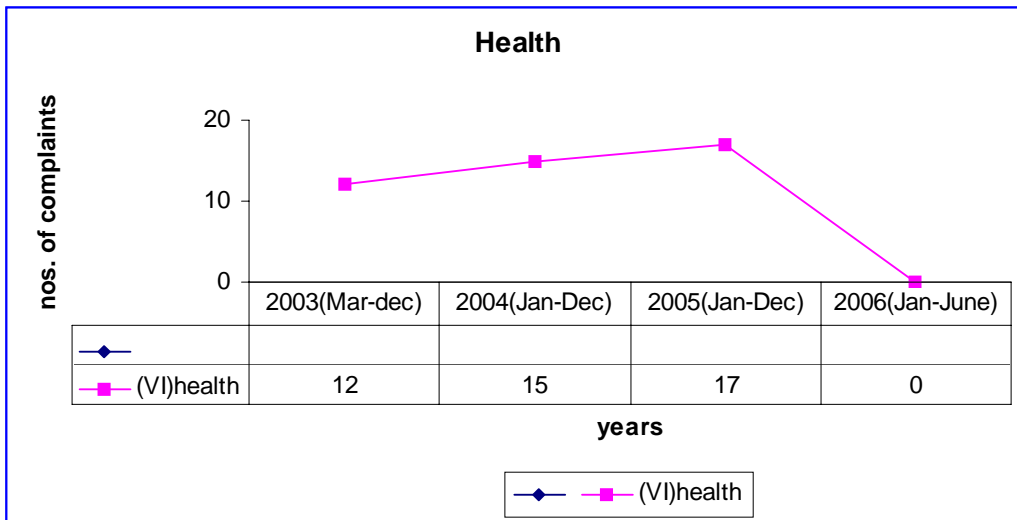
As there are a number of projects are getting implemented since 2004 – undertaken by Engineering Division, as per the Thimphu Structure Plan and more over the construction activities are also increasing in the extended area, there by putting a pressure on the division to provide the services to these areas. Even with the completion of half year the responsibility of ED is high.

5. Environmental Division:



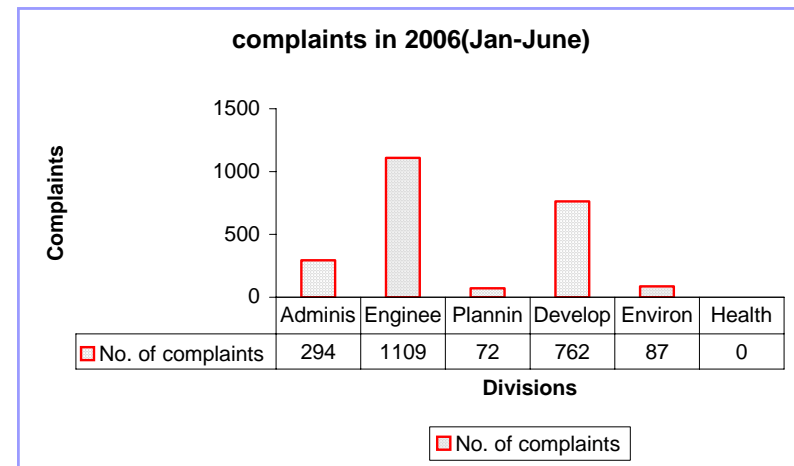
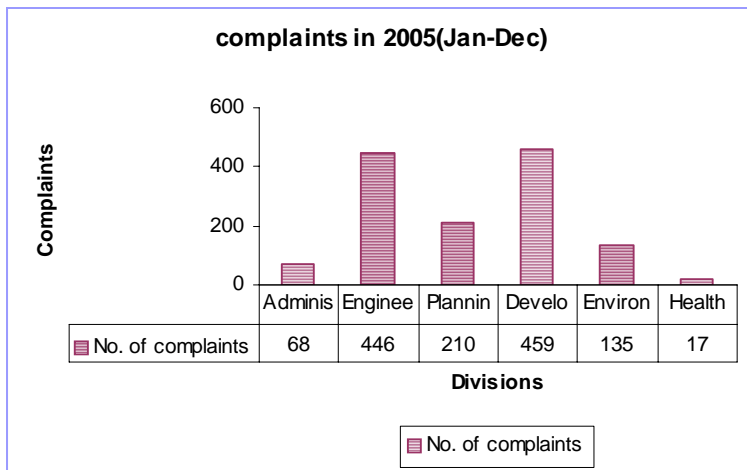
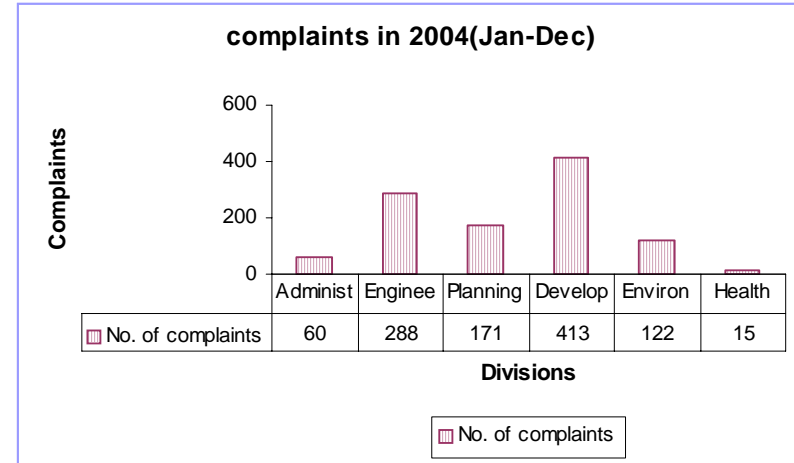
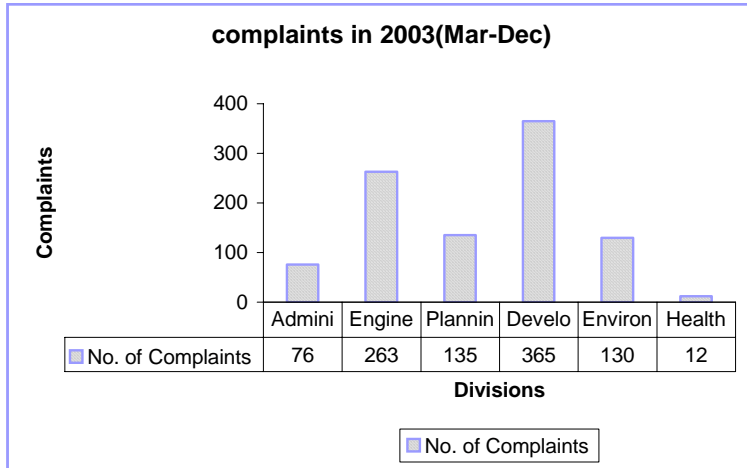
Environment Division mainly handles the issues like, providing dustbins, providing seedlings, environmental clearance, regulating sign boards, etc. the complains related to urban forestry and supply of seedlings seems to be reduced in 2006, which would have resulted in the reduce in the complains received. Complains are only related to pollution, removal of huts, etc.

6. Health:



There are no health related program undertaken in the year 2006, again as mentioned above, as the year is not complete, there might be programs undertaken in later half of the year.

7. Comparative analysis of the complaints received since 2003 to 2006



After analyzing the graphs generated of the data collected, there is a consistent pressure on Development Control Division, receiving maximum complaints or requests. DCD has Sections viz. Land records, Survey, Architectural Cell, Building section, Legal, etc. The second Division, which is under maximum pressure, is the Engineering Division, which has increased since 2005, that is when probably more of engineering works are undertaken, funded from various external funding agencies and the center as well. As the finalization and implementation of LAP's are in process, accordingly declared, probably has made a more awareness amongst landowners, there by having fewer requests made to the Urban Planning Divisions. UPD took over implementation of LAP's in 2005, that is the year when the maximum complaints and request were received.

Annex V : Thimphu City Local Areas Assessment

Status of Local areas

The project team also conducted a situation analysis of the 10 local areas of thimphu , comparing the current status and proposed improvements under the local area plans, this analysis gives a clear understanding of the level of improvements proposed.

5.1 Lanjophaka Local Area

The Lanjophaka Local Area is also located towards the north spread over 55.87 hectares. The main landmarks in the area include Assembly build., SNV office. The area is scheduled to undergo development using 28.5% land pooling based methodology. Over 40% of the land is already developed even before the LAP is implemented. The area is comparatively steep, on the southern part, but the slope gets gradual towards the northern part. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.a: Table elaborating the status of Lanjophaka local Area

	Existing	Proposed
Population	700-900	10,730
Density	30-43	UV-2(500), UV2-LD and E2(300-350)
Water supply system	Part of the area is supplied by urban water supply system and part of it, mostly above Dechen Lam is by Rural WSS	To be covered under urban water supply system, throu' the new WTP, in Hejo LAP
Sewerage network	All properties have private septic tanks	To be connected to the new sewerage network
Solid waste collection	TCC has door to door collection system	Existing network of door-to door collection will be extended
Storm water drainage	Apart from the one along the Dechen Lam, there is no proper drainage existing	Road side drains to be constructed along all the roads (existing as well as proposed)
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system	To be installed along all the roads
Roads	Apart from Dechen Lam and Dechhog Lam, all the roads are unsurfaced	Hierarchy of roads, access to each plot and pedestrian network
School & other institutes	Center for Bhutan Studies & Wood Craft Institute, No school existing	No new school proposed
Hospital / BHU	Not existing	BHU proposed in NN
Shopping area	No designated commercial area, but shops on gr. Floors along the road	Proposed in NN
Taxi stand / bus stop	Though there is bus service, there is no formal bus stand nor a Taxi stand existing	Proposed in NN
Service station	Not existing	N.A.
Post box / communication facilities	No post box facility, telephone facilities in the shops along the road	Proposed in NN
Recreation & open space	Not existing	Open space and some sports facilities proposed in the LAP

The plan was recently finalized; however work on ground is still to be initiated.

5.2 Dechencholing local Area

Dechencholing local Area is located towards the north, with total area of 93.15 hectares. Main land marks including the RBG campus, Dechencholing Palace. The area is scheduled to undergo development using 25% land under the land pooling methodology. Paddy cultivation is still going on, there is scattered visible development. The area has comparatively flat terrain and still retains much of its rural character.

Being located far away from the core area and next to the RBG campus the citizens are dependent on the RBG facilities for most of their needs. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.b: Table elaborating the status of Dechencholing local Area

	Existing	Proposed
Population	4000	6530
Density	20-30	UV2(400)
Water supply system	No proper system, untreated stream water used	Stream from Dechenphu to be used for potable supply
Sewerage network	septic tanks	Connection to city level sewage network
Solid waste collection	Two litter bins, collection van has limited access	Extension of city door-to door collection
Storm water drainage	water takes natural course of irrigation channel, flooding un-surfaced roads	Road side drains to be constructed
Power & telecommunication	most houses well connected	BPCL & BTL to extend their network
Street lighting	No proper system	Installation along all the roads
Roads	No surfaced road (about 700m.) Existing access roads not within LAP	One access from the road leading to Palace , another in the extreme south of LAP, with bridge link.
School & other institutes	Nearest RBG school	Community school
Hospital / BHU	Nearest RBG hospital, out side LAP	BHU proposed in NN
Shopping area	No shops in LAP, some along road leading to LAP	Proposed in NN
Taxi stand / bus stop	No direct bus service, but the bus stops at the RBG area.	Proposed in NN
Service station	Not existing	Small service station in NN
Post box / communication facilities	Post box facility in RBG campus, public telephones absent	Proposed in NN
Recreation & open space	Not existing, sports facilities available in RBG campus	Open spaces but no major recreational facilities proposed

The local area plan has been successfully finalized and the demarcation of the new plots and road is also complete. Currently the City Corporation is in a stage of starting handing over of plots.

5.3 Jongshina Local Area

Jongshina Local Area is located towards the north and is spread over 118.37 hectares. The area is distinctly land marked by the Samteling gate. The area is scheduled to undergo development using 29.5% land under the land pooling methodology. Paddy cultivation is still carried out in some farms. There is not much development in the area albeit land near India house is developed. The land below road is comparatively flat (slight slope from west to east).

A city level urban hub is proposed for development here and may contribute to its development soon. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.c: Table elaborating the status of Jongshina local Area

Jongjina	Existing	Proposed
Population	3500-3700	11,780
Density	29-31	UV-1(600), UV-2(400), UV2-LD and E2(100-150)
Water supply system	Partly supplied by urban supply system but, mostly by Rural WSS	To be covered under urban water supply system, throu' the new WTP, in Hejo LAP
Sewerage network	All properties have private septic tanks	To be connected to city level sewage network, treatment plant proposed in the LAP
Solid waste collection	TCC has door to door collection system	Existing network will be extended
Storm water drainage	drains only along existing tarred road, mostly natural drains	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system	To be installed along all the roads
Roads	3.63 km-surfaced, 2.69 km un-surfaced roads. Road accesses only to developed properties	Various hierarchy of roads proposed, which will access each and every plot, along with a proper pedestrian network
School & other institutes	No schools in Jongshina, the nearest education facility in Dechencholing, Primary and Junior High School.	A high school proposed in the LAP
Hospital / BHU	Not existing	BHU proposed in NN
Shopping area	No designated commercial area, but shops on gr. Floors along the road	Proposed in UH
Taxi stand / bus stop	There is bus service, no formal bus stand or Taxi stand existing	Proposed in UH
Service station	Not existing	Proposed in UH
Post box / communication facilities	No post box facility, telephone facilities in shops on the road	Proposed in UH
Recreation & open space	Not existing	Apart from open spaces in the LAP, indoor recreational facilities proposed

The local area plan is yet to be finalized; few issues of land acquisition need to be reconsidered. Currently no building permissions are issued.

5.4 Hejo-Samteling Local Area

The Hejo-Samteling Local Area is also located towards the north spread over 130 hectares. The main landmarks in the area include Dechenphodrong monastery, India House, Water treatment plant and the Cremation ground. The area is scheduled to undergo development using 29.5% land under the land pooling methodology. Apart from Hejo, Babena village and India house the area is still under paddy cultivation. The entire area has a flat terrain having a gradual slope. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.d: Table elaborating the status of Hejo-Samteling local Area

	Existing	Proposed
Population	500-615	21485
Density	72-88	UV-1(650), UV-2(550), UV2-LD and E2(100-150)
Water supply system	Part of the area is supplied by urban water supply system , mostly by Rural WSS	To be covered under urban water supply system, throu' the new WTP
Sewerage network	All properties have private septic tanks	To be connected to the new sewerage network
Solid waste collection	Apart from one public bin, TCC has door to door collection system	Existing network of door-to door collection will be extended
Storm water drainage	Apart from the one along the road, most of the water run thro' the irrigation channel	Road side drains to be constructed along all the roads (existing as well as proposed)
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	Street light only on the road near India House, other wise there is no street lighting	To be installed along all the roads
Roads	Chagchhen Lam,, the Jalu Lam, joins Chagchhen Lam north of Hejo Village are the only roads in Hejo-Samteling LAP	Various hierarchy of roads proposed, which will access each and every plot, along with a proper pedestrian network
School & other institutes	School Not existing, Cremation ground located in the LAP	Pre-primary to junior high school proposed
Hospital / BHU	Not existing	BHU proposed in NN
Shopping area	No designated commercial area, but shops on gr. Floors along the road	Proposed in NN
Taxi stand / bus stop	Though there is bus service, there is no formal bus stand nor a Taxi stand existing	Proposed in NN
Service station	Not existing	N.A.
Post box / communication facilities	No post box facility, telephone facilities are provided in the shops along the road	Proposed in NN
Recreation & open space	Not existing	Community park & other open space facilities like indoor and out door sports facilities proposed

A considerable portion of land has been reserved for a Diplomatic Enclave as a national level project, however the implementation strategy of the same is not clear yet. The plan has been recently finalized it is still to be implemented on the ground. The water treatment plant exists within the LAP.

5.5 Taba Local Area

The Taba Local Area is also located towards the north spread over 105.53 hectares. The main landmarks in the area include Nima high school, Bhutan Trust Fund, Bhutan Forestry Institute. The area is scheduled to undergo development using 28.5% pooling & 12.67% (in GLD) based methodology. The area around dechen lam and area above it is largely developed but not so much below the road. Ownership status of land above the road area is not yet clear.

There is a continues slope from east to west and the upper part above road is steeper than the part below road, the area is not directly near the river, but elevated, having a potential of unique scenic setting, ideal for upper class housing. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.e: Table elaborating the status of Taba local Area

	Existing	Proposed
Population	1200-1500	20,785
Density	20-25	UV-2(400)
Water supply system	Rural water supply system, from Menchuna stream	Water from Menchuna stream to be tapped for providing supply
Sewerage network	All properties have private septic tanks	Sewerage network connected to Jongshina mini-treatment plant
Solid waste collection	Two public bins, TCC has door to door collection system	Existing network of door-to door collection will be extended
Storm water drainage	No proper drainage existing	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system	To be installed along all the roads
Roads	Not all plots accessed with proper road, There are two major road links in Taba, Dechen Lam and road leading to Army establishment on top	Various hierarchy of roads proposed, which will access each and every plot, along with a proper pedestrian network
School & other institutes	Nima High School (upto 12 standard), Bhutan Forestry Institute & Bhutan Trust Fund are the institutes present	A new pre-primary school proposed, apart from existing Nima high school
Hospital / BHU	Not existing	BHU proposed in NN
Shopping area	No designated commercial area, but shops on gr. Floors along the road	Proposed in NN
Taxi stand / bus stop	Though there is bus service to Taba, there is no formal bus stand existing	Proposed in NN
Service station	Not existing	Proposed in NN
Post box / communication facilities	There is a post box near Nima high school, telephone facilities are provided in the shops along the road	Proposed in NN
Recreation & open space	Not existing	Open ground proposed, common for school and general public

Land demarcation below the road is complete; however the plots have not yet been handed over.

5.6 Changbangdu local Area

The Changbangdu local Area is located to the south of the core area and spread over 138.53 hectares. The main landmarks of the area include Changbangdu school, and new tallest Buddha statue coming up next to the area. The area will be developed based on 27.5% land pooling based methodology. Paddy cultivation is still carried in the area and few development has started along the expressway. The area has steeper terrain, entirely developed as paddy terraces, ideal for low density development. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.f: Table elaborating the status of Changbangdu local Area

	Existing	Proposed
Population	2,808	5,035
Density	30-35	UV-1(600), UV-2(400), UV2-LD and E2(100-150)
Water supply system	Rural water supply system, water tapped from a source uphill	To be covered under urban water supply system
Sewerage network	All properties have private septic tanks	To be connected to the new sewerage network
Solid waste collection	The collection van reaches where there is road access, people have their disposal methods	Existing network of door-to door collection will be extended
Storm water drainage	drains along the expressway, most water runs thro' irrigation channels or streams	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system, except along expressway	To be installed along all the roads
Roads	Apart from expressway - and one leading to a private orchard - no tarred roads in the LAP, mostly pedestrian access,	Hierarchy of roads proposed, to access each plot, also proper pedestrian network
School & other institutes	Changbangdu School is just near the LAP, but not within the LAP boundary	A community primary school proposed
Hospital / BHU	Not existing	BHU proposed in NN
Shopping area	No designated commercial area, but one or two shops on gr. Floors along the expressway	Proposed in NN
Taxi stand / bus stop	There is no bus service to the LAP, also there is no formal taxi stand existing	Proposed in NN
Service station	Not existing	N.A.
Post box / communication facilities	No post box & public telephone facility present, within the LAP	Proposed in NN
Recreation & open space	Not existing	open space provided in the NN

The plan has been recently finalized. It is yet to be implemented on ground. An open exhibition ground has been proposed in the lower river terrace.

5.7 Lungtenphu local Area

The lungtenphu local area is located on the southern side and is spread over 243.53 hectares. The major landmarks of the area include the helipad, RIM institute and Mushroom center. The area is undergoing 28.9 % pooling based development. The area is located next to the expressway. Land near expressway is quite flat, below Thimphu-Phuentsholing highway it starts getting steeper continuously , slope is from east to west. The following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.g: Table elaborating the status of lugtenphu local Area

	Existing	Proposed
Population	1,571	19,365
Density	30-35	UV-1(600), UV-2(400), UV2-LD and E2(100-150)
Water supply system	Rural water supply system, water tapped from a source uphill	urban water supply system, throu' proposed Serbithang WTP
Sewerage network	The area below Express way is connected to network	The entire area to be connected to the existing treatment plant, after upgrading it.
Solid waste collection	The collection van covers areas where there is road access	Existing network will be extended
Storm water drainage	Apart from the one along the Thimphu-Phuentsholing highway, most of the water run thro' the irrigation channel	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all houses are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system, except along expressway	To be installed along all the roads
Roads	The Expressway and phuentsholing highway are main access. 90% of the new roads have completed its first cutting, major roads completed till base course level	All the roads will be black topped in near future
School & other institutes	Royal Institute of Management, National Mushroom Center and Chhoden Jr. higher school are present within the LAP	The Chhoden school(RBA area) will be shifted here soon
Hospital / BHU	RBA hospital existing, but general public has to visit the Referral hospital	BHU proposed in NN
Shopping area	No formal shopping center, few shops near the forest check post, and along expressway	Proposed in NN
Taxi stand / bus stop	Sheltered bus stop and taxi stand near Lungtenphu (not in the LAP)	Proposed in NN
Service station	Not existing	Proposed in NN
Post box / communication	Post box in RIM, telephone facilities in shops along highway	Proposed in NN
Recreation & open space	Recreational facilities are only in RBA campus as of now	tot-lots and community open space adjacent to the school, with sports facilities

First cutting of the roads is already completed, 70% of reallocated plots have been handed over. Surfacing of main roads is in progress currently.

5.8 Simtokha Local Area Plan

The Simtokha local area plan is located to the south of the core central area. The local area has a spread of 335.76 hectares. The main landmarks of this area are the Simtokha Dzong, that is under reconstruction and the city sewage treatment plant. The area is undergoing 29 % pooling based development. Paddy cultivation is still carried out in few farms and development exists along old highway. The area near expressway is quite flat, below Thimphu-Phuentsholing highway it starts getting steeper continuously, slope is from east to west. Following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.h: Table elaborating the status of Simtokha local Area

	Existing	Proposed
Population	2400-2500	19,410
Density	30-36	UV-1(600), UV-2(500), UV2-LD and E2(100-150)
Water supply system	Rural water supply system, tapped from minor streams on uphill	urban water supply system (from olaRong Chhu)
Sewerage network	All properties have private septic tanks	Connection with existing treatment plant
Solid waste collection	The collection van reaches places only with road access	Existing network of door-to door collection to be extended
Storm water drainage	most area still under paddy most runoff follows irrigation channels and the existing gutter along the old highway	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all house are connected with electricity and telephone	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system	To be installed along all the roads
Roads	The main access is through the highway and expressway, the area above is mainly accessed by un-surfaced road	Hierarchy of roads proposed, which will access each plot, E-4 precincts will not have surface roads
School & other institutes	Plant Protection and Soil Service centre, No school existing	Junior school proposed
Hospital / BHU	DANTAK dispensary is the only health facility in the area	BHU proposed in NN
Shopping area	No designated commercial area, but shops on gr. Floors along the road, DANTAK also has a shop and other services	Proposed in NN
Taxi stand / bus stop	Though there is bus service, there is no formal bus nor Taxi stand existing	Proposed in NN
Service station	Not existing	Proposed in NN
Post box / communication facilities	No post box facility, telephone facilities are provided in the shops along the road	Proposed in NN
Recreation & open space	There is a football ground and two basket ball courts in RIM campus	Community center proposed, along with the open spaces and sport facilities

The Plan has been finalized, demarcation is not yet completed. The area has a city level Urban hub proposed, including activities like, bus terminal, workshop, vegetable market & light industrial area, catering to the city

5.9 Babesa Local Area Plan

The Babesa Local area Plan is located to the south of the city and is spread over 104.48 hectares. The main landmarks of the area include the back to back Buddha statue and the Babesa school. The area is undergoing 27.5 % pooling based development. Paddy cultivation still carried out in some farms, few development along old highway, The area near expressway is quite flat, below Thimphu-Phuentsholing highway it starts getting steeper continuously , slope is from east to west. Following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.i: Table elaborating the status of Babesa local Area

	Existing	Proposed
Population	1700-1800	16,585
Density	30-35	UV-1(600), UV-2(500), UV2-LD and E2(100-150)
Water supply system	Rural water supply system, water tapped from a Nagbe Rong Chhu and a source uphill of Serbithang area	Urban Water supply system to be provided from Nagbe Rong Chhu
Sewerage network	All properties have private septic tanks	The entire area to be connected to the existing treatment plant
Solid waste collection	Collection van reaches only where there is road access, people have their own disposal methods	Existing network of door-to door collection will be extended
Storm water drainage	runoff goes thro' irrigation channel and the existing gutter along the old highway	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system	To be installed along all the roads
Roads	The Expressway is the main access to Babesa area, Phuentsholing highway, gives access to the upper area.	Hierarchy of roads proposed, which will access each plot, along with a pedestrian network
School & other institutes	There is a primary school within the LAP	A new High school has been proposed
Hospital / BHU	No health facility in the LAP, DANTAK disp. is nearest	BHU proposed in NN
Shopping area	No designated commercial area, but shops on gr. Floors along the road	Proposed in NN
Taxi stand / bus stop	There is taxi & bus service but no formal bus stand or taxi stand existing	Proposed in NN
Service station	Not existing	Proposed in NN
Post box / communication facilities	No post box, telephone facilities are provided in the shops along the road	Proposed in NN
Recreation & open space	Botanical garden in Serbithang is the nearest recreational place, not within the LAP	Small open space pockets proposed within the LAP

The Plan has been finalized; demarcation of the new plots and road is over. It is in a stage of starting handing over of plots.

5.10 Serbithang Local Area Plan

Serbithang Local Area Plan is located to the south of the city and spread over 127.9 hectares. The main landmarks of the area include the Botanical garden & other Agro institutes. The area is being developed with 15 % pooling based development. The area is majorly covered by forest and orchards and largely of botanical garden and other institutes. Majority of the landowners are affluent of the city and big land owners, The entire area as a varying slope - largely steep, ideal for high income housing, due to its scenic setting. Following table elaborates the existing and proposed status of the local area (following the implementation of the LAP).

Table 5.j: Table elaborating the status of Babesa local Area

	Existing	Proposed
Population	300	2,960
Density	NA	UV-2(500), UV2-LD and E2(100-150)
Water supply system	Rural water supply system, water tapped from a Nagbe Rong Chhu and a source uphill of Serbithang area	To be covered under urban water supply system, throu' the proposed Serbithang WTP
Sewerage network	All properties have private septic tanks	Plots to be connected to the existing treatment plant
Solid waste collection	Collection van reaches places with road access, people have their own disposal methods	Existing network will be extended
Storm water drainage	Most area is still under paddy & orchard, most runoff goes thro' irrigation channels and existing gutter along road	Road side drains to be constructed along all the roads
Power & telecommunication	Almost all house are connected with electrical and telephone connections	BPCL & BTL to extend their network as per the demand
Street lighting	No proper street light system	To be installed along all the roads
Roads	2.78 km surfaced and 4.21 kms unsurfaced roads, not sufficient for the LAP, current access to Serbithang is throu' Phuentsholing highway, forming a bottle neck at the junction	The existing roads will be widened to 10m wide plus new roads are proposed
School & other institutes	Royal Botanical Garden, Bhutan Agro Industry, National Bio-diversity Institute, Royal Veterinary Hospital & National Pig Rearing Center, but no school existing	A crèche, lower kindergarten ,upper kindergarten and first standard of primary school proposed in NN
Hospital / BHU	There is no health facility, DANTAK dispensary is the nearest	BHU proposed in NN
Shopping area	No designated commercial area, but a couple of shops	Proposed in NN
Taxi stand / bus stop	No bus service, only way to access is taxi or private vehicle	Proposed in NN
Service station	Not existing	Proposed in NN
Post box / communication facilities	No post box facility, telephone facilities are provided in the shops along the road	Proposed in NN
Recreation & open space	Botanical garden is the only organised recreational place	Small open space pockets proposed within the LAP

The plan has been finalized. Building permissions are given on request basis, LAP implementation is not on priority of TCC.

Map 5.1 The Thimphu City Local Areas

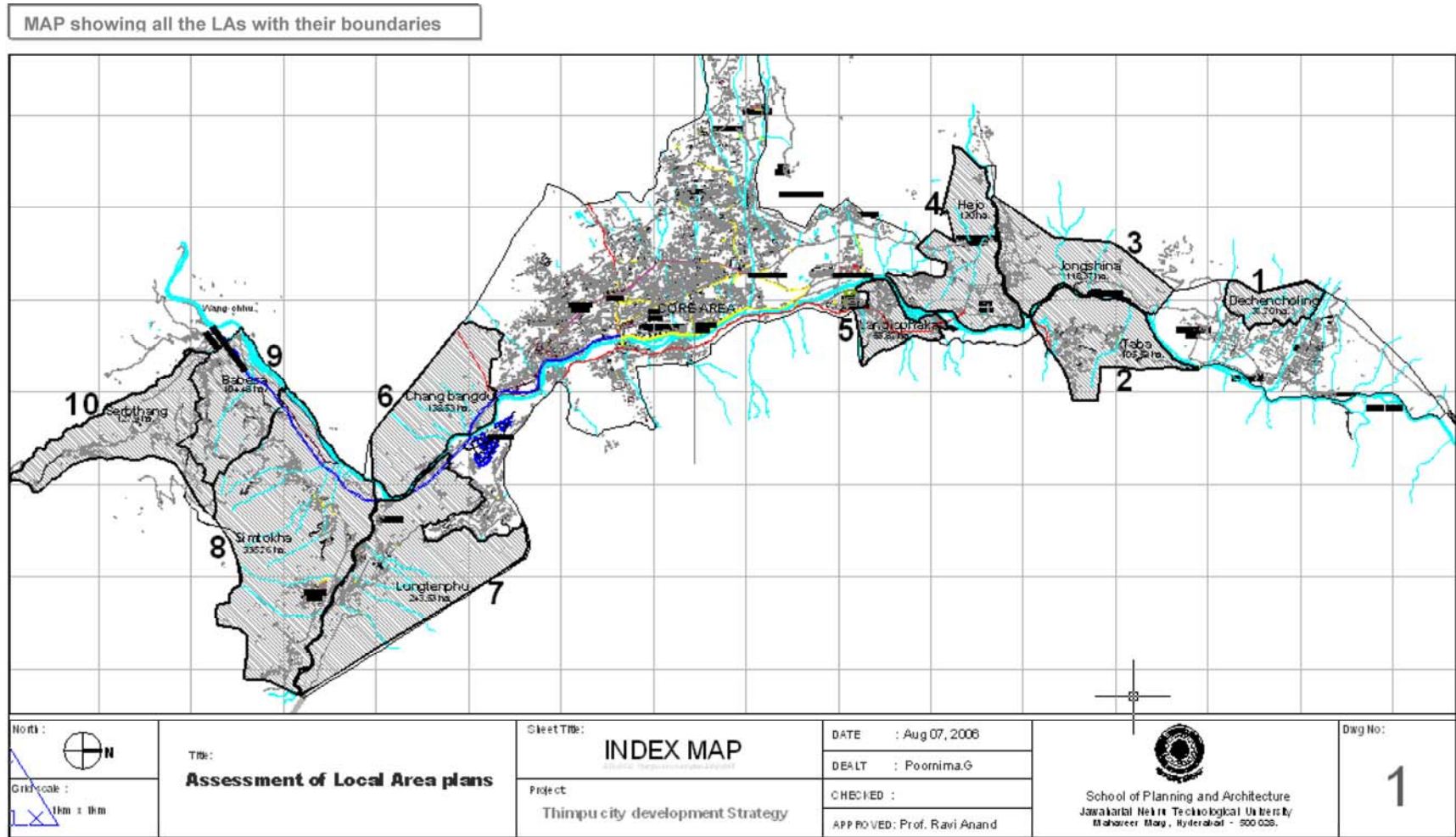


Table 5.k: Profile sheet

For all LA's has been compiled to give a comparative picture of the existing scenario.

Profile:	North of core area					South of core area				
Name of the Local area	Dechencholing	Taba	Jongshina	Hejo	Lanjopakha	Chang bangdu	Lungtenphu	Simtokha	Babesa	Serbitang
Location W.R.T Wang chu	West	East	West	East	East	West	East	East	East	East
Area (in hectares)	37.70	105.53	118.37	130	55.87	138.53	243.53	335.76	104.48	127.9
Existing Pop.	NA	1200-1500	3500 - 3700	500-615	700 to 900	2808	1571	2400-2500	1700-1800	300
No.of dwelling units	NA	NA	NA	NA	NA	NA	91	NA	NA	60
Existing Density (per ha.)	15 to 20	20-25	39 to 31	72.88	30 to 40	30-35	30-35	30-36	30-35	very low
Additional pop. that can be accommodated	21,684	17,295	1,506	This Fig. includes Lanjopakha		5,853	1,935	15,932	10,119	N.A
Total pop. projected	25,728	18,795	5,736	7,445		8,661	3,516	18,365	11,900	N.A
Existing Water supply	through individual tanks	Partly through RWSS & partly from MENCHUNA stream	Partly through RWSS	RWSS	Municipal supply	Springs & streams	2 Sources, 6250 lit per day	RWSS ,irrigation canal & stream	RWSS ,irrigation canal & pvt connections	RWSS & Pvt. connectio
Sewerage system	Not there	Not there	Not there	Not there	Not there	Not there	Not there	Not there	Not there	Not there
Storm water drainage	Not there	only to some extent	only to some extent	only to some extent	only to some extent	Not there	Not there	Not there	Not there	Not there

Table 4k: General profiles of Local Areas

- The largest local area is Simtokha with 335.76 ha. Of area and the smallest is Dechencholing (excluding the RBG area) with only 37.70 ha. Of area,
- The exiting population range from 300 in Serbitang to 3500 in Jongshina; therefore the existing densities vary from 15PPH if we ignore the RBG area in case of Dechencholing to 72.88 in Hejo,
- The additional population expected to be accommodated in the total area varies from 1500 in Jongshina to 21,600 in Dechencholing,
- Excepting in Lanjophaka, water supply is through Rural Water Supply system, the Municipal water supply is supplied only in Lanjophaka,
- No sewer system is available in any of the area,

Table 5I: Profiles for all LAs

Profile:	North of core area					South of core area				
	Dechenc holing	Taba	Jongshina	Hejo	Lanjopakha	Chang bangdu	Lungtenphu	Simtokha	Babesa	Serbithang
Name of the Local area										
Existing Land use pattern (in ha.)										
Agriculture	21.4	40.46	35.7	69.67	4.52	21.12	36.98	50.45	40.75	37.5
Forest	24.08	20.19	23.75	5.68	24.03		140.47	74.92		28.73
Residential	19.4	16.37	16.71	6.94	10.31	5.99	16.99	18.41	16.75	0.58
Orchard	12.08	15.37	6.89		4.78	13.55	22.61	95.98	18.65	14.21
Institutional		7.36		35.77	2.34		7.06	3.43	9.54	14.98
Vacant and shrub land	16.68	3.9	30.73	5.32	5.16	5.55	14.26	47.24	8.32	15.75
Defense and related								10.45		
Rivers, Streams and water bodies			2.16			0.24	0.2	6.48	4.15	0.091
Roads		1.88	2.43	3.02	1.92	0.52	4.76	6.13	6.32	2.16
Expressway Project								2.64		
Industrial and related					0.64			5.68		
Sewerage treatment Plant								9.43		
Areas between streams and banks								2.31		
Others				3.70	2.16	91.56		2.21		13.9
Existing Land ownership pattern(in ha.)										
Government land	41.83	22.05	49.54	8.23	23.39	71.69	186.86	107.68	27.25	84.93
Private	49.61	54.23	68.83	62.85	21.01	66.84	56.67	155.83	45.8	40.42
Existing surfaced roads	NA				3.98	0.37	6.10kms	10.37kms	3.84kms	2.78kms
Existing unsurfaced roads	0.7kms					1.07	2.94kms	3.89kms	2.94kms	4.21kms
Monk body lands				23.37				22.64		
Water bodies						0.24				
others				1.95	7.49	67.19		22.59		
India House(Not to be taken into consideration during the Planning process)				23.47						
Existing Land holding pattern										
<500sq.m	12*<400	NA	84	104*<530.85	NA	86	110	220	194	1
500-1000sq.m	59*	NA	77	81*	NA	65	92	208	149	8
1000-2000sq.m	28	NA	74	128	NA	44		162	91	8
2000-3000sq.m	12	NA	38	40	NA	11	27	104	36	9
3000-5000sq.m	10	NA	23	13	NA	12	26	43	19	8
5000-10000sq.m	9	NA	9	6	NA	7	6	22	16	10
>10000sq.m	2	NA	12	4	NA	18	1	6	9	13
Total no. of plots	132	NA	15.21	376	NA	243	262	19	514	57

- Except in Lanjophaka, significant areas ranging from 21 ha. to about 70 ha. is under agriculture in the local areas,

- Forest cover in Lungtenphu is max. i.e. 140.47 ha. Which includes the upper slopes on the east,
- Land under residential land use is least in Serbithang i.e. 0.58 ha. To that is Taba, Jongshina and Lungtenphu, which is maximum, Dechencholing also covers the RBG area,
- Orchard cover is maxim in Simtokha, i.e. the higher slopes and Lungtenphu, least in Jongshina and Lanjophaka, which is large developed and paddy fields in the lower terraces,
- Simtokha and Jongshina has the highest percentage of vacant land or shrub land,
- Only Simtokha has the defense establishment in the LAP boundary, i.e. Dantak,
- Land under road is maximum in Simtokha and Serbithang,
- As per the ownership pattern, Lungtenphu and Simtokha have maximum ownership of government land i.e. 186.86 ha. and 107.68 ha. Respectively,
- Private land holdings are also max. in Simtokha about 155.83 ha. Followed by Jongshina (68.83 ha.), Hejo (62.85 ha.) and Changbangdu (66.84 ha.),
- Existing surface road is max. in Simtokha (10.37 ha.) to the least in Changbangdu (0.37 ha.),
- Land holding pattern between 500-1000 is max. in Simtokha and Babesa, Changbangdu has the max. number of large holdings,

Non-developable land in LAP'S:

- Taba and Jongshina has max. land under environment conservation precinct (18.6 ha. And 15.85 ha. Respectively),
- Land under forest is max. in Simtokha and Changbangdu (74.92 ha. & 87.03 ha. Respectively),
- Industrial area is proposed only in Simtokha LAP,
- Existing facilities like sewage treatment plant in Simtokha and water treatment plant in Hejo is maintained.
- India house covers an area of 23.47 ha. In Hejo LAP,
- In general non-developable land is max. in Simtokha and Changbangdu (258.68 ha. And 108.52 ha. Respectively) and the least in Babesa about 21.54 ha.

Table 5m: Details of Non-developable land for all LAs

Profile:	North of core area					South of core area				
	Dechencholing	Taba	Jongshina	Hejo	Lanjopakha	Chang bangdu	Lungtenphu	Simtokha	Babesa	Serbihang
Name of the Local area										
Non-developable land (in ha.)										
Environment Conservation		18.6	15.85	9.08	3.75	8.9		32.47	9.998(Conservation (15 mt wide preserve on each side of the streams and 30 mt wide preserve on each side of Wang Chhu)	38.99
Orchard areas								95.98		
Forest Environments		17.53	19.97	10.04	22.74	87.03		74.92		
Industrial areas								5.68		
Heritage areas		0.06	0.28	9.67				22.64	2.834	0.12
Water bodies		0.5	2.16			0.24		8.79(includes part of the river and streams falling in the Simtokha local area)	4.159	0.09
Existing roads										
Expressway Project										
Total road area (including Expressway)						1.4		8.77		
Sewerage treatment Plant								9.43		
Agri-based Environments				5.18		10.95				
Green space System		5.56							4.699	15.34
Cremation Ground				1.21						
India House				23.47						
Water Treatment Plant				0.44						
others					3.48					
TOTAL		42.25	38.26	59.09	29.97	108.52		258.68	21.68	54.54

Table 5n: H/H Survey in the local areas to know the levels of services and need for improvement.

House hold characteristics											
Survey Heads	Local areas in north					Local areas in south					Remark
	Dechencholing	Jongshina	Hejo-Samteling	Taba	Lanjophaka	Changbangdu	Lungtenphu	Simtokha	Babesa	Serbithang	
No. of samples	21	19	15	35	16	14	12	8	12	4	
Age of Hh head											
< 20									1		Major Hh heads are in a category of 31 yrs to 50 yrs., except for Jongshina, which has majorly in 21-30 category
21-30	3	12	4	6	1	2	2	3	3		
31-40	10	3	2	16	3	5	4	3	5	3	
41-50	4		4	5	4	6	5	1	3	1	
51-60	3	2	1	4	2	1	1				
> 60	1	2	4	4	6			1			
Total	21	19	15	35	16	14	12	8	12	4	
Family size (5.5)											
single	1				2				1		It is usually observed that family sizes are equal or majorly bigger than 5
< or = 5	13	9	6	19	5	4	5	3	8	2	
> 5	7	10	8	16	9	9	4	5	3	2	
N.R.			1			1	3				
Total	21	19	15	35	16	14	12	8	12	4	
Occupation											
Agriculture	2	3	1	1	5	1	5				It is observed that the northern area is still carrying out Agri. Activity as compared to south, others majorly involved in business and
Trades (ex. Carpenter, etc.)	1	4	3	1	2	2			6		
Business	2	6	4	10	5	5	3	3	2	1	
Govt. employee	6	2	5	20	2	5	3	4	2		
Pvt. Employee	1	1	1	1	2			1	2	1	
Service (ex. Taxi)	1	3	1	2		1	1			2	
Monk	1			0							

N.R.	7										Govt. service
Total	21	19	15	35	16	14	12	8	12	4	
Hh income (Nu. 2100 / month)											Most of the families have income in the category of Nu. 11,000 to 20,000, with a few in Taba, Hejo & Babesa having less than Nu. 10,000
2200 - 10,000	5	9	10	15	5	3	2	2	8		
11,000 - 20,000	11	7	4	10	9	4	7	3	4	4	
> 21,000	1	3		6	2		3				
N.R.	4		1	4		7		3			
Total	21	19	15	35	16	14	12	8	12	4	
Type of residence											The data shows, that many of the families surveyed, are migrated to Thimphu, only in Lungtenphu that the local residents are still holding the properties
Locals	2	1	3	1	4	4	12	1	1	2	
Migrants from other cities	19	18	12	34	12	10	0	7	10	2	
Migrants from other country									1		
Total	21	19	15	35	16	14	12	8	12	4	
Duration of stay											Apart from Lungtenphu, which has local popln. the saty in the city varies, families in Lung'phu are all above 10 yrs category
<1 yr	1	4	4	7					5	2	
2 - 5 yrs.	9	6	1	5	3	3		4	6		
5 - 10 yrs.	4	6	3	7	2	5		3		1	
> 10 yrs. Since born	4	3	7	16	11	6	12	1	1	1	
N.R.	3										
Total	21	19	15	35	16	14	12	8	12	4	

Hsg. Tenure												The survey shows a mix of owned and rented type of tenure, with Dechen'ng, Lanjophaka, Changbandu, and Lung'phu has maximum owned tenure
owned or purchased	12	6	7	19	12	12	11	1	3	1		
Rented	9	13	8	16	4	2	1	6	6	2		
Perk (rent free)								1	3	1		
Total	21	19	15	35	16	14	12	8	12	4		
Expenditure on water / month	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Free of cost thro' RWSS	Most of the areas depend on RWSS, still a proper municipal supply is not accessible
Expenditure on power supply / m.												As the power is cheaper in Bhutan, most spend less than Nu. 500 on power bills
< Nu. 500	11	15	10	21	10	11	8	6	6	3		
> Nu. 600	9	3	5	11	6	2	3	2	1			
Perk									3	1		
Rent includes power supply cost				3			1		2			
N.R.	1	1				1						
Total	21	19	15	35	16	14	12	8	12	4		
Type of vehicle owned												Most either have cars or no vehicle, with a few 2 wheeler in the southern Thimphu
two wheeler			2	4		2	4	3	2			
car	11	6	3	16	11	2	5	2	2	2		
Taxi				2					1	2		
none	10	13	10	13	5	10	3	3	7			

Total	21	19	15	35	16	14	12	8	12	4	
Expenditure on travel / m.											
< Nu. 600	2	6	5	11	1	4	8	2	8	2	The expenditure on travel seems to very less, in a range of Nu. 600 to 2000. / month
Nu. 600 - Nu. 1200	10	2	3	7	2	3	3	5	2	2	
Nu. 1201 - Nu. 2000	6	4	5	7	11	5	1	1			
Nu. 2100 - Nu. 3000	1	1	1	3							
> Nu. 4100	1	2		2	1				1		
None				2					1		
N.R.	1	4	1	3	1	2					
Total	21	19	15	35	16	14	12	8	12	4	

Table 50: assessment of existing services

Assessment of Existing Services										
Survey Heads	Local areas in north					Local areas in south				
	Dechencholing	Jongshina	Hejo-Samteling	Taba	Lanjophaka	Changbangdu	Lungtenphu	Simtokha	Babesa	Serbitang
No. of samples	21	19	15	35	16	14	12	8	12	4
Water supply	Health problem observed	Thou' no problem with RWSS	Supply thro' Municipal Supply	Thou' no problem with RWSS	Supply thro' Municipal Supply	RWSS, frequent problems encountered	Throu' RWSS, few with bore wells	Water throu' PED aprt., quality poor	Thou' no problem with RWSS	Water throu' RWSS, quality poor
	71% opted for good WSS	53% opted for good WSS	100% opted for good WSS	86% opted for good WSS	63% opted for good WSS	57% opted for good WSS	Majority opted for prioritization	Majority opted for prioritization	75% opted for good WSS	100% opted for good WSS
Drainage & sewerage	Houses with septic tanks		Houses face problem in summer, due to bad odour	Houses in the interiors face problem in summer		Houses face problem in summer, due to bad odour and stagnation	Houses with septic tanks	Houses with septic tanks, foul smell of the sewerage tank	Houses face problem in summer, due to bad odour and stagnation	Houses with septic tanks
	95% opted for prioritization	100% opted for prioritization	100% opted for prioritization	100% opted for prioritization	100% opted for prioritization	71% opted for prioritization	67% opted for prioritization		100% opted for prioritization	100% opted for prioritization

Solid waste	No collection, as no rds.	Collection twice a week	No door to door collection, some burn the garbage, unhygienic condition	No problem	Collection twice a week	Door to door is very poor, once a week	Requested for daily collection	Requested for daily collection	Presently collection twice a week	Presently once a week
	55% opted for prioritization	100% satisfied with service	73% opted for prioritization		100% requestd for daily collection	43% opted for prioritization	100% requestd for daily collection		55% requestd for daily collection	Requested for twice a week
Power supply	No problem	No problem	No problem	No problem	No problem	No problem	No problem	No problem	No problem	No problem
Road / access	No proper access rds.	No street ligths	Need for proper rds. & street lights	Need for proper rds. & street lights	Need for proper rds. & street lights	No rd access in the interiors, buffer to expressway required	Thou' prop. Rd cutting over, need for proper rds. & street lights	No rd access in the interiors, buffer to expressway required	No rd access in the interiors, buffer to expressway required	All houses connected with BT rds,
	100% opted for prioritization	100% opted for prioritization	100% opted for prioritization	100% opted for prioritization	100% opted for prioritization		100% opted for prioritization	Majority opted for prioritization	Majority opted for prioritization	Requested for street light
Telephone	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles	Have either landline or mobiles
Television	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections	Houses connected with cable connections
Internet	No Connections	No Connections	No Connections	Only one Hh has the connection	Only one Hh has the connection	No Connections	Only two Hh has the connection	No Connections	Only one Hh has the connection	No Connections
	57% will be interested	47% will be interested	73% will be interested	100% will be interested	50% will be interested	36% will be interested	50% will be interested	38% will be interested	No desire	No desire
Amenities	Required, thou' existng sparse		Required, thou' existng sparse	Required, thou' existng sparse	Required, thou' existng sparse	Required	Required		Required	Required

Annex VI : Detailed list of Proposed Strategies

Following is the detailed basket of strategies that may be necessary for improving the city, also indicates the sector they relate (darkest-most, lightest-least) to and how.

Sr. No.	STRATEGIES	Local Economic Development	Poverty and Social Inclusion	Infrastructure and Environment	Heritage Conservation	Municipal Finance and Capacities
1	Plan for and encourage community based organizations and private sector involvement in the development of Infrastructure sectors					
2	Priority may be given to community-based ventures and initiatives with tax holidays and indirect subsidies					
3	Develop neighborhood nodes and Urban Hubs as economic activity hubs and develop them on a priority basis to guide further development. Being commercial and service nodes they will open up economic opportunities within the local areas of the city.					
4	Include in the LAP's also short guidelines to suggest possible economic activities within local areas that could be taken up.					
5	Conduct city level economic surveys and studies to know the existing conditions, status and need for interventions					
6	A city –hinterland livelihood chain analysis could be conducted followed up by-Training, re-skilling, skill-opportunity matching, micro enterprise development					
7	At a regional scale to detail out the proposed NCR strategy for promoting decentralized regional economic development.					
8	To generate wide range of opportunities for livelihoods linked with local economy of the city					
9	To enhance physical, human, social and financial capital for sustainable livelihoods					
10	To promote private sector partnerships for livelihood					

St. No.	STRATEGIES	Local Economic Development	Poverty and Social Inclusion	Infrastructure and Environment	Heritage Conservation	Municipal Finance and Capacities
	generation					
11	To focus on pro poor housing					
12	Cooperatives for community housing planning /design					
13	To create access to affordable housing credit for the poor and enabling systems					
14	To set up community based information and monitoring systems					
15	To mobilize, organize, federate communities and empower them to engage with municipal government using a rights based approach					
16	To enter into partnerships with NGOs and civil society					
17	To set up systems for community-local government interface					
18	To set up institutional structures in TCC with capacity for pro poor inclusion and integrated planning					
19	The Social Housing policy will have to be linked with livelihoods					
20	Identify land for housing in the LAP's/ examine land pooling options					
21	Empower communities to dialogue/ negotiate/plan					
22	Creating space for the poor to be heard – linked to decentralization planning					
23	Specific plans for the provision of housing and basic services to the poor should be part of layout regulations					
24	Quality and reach of the public transport provision should be improved					

St. No.	STRATEGIES	Local Economic Development	Poverty and Social Inclusion	Infrastructure and Environment	Heritage Conservation	Municipal Finance and Capacities
25	Analysis of all policies for their poor sensitiveness					
26	Construct more water treatment plants.					
27	Extend reticulation system to all dwellings where cost effective.					
28	If dwellings or communities have private connections to other sources such as wells or springs, implement some form of permit system.					
29	Provide sewerage network in all areas with residential densities > 50 pph. If less than 50 pph then provide functioning septic tanks.					
30	Increase capacity of STP to cope with flow from the whole city.					
31	Select appropriate technology for STP in terms of O&M costs, necessary operator technical skills, affordability, willingness to pay and elimination of subsidies.					
32	Improve solid waste disposal					
33	Increase collection frequency to minimum of once per day in all areas.					
34	Implement recycling to reduce load to landfill by 50%					
35	Initiate privatization of environmental management by public / private sector partnerships					
36	Discourage wood burning by provision of affordable electricity					
37	Increase public transport to cover all of core area					
38	Increase frequency of public transport to reduce waiting time to 15 minutes maximum					
39	Increase taxes, duties on private vehicles					

St. No.	STRATEGIES	Local Economic Development	Poverty and Social Inclusion	Infrastructure and Environment	Heritage Conservation	Municipal Finance and Capacities
40	Maintain status quo and do not diminish areas of protected and ecologically valuable natural resources					
41	Greening of Public Open Spaces					
42	Discourage taking of slopes for residential building					
43	Ensure provision of sustainable services by charging realistic tariffs for full cost recovery					
44	Determine Ability to Pay for Services					
45	Extend existing program of fiscal incentives for cleaner technologies					
46	Encourage sense of “ownership” among citizens on environmental issues					
47	The financial requirement of the heritage and religious structures for their maintenance, enhancement and in some cases, survival should be met through various means: Grants, entry charges, leasing area for commerce, donations by willing people etc.					
48	Ensuring that the local and associated population is also involved and their viewpoints taken					
49	Promotion of vehicular access ways to the heritage site till a certain point					
50	Integration of heritage sites with the city and the open space system through access ways					
51	Introduction of heritage walks, drives					
52	Promoting local festivals and ceremonies with a target to include the youth and younger generations					
53	Ensuring that the presence of such spaces and structures are actively beneficial to the locals and do not turn into a bane					

St. No.	STRATEGIES	Local Economic Development	Poverty and Social Inclusion	Infrastructure and Environment	Heritage Conservation	Municipal Finance and Capacities
54	Create systems and provisions to promote participation by citizens					
55	Assist formation and working of citizen groups within the city					
56	Assigning jobs and sharing responsibilities					
57	Creating formal protocols and procedures					
58	Create frameworks for constant feedback					
59	Establish clear roadmaps for activities/projects jointly developed or implemented with/under other organizations/ministries etc.					
60	Also create guidelines for encouraging PPPs					
61	There is a need to give greater importance to the finance division, building its capacity, equipping with expertise and further power to propose taxes					
62	Include a public health Section, consisting of the environment division, sanitation and water supply components					
63	Include or constitute a Community Development unit- to take care of the peoples interface and building community structures.					
64	Develop a Disaster cell constituted of members from all divisions but with a one member qualified permanent staff					
65	Having an IT and Survey cells to support all divisions when required with prime reporting to administrative head.					
66	Define roles and responsibilities and develop a procedure manual for simple and quick delivery					
67	Effective tax administration and revision of the taxation					

St. No.	STRATEGIES	Local Economic Development	Poverty and Social Inclusion	Infrastructure and Environment	Heritage Conservation	Municipal Finance and Capacities
	policy					
68	Preparing more appropriate budget documents					
69	Attempt to define the tax base for the variety of fiscal tools devolved to the TCC					
70	Develop revenue-earning systems (asset base)					
71	Charge higher for services-improving the quality of services					
72	Phasing all development activities					
73	Community based organizations (Co-operatives)					
74	User charges and cost recovery					
75	Composite Property tax rates linked to market value					
76	Pro-poor tariff settings (targeted subsidies)					
77	ICT, and computerization of records and activities					
Legend						
	Direct relationship					
	Indirect relationship = level - I					
	Indirect relationship = level - II					

Above are the list of strategies suggested that need to be implemented to make Thimphu a better city, however this appears to be a big basket and based on certain criteria the CDS team has attempted to list some of the main strategies (in the main text) that will play a very important role in the way that the city developed.

Annex VII: List of people/officials met/consulted.

Sl. No	Names	Organization
1	Dasho Tshering Dorji	Chairman/Secretary, MoWHS
2	Lyonpo Dawa Tshering	Member, TCC Council
3	Mr. Tshoki Dorji,	Member, TCC Council
4	Mr. Mindu Dorji	Member, TCC Council
5	Mr. Choki Khorlo	S.G/SoB
6	Mr. Chewang Rinzin	MD/BPC
7	Mr. Rinchen Dorji	Director/DUDES
8	Mr. Phuntsho Wangdi	MD/NHDC
9	Aum Dorji Yanki	Head, DCAH
10	Mr. Thinley Dorji	MD/BT
11	Iccharam Dulal	DUDES/UISD
12	Kunzang Lham	PCS
13	Chedu Jamtsho	NSB
14	NL Rai	DOR, MOWHS
15	M.B. Mongar	Goe yong
16	Naichu	BCCI
17	Richard Geier	DUSPS
18	Karma T. Namgyal	Bumthang Dzongkhag
19	Thukten Choda	UPPD
20	Meghraj Adhikari	DUDES
21	Ugyen M Tenzin	UPDD/DUDES
22	Tashi Wangmo	UPDD/DUDES
23	Dorji Wangzon	UPDD/DUDES
24	Latha Chhetri	UPDD/DUDES
25	P. Wangdi	NHDC
26	Karma Yangzom	Local consultant Gyeltshen
27	Chimmi Dolkar	Gyaltshen Consultancy
28	Lam Dorji	RSPN
30	Ugyen Lhendup	RSPN
	Ms. Rebecca Pradhan	Ecologist, RSPN
31	Karma Ura	Paldrug Zhibjug Tewa
32	Rajni Chavda	Rajni Chavda, planner, UK
33	Mr. Nima Wangdi	Thrompon, TCC
34	Mr. Tshering Phuntsho	Dy. C.T.P, TCC
35	Mr. Thinley Penjore	Dy. C.T.P, TCC
36	Mr. Mahesh Pradhan	E.E. (Engineering Division), TCC
37	Mr. Ugyen Dorji	DCD head, TCC
38	Mr. Sangay Wangdi	Asst. Engineer, TCC
39	Mr. Phuntsho Wangdi	AFO, TCC

