Thaha Municipality, Nepal
Situation Analysis for Green Municipal Development

May 2018
This situational analysis and accompanying report were prepared by the Global Green Growth Institute (GGGI) in Nepal under its Green Municipal Development Program. GGGI and the program team would like to express their gratitude to the Ministry of Forests and Environment (MoFE), and in particular to Dr. Bishwa Nath Oli, Secretary, Dr. Ram Prasad Lamsal, Joint-Secretary, and Mr. Ram Hari Pantha, Under-Secretary.

This analysis was undertaken in close coordination with the Ministry of Federal Affairs and General Administration (MoFAGA). GGGI would like to thank MoFAGA for their support and guidance in this work. In particular, appreciation is expressed to Mr. Dinesh Kumar Thapaliya, Secretary, Mr. Suresh Adhikari, Joint-Secretary, Mr. Bishnu Datta Gautam, Under-Secretary, and Mr. Jib Lal Bhusal, Under-Secretary, who provided detailed technical support during the preparation of the seven reports. GGGI would also like to thank the municipal leaders, in particular the mayors and chief administrative officers (CAOs) of each of the municipalities of Belkotgadhi, Dakshinkali, Mahalaxmi, Melamchi, Namobuddha, Palungtar and Thaha municipalities. The mayors and CAOs provided vital qualitative and quantitative input and data which shaped the development of the assessment.

Kirti Joshi undertook field research and focus group discussions, the assessments of individual municipalities and data analysis, and was lead author of the reports. Additional contributions were provided by Aarsi Sagar, Donovan Storey, Vikram Basyal, Anantaa Pandey, and Rowan Fraser of GGGI. The reports were edited by Stephen J. Keeling. Photos were provided by Rameshwor Maharjan and Robic Upadhayay. Design and layout was undertaken by Pentagram.
Contents

Acknowledgements ii
Contents iii
Figures iv
Tables iv
Abbreviations v

PART 1 – INTRODUCTION 1
1. Background 1
1.1 Urbanization in Nepal 1
1.2 Green Municipal Development Program 1
1.3 Objectives 3
1.4 Methodology 3

2. Green Municipal Development in Nepal 5
2.1 Overview 5
2.2 Green Urban Growth for Nepal 6
2.3 International Policy Drivers 7

PART 2: BASELINE SITUATION AND TRENDS 9
3. Basic Information 9
3.1 Location 9
3.2 Demography 9
3.3 Land Use and Urban Growth Patterns 12
3.4 Market Centers 12
3.5 Places of Attraction 12

4. Environment and Natural Resources 15

5. Economy 17

6. Infrastructure, Facilities and Basic Services 19
6.1 Housing 19
6.2 Roads and Transportation 19
6.3 Other Services 19
6.4 Social Infrastructure 20

7. Policy, Regulation and Planning 21

8. Municipal Institutions and Capacity 23
8.1 Organizational Setup 23
8.2 Technical and Physical Capacity 23

9. Municipal Finances and Revenue 25

10. Municipal Stakeholders and Groups 27
PART 3 – SECTORAL, POLICY AND PROJECT FINDINGS

11. Priority Sectors and Strategic Themes
   11.1 Sustainable Infrastructure Development
   11.2 Commercialization of Agriculture

12. Policy and Planning Recommendations

13. Ideas for Projects

14. Conclusions

References

Annex 1 – Research questions
Annex 2 – Minutes of meeting with mayoral team (12 November 2017)
Annex 3 – Participants in focus group discussions (12 November 2017)
Annex 4 – Projects ideas from municipal consultations (November 2017)

Figures

Figure 1: GGGI’s Green Growth concept
Figure 2: Location of the seven GMDP partner municipalities (with province numbers)
Figure 3: Location map of Thaha Municipality
Figure 4: Wards of Thaha Municipality, 2017
Figure 5: Population growth and projections, 1991–2031 – Thaha Municipality
Figure 6: Satellite image of Sikharkot area in Thaha (January 2017)
Figure 7: Land use map of Thaha Municipality, 1994
Figure 8: Forest map of Thaha Municipality

Tables

Table 1: Guiding principles of National Urban Development Strategy, Nepal (2017-2031)
Table 2: Erstwhile VDCs and current municipal wards — Thaha Municipality
Table 3: Population of Thaha Municipality, 1991–2011
Table 4: Age-wise population – Thaha Municipality, 2011
Table 5: Thaha Municipality revenue and expenditure (FY 2014/15 – FY 2016/17)
Table 6: Potential GMDP stakeholders — Thaha Municipality
Table 7: Municipal plans and policies to be prepared by Thaha Municipality

Boxes

Box 1: The characteristics of green urban areas
Box 2: The transformations needed to produce green urban areas
Box 3: Examples of good waste management practices from Nepal
# Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAGR</td>
<td>average annual growth rate (exponential)</td>
</tr>
<tr>
<td>BS</td>
<td>Bikram Sambat (Nepal's official calendar)</td>
</tr>
<tr>
<td>CAO</td>
<td>Chief Administrative Officer</td>
</tr>
<tr>
<td>CBO</td>
<td>community-based organization</td>
</tr>
<tr>
<td>FY</td>
<td>Fiscal Year</td>
</tr>
<tr>
<td>GGGI</td>
<td>Global Green Growth Institute</td>
</tr>
<tr>
<td>GMDP</td>
<td>Green Municipal Development Program</td>
</tr>
<tr>
<td>ICT</td>
<td>information and communication technology</td>
</tr>
<tr>
<td>LGCDP</td>
<td>Local Governance and Community Development Program</td>
</tr>
<tr>
<td>LPG</td>
<td>liquefied petroleum gas</td>
</tr>
<tr>
<td>MoFAGA</td>
<td>Ministry of Federal Affairs and General Administration</td>
</tr>
<tr>
<td>MoFALD</td>
<td>Ministry of Federal Affairs and Local Development</td>
</tr>
<tr>
<td>NGO</td>
<td>non-governmental organization</td>
</tr>
<tr>
<td>NPR</td>
<td>Nepali rupee</td>
</tr>
<tr>
<td>NUDS</td>
<td>National Urban Development Strategy</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>USD</td>
<td>United States dollar</td>
</tr>
<tr>
<td>VDC</td>
<td>village development committee</td>
</tr>
</tbody>
</table>
1. Background

1.1 Urbanization in Nepal
The rapid pace of urbanization in Nepal in recent decades and the recent declaration of many new municipalities has reinforced the need to bring sustainable urban development to the forefront of Nepal’s development agenda.

Nepal recorded an average annual urban growth rate of 3.38 percent between 2001 and 2011 (CBS 2014: 31) – one of the highest in Asia, and as of 2011 had 58 municipal governments (metropolitan cities, sub-metropolitan cities and municipalities), which covered 17.1 percent of the population. In recent years the number of municipal governments has increased five-fold with the number standing at 293 in May 2018 including 6 metropolitan cities, 11 sub-metropolitan cities and 276 municipalities (nagarpalikas). These areas now cover about 42% of Nepal’s population (MoUD 2016a).

This situation, alongside the greatly increased levels of authority and the increased funding provided to municipal governments under Nepal’s new federal constitution (2015), set the stage for the planned development of Nepal’s municipal areas.

The development of Nepal’s new municipalities presents many challenges and opportunities. On the one hand, many have neither adequate populations nor adequate economic structures to justify significant infrastructure investments. On the other hand, their early stage of development provides the opportunity to guide them along the path of sustainable development.


1.2 Green Municipal Development Program
Since 2015, the Global Green Growth Institute (GGGI) has supported the Government of Nepal to align its national development policies with the green growth paradigm. This paradigm builds on a model of economic growth that targets the key aspects of economic performance of environmental sustainability, poverty reduction and economic growth (Figure 1).

In 2017, GGGI in partnership with Nepal’s Ministry of Federal Affairs and General Administration (MoFAGA) and seven of Nepal’s new municipalities, launched the Green Municipal Development Program (GMDP). The focal point for the program is the Ministry of Forests and Environment (MoFE). Phase one of the program began in 2017 and will run to December 2018.

The goal of the program is to support the seven municipalities to identify and capture localized green growth opportunities. The program is designed to respond to the needs of federal and local governments and is founded on long-term municipal engagement. It aims to provide a range of customized technical and financial services to the municipalities as well as supporting inter-municipal learning and capacity building.

An initial program activity was carrying out of a green municipal growth situation analysis in the seven partner municipalities of Belkotgadhi, Dakshinkali, Mahalaxmi, Melamchi, Namobuddha, Palungtar, and Thaha, which are shown in Figure 2. This report is one of a series of seven reports that present the findings of the analysis for Thaha Municipality in Makwanpur District.

---

1 It is important to note here that the recent increases in the number of municipal governments have mainly been outcomes of political decisions and many parts of the new municipalities have more rural than urban characteristics.

Figure 1: GGGI’s Green Growth concept
Source: GGGI 2017a

- Economic Growth
  - Economic growth can only be sustained through investment—not exploitation
  - Urban competitiveness is undermined by ‘unliveable’ cities
  - ‘Going green’ supports innovation in services, technologies and systems; it moves a city from ‘old’ to ‘new’ economies & thinking

- Environmental Sustainability
  - Urban growth & prosperity can only be based on sustainable use of healthy natural resources
  - Environmental degradation is costly and undermines urban resilience

- Poverty Reduction
  - Social inclusion and reduced inequality support sustainable resource use & growth
  - Green Cities should provide more resilient livelihoods/higher quality of life than business as usual

Figure 2: Location of the seven GMDP partner municipalities
1.3 Objectives
The objectives of the situation analysis of the seven new municipalities were as follows:

- Analyze and assess the current baseline and trends in the municipalities across economic, social and environmental dimensions, and understand the deeper reasons and drivers of change.
- Analyze and assess the policy and regulatory landscape in which the municipalities operate.
- Analyze and assess the institutional, technical, managerial and financial structure and capacity of the municipal administrations.
- Identify and formulate practical, operational and strategic findings based on the assessment.
- Advise on priority sectors, policy and planning interventions and possible projects that could be pursued to support green growth in the municipalities with GGGI inputs and consultations.
- Conduct a stakeholder assessment of the findings at national and municipal levels.

1.4 Methodology
This situation analysis report was prepared through the following steps and inputs:

- Studied secondary information about the municipality from authentic sources, which were verified by consulting other sources to the extent possible.
- Held discussions with the mayor Mr. Rajendra Raman Khanal and his team on 27 October 2017 at the municipal office guided by a five-point questionnaire (see Annex 1.1 for the research questions and Annex 2 for the meeting minutes in Nepali).
- Shared preliminary findings at the GMDP Launch and First National Consultation Workshop, held on 14–15 November 2017 in Kathmandu in the presence of high-level officials from partner ministries, the mayors and the chief administrative officers (CAOs) of partner municipalities, and representatives from other relevant ministries.
- Held focus group discussions with local entrepreneurs and persons affiliated with social and environmental non-governmental organizations (NGOs) on 2 December 2017 in Mahadevphant, Belkotgadhi (see Annexes 1.2 to 1.4 for the research questions and Annex 3 for participants).
- GGGI Nepal and Headquarter teams reviewed final drafts of the report.
Opening session of the GMDP Launch and First National Consultation Workshop (November 2017) (Above). Thaha CAO speaking at the workshop.
2. Green Municipal Development in Nepal

2.1 Overview

‘Green growth’ is a model of economic growth that targets the key aspects of economic performance of poverty reduction, job creation, social inclusion and environmental sustainability (see Figure 1). In other words, green municipal growth aims to ensure that investments on infrastructure and other types of physical development create socioeconomic benefits that are proportionately distributed in societies while ensuring that development does not result in environmental degradation. The green growth concept builds on the concept of sustainable development.

The commitments of the Government of Nepal to sustainable development are explained in Section 1.1. Among these, Nepal’s National Report for Habitat III (MoUD 2016b) builds on the country’s commitment to Sustainable Development Goal 11 of making cities and human settlements inclusive, safe, resilient and sustainable by 2030. The sustainable development of Nepal’s urban areas is also key to enabling Nepal to achieve its aim of graduating from Least Developed Country to Middle-Income Country status by 2030, for which cities have a major role to play as engines of economic growth.

Nepal’s National Urban Development Strategy (2017–2031) has the five underlying and interconnected guiding principles of inclusivity, resilience, green development and efficiency (Table 1).

Table 1: Guiding principles of National Urban Development Strategy, Nepal (2017–2031)

<table>
<thead>
<tr>
<th>Guiding principles</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusivity</td>
<td>Urban areas should be socially inclusive in terms of ethnicity, caste, gender, and economic class. Inclusion should be reflected in the space the city provides for the nurturing and celebration of social and cultural diversity and sensitivity particularly to disadvantaged, marginalized and minority groups, and poor people and youth in general. Inclusivity promotes social justice and contributes to equity and balanced development. The increasing rates of poverty in urban areas mean that their development needs to be pro-poor in terms of addressing the poor’s basic needs for education, health, housing, livelihoods and transportation.</td>
</tr>
<tr>
<td>Resilience</td>
<td>Resilience refers to physical and social resilience to make urban areas safer and adaptable to environmental and economic change. The major focus should be on physical, social, economic and institutional resilience, which are pivotal for mitigating short and long-term vulnerability resulting from disasters and the regional and global impacts of climate change. Planning and urban development should enhance the capacity of urban areas to cope with different types of hazards and to absorb shocks and risks.</td>
</tr>
<tr>
<td>Green development</td>
<td>Strategies for urban development should be guided by keeping urban areas green, cool, and wet. The main thrust should be on saving, protecting and promoting greenery including green parks, green open spaces, urban agriculture and forests. Urban areas should promote low carbon emission land use and technology and the use of green materials, increase the use of alternative energy, reduce the effects of urban heat islands and lower ambient temperatures. They should also promote and protect clean water bodies (ponds, wells, rivers and canals) that contribute to the survival of aquatic life, urban biodiversity and the recharging of ground water.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Urban areas need to be efficient, well governed and effectively managed to become sustainable, inclusive, resilient and green. The strategy should therefore be guided by i) enhancing the capability and technical competence of local governments, ii) the institutionalization of transparency and accountability in urban planning and development processes, and iii) the citizen-oriented delivery of services and development outcomes.</td>
</tr>
</tbody>
</table>
Many of Nepal’s new municipalities are predominantly rural in character. Most have limited technical capacity and have only limited funds. Given their limited resources, a fundamental question for Nepal’s new municipalities is whether they should focus on large-scale projects or on creating livable communities.

Many of Nepal’s municipalities are rich in terms of natural resources and need to avoid a business as usual path of haphazard urbanization, which has predominantly occurred so far across most of South Asia development. The green growth concept offers an alternative approach to urban development by stressing the optimal and wise use of local resources for sustainable and inclusive economic development through public participation. There is immense scope for green urban development in Nepal, and the time is right to promote this as municipalities gear up to exercise their newly acquired executive powers following the recent establishment of a federal system of governance in Nepal.

2.2 Green Urban Growth for Nepal

The characteristics and the transformations needed to produce green urban areas are listed in Boxes 1 and 2. The realization of such green urban areas will make a very large contribution to the achievement of Nepal’s national development goals, including the Sustainable Development Goals and its ‘Nationally Determined Contributions’ to reduce greenhouse gas emissions.

Box 1: The characteristics of green urban areas

In line with the green growth paradigm, green urban areas are:

- innovative and smart
- resource efficient and low carbon
- climate smart and resilient
- prosperous and bankable
- healthy and livable
- inclusive and pro-poor (GGGI 2017b).

Box 2: The transformations needed to produce green urban areas

- Transform the way they plan, to achieve the vision of smart, green and sustainable urban areas. Unplanned growth has negative environmental consequences that can be avoided by creating well-informed urban plans.
- Transform the way they design and operate buildings, to achieve resource efficient, low carbon and disaster-proof built environments.
- Transform the energy they produce and consume, to shift away from using polluting fossil fuels to cleaner forms of renewable energy.
- Transform waste to resources, to close the waste and resources loop and to move towards circular economies.
- Transform water resource management, to improve access to clean water and sanitation.
- Transform the way people move and connect, to achieve connected and non-motorized cities to limit the use of fossil fuel-based transportation.
- Balance expansion and growth with inclusion, to move to inclusive and pro-poor urban areas.
- Transform the way urban areas manage and account for their assets, to create bankable and creditworthy cities that attract green finance.
As Nepal’s municipalities urbanize, they have the option to follow either the business-as-usual pathway of haphazard and environmentally damaging growth or to shift to a green growth development trajectory. The green growth pathway has the three components of environmental sustainability, economic growth and poverty reduction:

Environmental sustainability
Urban growth and prosperity should be based on the sustainable use of natural resources. Nepal’s new municipalities have the opportunity to avoid unplanned urbanization and instead use existing tools and knowledge to better plan their development and use their natural resources. This is very important for Nepal, which is situated in a vulnerable mountain ecosystem and is very prone to earthquakes, floods, landslides and other natural disasters and the impacts of climate change. These factors and the impacts of large scale human settlements and widespread migration are key factors in Nepal’s development trajectory. The current high rate of urbanization is leading to large-scale environmental degradation, which has high costs and undermines urban resilience. In addition, compact, coordinated and connected urbanization is challenging to achieve in Nepal because of the limited availability of land across hill and mountain areas.

Economic growth
Sustainable economic growth needs sustained and planned investment. Urban areas not only need to aim for sustainable economic growth by generating economic activity, but also need to focus on strengthening their financial resources. Municipal finance is one area that needs further attention in the context of financing urban infrastructure improvements.

There are many challenges for developing the infrastructure of Nepal’s municipalities, which primarily rely on the state and central governments for their funding:
- The devolution of power: The legal and policy barriers to municipalities accessing other sources of financing.
- Creditworthiness: Most urban areas lack creditworthiness to raise debt in national and international markets.
- Access to international finance: Nepal’s urban areas currently have limited access to international financing.
- Own sources of revenue: Municipal bodies are responsible for providing basic public services including street lighting, water, sanitation and other services, but have limited capacity to generate funds to pay for them.
- Valuation of assets: Municipal governments are unsure how to manage and optimize increased asset values through infrastructure investments.
- Capacity building: The limited capacity and awareness of municipal bodies to design and implement revenue generation and integration tools.

- Earthquake damage: The basic services infrastructure of the areas covered by the seven municipalities was badly damaged by the April–May 2015 earthquakes.

The adoption of a green growth pathway will support innovation in municipal services, technologies and systems, especially for municipalities that are embarking on the urbanization process.

Poverty reduction
As cities develop, inclusive green urban growth becomes a vital component for achieving inclusive, sustainable and efficient urbanization. Social inclusion is an important aspect of the current municipality structure in Nepal and one of the elected positions in municipalities is for a person from a disadvantaged group. Gender equality is promoted in municipal bodies including by the stipulation in the Local Level Electoral Act (2017) that either the mayor or deputy mayor is a woman. In pursuing green growth Nepal’s municipalities should promote and facilitate resilient livelihoods and an improved quality of life.

2.3 International Policy Drivers
Two major international policy instruments are particularly relevant for the promotion of green urban development in Nepal:

Nationally Determined Contributions — The following Nationally Determined Contributions (NDCs) that Nepal submitted to the United Nations Framework Convention on Climate Change (UNFCCC) under the Paris Agreement (2016) emphasize sustainable and green urbanization:
- “Promote economic development through low carbon emissions with a focus on (i) energy, (ii) agriculture, (iii) forests, (iv) industry, (v) human settlements and waste, (vi) transport and (vii) commercial sectors.”
- “Maintain 40 per cent of the total area of the country under forest cover.”

Sustainable Development Goals — SDG 11 is to "Make cities and human settlements inclusive, safe, resilient and sustainable." The following SDG targets are most relevant to the development of Nepal’s municipalities:
- Target 11.3: "By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries."
- Target 11.8: "By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels."
3. Basic Information

3.1 Location, Formation and Administrative Sub-Divisions
Thaha Municipality is located in the northern part of Makwanpur District in Province 3 (Figure 3). It borders the Kathmandu Valley to the northwest. It has an area of 191.2 km². The municipality was formed in May 2014 by amalgamating Bajrabarahi, Daman, and Palung village development committees. In 2016/17 Agara, Chitlang and Tistung VDCs were added to form the present day Thaha Municipality. The Naubise–Hetauda part of the Tribhuvan Highway runs through the municipality and provides the main access from neighboring areas. The municipality is named after the Thaha (to know) Movement, a political movement associated with the area.

The municipality is divided into 12 wards (Figure 4 and Table 2). Ward 2 is the smallest and most densely populated ward.

3.2 Demography

Population growth and trends – In 2011, the population of Thaha Municipality (current municipal area) stood at 41,623 in 8,928 households. Between 1991 and 2001 the population grew by an average of 1.06% per year (Table 3). The population reduced by 607 between 2001 and 2011 with the population of most erstwhile VDCs declining or remaining the same. Population loss was highest in Chitlang VDC with an average decline of 1.5% per annum.

The population of Nepal’s municipalities is expected to rise after their empowerment under the new federal system of governance as per the Constitution of Nepal, 2015. An average annual growth rate of 1.5% per year would result in the population of Thaha Municipality reaching 50,000 by 2023 (Figure 5) while the lower growth rate of 0.5% would result in a population of 46,000 by 2031.
Table 2: Erstwhile VDCs and current municipal wards — Thaha Municipality

<table>
<thead>
<tr>
<th>Current ward no.</th>
<th>Erstwhile VDCs</th>
<th>Area (km²)</th>
<th>Population 2011</th>
<th>Population density (persons/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Palung</td>
<td>9.00</td>
<td>3,213</td>
<td>357.00</td>
</tr>
<tr>
<td>2</td>
<td>Palung, Daman</td>
<td>8.92</td>
<td>4,093</td>
<td>458.86</td>
</tr>
<tr>
<td>3</td>
<td>Daman</td>
<td>26.02</td>
<td>4,342</td>
<td>166.87</td>
</tr>
<tr>
<td>4</td>
<td>Daman</td>
<td>14.48</td>
<td>2,394</td>
<td>165.33</td>
</tr>
<tr>
<td>5</td>
<td>Bajrabarahi</td>
<td>14.99</td>
<td>4,874</td>
<td>325.15</td>
</tr>
<tr>
<td>6</td>
<td>Bajrabarahi</td>
<td>11.43</td>
<td>2,801</td>
<td>245.06</td>
</tr>
<tr>
<td>7</td>
<td>Agara</td>
<td>19.75</td>
<td>4,564</td>
<td>231.09</td>
</tr>
<tr>
<td>8</td>
<td>Agara</td>
<td>21.31</td>
<td>3,272</td>
<td>153.54</td>
</tr>
<tr>
<td>9</td>
<td>Chitlang</td>
<td>23.79</td>
<td>2,666</td>
<td>112.06</td>
</tr>
<tr>
<td>10</td>
<td>Chitlang</td>
<td>8.94</td>
<td>2,363</td>
<td>264.32</td>
</tr>
<tr>
<td>11</td>
<td>Tistung</td>
<td>16.28</td>
<td>3,836</td>
<td>235.63</td>
</tr>
<tr>
<td>12</td>
<td>Tistung</td>
<td>16.30</td>
<td>3,205</td>
<td>196.63</td>
</tr>
<tr>
<td>All municipality</td>
<td></td>
<td>191.21</td>
<td>41,623</td>
<td>217.68</td>
</tr>
</tbody>
</table>

Sources: CDNDoGM 2016/17 for area; CBS 2012 for population

Figure 4: Wards of Thaha Municipality, 2017
Source: CDNDoGM 2016/17
Table 3: Population of Thaha Municipality, 1991–2011

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Change in pop.</td>
<td>AAGR (%)</td>
</tr>
<tr>
<td>1991</td>
<td>37,968</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>42,230</td>
<td>4,262</td>
</tr>
<tr>
<td>2011</td>
<td>41,623</td>
<td>-607</td>
</tr>
</tbody>
</table>


Figure 5: Population growth and projections, 1991–2031 – Thaha Municipality

Table 4: Age-wise population – Thaha Municipality, 2011

<table>
<thead>
<tr>
<th>Age group</th>
<th>Total*</th>
<th>Share (%)</th>
<th>Males</th>
<th>Females</th>
<th>Sex ratio M:F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 14</td>
<td>14,075</td>
<td>33.82</td>
<td>7,078</td>
<td>6,997</td>
<td>101.16</td>
</tr>
<tr>
<td>15 to 59</td>
<td>23,554</td>
<td>56.59</td>
<td>10,704</td>
<td>12,850</td>
<td>83.30</td>
</tr>
<tr>
<td>60 or above</td>
<td>3,994</td>
<td>9.60</td>
<td>2,029</td>
<td>1,965</td>
<td>103.26</td>
</tr>
<tr>
<td>Total</td>
<td>41,623</td>
<td>100.00</td>
<td>19,811</td>
<td>21,812</td>
<td>90.83</td>
</tr>
</tbody>
</table>

Sources: CBS 2012

**Age** – In 2011, 56% of the municipality’s population were in the economically active age group (15–59 years), which is not a high proportion (Table 4). Job security is therefore of paramount importance to employ the relatively low proportion of economically active people. And there were more women than men (100 women: 83 men) highlighting the importance of providing employment for women.

**Caste and ethnicity** – It is important to know the caste and ethnic makeup of an area as different ethnic groups have different perceptions, stakes and interests. It is important that all groups are fairly represented and provided with opportunities under the principal of social inclusion. In 2011, almost half (47.2%) of the population were Tamangs, 20.1% were Newars and 19.3% were Chhetris. The Tamangs made up 93% of the population in the erstwhile Tistung VDC. Tamangs generally live in the less accessible and underserved hilly areas and many are socioeconomically disadvantaged.
Literacy – In 2011, about two-thirds of adults were literate with 76.7% of adult males but only 58.4% of adult females literate.

3.3 Land Use and Urban Growth Patterns
Thaha Municipality lies in a hilly region with mostly steep terrain. Settlements are mostly scattered across the municipality with a few clustered settlements such as Sikharkot in more accessible locations along the Tribhuvan Highway (Figure 6) and roads branching off it. The area of forest cover remained constant between 1994 and 2017 as per the 1994 land use and 2017 forest maps (Figures 7 and 8).

3.4 Market Centers
Shikharkot, Thana Bazaar, Bagekhola, Okhar Bazaar, Phant Bazaar and Khalte Bazaar are the major market places in the municipality.

3.5 Places of Attraction
Thaha Municipality is known for its climatic variation, biodiversity, fertile lands and tourist places. Simbhanjyang, Daman, Palung and Tistung offer beautiful landscapes. Daman is popular among domestic tourists to enjoy its winter snow and for the spectacular views along the Himalayan range as far as Mount Everest. Thaha also has important Hindu and Buddhist religious sites. The recent opening of the cable car up Chandragiri mountain in the north of the municipality provides easy access to the Chitlang Valley for tourists.
Figure 7: Land use map of Thaha Municipality, 1994
Source: DoS 1994

Figure 8: Forest map of Thaha Municipality, 2017
Source: DoFS 2017.
River – The main rivers in the municipality are the Shankhamul, Bhadratirtha, Triveni, Rikheshwor, and Gharti rivers. Some of these rivers are important culturally.

Forests – Forests covered about 65% of the municipality in 2017 (Figure 8). The municipality’s forests have many medicinal and other kinds of herbs including chiraito, lauth salla, eklevir, majitho, banmula, pakanved, and thulo okhati. Most of the area’s forests are managed by local communities.

4. Environment and Natural Resources
The main occupation of most households in is agriculture (70%) followed by tourism (10%), trade and business (10%) and foreign employment (5%). Vegetables worth about $10 million are exported annually from the area to markets across Nepal and as far afield as India. Thaha is famous for potato growing with much of each year’s crop bought by middlemen. Some farmers have started the commercial farming of kiwi fruits. In some areas urbanization and the resulting loss of farmlands is contributing to locals switching to non-farm occupations. Trade and business has yet to pick up momentum in the municipality.

The area has a number of hotels including large investments in new hotels. Easy accessibility from the Kathmandu Valley means that many of these hotels are fully booked at the weekends, showing the potential for further investments in hotels.
6. Infrastructure, Facilities and Basic Services

6.1 Housing
Houses are an important asset that indicate their owners’ economic status. The 2011 national census (CBS 2012) reported the following for Thaha Municipality:

- Ninety three percent of the 8,349 households resided in their own houses while 5% lived in rented accommodation. The proportion of people renting accommodation was highest in Daman (12.4%), which has a high concentration of economic activities.
- About 93% of households lived in houses with outer walls of mud-bonded bricks or stones. Five percent lived in houses with outer walls of cement bonded bricks or stones with the highest proportion being in the erstwhile Palung VDC (9.4%). About 95% of households lived in houses with foundations of mud bonded bricks or stone.
- Galvanized iron roofs were the most common roofing type (76.3% of households) followed by tile or slate roofs (12.6%). Bajrabarahi had the most houses with reinforced concrete roofs (9%) while Chitlang had the most houses with thatched roofs (8%).

6.2 Roads and Transportation
Thaha Municipality is easily accessible by motorable road from neighboring areas via the Tribhuvan Highway, which was Nepal’s first highway (built in the 1950s). This highway passes through 22km of the municipality. Other major roads include the:

- Daman–Deurali–Ghartikhola road
- Palung–Bajrabarahi road
- Shikharkot–Kitne Rupse– Furke–Kulekhani road
- Bajrabarahi–Saraswati bazaar–Budhichaur road
- Okhar bazaar–Indrenimai road.

The road network is yet to reach many rural settlements. The tourism potential of the municipality and the rise of commercial farming is creating more demands for the expansion of the road network.

6.3 Other Services
The following data is from the 2011 national census (CBS 2012):

**Drinking water** — In 2011, most household drinking water was received through pipes or taps (92%). The main water supply schemes were the Rikheshwor, Kalamd, and Papung schemes. Other sources were uncovered wells (3.6%) and spouts (2.8%). Chitlang (9.3%) and Daman (8.8%) were the areas that most depended on uncovered wells and spouts. Despite the large coverage of taps and piped water supplies a number of settlements at higher altitudes, particularly in Tistung and Agara, have inadequate water supplies.

**Cooking fuel** — In 2011, 89% of households in the municipality relied on firewood for cooking. Eight percent relied on liquefied petroleum gas (LPG) including 17% of households in Daman. Less than one percent of households (0.7%) used biogas including 2% of Chitlang households.

**Lighting** — In 2011, 83% of households used electricity, 12% kerosene and 4.5% solar power for lighting their homes. In Agara, only 35% of households had access to electricity from the National Grid and instead relied on kerosene (39.6%) and solar power (24.7%) showing the potential of solar power in areas not connected to the National Grid.

**Toilets** — Thaha, when still a VDC, was declared open defecation free in 2011. In 2011 41.5% of households in the municipality did not have their own toilets. Even in the tourist place of Daman, 36% of households were without toilets. Among the erstwhile VDCs, Tistung had the least toilets (61% without).

**Waste management** — The municipality office has been managing solid waste in a limited area. The limited development of the area means that solid waste is not yet a serious issue; but it will emerge as an issue in coming days. A landfill site has been proposed at Khanigaun, Kajavegairi.
6.4 Social Infrastructure

Schools — Thaha has one multiple campus, two higher secondary schools, four secondary schools, two lower secondary schools, 14 primary schools and four private schools. The prominent educational institutes in the municipality include Bajrabarahi Secondary School, Thahachok (public), Janakalyan Secondary School, Palung (public); Palung Multiple Campus, Palung (community); Shwachchanda Bhairab Secondary School, Chitlang (public). However, the municipality has an inadequate number of schools. Technical schools operate at Chitlang (forestry), Agara (civil engineering) and Daman (agriculture). Students mostly go to Kathmandu or Hetauda for higher studies.

Health centers — There is shortage of health facilities in the municipality with only one primary health center (Daman), and five health posts.
Local Level Governance Act - The basis for the functioning of local governments (municipalities and rural municipalities [gaunpalika]) were established by the promulgation of the Local Level Governance Act, 2017. The act, formulated in accordance with the Constitution of Nepal, 2015, grants local governments significant legislative, executive and judicial rights. The act gives local legislatures the power to formulate local laws in line with federal level legislation, while local judiciaries can decide cases related to irrigation, daily wages, pastures and other issues.

The act gives local governments the authority to manage teachers, staff and education up to the basic level (Grade 8) and to oversee basic health care. They can set up their own police forces, issue land ownership certificates, collect revenue on property, and register births, deaths and marriages. They can also levy taxes on house rent, entertainment, property and tourism.

Municipal vision and policies - After being declared a municipality in 2014, Thaha Municipality identified the need for agriculture, tourism and infrastructure development. The municipality has prepared rules and directives for staff, vital registration and homestay programs.

Major programs - Thaha Municipality is one of the 191 municipalities under the Local Governance and Community Development Programme (LGCDP) 2. Executed by the Ministry of Federal Affairs and General Administration (MoFAGA), LGCDP is a national program that empowers citizens to engage with local governments and increases the capacity of local governments to manage resources and deliver basic services in an inclusive and equitable way besides strengthening the institutional framework for decentralization, devolution and community development.
8. Municipal Institutions and Capacity

8.1 Organizational Setup
The previous VDC-wise setup has become redundant following state restructuring under the new federal system. The municipal office is located at Palung. The organizational structure of the municipal office consists of administration, accounts, planning and urban development, social development and revenue sections. The municipality’s website is at http://thahamun.gov.np/en

8.2 Technical and Physical Capacity
Thaha Municipality is housed in a recently constructed building, which it is planning to extend. The recent addition of three more VDCs to the municipality means that the available technical human resources are too few to carry out the growing workload. The municipal office has one civil engineer, one overseer and two sub-overseers.
9. Municipal Finances and Revenue

The municipality’s dependence on external sources of income has grown from 69% in FY 2015/16 to an estimated 93% in FY 2017/18 (Table 5). The greatly increased intergovernmental fiscal transfer has led to external income increasing by 4.8 times from $0.76 million in FY 2015/16 to $3.6 million in FY 2017/18. The share of capital expenditure (which implies investment on infrastructure) will decrease from 67.5% in 2016/17 to 52.5% in 2017/18 although the total budget will increase substantially.

Table 5: Thaha Municipality revenue and expenditure (FY 2014/15 – FY 2016/17)

<table>
<thead>
<tr>
<th>Particulars</th>
<th>FY 2015/16 (actual)</th>
<th>FY 2016/17 (revised)</th>
<th>FY 2017/18 (estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NPR</td>
<td>USD</td>
<td>% of total</td>
</tr>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Internal income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal revenue</td>
<td>10,354,190</td>
<td>100,526</td>
<td>13.25</td>
</tr>
<tr>
<td>Revenue distribution</td>
<td>1,890,420</td>
<td>18,354</td>
<td>2.42</td>
</tr>
<tr>
<td>Other income</td>
<td>12,244,613</td>
<td>118,880</td>
<td>15.67</td>
</tr>
<tr>
<td>Reserve fund</td>
<td>-</td>
<td>-</td>
<td>0.00</td>
</tr>
<tr>
<td>Total internal income</td>
<td>24,489,223</td>
<td>237,759</td>
<td>31.35</td>
</tr>
<tr>
<td>B. External</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intergovernmental fiscal transfer: Govt of Nepal</td>
<td>53,633,200</td>
<td>520,711</td>
<td>68.65</td>
</tr>
<tr>
<td>Sectoral agencies</td>
<td>-</td>
<td>-</td>
<td>0.00</td>
</tr>
<tr>
<td>Total external income</td>
<td>53,633,200</td>
<td>520,711</td>
<td>68.65</td>
</tr>
<tr>
<td><strong>TOTAL INCOME</strong></td>
<td>78,122,423</td>
<td>758,470</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>EXPENDITURE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Recurrent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>10,700,000</td>
<td>103,883</td>
<td>2.85</td>
</tr>
<tr>
<td>Government of Nepal</td>
<td>38,048,460</td>
<td>369,403</td>
<td>32.49</td>
</tr>
<tr>
<td>Total recurrent expend.</td>
<td>38,048,460</td>
<td>369,403</td>
<td>32.49</td>
</tr>
<tr>
<td>B. Capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>14,643,000</td>
<td>142,165</td>
<td>3.91</td>
</tr>
<tr>
<td>Govt of Nepal</td>
<td>182,176,000</td>
<td>1,768,699</td>
<td>48.61</td>
</tr>
<tr>
<td>Total capital expend.</td>
<td>196,819,000</td>
<td>1,910,864</td>
<td>52.51</td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
<td>117,106,712</td>
<td>1,136,958</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Thaha Municipality Income and Expenditure FY 2074/75. Note: 1 USD = NPR 103
10. Municipal Stakeholders and Groups

The main potential stakeholders for the implementation of the Green Municipal Development Program in Thaha Municipality are listed in Table 6. The business community will be instrumental in sharing project costs. The NGOs will play an important role in implementing social components while grassroot level community-based organizations (CBOs) will help mobilize local people.

Table 6: Potential GMDP stakeholders — Thaha Municipality

<table>
<thead>
<tr>
<th>Category</th>
<th>Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business community</td>
<td>Thahanagar Chamber of Commerce and Industries (about 500 members)</td>
</tr>
<tr>
<td>NGOs</td>
<td>RADO, Tourism and Environment Promotion Society, Uchha Shikhar Yuwa Club,</td>
</tr>
<tr>
<td></td>
<td>Nispaksha Youth Group, Tourism and Environment Promotion Society, Society</td>
</tr>
<tr>
<td></td>
<td>for Poverty Elimination and Community Empowerment, Naba Jagaran Paurakh</td>
</tr>
<tr>
<td></td>
<td>i Youth Club, Chhume Jhyachho Youth Club</td>
</tr>
<tr>
<td>Community-based organizations</td>
<td>Ward civic forums and women’s group</td>
</tr>
</tbody>
</table>

Source: Thaha Municipal Office and focus group discussions
PART 3: SECTORAL, POLICY AND PROJECT FINDINGS

11. Priority Sectors and Strategic Themes

Thaha Municipality is still predominantly rural, which leaves scope for the sustainable urban development of the area. Variations in topography, geographical features, and particularly climatic conditions make the area a popular destination for domestic tourists and a major vegetable producing area. However, increasing urbanization may undermine these attributes for unsustainable short-term economic gains such as sacrificing fertile lands for the construction of buildings for rent triggering haphazard residential development at the cost of agriculture. Likewise, investments in hotels will only have limited benefits for the local economy if locals are not employed and if the municipality fails to provide infrastructure and services and thus loses the moral ground to collect taxes.

To capitalize on its agricultural potential, the area needs to adopt more commercial farming, take smart decisions on what to grow where and establish market nodes and links. To harness its tourism potential, basic urban infrastructure and services need to be provided and the natural environment protected. It is also necessary to ensure that the fruits of development are proportionately distributed to the people in line with the spirit of socioeconomic inclusion.

Based on the above discussion points sustainable infrastructure development and the commercialization of agriculture for green growth were identified as having good potential for the area’s sustainable development.

11.1 Sustainable Infrastructure Development

Development through tourism – The haphazard construction of roads without proper alignment, design, and sympathy to environmental concerns is rampant across the country and Thaha Municipality is no exception. Building roads, particularly in difficult terrain, is expensive, and maintenance more so. Although roads are important for development, the scattered nature of settlements in the municipality raises the question of to what extent road accessibility should or can be provided.

On one hand, the cost implications and technical feasibility of expanding the road network in hilly terrain cannot be ignored. On the other hand, certain social groups (such as Tamangs) mostly live in upper more remote areas. One way of integrating them into mainstream development could be by promoting tourism through homestay, eco-tourism and agro-tourism with disadvantaged groups as local partners-cum-beneficiaries. Investments could go for improving footpaths, agricultural roads (green roads), water supply and sanitation facilities and energy sources in communities.

The homestay business is already thriving in Tistung and can be expanded to other areas, preferably in remoter underserved areas. The municipality office has prepared directives for the operation of homestay programs.

Water supply — Thaha Municipality has many natural springs that supply water to local settlements. These sources need to be protected for the sustainable supply of water. However, many springs are drying up and the 2015 earthquakes exacerbated this situation. Recent years have seen growing conflicts between communities over the use of water sources. It is the duty of Municipality Office to oversee the management of local water sources.

Waste management — Most future residential development is likely to occur along the river flood plains. Although new buildings will be built with septic tanks, there has been no planning for the ultimate disposal of fecal sludge. Without an alternative, it will most likely be disposed into rivers. However, there is scope for diverting household-level investments in favor of wastewater treatment plants and the subsequent recovery of energy and manure from the waste.

Settlement growth will result in the production of more solid waste. Transporting waste to faraway landfill sites is unsustainable. There is scope for the municipality to decrease the volume of solid waste by converting it into manure and energy and extracting recyclable materials. See examples of innovative waste water treatment and waste management practices in Box 3.
Box 3: Examples of good waste management practices from Nepal

Wastewater treatment – Nepal’s first large-scale community-based wastewater treatment plant and biogas reactor has recently been set up at Shreekhandapur in Dhulikhel Municipality. It treats the wastewater of 200 households and produces biogas for cooking for 60 families. Solid waste is separated and sent to two biogas reactors. Liquid waste is sent to reed bed treatment plants and the digested sludge can be used as compost fertilizer.

Waste into energy – Kathmandu Metropolitan City has launched a pilot project to convert waste into energy with a sample production of 14 KWs of electricity from a biomethanation plant at Teku, Kathmandu. The Alternative Energy Promotion Centre has also initiated large scale biogas projects including one in Bhairahawa with a capacity of 3,700 cubic meters that produces one large tanker of LPG per day. This conversion of waste to energy could be replicated in other parts of the country.

Energy – There is scope for biogas production from household, animal and agro-waste in rural areas of the municipality. In 2011, 89% of households used firewood for cooking. The use of biogas cuts dependency on firewood, contributes to waste management and produces manure for farming. Also, the municipality has plenty of space for establishing solar farms, which would reduce dependency on kerosene in settlements not connected to the National Grid.

11.2 Commercialization of agriculture for green growth
Thaha Municipality specializes in the production of vegetables including potatoes and the commercial farming of kiwi fruit has started. It can, however, be challenging to secure markets and reasonable prices for produce to make agriculture a part of sustainable urbanization. High levels of production mean that potato farmers often do not get a good price for their crops with potatoes ending up in markets at up to ten times the price farmers receive. Building cold stores would enhance the bargaining power of farmers by enabling them to sell their crops outside the main seasons.

Growing urbanization will increase demand for local produce including milk and meat. Thaha can meet local needs and export its produce to neighboring markets by strengthening market linkages and infrastructure.
Thaha Municipality needs to invest in soft initiatives such as plans and policies, as well as hard initiatives such as projects to foster the area’s development. The municipality is preparing several municipal plans. These initiatives are an opportunity to integrate the green growth concept and principles into the area’s planned development. The municipality needs to prepare the plans and byelaws listed in Table 7 to underpin and regulate its development.

Technical and logistic support to municipal staff – As a new municipality with limited human resources, Thaha Municipality needs technical and logistic support. Currently the municipal office operates with one civil engineer and one environmental engineer for regular municipal tasks. Given the rapid urban growth in the municipality, the workload is far greater than the available technical human resources can carry out. The technical and logistic support needed by the municipality, which could be provided under GMDP, at least in the short run, is as follows:

- **Supplementary technical human resources**: Although the municipal office plans to create additional positions for technical human resources, external support in the form of short or mid-term engineering or planning staff would go a long way to build the municipality’s capacity for sustainable urbanization based on green growth principles. As engineers are not usually trained to address urbanization issues, the municipality’s technical team should have an urban planner.

- **Trainings and exposure visits for the mayoral team on urban management**: The mayor and other elected representatives are not necessarily skilled as managers but need managerial skills to carry out their jobs. They also need to keep updated about current urban challenges and practices to be able to address them. Likewise, the municipality’s chief administrative officer (formerly executive officers) have important roles as they are advisors to the mayor, and as urban area managers.

- **Trainings and exposure visits for municipal staff**: Municipal staff need to update their skills and knowledge from time to time to learn about ways to address emerging issues – particularly about sustainable urbanization and green growth.

- **ICT support**: Improved service delivery through information and communication technology (ICT)-based applications including interconnectivity between municipal office and ward offices would promote time-saving and environment-friendly ways of doing business and managing urban areas. An IT-based platform could be created whereby municipal officials could respond to problems posted online or reported through mobile apps by residents.
Table 7: Municipal plans and policies needed by Thaha Municipality

<table>
<thead>
<tr>
<th>Plans</th>
<th>Objectives</th>
<th>Components</th>
</tr>
</thead>
</table>
| (1) Comprehensive town development plan                             | To realize the municipal vision and priorities by promoting infrastructure development that proceeds with green growth potentials and concerns, and to promote planned urbanization. | a. Baseline mapping  
b. Twenty-year perspective plan guided by structural land use plan considering the trend of urban growth and land use change  
c. A Multi-sector Investment Plan of short to mid-term infrastructure and socio-economic projects (5–7 years)  
d. Measures to integrate the following companion plans that will be prepared separately:  
   i. Risk sensitive land use plan  
   ii. Municipal transport master plan  
   iii. Tourism master plan  
   iv. Environment preservation master plan including natural resource management plan  
   v. Municipal finance plan |
| (2) Risk sensitive land use plan                                     | To ensure safe housing while promoting local architecture; to ensure safety from floods, landslides, and climatic risks; and to prevent river pollution | a. Multi-hazard risk assessment (including climate risks) and zoning  
b. Slope and watershed analysis  
c. Byelaws on setbacks from rivers and streams |
| (3) Building byelaws                                                 | To control population density, ensure space for mobility, and preserve traditional architecture | a. Setback, ground coverage, height, and floor area ratio  
b. Guidelines for buildings in traditional settlements of Lubhu and Siddhipur |
| (4) Municipal transport master plan                                  | To ensure efficient and effective mobility within the municipality and to and from neighboring areas | a. Twenty-year road construction and connectivity plan  
b. Integrated land use  
c. Transport options  
d. Traffic management including road safety  
e. Parking management |
| (5) Tourism master plan                                              | To harness the municipality’s tourism potential, attract private investment and address poverty in underserved areas (e.g., through homestay programs) | a. List potential investment projects  
b. Identify sites, activities and costs for homestay programs, ecotourism and other community-based tourism programs  
c. Map tourism potential areas and activities  
d. Market and promote the area’s tourist attractions |
| (6) Environment protection master plan including natural resource management plan | To protect environmentally sensitive areas and promote environment-friendly practices | a. An inventory of natural resources including forests and public lands  
b. An inventory of flora and fauna  
c. Mapping of environmentally sensitive areas  
d. The zoning of natural resources and land  
e. The management of river mining  
f. Solid waste management  
g. Landslide and soil erosion prevention and reduction  
h. The prevention of air, water, soil and noise pollution  
i. The management of urban parks and recreational areas and activities |
| (7) Municipal finance plan                                            | To improve and increase revenue collection, explore new avenues for revenue generation and optimize investment and expenditures ensuring value for money | a. Long-term planning and budgeting  
b. Review tax rates and service fees  
c. Identify revenue sources  
d. A procurement plan  
e. Asset management  
f. A GIS-based information system documenting firms, businesses and other tax paying entities in the municipality  
g. A GIS-based land information system (with data on land ownership, area, plot number and size, land price and location) |
13. Ideas for Projects

The Green Municipal Development Program is identifying potential infrastructure projects for prioritization and support based on their economic, social and environmental worth. In discussions with local stakeholders the project identified 11 types of projects that would benefit the municipality (see Annex 4). Further discussions with local stakeholders identified the following seven projects as the ones with the greatest potential.

Project 1. Water supply and sanitation schemes in tourism pocket areas

Description: The municipality’s large tourism potential can be harnessed to bring unserved or underserved areas into mainstream development by creating economic opportunities and by improving the provision of services. Tourism activities can be integrated with the provision of basic services (e.g., water supply and sanitation) through programs such as homestays, ecotourism, and agro-tourism in targeted locations and communities. Linking tourism-promotion with water supply and sanitation improvements and the development of entrepreneurship skills will improve living standards and attitudes. A pilot project could be launched in Tistung and Palung, which are famous for landscape viewing. The municipality office has already formulated directives for homestay programs.

Objective: Improve water supply and sanitation status in potential tourism areas.

Activities
1. Promote homestay programs, eco-tourism, and agro-tourism in appropriate areas focusing on marginalized communities and areas and run awareness programs on hospitality and sanitation.
2. The preservation of local water supply sources and establishment of small-scale water supply schemes.
3. Promote rainwater harvesting.
5. Develop trekking routes.
6. Promote educational tours and eco-heritage walks.
7. Promote local products (food, souvenirs) by mobilizing women and marginalized groups.
8. Mobilize local youth for tourism-promoting activities and entrepreneurship.

Project 2. The commercialization of agriculture

Description: The municipality is known for its production of vegetables, rainbow trout and jalkapur fish. These products can be consumed in local markets and supplied to neighboring urban centers. New markets or consumer bases should be identified and developed.

Objective: Increase the commercial viability of agriculture and develop markets for local produce.

Activities
1. Identify pocket areas for crops as per climatic conditions.
2. Expand irrigation facilities through improved water management (e.g., by building retention ponds).
3. Establish cold storage facilities for milk and other products.
5. Establish markets (physical structures) in each ward
6. Train farmers and agro-entrepreneurs on agricultural business operations.
7. Develop a brand for local agro-products.
8. Run business development and promotion activities.

Project 3. Solar farming

Description: Thaha Municipality has many suitable locations that receive plenty of sunlight throughout the year for solar farming. This would provide electricity for areas not served by the National Grid with the surplus sold to the National Grid to generate revenue for the municipality, grid, while excess power could be sold to the national grid.

Objective: Produce power from solar farming to serve areas unserved by the National Grid and to generate revenue by selling the surplus.
Activities
1. Install solar farms (photovoltaic power stations) at appropriate sites.
2. Install subsidized solar panels in households in areas unserved by the national grid.

Project 4: Integrated water resource management
Description: Many natural water sources in the municipality are drying up and the 2015 earthquakes damaged many of them. The remaining sources need to be protected for the sustainable provision of drinking water through integrated water resource management in partnership with local communities. Communities need to be involved to address the rising number of conflicts on the use of water sources.

Objective: Manage water resources for the sustainable supply of drinking water across the municipality while reducing water conflicts between communities.

Activities
- Protect water sources such as springs and wells
- Build water retention ponds
- Harvest rainwater
- Train and support communities on protecting water sources and their sustainable use in partnership with water user groups.

Project 5: Integrated solid waste management
Description: The flat lands along river banks are beginning to urbanize implying an increase in solid waste. Transporting waste to faraway landfill sites is not sustainable. The need is to decrease the volume by converting waste into manure and energy alongside the extraction of recyclable materials.

Objective: Manage solid waste in a sustainable and environment-friendly way while turning it into resources.

Activities
- Build a recycling center with a material recovery facility
- Build a composting plant to produce organic manure
- Establish a waste collection system that collects and processes different kinds of waste separately
- Support waste separation at source
- Run awareness campaigns through NGOs on household solid waste management
- Train and support farmers on the use of organic manure.

Project 6: The Integrated management of waste water
Description: With increasing urbanization, the management of waste water is becoming a thorny issue. Presently, septic tanks are the only active component of fecal sludge management and only in the more urbanized areas. Encouraging the large-scale adoption of on-site treatment systems, such as septic tanks, would relieve pressure on future centralized wastewater treatment systems, and would lower associated construction costs including the cost of large-scale sewer systems. Septic tanks are funded by house owners at no cost to municipalities. However, it is difficult to achieve economies of scale when building individual septic tanks in households. And most septic tanks are not properly designed or constructed. The best way is to opt for both short-run (e.g. septic tanks) and long-run solutions (wastewater treatment plants). There is the need for a wastewater treatment plant that would also produce biogas and compost fertilizer, as is happening in a plant in Dhulikhel near Kathmandu (Box 3).

Objective: Manage fecal sludge at household and municipality level in an environmentally-friendly and integrated way.

Activities
1. Build a wastewater treatment plant with a biogas reactor at a suitable location in the municipality.
2. Provide technical support for the design and construction of septic tanks via a help-desk in the municipal office.
3. Run awareness programs on the design and construction of septic tanks.

Project 7: Riverside parks
Description: The rivers and groundwater in Thaha Municipality are drying up due to excessive extraction of water. Residential development on the flat lands along river banks will aggravate the situation as more water will be extracted and the open areas for groundwater recharge will decrease. The development of riverside parks would save rivers from encroachment, enable the recharging of groundwater, absorb storm water and provide recreational spaces.

Objective: Develop riverside parks as green infrastructure to recharge groundwater and manage storm water.

Activities
- Build riverside parks with footpaths
- Build retention ponds to catch excess river flow and rainwater
- Integration of waste water treatment plant
- Run awareness programs on river ecology in partnership with environmental groups.
14. Conclusions

This report presents a situation analysis of Thaha Municipality based on secondary information and discussions with the mayoral team and other stakeholders. Five potential projects have been identified building on discussions and consultations with the mayoral team. Additional inputs came from discussions with local stakeholders that helped explore and understand additional dimensions to make the project concepts more socioeconomically attractive and environmentally responsible. A list of recommendations was also prepared on planning and policy making.
References


Annex 1 – Research Questions

Note: Green growth is defined as a model of economic growth that targets key aspects of economic performance including poverty reduction, job creation, social inclusion and environmental sustainability.

Annex 1.1 Meeting with the mayor and his or her team
1. You lead a new municipality. What is your vision for the municipality, and the priorities for your tenure? What are the technical (e.g., staff) and physical barriers (e.g., office space) faced by your office?
2. In terms of infrastructure development, how do you evaluate the status of the municipality? Where do your priorities lie and why?
3. Although infrastructure development generally tops the list of municipal priorities (and this is because the majority of public demands are related to infrastructure), there are now equally important concerns about economic development, social inclusion and environmental sustainability.
   3.1 What are the economic potentials in the municipality, and to what extent have these been harnessed? What are the challenges?
   3.2 Socially and economically diverse groups live in the municipality. How does such diversity reflect in terms of public demands you receive, and how do you (plan to) ensure social inclusion in the planning and delivery of municipal services?
   3.3 Infrastructure development often takes place at the cost of environmental losses. To what extent have you been successful in balancing the use of natural resources while implementing infrastructure projects? What are the key challenges?
4. The Green Municipality Development Program (GMDP) aims to promote green growth. How would you define the scope of GMDP in this municipality? What should be the priority projects?
5. Would you share your top 5 project ideas for your tenure in terms of priority? Why are these the priorities?

Annex 1.2 Focus group discussion with business community/private sector
1. Please explain your work and engagement in this municipality.
2. What are the business and economic opportunities you see in the municipality? What are the challenges or barriers?
3. What are the opportunities for public-private partnerships, and what has been the response of the municipality and government agencies to the possibility of partnering with your organization?
4. There are limited examples where the private sector works on green growth. How do you plan to change this? What related support do you expect from the municipality?
5. What are your key projects and initiatives for the next 5 years with or without collaboration with the municipalities?
6. The Green Municipality Development Program (GMDP) promotes green growth. How would you define the scope of the program in this municipality? What should be priority projects?

Annex 1.3: Focus group discussion with NGO and CBO leaders
1. Please explain your work and engagement in this municipality.
2. What are the major social development gaps in this municipality? What were some past initiatives to address them, and to what extent were they successful?
3. Do you think the existing (infrastructure) projects have helped to reduce social disparities (including economic disparities)? Please give examples of successful projects as well as failures.
4. How do you judge the role of the municipality in promoting social inclusion in the municipality? What do you expect from the municipality?
5. What are your key projects and initiatives for the next 5 years with or without collaboration with the municipalities?
6. The Green Municipality Development Program (GMDP) promotes green growth. How would you define the scope of GMDP in this municipality from the perspective of working with the NGO and CBO sector? What should be priority projects?

Annex 1.4 Focus group discussion with environmental organizations and activists
1. Please explain your work and engagement in this municipality.
2. What are the major environmental problems and issues in this municipality? What are the past initiatives to address them, and to what extent have these been successful?
3. Do you think that existing infrastructure projects have been effective in taking care of the environment? Can you give examples of successful projects as well as failures?
4. How do you judge the role of the municipality in promoting environmental sustainability in the municipality? What related support for this do you expect from the municipality?
5. What are your key projects and initiatives for the next 5 years with or without collaboration with the municipalities?
6. Have any of your environment concerns been mainstreamed into the municipality’s planning? Where do you see the opportunities to do this?
7. The Green Municipality Development Program (GMDP) promotes green growth. How would you define the scope of GMDP in this municipality from the perspective of working with environmental organizations and communities in this municipality? What should be priority projects?
Annex 2 – Minutes of Meetings with Mayoral Team (12 November 2017)
Annex 3 – Participants in Focus Group Discussions (12 November 2017)

### Green Municipal Development Program

**FGD with Business Community/Private Sector**

**Venue:** Thaha Municipality

**Date:** 12 November 2017

<table>
<thead>
<tr>
<th>SN.</th>
<th>Name of the Participants</th>
<th>Designation</th>
<th>Organizations/Firms</th>
<th>Phone No.</th>
<th>Email address</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pradip Kumar Dixit</td>
<td>Thaha Nagar</td>
<td>TNCC</td>
<td>9855024012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Narayan Pradhan</td>
<td>Thaha Nagar</td>
<td>TNCC</td>
<td>9848029028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Manoj Bhandari</td>
<td>Thaha-7</td>
<td>CEEI (Nepal)</td>
<td>9855023223</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Suresh Rawal</td>
<td>Thaha-2</td>
<td>TNCC</td>
<td>9855026028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Antal Pradhan</td>
<td>Thaha-1</td>
<td></td>
<td>9855022220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Anita Bista</td>
<td>Thaha-4</td>
<td></td>
<td>9820228793</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Green Municipal Development Program

**FGD with NGOICBO Leaders and Environmental Organizations/Activists**

**Venue:** Thaha Municipality

**Date:** Nov 22, 2017

<table>
<thead>
<tr>
<th>SN.</th>
<th>Name of the Participants</th>
<th>Designation</th>
<th>Organizations/Firms</th>
<th>Phone No.</th>
<th>Email address</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manoj Jamsav Kheted</td>
<td>Engineer</td>
<td>RADO-Nepal</td>
<td>9845213243</td>
<td>Manojjamsavkheted@nepal</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Soma pull Shah</td>
<td>Engineer</td>
<td>RADO-Nepal</td>
<td>9845200321</td>
<td><a href="mailto:shassomapulla@gmail.com">shassomapulla@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Rabinder Niraula</td>
<td>Engineer</td>
<td>RADO - Nepal</td>
<td>9845999974</td>
<td><a href="mailto:skiranil@gmail.com">skiranil@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Prabakar Giri</td>
<td>Reporting Officer</td>
<td>RADO - Nepal</td>
<td>9849555434</td>
<td><a href="mailto:prabakargiri@gmail.com">prabakargiri@gmail.com</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Water supply schemes</td>
</tr>
<tr>
<td>2. Tourism promotion</td>
</tr>
<tr>
<td>3. Commercial vegetable farming</td>
</tr>
<tr>
<td>4. Cold storage</td>
</tr>
<tr>
<td>5. Irrigation</td>
</tr>
<tr>
<td>6. Watershed management</td>
</tr>
<tr>
<td>7. Improve the Chitlang–Chandragiri road</td>
</tr>
<tr>
<td>8. Build view towers at Chitlang, Kotthumki and other places</td>
</tr>
<tr>
<td>9. River training</td>
</tr>
<tr>
<td>10. Green parks on river banks</td>
</tr>
<tr>
<td>11. Solid waste management</td>
</tr>
</tbody>
</table>
This report is one of a set of seven situation analyses of the Nepalese municipalities of Belkotgadhi, Dakshinkali, Mahalaxmi, Melamchi, Namobuddha, Palungtar and Thaha.

All seven reports are available at www.gggi.org/country/nepal/