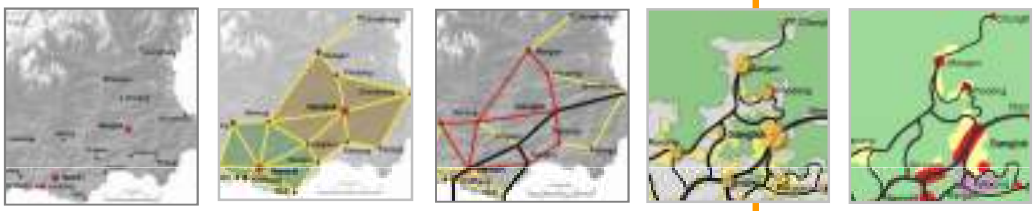
# 3.0 State Strategic Concepts

3.1 Identification of Significant Towns
3.2 Urban Population Distribution
3.3 Urban Land Requirement
3.4 Urban Linkages
3.5 Tourism Development



# 3.1 Identification of Significant Towns

While there are only 8 urban centers across Sikkim at present, 8 other potential areas can be identified as prospective urban centers in future due to their individual significant functions. These 16 towns (see Figure 3.1.1) across the 4 districts will form the township framework within Sikkim for distribution of the projected urban population.

### East District Planning Area

[Growth Driver : State Capital, Tourism & Urban Amenities : Education, Health, Cultural facilities, Administrative Center]

- Gangtok Urban-Area: "State Capital with the highest level of Urban Amenities" to reinforce its current status as the State Capital
- Singtam Sub-Area: "State Trade Center" due to its strategic location along NH31A and presence of established industries
- Rangpo Sub-Area: "Fringe Center" which is self-contained since it is a 'welcoming town' and all travelers to Sikkim will have to pass through the area; "Institutional Development-University Town" to capitalize on the existing Engineering and Medical Colleges facilities
- Sherathang Sub-Area: "Border Trade Center" due to its proximity to the Nathu La Pass, China and Bhutan
- Pakyong Sub-Area: "Transport Hub" to create a multi-nodal transport system comprising the new State airport, railway and highway transit
- Rongli Sub-Area: "Local Trade Centre" to cater to the population in the far south of the East District

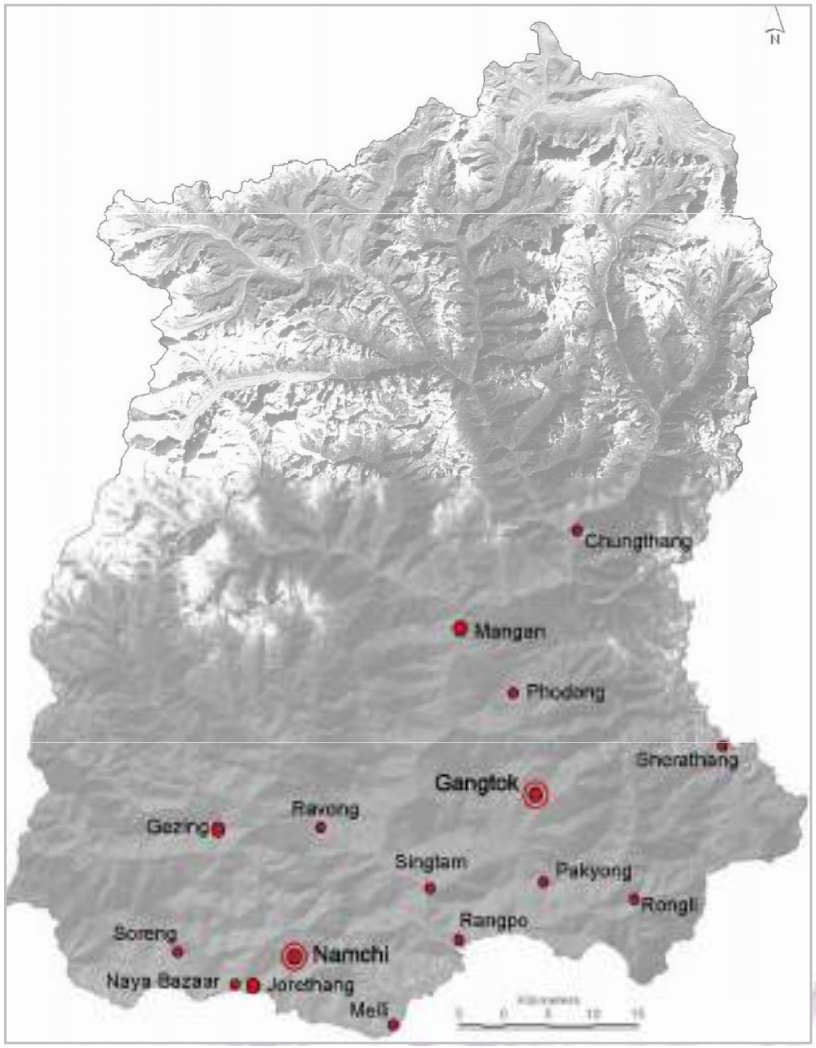



Figure 3.1.1 Proposed 16 Urban Centers for State Strategic Plan – Inclusive of 8 Established Towns and 8 Additional Towns

# 3.1 Identification of Significant Towns

South District Planning Area

[Growth Driver : Industrial Development, Administrative Center]

- Namchi Urban-Area: 2nd "Administrative Center" supporting Gangtok as a sub-Capital
- Jorethang Sub-Area: "Interstate Trade Center" due to its proximity to West Bengal
- Ravong Sub-Area: "Tourism Development Zone" to capitalize on the attractions in the area
- Melli Sub-Area: "Fringe Center" which is self-contained since it is seen as the face of Sikkim to welcome arrivals of visitors to Sikkim; potential to be another "Interstate Trade Center" due to its proximity to West Bengal

West District Planning Area

[Growth Driver : Geyzing – Pelling Tourism ]

- Geyzing Urban-Area: "Tourism Development Zone" to capitalize on the attractions in the area
- Nayabazaar Sub-Area: "Interstate Trade Center" due to its close proximity to West Bengal
- Soreng Sub-Area: "Local Trade Center" to cater to the population in the south part of West District

North District Planning Area

[Growth Driver : Hydel Projects, Tourism Development ]

- Mangan Urban-Area: "Northern Service Center, Hydro Electric Projects" to capitalize the possible hydro power generated along Tista River
- Phodong Sub-Area: "Tourism Development Zone" to capitalize on the attractions in the area
- Chungthang Sub-Area: "Tourism Development Zone" to capitalize on the attractions in the area

# 3.2 Urban Population Distribution

## A Re-structure

### Multiple Nuclei Structure

| | 2006 | 2015 | 2025 | 2040 |
|---|---|---|---|---|
| **State Population** | 581546 | 660000 | 790000 | 1100000 |

As stated in preceding Section 1.5, the projected population for State of Sikkim by Year 2040 is about 1.1 million persons. This long-term target is further extrapolated to align with the proposed staging plans of short-term (2015), medium-term (2025) and long-term (2040), as shown in the above table. Using the moderated Multiple Nuclei Structure, population distribution in each town across the State can be estimated accordingly.

With the re-calibrated population sizes for different towns, the hierarchy of the 16 towns can be restructured based on a 3-class system as defined in the Indian Constitutional Classification of Municipalities (see Table 3.2.1 below).

Table 3.2.1 Indian Constitutional Classification of Municipalities

| Large Urban Area | Smaller Urban Area | Transitional Area |
|---|---|---|
| >3,00,000 | Class A<br>150,000 – 300,000 | <25,000 |
| | Class B<br>75,000 – 150,000 | |
| | Class C<br>25,000 – 75,000 | |

Table 3.2.2 Proposed Township Hierarchy for the 16 Urban Centers

| Township Hierarchy | | |
|---|---|---|
| **Tier 1**<br>**( 75000 - 150000)** | **Tier 2**<br>**( 25000- 75000)** | **Tier 3**<br>**( < 25000)** |
| Gangtok | Geyzing | Singtam |
| Namchi | Mangan | Ranpo |
| | | Pakyong |
| | | Jorethang |
| | | Ravong |
| | | Melli |
| | | Sherathang |
| | | Rongli |
| | | Nayabazaar |
| | | Soreng |
| | | Phodong |
| | | Chungthang |

The new hierarchy, as in Table 3.2.2 above, has applied the 3-class system concept to the the Multiple Nuclei Structure with some moderations in the population scales in Sikkim's context. The hierarchy places Gangtok and Namchi as the 1st Tier Town to stress upon their importance as core towns. It is then followed by the 2nd Tier for Geyzing and Mangan. The remaining 11 towns fall under the 3rd Tier Category.

# 3.2 Urban Population Distribution

Table 3.2.3 below shows the proposed distribution of urban population across the 16 towns. As highlighted earlier, urban population is assumed to hit 50% of the overall State population in the long-term from the current 25%. An interval of 5% gradual increment is assumed over the short-term and medium-term.

Table 3.2.3 Projected Urban Population Distribution by 2015, 2025 and 2040

| | 2015 | % share | 2025 | % share | 2040 | % share |
|---|---|---|---|---|---|---|
| **Urban Population** | **264000** | **40%** | **355500** | **45%** | **550000** | **50%** |
| | | | | | | |
| **East district*** | **184800** | **70%** | **213300** | **60%** | **247500** | **45%** |
| Gangtok | 138600 | 75% | 149310 | 70% | 160875 | 65% |
| Singtam | 14784 | 8% | 17064 | 8% | 22275 | 9% |
| Rangpo | 14784 | 8% | 17064 | 8% | 22275 | 9% |
| Pakyong | 9240 | 5% | 17064 | 8% | 22275 | 9% |
| Sherathang | 3696 | 2% | 6399 | 3% | 12375 | 5% |
| Rongli | 3696 | 2% | 6399 | 3% | 7425 | 3% |
| **West District** | **13200** | **5%** | **21330** | **6.0%** | **55000** | **10%** |
| Geyzing - Pelling | 7920 | 60% | 12798 | 60% | 35750 | 65% |
| Nayabazaar | 3960 | 30% | 6399 | 30% | 13750 | 25% |
| Soreng | 1320 | 10% | 2133 | 10% | 5500 | 10% |
| **North District** | **13200** | **5%** | **21330** | **6.0%** | **55000** | **10%** |
| Mangan | 7920 | 60% | 12798 | 60% | 35750 | 65% |
| Phodong | 3960 | 30% | 6399 | 30% | 13750 | 25% |
| Chungthang | 1320 | 10% | 2133 | 10% | 5500 | 10% |
| **South District** | **52800** | **20%** | **99540** | **28%** | **192500** | **35%** |
| Namchi | 31680 | 60% | 64701 | 65% | 134750 | 70% |
| Jorethang | 10560 | 20% | 14931 | 15% | 23100 | 12% |
| Ravong | 5280 | 10% | 9954 | 10% | 17325 | 9% |
| Melli | 5280 | 10% | 9954 | 10% | 17325 | 9% |

# 3.3 Urban Land Requirement

| | Current | 2015 | 2025 | 2040 |
|---|---|---|---|---|
| **Urban Land Area** |  |  |  |  |

Increasing urban population will require a larger urban area equipped with all the basic urban infrastructure and amenities. Hence, it is essential to address the demand for additional developable land.

Given our analysis and evaluation of the current urban land profile and constraints in Section 1.3, developable urban land across the State can be scoped. With the estimated population for each of the key towns in Section 3.2 and related assumption on the development density, urban land requirement for short-term, medium-term, and long-term can be determined.

In addition to the population factor determining urban land requirement, the existing fabric of towns and their potential functions will add an extra dimension to the land requirement. For instance, operation of Nathu La Pass is likely to require a larger trade zone at the border for greater cross-border trade activities. The present Sherathang Bazaar could be developed into a prime Commercial/ Trade Zone, besides the current industrial towns of Rangpo, Singtam and Jorethang.

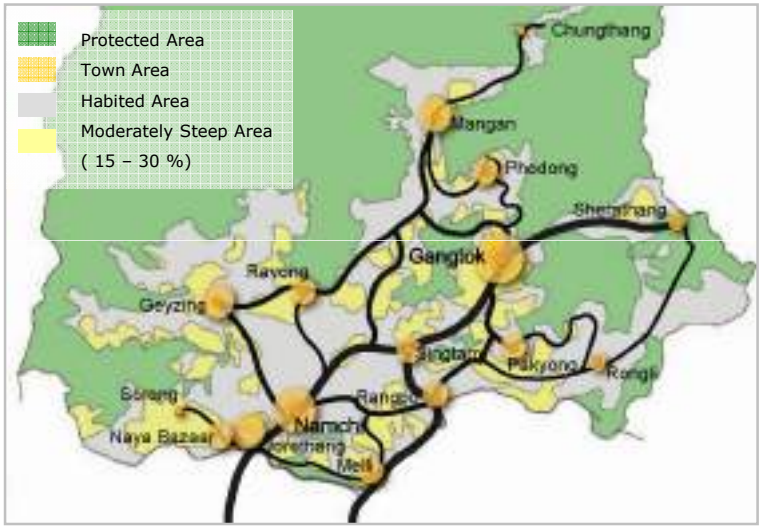
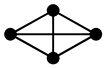
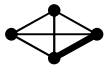



Figure 3.3.1 Potential Development Zones


Figure 3.3.2 Potential Activity Zones

# 3.4 Urban Linkages

## Principles for Road Connections & Hierarchy Planning

| | Current | 2015 | 2025 | 2040 |
|---|---|---|---|---|
| **Connections** |  |  |  |  |

It is important that the re-defined township hierarchy has to be supported by an effective and efficient structure of transportation system. As illustrated in next two pages (Figures 3.4.3 to 3.4.7), the existing transport connections are the skeleton of the overall road structure. Road enhancement schemes in the forms of localized upgrading and/or re-routing to reduce traveling time between towns will be the planning focus. They are explored with considerations of the recommended township hierarchy as well as the current road linkages between the significant towns.


Figure 3.4.1 Spread of Urban Area

Based on the stated general principles a conceptual structure of the road network is developed for linkages between the significant towns in Figure 3.4.2 below. As seen in the plans, the boundaries of urban area spread in tandem with the desired road connections between towns. To give a complete picture, external linkages (e.g. inter-state connections) are included in this planning. For example, the NH31A could be extended from its current route to form a loop connecting Darjeeling-Naya Bazaar-Namchi-Singtam.

In addition, a road hierarchy will be established according to the expected frequency of usage of a particular route by commuters which in turn is assessed by the significance of the route fitting into the township hierarchy.

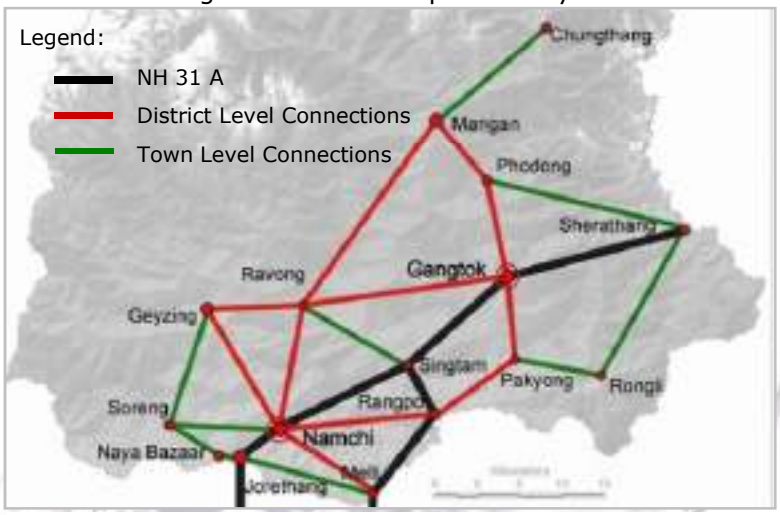



Figure 3.4.2 Conceptual structure of Connections between significant towns

# 3.4 Urban Linkages

## Development of Concept for Road Connections & Hierarchy

To facilitate an outline of the overall road structure enabling efficacy of traveling by roads, the shortest existing physical road connections (assumed equally with the shortest traveling time) between towns are first ascertained as an underlying planning factor because existing roads should be made good use of wherever possible (see Figures 3.4.3 and 3.4.4 below).

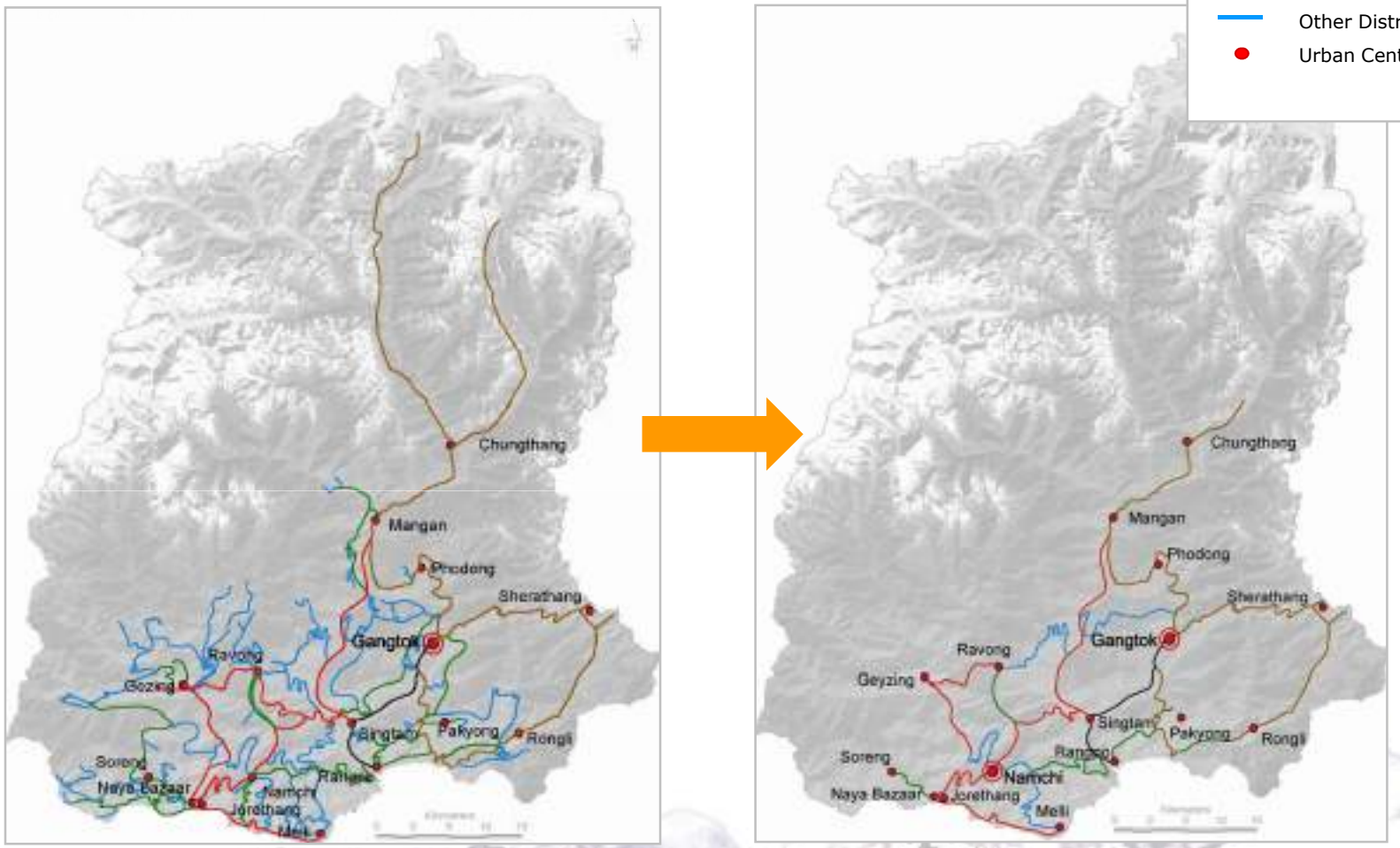



Figure 3.4.3 Existing Road Networks

Figure 3.4.4 Shortest Existing Road Connections

# 3.4 Urban Linkages

## Development of Concept for Road Connections & Hierarchy

Upon identification of the shortest road connections between the significant towns, it is measured against the conceptual structure of road network between the significant towns under the adopted township hierarchy. The result of a road hierarchy in Sikkim hence emerges in Figure 3.4.7.

Key emphasis is placed upon the linkage between two 1st Tier towns , Gangtok and Namchi, by upgrading it to be the national highway to Darjeeling. Other State highways (represented in red lines) are proposed between the four district capitals.

Legend:

- NH 31 A
- Boarder Roads
- State Highway
- Major District Roads
- Other District Roads
- Urban Center
- Dual 2 @ Lane 3.75m
- Dual 1 @ Lane 3.75m
- Dual 1 @ Lane 3m


Figure 3.4.5 Shortest Existing Road Connections

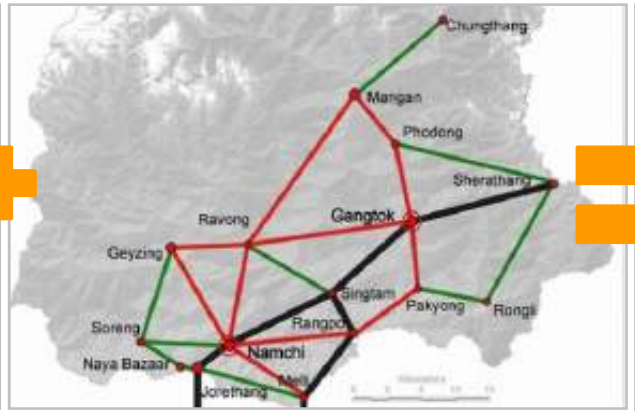



Figure 3.4.6 Conceptual structure of Connections between significant towns


Figure 3.4.7 Proposed Hierarchy for Road Connections

# 3.4 Urban Linkages

## Specific Road Schemes

- Based on the Multiple Nuclei Township Structure in which Gangtok and Namchi are proposed to be the core 1st Tier towns in Sikkim, a direct road linkage is important to connect the 2 major nodes and hence a dual-2 national highway is proposed as a high volume of traffic between these 2 main centers is anticipated. (see Figure 3.4.9). It will connect with the existing N31A highway to from a loop road.

- However, the topographical constraints offering very limited space may cause implementation of a dual-2 road difficult. Since Roads & Bridges Department reveals that there has been a confirmed proposal to build a new highway from Rangpo to Gangtok parallel to the existing N31A Highway but on the other side of the river, this will give an expanded traffic carrying capacity as good as a dual-2 road (see Figure 3.4.11). Only connecting bridges at selective locations will be sufficient.

- In support of this spine road, a ring road system through improvements to the existing road condition is proposed to enhance connections between Gangtok, Namchi and other adjacent towns (red lines in Figure 3.4.8). The road improvements consisting of road straightening and widening and elevated viaducts for selective segments will facilitate comfortable travel at higher speed and hence reduction of travel time (Figures 3.4.10 and 3.4.12)

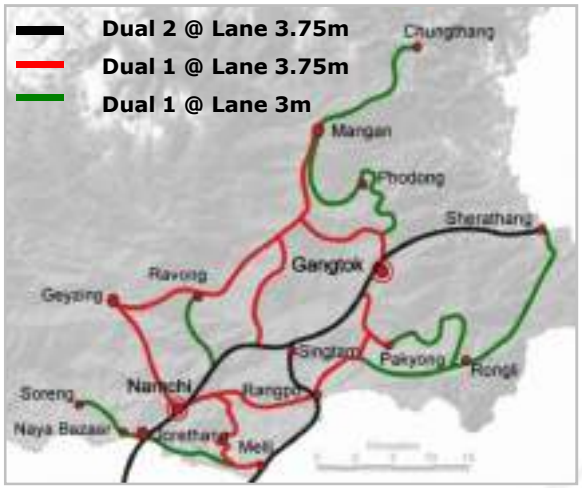



Figure 3.4.8 Proposed Hierarchy for Road Connections

Figure 3.4.9 Proposed dual-2 road to be constructed

Figure 3.4.10 Proposed dual-1 road (3.75m) to be constructed

Figure 3.4.11 Proposed dual-2 road to be implemented

Figure 3.4.12 Proposed dual-1 road (3.75m) to be constructed

Figure 3.4.13 Proposed dual-1 road (3m) to be constructed

# 3.4 Urban Linkages

## Possible Rail Schemes

- As there is no rail available within the State of Sikkim, passenger and cargo transportations rely heavily on roads. The planning strategy is to introduce a comprehensive rail system, despite the harsh physical terrain, as rail services will greatly improve travel time between towns.

- The overall rail network proposal stresses upon creation of a main State Rail trunk service (red dotted-line in Figure 3.4.14, Figure 3.4.15) connecting the future trade nodes at Nathu La, Gangtok, Pakyong (new airport), Namchi, and then West Bengal.

- The interchange at Pakyong will further allow inter-modal transfer for both passengers and cargoes. This rail link (Figure 3.4.17) is strategically significant because it will enable fast physical connectivity between towns and trade/business activity spots in support of economic development in Sikkim.

- A further District Rail sub-system in ring pattern (blue dotted-line in Figure 3.4.14) is added to connect other urban centers and towns to enhance inter-town accessibility. A separate technical feasibility study will be needed to identify the suitable type of subsystem such as Light Rail Transit or Monorail (see Figure 3.4.16).

Figure 3.4.15 State Rail

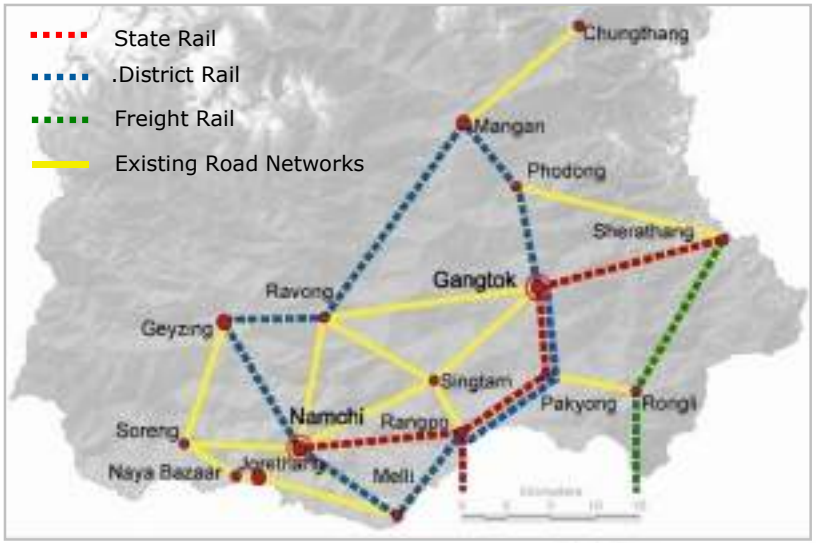



Figure 3.4.14 Proposed Rail Linkages

Figure 3.4.16 Possibility of Monorail for District Rail

Figure 3.4.17 Freight Rail

# 3.5 Tourism Development

## Tourism Master Plan for Sikkim

Following the overview of tourism in Sikkim for the Urban Master Plan, it is apparent that tourism can play a significant role in strengthening the Sikkim economy and provide meaningful business and employment opportunities over the next years and decades.

It is highly recommended that a proper Tourism Master Plan for the state of Sikkim be undertaken to systematically guide the development of tourism in Sikkim to its full potential.

Tourism is a dynamic and lucrative industry with the potential of developing Sikkim's natural assets to full advantage. However without a professionally prepared tourism master plan to guide the growth, there may be a danger of unintended consequences of over-development, misused resources or wrong policy decisions.

Figure 3.5.1 Streets of Sikkim

# 3.5 Tourism Development

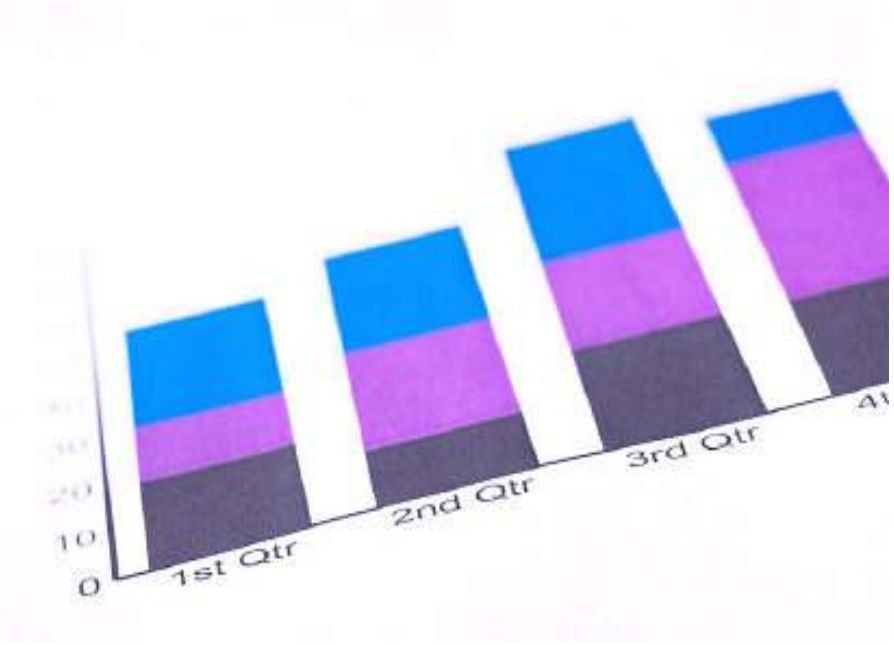
## Tourism Statistics and Data

One of the observations resulting from the overview of tourism in Sikkim for the Urban Master Plan is the very basic state of tourism statistics and data in Sikkim.

The available data on visitors is limited to arrivals and their places of origin. This should be further supplemented with the full range of other demographic, behavioral and psychographic information to assist in tourism marketing and product development.

Information on the hotel sector is also scanty. Ideally there should be a centralized agency for licensing and regulation of the hotel sector with full overview of performance standards and demand and supply needs to properly regulate the sector to bring maximum returns to the state.

Data from the various professional associations within the tourism industry like hotels, travel agents, tour guides, handicraft makers, restaurants and retail can also be strengthened to enable them to play more positive roles to strengthen tourism in Sikkim. Full and up-to-date information on their members and the activities will allow various programmes to be introduced to benefit these associations to further tourism in Sikkim.



# 3.5 Tourism Development

## Expansion of Tourism Space

One of the key areas to be addressed within the proposed Tourism Master Plan for Sikkim is the consideration to expand the tourism space of Sikkim.

Tourism in Sikkim is currently most developed within Gangtok and at Geyzing / Pelling. Tourism development in and around the other district administrative centres of Namchi and Mangan is also noted.

To reduce the impact of tourism's negative consequences, and to spread the benefits of tourism throughout the state, the tourism master plan for Sikkim should also address the development of secondary and alternate tourism areas, in particular opening new trails, developing the areas around and north of Mangan, and the route to and from the Natula Pass.

Figure 3.5.2 Mountain Ridges in Sikkim

# 3.5 Tourism Development

## Environmental / Social Considerations

Tourism development, as discussed in their overview for the Urban Master Plan, is likely to result in a very positive contribution to Sikkim in terms of GDP and employment generated. It is important to note however that tourism development is sometimes also fraught with dangers which policy makers should be aware of, so that appropriate steps and policies can be taken to minimize or negate these potential ills.

Tourism in Sikkim relies heavily on the pristine environmental conditions, glorious walking and trekking trails and unspoiled natural beauty. There is evidence already that there is some degradation of this beauty through uncontrolled littering and indiscriminate development. Efforts must be initiated to ensure that the natural assets of the state are preserved sustainably. In fact tourists and trekkers are often well disposed to assist Sikkim in pro-conservation initiatives like re-forestation if proper programmes are in place.

One of the most important developments within Sikkim is the planned introduction of casino licenses with certain 5-star hotels in the next years. This is likely to bring an influx of visitors, both Indians and foreigners, into Sikkim to partake of this casino facility, a boon to tourism in Sikkim.

While the entry criteria and limitations of these casinos are not yet known, it is pertinent to remember that in many other places, the introduction of casinos is almost always accompanied by in increase in crime and prostitution, and social ills like problem gambling, break-up of families, weakening of the social fabric due to the belief of 'easy money'. It is important that authorities are alerted to these so as to mitigate these ills with appropriate policies and programmes.

# 4.0 Short-Term Strategies : 2 0 1 5

4.1 Urban Land Requirement
4.2 Urban Linkages
4.3 State Strategic Structure

# 4.1 Urban Land Requirement : 2015

Based on the respective density models mentioned in Section 1.5, the land requirement for the growth of each town is calculated as shown in Table 4.1.1. Figure 4.1.1 on next page illustrates the land requirement projections:

While growth will be decentralized from Gangtok; other smaller surrounding towns of Singtam, Rangpo, Namchi, Mangan and Geyzing will continue to grow. Gangtok will require about 24 sq km of developable land area in total. As Namchi is to grow at a faster pace, adequate developable land should be made available by 2015. Based on the population and density assumed, Namchi will require a total of about 8 sq km of land; for Singtam and Rangpo, an approximate developable land area of 7.5 sq km each.

Pakyong Airport, once completed, will be a catalyst to stimulate growth in Pakyong as well as its surrounding region. Around 5 sq km of developable land area will be required by 2015.

Table 4.1.1 Land Required for Growth of Towns by 2015

| 2015 | | | |
|---|---|---|---|
| | **Population** | **Land Required** | **Residential Units*** ** |
| **Urban Population / Land** | **264000** | **sq km** | |
| | | | |
| **East district** | **184800** | | |
| Gangtok* | 138600 | 23.1 | 34650 |
| Singtam | 14784 | 7.4 | 3696 |
| Rangpo | 14784 | 7.4 | 3696 |
| Pakyong | 9240 | 4.6 | 2310 |
| Sherathang | 3696 | 1.8 | 924 |
| Rongli | 3696 | 1.8 | 924 |
| **West District** | **13200** | | |
| Geyzing | 7920 | 4.0 | 1980 |
| Nayabazaar | 3960 | 2.0 | 990 |
| Soreng | 1320 | 0.7 | 330 |
| **North District** | **13200** | | |
| Mangan | 7920 | 4.0 | 1980 |
| Phodong | 3960 | 2.0 | 990 |
| Chungthang | 1320 | 0.7 | 330 |
| **South District** | **52800** | | |
| Namchi** | 31680 | 7.9 | 7920 |
| Jorethang | 10560 | 2.6 | 2640 |
| Ravong | 5280 | 2.6 | 1320 |
| Melli | 5280 | 2.6 | 1320 |

## Note:

* Land Requirement for Gangtok is based on Density Model 6000/sq km.

** Land Requirement for Namchi is based on Density 4000/sq km.

Land Requirement for remaining towns are based on Low Density Model 2000/sq km.

*** Number of Residential Units @ 4 Persons / Household.

# 4.1 Urban Land Requirement : 2015

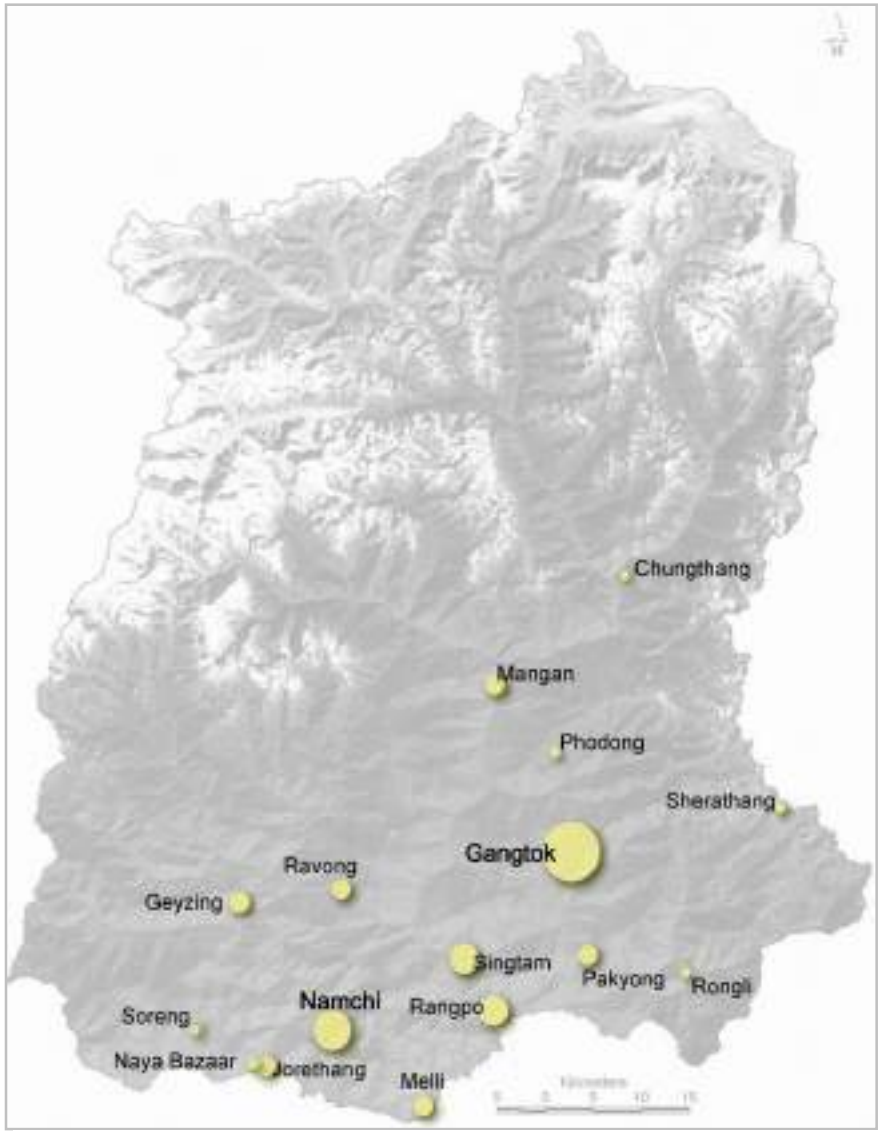
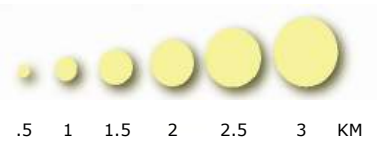



Figure 4.1.1 Illustration of the extent of land required per town for expansion by 2015.

Sherathang will also encounter growth pressure due to Nathu La cross border trades and hence it should be provided with adequate infrastructure and developable land area of around 1.8 sq km. Rongli in the same district is expected to need 1.8 sq km of buildable land. Similarly, growth of Namchi will impact on Jorethang and Nayabazaar. Jorethang is expected to expand to as much as 2.6 sq km in land area, while Naya Bazaar could reach 2 sq km in land size.

Smaller towns like Soreng & Chungthang being remotely located will be less impacted by the growth pressure and hence land size of less than 1 sq km is estimated. Phodong and Rongli should remain secondary towns and require 2 and 1.8 sq km of developable land respectively. Ravong and Melli in the South District hold both tourism and industrial significance and each will need a larger land area of 2.6 sq km of land.

## Land Area Measure




| Radius (km) | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 |
|---|---|---|---|---|---|---|
| Area (sq km) | 0.8 | 3.1 | 7.1 | 12.6 | 19.6 | 28.3 |

# 4.2 Urban Linkages : 2015

**Road Link**

Referring to Figure 4.2.1, Road Links for the four district headquarters shall be strengthened. In addition to the ongoing proposal of continuing the NH31A from Rangpo–Gangtok till Nathu La (Sherathang) in the East, it is also essential to connect it to the West linking Namchi further down to the NH31A in Darjeeling. The main corridor consists of all the major roads and are proposed to be upgraded to a dual-2 lane roads with a fifteen meter wide carriageway (20 m Formation) for efficient vehicular movement. The road linking Mangan & Pakyong to Gangtok and Gezing to Namchi are the other significant linkages that connect these towns to the main corridor. It will be widened to proper 2 lanes of total 7.5 meter for two-way traffic; total road dimension is 12m inclusive of side-table.


Figure 4.2.1 Proposed Road Network by 2015

**Rail Link**

Referring to Figure 4.2.2, the Red Line is to be established along the major towns from Sherathang to Namchi via Gangtok, Pakyong, Rangpo, Melli & Jorethang. This Rail Link is an expansion of the ongoing scheme between Gangtok to Siliguri which has already been approved.

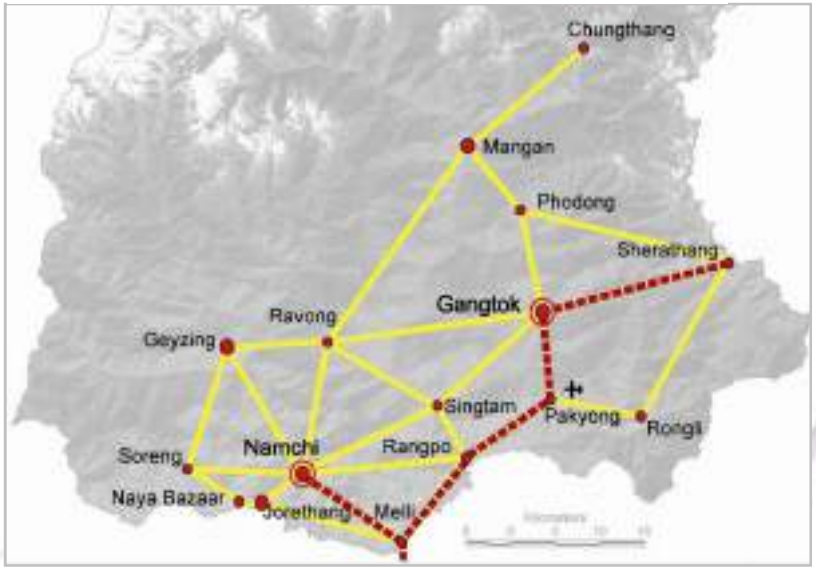



Figure 4.2.2 Proposed Conceptual Rail Link
[Physical alignment to be studied after feasibility studies]

**Airport**

The Pakyong Airport shall first be well connected to the two mega towns of Gangtok & Namchi as well as the cross border trade center at Sherathang. This idea is reflected in both the road & rail link proposals. Domestic flights for Delhi-Pakyong and Kolkata–Pakyong will stand to boost higher domestic tourists' visits. The present Helicopter service in Gangtok could also be used for tourism purposes such as scenic flights around the region. Helicopter Services from Pakyong to Namchi, Geyzing and Mangan shall also be explored since air travel can substantial cut travel time in this mountainous place.

# 4.3 State Strategic Structure : 2015

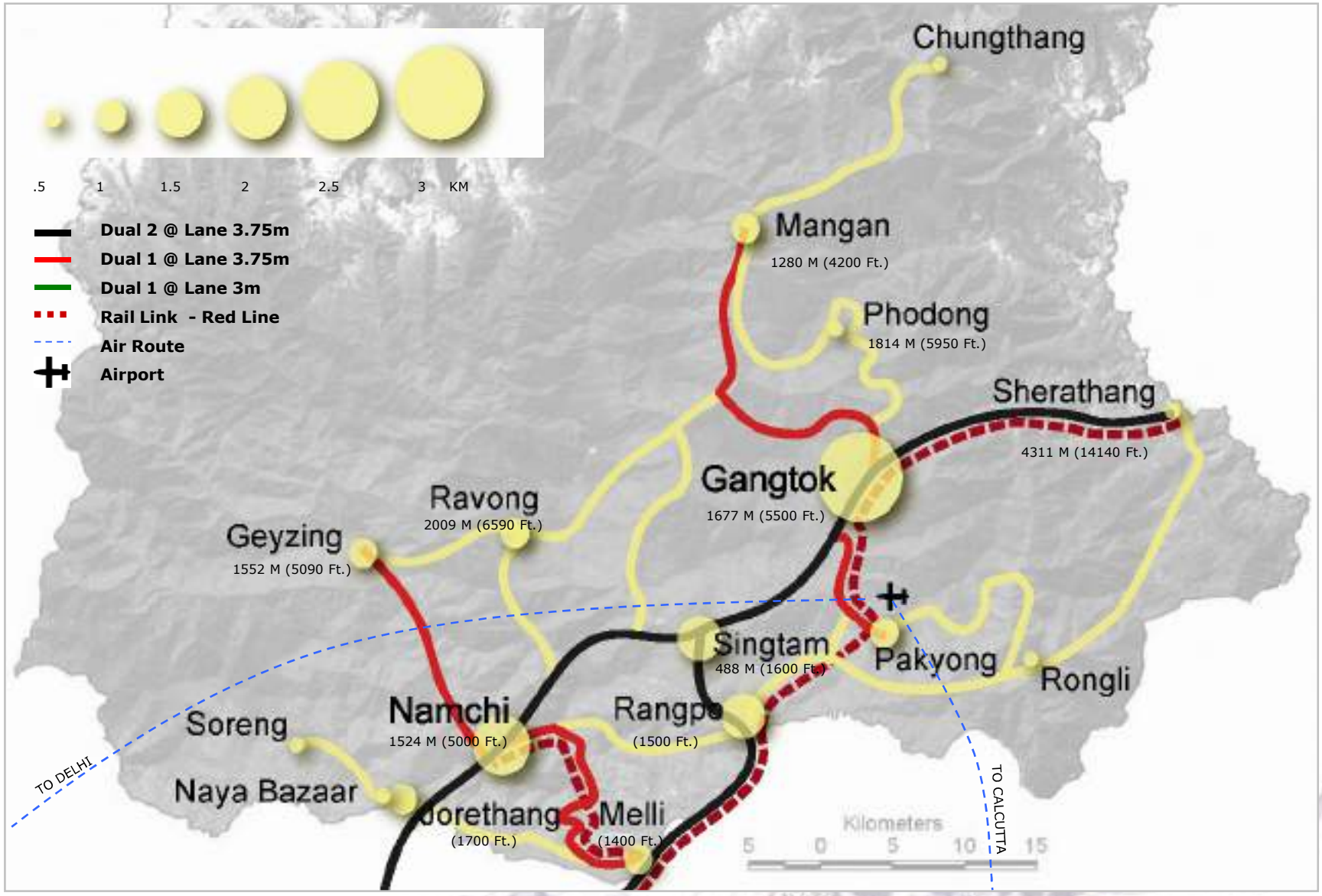


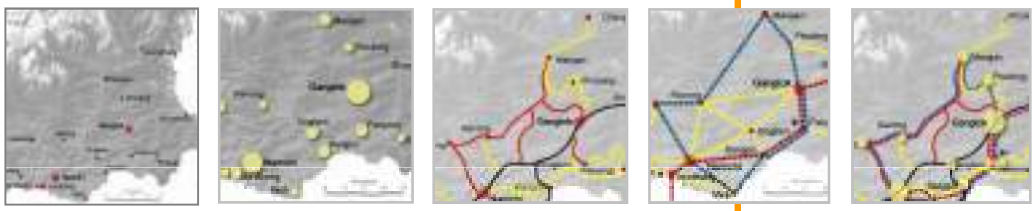

Figure 4.3.1 Overall State Strategic Plan by 2015

# 5.0 Medium-Term Strategies : 2025

5.1 Urban Land Requirement

5.2 Urban Linkages

5.3 State Strategic Structure



# 5.1 Urban Land Requirement : 2025

Based on the respective density models mentioned in Section 1.5, the land requirement for the growth of each town is as shown in Table 5.1.1. Figure 5.1.1 on next page illustrates the land requirement projections:

Both Namchi & Gangtok become the Mega Towns catering to the other smaller towns around the region. While Gangtok requires a limited 2 sq km of additional developable land, focus will set mainly on urban redevelopment and rejuvenation. However, Namchi will continue to grow at a fast pace and require an additional 8 sq km of developable land between 2015 to 2025.

The expansion of Namchi will stimulate growth in the adjacent Jorethang & Nayabazaar which are expected to need 7 sq km of developable land together for this municipality. Pakyong shall see sizeable growth requiring 8.5 sq km of developable land by 2025. All infrastructure and facility provisions shall be planned according to the eventual population size.

## Note:

* Land Requirement for Gangtok is based on Density Model 6000/sq km.

** Land Requirement for Namchi is based on Density 4000/sq km.

Land Requirement for remaining towns are based on Low Density Model 2000/sq km.

*** Number of Residential Units @ 4 Persons / Household.

Table 5.1.1 Land Required for Growth of Towns by 2025

| | 2025 | | |
|---|---|---|---|
| | **Population** | **Land Required** | **Residential Units*** ** |
| **Urban Population / Land** | **355500** | **sq km** | |
| | | | |
| **East district** | **213300** | | |
| Gangtok* | 149310 | 24.9 | 37328 |
| Singtam | 17064 | 8.5 | 4266 |
| Rangpo | 17064 | 8.5 | 4266 |
| Pakyong | 17064 | 8.5 | 4266 |
| Sherathang | 6399 | 3.2 | 1600 |
| Rongli | 6399 | 3.2 | 1600 |
| **West District** | **21330** | | |
| Geyzing | 12798 | 6.4 | 3200 |
| Nayabazaar | 6399 | 3.2 | 1600 |
| Soreng | 2133 | 1.1 | 533 |
| **North District** | **21330** | | |
| Mangan | 12798 | 6.4 | 3200 |
| Phodong | 6399 | 3.2 | 1600 |
| Chungthang | 2133 | 1.1 | 533 |
| **South District** | **99540** | | |
| Namchi** | 64701 | 16.2 | 16175 |
| Jorethang | 14931 | 3.7 | 3733 |
| Ravong | 9954 | 5.0 | 2489 |
| Melli | 9954 | 5.0 | 2489 |

# 5.1 Urban Land Requirement : 2025

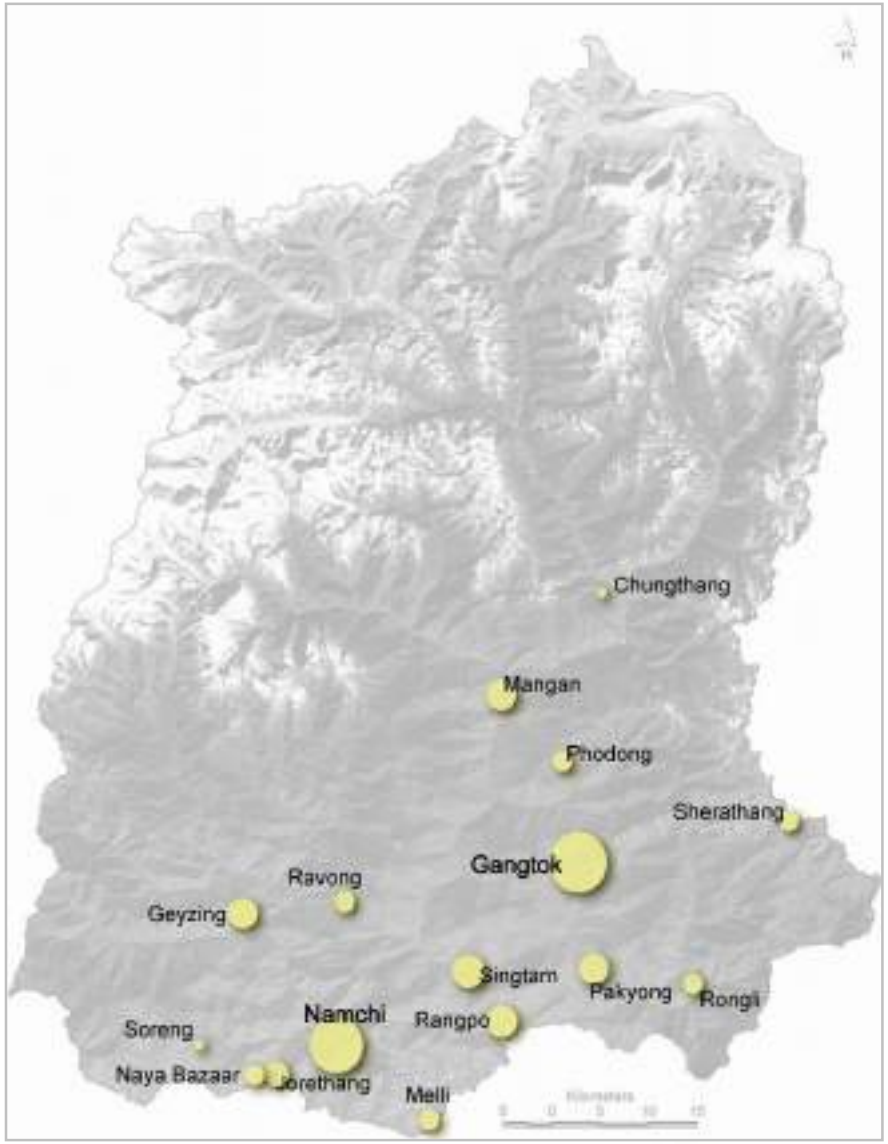
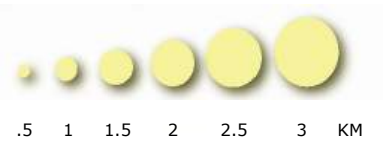



Figure 5.1.1 Illustration of the extent of land required per town for expansion by 2025.

Geyzing, Mangan, Singtam, Rangpo will become communities that offer all the basic community level services. Geyzing & Mangan are expected to require 6.4 sq km of developable land. However, Singtam & Rangpo will see a slower growth with just additional 1 sq km of developable land required for each town.

Ravong, Phodong, Sherathang, Rongli & Melli will continue to grow bigger; however, Soreng & Chungthang shall remain as tertiary towns. Both towns face physical limitations from the Protected Areas in the West. However, the availability of Moderately Steep Land (15–30 % Slope) gives potential scope for future developments. Most of these towns are within the commuting range of Namchi & Gangtok and therefore will remain dependent on these mega towns for most of the amenity services. Chungthang, however, will depend on Mangan for basic services.

## Land Area Measure




| Radius (km) | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 |
|---|---|---|---|---|---|---|
| Area (sq km) | 0.8 | 3.1 | 7.1 | 12.6 | 19.6 | 28.3 |

# 5.2 Urban Linkages : 2025

**Road Link**

Referring to Figure 5.2.1, a shorter link for Geyzing – Mangan via Ravong and Dikchu shall be upgraded to 12m wide, of which 7.5 meter is reserved for 2-way traffic on 2 lanes. Geyzing – Gangtok & Namchi – Mangan are other essential connections to be strengthened by 2025. These linkages shall all be upgraded to the 12m wide road category with dual carriageways of 7.5 meters in total.

**Rail Link**

Referring to Figure 5.2.2, a separate peripheral District Rail Link is proposed as the alternative mode of transportation to lessen the traffic load on the major roads. This second Rail Link is shown as a blue-circle line and is to be aligned with the rest of the significant towns of Geyzing, Ravong, Mangan, Phodong, Pakyong, Rangpo, Melli, Jorethang, Nayabazaar with major Interchanges at Gangtok, Namchi and Pakyong Airport. A technical feasibility study to identify the most suitable rail system should be carried out for this linkage.

**Airport**

The circle line & red line, once implemented, shall provide an effective airport connections with all the significant towns. Other than the proposed domestic flight routes between Delhi–Pakyong & Kolkata–Pakyong in 2015, more routes even beyond domestic arena could be explored. Kathmandu-Pakyong, Lhasa– Pakyong and Thimpu–Pakyong are some of the potential air routes and could be phased as per the flight route demand.


Figure 5.2.1 Proposed Road Structure in 2025


Figure 5.2.2 Proposed Conceptual Rail Link
[Physical alignment to be studied after feasibility studies]

# 5.3 State Strategic Structure : 2025

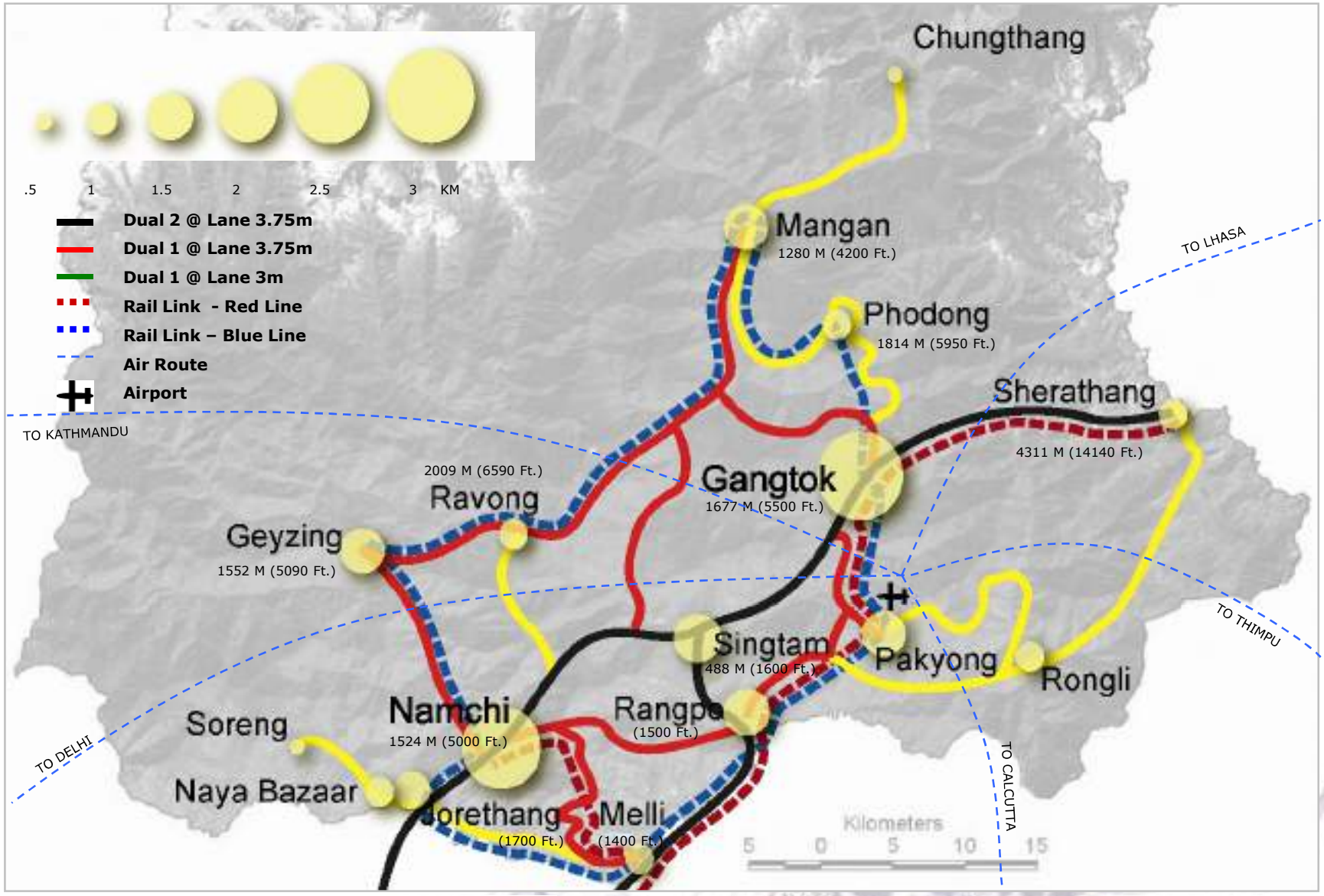



Figure 5.3.1 Overall State Strategic Plan in 2025

# 6.0 Long-Term Strategies : 2 0 4 0

6.1 Urban Land Requirement
6.2 Urban Linkages
6.3 State Strategic Structure

# 6.1 Urban Land Requirement : 2040

Based on the respective density models mentioned in Section 1.5, the land requirement for the growth of each town is calculated as shown in Table 6.1.1. Figure 6.1.1 on next page illustrates the land requirement projections:

Gangtok & Namchi continue to become a 1st Tier urban centers catering for higher level services such as State Universities, Specialized Health Services, State Defense, etc., to the towns around the region. Again, Gangtok is not proposed to see significant growth and therefore the major focus shall remain in redevelopment of the existing land uses while further expansion is limited to 2 sq km. Namchi shall continue to grow to its planned scale of a mega town. It will require a total of 34 sq km of developable land by 2040. The west ward growth of Namchi together with Jorethang and Nayabazaar may reform an urban agglomeration to become a larger urban area.

## Note:

* Land Requirement for Gangtok is based on Density Model 6000/sq km.

** Land Requirement for Namchi is based on Density 4000/sq km. Land Requirement for remaining towns are based on Low Density Model 2000/sq km.

*** Number of Residential Units @ 4 Persons / Household.

Table 6.1.1 Land Required for Growth of Towns by 2040

| 2040 | | | |
|---|---|---|---|
| | **Population** | **Land Required** | **Residential Units*** ** |
| **Urban Population / Land** | **550000** | **sq km** | |
| | | | |
| **East district** | **247500** | | |
| Gangtok* | 160875 | 26.8 | 40219 |
| Singtam | 22275 | 11.1 | 5569 |
| Rangpo | 22275 | 11.1 | 5569 |
| Pakyong | 22275 | 11.1 | 5569 |
| Sherathang | 12375 | 6.2 | 3094 |
| Rongli | 7425 | 3.7 | 1856 |
| **West District** | **55000** | | |
| Geyzing | 35750 | 17.9 | 8938 |
| Nayabazaar | 13750 | 6.9 | 3438 |
| Soreng | 5500 | 2.8 | 1375 |
| **North District** | **55000** | | |
| Mangan | 35750 | 17.9 | 8938 |
| Phodong | 13750 | 6.9 | 3438 |
| Chungthang | 5500 | 2.8 | 1375 |
| **South District** | **192500** | | |
| Namchi** | 134750 | 33.7 | 33688 |
| Jorethang | 23100 | 5.8 | 5775 |
| Ravong | 17325 | 8.7 | 4331 |
| Melli | 17325 | 8.7 | 4331 |

# 6.1 Urban Land Requirement : 2040

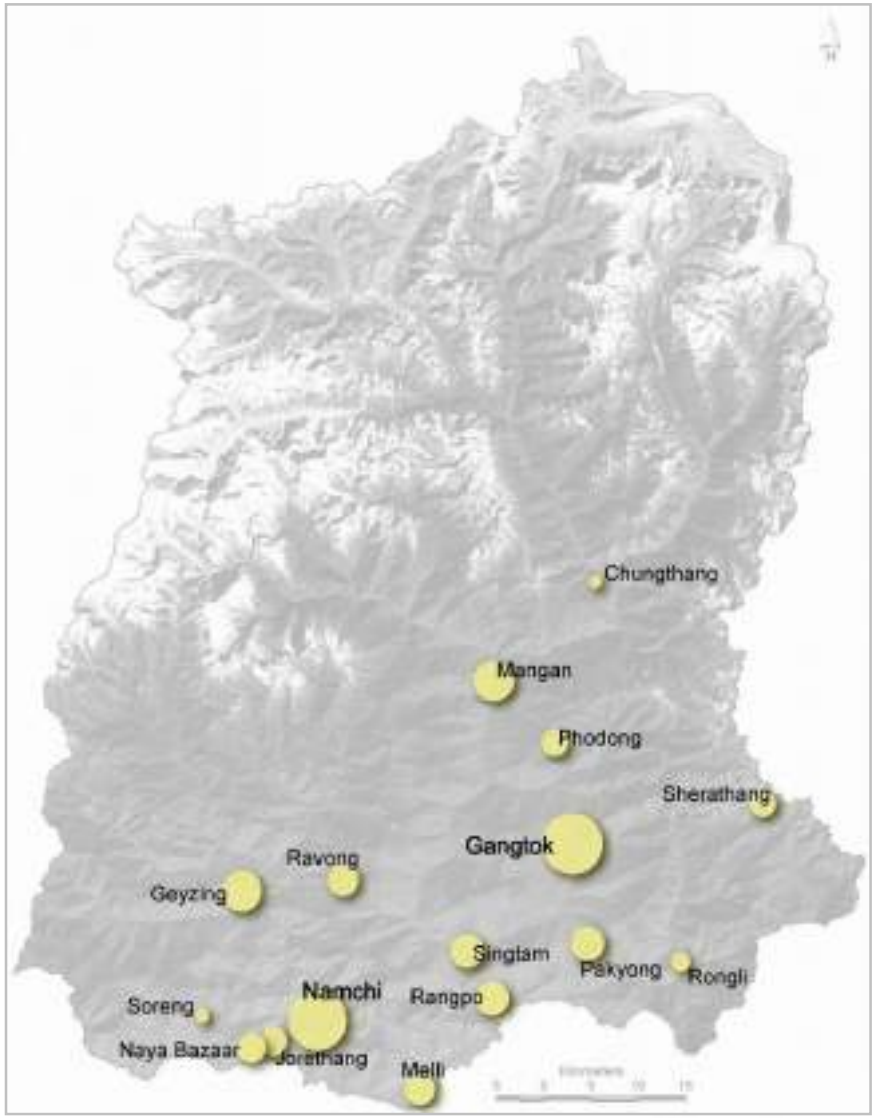
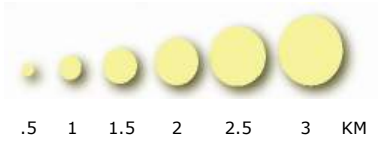



Figure 6.1.1 Illustration of the extent of land required per town for expansion by 2040.

Geyzing & Mangan will become the major urban centers for the surrounding rural, semi – rural communities in North and the West District. Singtam, Rangpo and Pakyong are expected to grow up to a physical size of about 11.1 sq km in total each.

The other towns of Ravong, Phodong and Melli will require a significant expansion in developable land area up to 7 to 9 sq km of land. Soreng and Chungthang being located in the far-west and up-north may not see significant growth; however, they will remain as a prime activity node within their respective zone.

## Land Area Measure




| Radius (km) | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 |
|---|---|---|---|---|---|---|
| Area (sq km) | 0.8 | 3.1 | 7.1 | 12.6 | 19.6 | 28.3 |

# 6.2 Urban Linkages : 2040

**Road Link**

Referring to Figure 6.2.1, the shorter route for Pakyong-Namchi shall be upgraded to 12m wide road of which 7.5 meter is reserved for a 2-lane carriageway for two-way traffic. Shorter connections between all the towns shall be strengthened and upgraded to 6 meter wide road of dual one lane.

**Rail Link**

Referring to Figure 6.2.2, the green line Local Rail Link is proposed as a separate mode of transportation for freight to lessen the heavy vehicle traffic load on the major roads and to divert the cross-border trade activities right from the source. This Local Rail Link shall connect Sherathang with the closest National Rail Service at Damdim in the State of West Bengal.

**Airport**

The airport service shall be expanded depending on future flight demands. As mentioned earlier, Kathmandu-Pakyong, Lhasa– Pakyong and Thimpu–Pakyong are some of the potential air routes and could be phased as per the flight route demand.


Figure 6.2.1 Proposed Road Structure in 2040


Figure 6.2.2 Proposed Conceptual Rail Link
[Physical alignment to be studied after feasibility studies]

# 6.3 State Strategic Structure : 2040

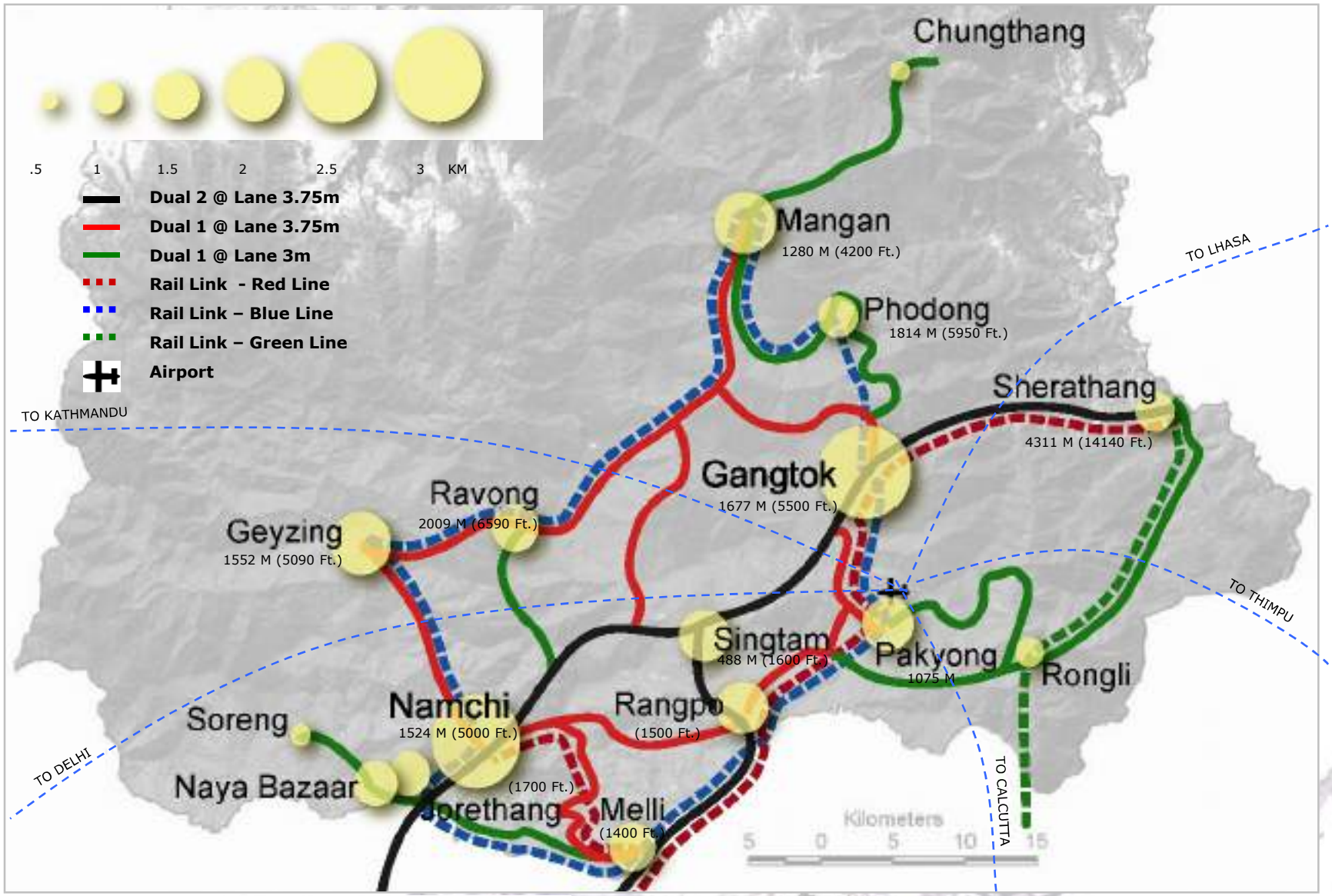



Figure 6.3.1 Overall State Strategic Plan in 2040

# 7.0 Urban Amenities

7.1 Facilities
7.2 Civic/Cultural Facilities
7.3 Health Facilities
7.4 Institutional Facilities
7.5 Commercial Facilities

# 7.1 Facilities

## Methodology

The planning for amenities in Sikkim will be approached in 3 stages as described in flowchart in Figure 7.1.2 on the right:

1. In order to provide an idea of the basic facilities requirements for Sikkim, an indicative quantity and types of facilities needed in Sikkim will be projected based on the Indian Provisional Standards for amenities.

2. As Sikkim has its own characters and need profile based on the geographic structure of 4 districts, some moderations are necessary. The indicative figures obtained from the Indian Provisional Standards will then be matched against the current needs and availability of facilities across Sikkim so that any shortfall can be identified.

3. Final adaptation and adjustment of the indicative figures to the Sikkim environment will be examined during next level of DGP planning.

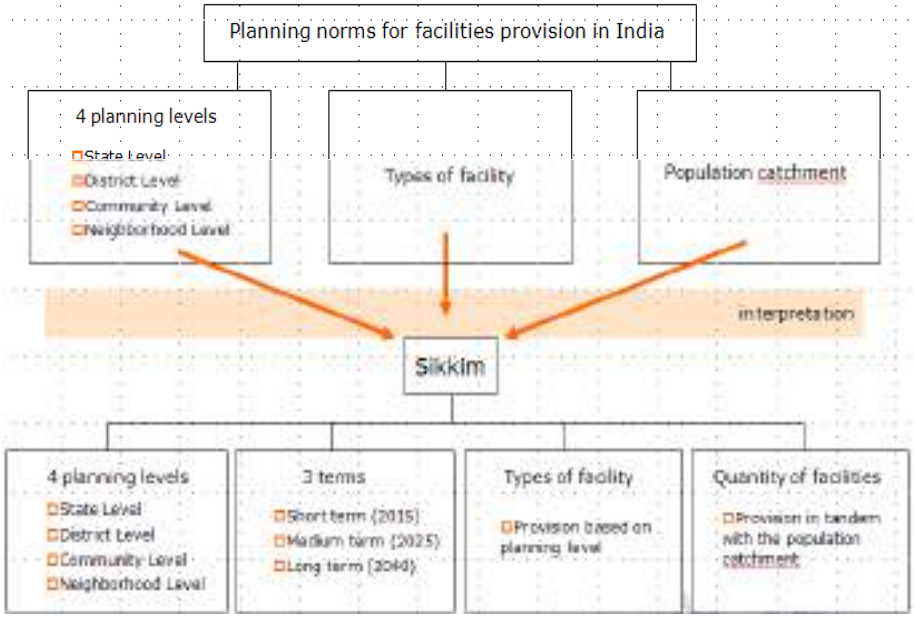



Figure 7.1.2 Flowchart Illustrating the Approach for Determining the Types and Quantity of Facilities for Sikkim

Figure 7.1.1 (from left) Bazaar, School with Football Grounds, Church, Temple, Hospital

# 7.1 Facilities

## Indian Provisional Standards for Amenities

Current pattern of facilities distribution serving the threshold population at State Level, District Level, Community Level and Neighborhood Level in India is illustrated in Table 7.1.1 below.

Table 7.1.1 Indian Provisional Standards for Amenities

| Planning level | Type of facility | Pop. Served |
|---|---|---|
| State level | University | 500,000 |
| | New University | 500,000 |
| | Technical Education Centre | 1,000,000 |
| | Engineering College | 250000 |
| | Medical College | 250,000 |
| | National Level Institute | 400,000 |
| | General Hospital | 250,000 |
| | Specialized Health Care | 250,000 |
| | Socio-cultural Centre | 1,000,000 |
| | Museum and Art Gallery | 500,000 |
| | Cinema/ Theatre | 400,000 |
| | Central Library | 2,000,000 |
| | Cremation/ Burial | 250,000 |
| | Bus Depot | 500,000 |
| | Bus Terminal ( Local) | 500,000 |
| | Head Post Office | 250,000 |
| | District Jail | 1,000,000 |
| | Civil Defense & Home Guards | 1,000,000 |
| | Fire Station | 200,000 |
| | City Centre | 5,000,000 |
| | Sub-city Centre | 2,500,000 |
| | Divisional sports Centre | 1,000,000 |
| | Sports Centre & Play Grounds | 500,000 |
| District Level | Intermediate Hospital | 100,000 |
| | Integrated School without Hostel | 100,000 |
| | Integrated School with Hostel | 100,000 |
| | College | 125000 |
| | Research Institute | 100,000 |
| | Polyclinic | 100,000 |
| | Nursing, child/ maternity | 45,000 |
| | Health club / Gymnasium | 100,000 |
| | Recreational Club | 100,000 |
| | Cultural : Music/ Dance/ Drama | 100000 |
| | Meditation Spiritual Centre | 100,000 |
| | Police Station | 90,000 |
| | Police Post | 40000 |
| | District Centre | 250,000 |
| | Parks & Open Spaces | 100,000 |
| | District Sports Centre | 100,000 |
| Community level | Nursery school / Kindergarten | 2500 |
| | Primary school | 5000 |
| | Senior Secondary school | 7500 |
| | Dispensary | 15000 |
| | Community Room | 5000 |
| | Community Hall | 15000 |
| | Religious Site | 10,000 |
| | Taxi Grounds | 15000 |
| | Post Office ( Local) | 15000 |
| | Community Centre | 100,000 |
| | Neighborhood Play area | 15000 |
| | Neighborhood Park | 15000 |
| Neighborhood | Sector Centre | 15000 |
| | Convenient Shopping | 5000 |
| | Residential Unit Play Area | 5000 |

# 7.2 Civic / Cultural Facilities

Table 7.2.1 Existing Civic and Cultural Facilities in Sikkim

| Type of facility | North | South | East | West |
|---|---|---|---|---|
| Library | 2 | 2 | 2 | 2 |
| Community / Cultural Center | 1 | 1 | 1 | 1 |
| Police Station | 2 | 6 | 7 | 5 |
| Police Post : Out Post/ Check Post/ Picket Post | 13 | 9 | 19 | 13 |
| Religious Site | 96 | 183 | 250 | 195 |

*Source: Sikkim Statistical Profile 2006*

The above mentioned facilities (see Table 7.2.1) are few of the civic and cultural facilities that has been recorded and hence sourced from Sikkim Statistical Profile 2006 - 2007. With numerous Monasteries, Manilakhangs, Lakhangs & Tsamkhang, Temples, Gurudwaras, Churches and Mosques being established all over the State of Sikkim, a strong significance of Religious Institutions has been realized. A fair distribution of Police Stations and Police Post is indicative of the low crime rate and the State's initiative for public safety.

Other civic and cultural facilities such as the Outdoor and Indoor Stadium in Gangtok and Namchi; Cinema/ Theatre in Gangtok; Fire Stations in all 4 towns; few parks, playgrounds and open spaces; taxi grounds; Museum under construction in Namchi; allocated cremation, burial grounds in Gangtok are some of the amenities already existing in the State. While, some of these amenities such as Fire Station require a proper infrastructure, many of the open amenities such as parks and play grounds both at district and community level are highly inadequate. The State does have a wealth of reserved forests but lacks urban landscape that offers public recreation area.

With reference to the provisional standards for facilities in India, the projected quantity of civic and cultural facilities for Sikkim is as shown in Table 7.2.2 below. The types of facilities mentioned are derived from the Indian Provisional Standards (see Table 7.1.1) and are indicative for the current hierarchy of civic and cultural amenities within Sikkim.

Table 7.2.2 Civic and Cultural Facilities Based on the Indian Provisional Standards

| Type of facility | 2015 | 2025 | 2040 |
|---|---|---|---|
| Museum and Art Gallery | 0 | 0 | 1 |
| Cremation / Burial | 1 | 1 | 2 |
| Head Post Office | 1 | 1 | 2 |
| Fire Station | 1 | 2 | 3 |
| Sports Centre & Play Grounds | 0 | 0 | 1 |
| Health Club / Gymnasium | 3 | 4 | 6 |
| Recreational Club | 3 | 4 | 6 |
| Cultural : Music / Dance / Drama | 3 | 4 | 6 |
| Meditation Spiritual Centre | 3 | 4 | 6 |
| Police Station | 3 | 4 | 6 |
| Police Post | 7 | 9 | 14 |
| Parks & Open Spaces | 3 | 4 | 6 |
| District Sports Centre | 3 | 4 | 6 |
| Religious Site | 26 | 36 | 55 |
| Taxi Grounds | 18 | 24 | 37 |
| Post Office ( Local) | 18 | 24 | 37 |
| Neighborhood Play area | 18 | 24 | 37 |
| Neighborhood Park | 18 | 24 | 37 |
| Residential Unit Play Area | 53 | 71 | 110 |

# 7.2 Civic / Cultural Facilities

State level facilities such as Socio Cultural Centre may not have a sufficient catchment as indicated in the Indian provision. However being a culturally rich State, they may be accommodated within Gangtok. The Museum under construction in Namchi shall hold the State significance and hence be upgraded if required.

Similarly, facilities such as Cinema / Theater may not have sufficient catchment for multiple Cinema's. As a source of entertainment commonly seen in urban areas other than India, it could be accommodated in both the major towns like Gangtok and Namchi. Head Post Office shall be provided in both Gangtok and Namchi as well (see Figure 7.2.1 for an illustration).

Major District facilities such as Fire Station, Recreational Club, Cultural Centre, Parks and Open Spaces, Playground, District Sports Centre etc, shall be provided in all 4 towns and Rangpo and Jorethang .

Adequate land reservations shall be made for the most basic civic/ cultural facilities such as Religious Site, Taxi ground, Post Office, Police Station, Residential Unit Play Area, Neighborhood Play Area, Neighborhood Park, etc in all the 16 communities. Religious establishments are comparatively higher than the average Indian provisions, and therefore need to be extrapolated and adapted into the local requirements of Sikkim. Social Safety services such as Police Posts shall be provided in all rural areas.


| Civic / Cultural Facilities | |
|---|---|
| | Socio Cultural Centre |
| | Museum & Art Gallery |
| | Head Post Office, Cinema/ Theater |
| | Play Ground, Fire Station, Health Club/ Gymnasium, Recreational club, Cultural: Music/ Dance/ Drama, Meditation Spiritual Centre, Parks and Open Spaces, District Sports Centre, Cremation / Burial |
| Provided in all communities | Religious Site, Taxi ground, Post Office, Police Station, Residential Unit Play Area, Neighborhood Play Area, Neighborhood Park |

Figure 7.2.1 Illustration of Indicative Civic/Cultural Facilities Distribution

# 7.3 Health Facilities

Table 7.3.1 Existing Health Facilities in Sikkim

| Existing Health Services (2006) | North | South | East | West |
|---|---|---|---|---|
| State Referral / STNM Hospital | 0 | 0 | 1 | 0 |
| Community Health Center (District Hospital) | 1 | 1 | 1 | 1 |
| Primary Health Center | 3 | 6 | 8 | 7 |
| Primary Health Sub Center | 19 | 39 | 48 | 41 |

*Source: Sikkim Statistical Profile 2006*

Health infrastructure, as defined in Sikkim, consists of 4 major levels of health care services: namely, State Referral Hospital, Community Health Center (CHC), Primary Health Center (PHC) and Primary Health Sub Center (PHSC) with some other medical facilities for Tuberculosis, Mental Health and Leprosy.

According to the Sikkim Human Development Report 2001, Sikkim has well achieved the National Norms which indicates the requirement of establishment of 1 PHC for 20,000 population and 1 PHSC for 3000 population. The existing State Referral Hospital is500 bedded, CHC in average are 100 bedded, PHC's are 7 bedded and PHSC's are generally micro level health care services. However, the capacity of these District hospitals, PHC and PHSC would require to be upgraded and the hierarchy of primary health care shall be redefined. It is recommended to follow the current Indian practice for urban area which requires provisions of Polyclinics, Nursing / Child / Maternity and Dispensaries that may have been functioning as PHC's and PHSC's earlier.

With reference to the provisional standards for facilities in India, the projected quantity of health facilities for Sikkim is as shown in Table 7.3.2 below. The types of health facilities mentioned are derived from the Indian Provisional Standards and are indicative for the current hierarchy of medical amenities within Sikkim.

This hierarchy which also includes Specialized Health Care, Polyclinic, Nursing / child / Maternity and Dispensaries in addition to the existing hierarchy of Community Health Centers, Primary Health Centers and Primary Health Sub Centers, shall be distributed within the State. The PHSC, with its catchment of 3000 population, shall be provided in the rural areas, while all the urban centers shall at least have a PHC-equivalent medical services that has been substituted by the Nursing / child / Maternity and Dispensaries.

Table 7.3.2 Health Facilities Based on the Indian Provisional Standards

| Type of facility | 2015 | 2025 | 2040 |
|---|---|---|---|
| General Hospital ( State Referral Hospital) | 1 | 1 | 2 |
| Specialized Health Care | 1 | 1 | 2 |
| Intermediate Hospital ( District Hospital / CHC) | 3 | 4 | 6 |
| Polyclinic | 3 | 4 | 6 |
| Nursing, Child / Maternity (PHC) | 6 | 8 | 12 |
| Dispensary (PHC) | 18 | 24 | 37 |

# 7.3 Health Facilities

Indian Practices require the General Hospital to be 500 bedded, Intermediate Hospital to be 200 bedded, Polyclinics to be 20 bedded and Nursing/ Child/ Maternity to be 25 bedded and Dispensaries to be 10 bedded respectively.

A strategic distribution of facilities is illustrated in Figure 7.3.1. The distribution shown is based on the provisional Indian Practices of health infrastructure requirement indicated earlier. As illustrated, the preliminary idea is for health facilities such as General Hospital and Specialized Health Care to be distributed between the major towns of Gangtok and Namchi; with an adequate number of Intermediate Hospitals and Polyclinics provided in both of these towns as well as Geyzing and Mangan.

Basic Town level health facilities such as Nursing, Child / Maternity care and the Dispensary shall be provided in all 16 communities.

Hence, the Health infrastructure requirements bring about the significant health services opportunities particularly in Namchi. The Health Services Industry may further capitalize on the "Healing with Nature" factor which shall draw people from beyond the State catchment.


| Health Facilities | |
|---|---|
| | General Hospital, Specialized Health Care |
| | Intermediate Hospital, Poly Clinic |
| Provided in all communities | Nursing, child/ maternity, Dispensary |

Figure 7.3.1 Illustration of Indicative Health Facilities Distribution

# 7.4 Institutional Facilities

Table 7.4.1 Existing Institutional Facilities in Sikkim

| Existing Educational Facility (2006) | North | South | East | West |
|---|---|---|---|---|
| University (SMU) | 0 | 0 | 1 | 0 |
| Engineering College (SMIT) | 0 | 0 | 1 | 0 |
| Medical College (SMIMS) | 0 | 0 | 1 | 0 |
| Other Institute (ITI, Polytechnics) | 0 | 1 | 2 | 0 |
| Senior Secondary School | 3 | 9 | 20 | 10 |
| Secondary School (SS) | 11 | 29 | 29 | 23 |
| Junior High School (JHS) | 16 | 46 | 47 | 41 |
| Primary School (PS) | 39 | 90 | 111 | 87 |
| Nursery school / Kindergarten (LPS) | 21 | 48 | 35 | 65 |

*Source: Economic Survey 2006*

As stated in the Economic Survey 2006-2007, GOS, on an average the Sikkemese Schools handle around 90 students per school with a minimum of 79 students/school in North District to 121 students per school in East District. The strength of less than 100 students per school is comparatively smaller than the Indian national standards schools that are required to be housing 500 students.

The existing school strengths may be well justified for current population base. With the increasing urban population and the critical mass of the urban centers, the existing schools shall be upgraded to larger Schools with better educational and technological resources to meet the demand of future population.

The current distribution of Schools indicate that as low as 1.52 number of Schools per 1000 people in East district to as high as 2.19 Schools in North District. Majority of the existing higher education facilities are distributed in East District.

There is also an untapped education industry such as integrated schools with hostels, institutions for research and higher education which shall be of utmost significance to the long-term growth and development of Sikkim.

With reference to the provisional standards for facilities in India, the quantity of institutional facilities are projected for Sikkim and is shown in Table 7.4.2 below. The types of institutional facilities have been adapted to the Sikkim's context, although the figures are indicative and will be adjusted in the next level of planning.

Table 7.4.2 Institutional Facilities Based on the Indian Provisional Standards

| Type of facility | 2015 | 2025 | 2040 |
|---|---|---|---|
| University | 1 | 1 | 1 |
| New University | 1 | 1 | 1 |
| Engineering College | 1 | 1 | 2 |
| Medical College | 1 | 1 | 2 |
| Integrated School with Hostel | 3 | 4 | 6 |
| College | 2 | 3 | 4 |
| Research Institute | 3 | 4 | 6 |
| Nursery school / Kindergarten (LPS) | 106 | 142 | 220 |
| Primary School (PS) | 53 | 71 | 110 |
| Junior High School (JHS) | 44 | 59 | 92 |
| Secondary School (SS) | 44 | 59 | 92 |
| Senior Secondary School (SSS) | 35 | 47 | 73 |

# 7.4 Institutional Facilities

As illustrated in Figure 7.4.1, State level institutional facilities such as Universities could be distributed between the major towns of East and West District. The existing Sikkim Manipal University in Gangtok has its Engineering and Medical Colleges in Majhitar near Rangpo. This educational infrastructure shall be further enhanced to accommodate additional faculties. A new University shall be explored in Namchi with additional Engineering and Medical Colleges including other Colleges focusing on management, tourism, horticulture, bio technology etc. Other than the existing institutional facilities near Rangpo, Integrated Schools with Hostel, other Colleges and Research Institutes shall be provided in Gangtok, Namchi, Geyzing and Mangan. The earlier illustrated table provides a strong indication of potential opportunities for integrated schools and research facilities.

State initiatives on provision of basic level of education is quite commendable. However, these facilities are yet to meet the national standards and require further upgradation. Other than the improvements of existing Schools, additional basic educational facilities such as nursery school, kindergarten, primary school, junior high school, secondary school and senior secondary school shall be distributed among all the 16 communities based on the population and commuting range. The seventh All India School Education Survey indicated the percentage of population who had access to primary schools within 1km walking distance, upper primary school within 3 km, secondary school within 5 km and the senior secondary school within 8km. However, based on other Indian practices, the comfortable commuting range of 1km for Primary School, 2km for Junior High School, 4km for Secondary School, and 6 km for Senior Secondary School is recommended to be considered for the distribution of schools in the State.


| Institutional Facilities | |
|---|---|
| | University |
| | New University, |
| | Engineering, Medical College |
| | Other Colleges, Research Institute, Integrated School with Hostel, |
| Provided in all communities | Nursery School / Kindergarten, Primary School, Junior High School, Secondary School, Senior Secondary School |

Figure 7.4.1 Illustration of Indicative Institutional Facilities Distribution

# 7.5 Commercial Facilities

Table 7.5.1 Existing Commercial Facilities in Sikkim

| Type of facility | North | South | East | West |
|---|---|---|---|---|
| Bazaar Class - I | 0 | 0 | 2 | 0 |
| Bazaar Class - II | 5 | 4 | 6 | 1 |
| Bazaar Class - III | 0 | 7 | 4 | 16 |
| Rural Marketing Centre | 19 | 21 | 42 | 22 |

*Source: Sikkim Statistical Profile 2004*

The existing classification of Commercial Uses in the State of Sikkim has been sourced from Sikkim Statistical Profile 2004-5 and is indicated in Table 7.5.1 above. The larger markets such as Gangtok and Singtam in East District are categorized as Bazaar Class – I. Other than Nayabazaar and Pelling in West District which holds the commercial services at Bazaar Class – III, all the remaining 12 towns as projected to be the future urban centers presently hold the commercial services at Bazaar Class- II. The State is also serviced with substantial number of Rural Marketing Centers which are the important commercial activity zones in the rural areas.

With an increased population base, the hierarchy of commercial centers need to be re-defined and adapted to suit the local needs. A cross reference to the Indian provisions are made in terms of securing adequate area for commercial centers. In common practices, these centers are classified as District Center, Community Center, Sector Center and Convenient Shopping to meet different levels of commercial requirements in the urban area.

Other than commercial facilities such as Grocery Stores, Private Clinics, Boutique Shops, Offices, Shopping Malls etc, relevant public facilitating uses like relevant Government Administrative Buildings and Post Office, etc could be accommodated in these Urban core zones. A conceptual distribution of these facilities for different hierarchy of commercial centers are indicated in Table 7.5.2 below.

Table 7.5.2 Commercial Facilities Based on Indian Provisional Standards

| | | Redefined Bazaar Hierarchy | | |
|---|---|---|---|---|
| **Type of facility** | District Center (≈ 44 ha) | Community Center (≈ 5 ha) | Sector Center (≈ 0.6 ha) | Convenient Shopping (≈ 0.08 ha) |
| **Government Administration Buildings** | ✓ | | | |
| **Shopping Malls** | ✓ | | | |
| **Offices** | ✓ | ✓ | | |
| **Boutique Shops** | ✓ | ✓ | ✓ | |
| **Clinics** | ✓ | ✓ | ✓ | |
| **Post Offices** | ✓ | ✓ | ✓ | |
| **Grocery Stores** | ✓ | ✓ | ✓ | ✓ |

# 7.5 Commercial Facilities

Table 7.5.3 Projected Commercial Facilities in Sikkim

| Type of facility | 2015 | 2025 | 2040 |
|---|---|---|---|
| District Centre | 1 | 1 | 2 |
| Community Centre | 3 | 4 | 6 |
| Sector Centre | 18 | 24 | 37 |
| Convenient Shopping | 264 | 356 | 550 |

With reference to the provisional standards for facilities in India, the projected quantity of commercial facilities for Sikkim is as shown in Table 7.5.3. The types and quantity of commercial facilities are indicative and shall be adjusted for adaptation to the Sikkim context at next level of planning.

Adequate land reservations for District Centre shall be made in the major towns of Gangtok and Namchi. Other than Geyzing and Mangan, current commercially active towns of Singtam and Jorethang shall also be provided with the Community Centers.

Similarly, local level basic commercial facilities such as Sector Center shall be provided in all the 16 towns. The existing RMC's shall be upgraded to become the Sector Centers as well. The Convenient Shopping facilities are distributed amongst all the 16 significant Towns and the RMC's shall still be planned to cater the rural communities (see Figure 7.5.1 for indicative distribution of facilities).


| Institutional Facilities | |
|---|---|
| Provided in all communities | District Centre |
| | Community Centre |
| | Sector Centre, Convenient Shopping |

Figure 7.5.1 Illustration of Indicative Commercial Facilities Distribution

# 7.5 Commercial Facilities

## Hotel Facilities

Table 7.5.4 Projected Percentage Distribution of Beds by District at Year 2015, 2025 and 2040

| Projected % Distribution of Beds by District | | | | |
|---|---|---|---|---|
| **District** | **Current 2008** | **2015** | **2025** | **2040** |
| East | 68.5% | 67.5% | 64.5% | 61.0% |
| North | 8.8% | 9.0% | 10.0% | 11.0% |
| South | 4.8% | 5.5% | 7.0% | 9.0% |
| West | 17.9% | 18.0% | 18.5% | 19.0% |

Table 7.5.5 Projected Distribution of Beds by District at Year 2015, 2025 and 2040

| Projected Distribution of Beds by District | | | | |
|---|---|---|---|---|
| **District** | **Current 2008** | **2015** | **2025** | **2040** |
| East | 8,954 | 17,699 | 45,074 | 129,367 |
| North | 1,147 | 2,360 | 6,988 | 23,328 |
| South | 624 | 1,442 | 4,892 | 19,087 |
| West | 2,346 | 4,720 | 12,928 | 40,295 |
| **State** | **13,071** | **26,221** | **69,882** | **212,077** |

Table 7.5.6 Projected Distribution of Hotels by District at Year 2015, 2025 and 2040

| Projected Distribution of Hotels by District | | | | |
|---|---|---|---|---|
| **District** | **Current 2008** | **2015** | **2025** | **2040** |
| East | 322 | 735 | 1,873 | 5,375 |
| North | 69 | 98 | 290 | 969 |
| South | 34 | 60 | 203 | 793 |
| West | 118 | 196 | 537 | 1,674 |
| **State** | **543** | **1,089** | **2,903** | **8,811** |

As highlighted earlier in demography, floating population as a result of large influx of visitors to Sikkim during the tourism peak period will increase requirements for commercial services such as hotels. The scale of this "extra" requirement will have to be examined further in tandem with further investigations on the tourism data. These tourism based commercial activities could be integrated with the above mentioned commercial centers.

The supply of accommodation available in all the districts is expected to increase as per the analysis highlighted earlier. Again, the North, South and West districts should increase at a faster rate compared to the East district as the development strategy of decentralizing tourism activities outside Gangtok takes effect.

With the increasing importance of tourism attractions in Pelling, Namchi, Ravongla, Lachen, Lachung and Tsongo Lake, there will be more hotels being constructed within these areas to meet the needs of the visitors.

The projections of the number of hotels required is derived from the projected bed demand divided by 24, the current average number of beds per hotel.