



LOCAL AREA PLAN
for
Gola Town
Samtse
2013-30

Urban Planning and Development Division
Department of Human Settlement
Ministry of Works and Human Settlement
Thimphu





GOLA TOWN LOCAL AREA PLAN

2013-2030

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Acknowledgements

We would like to express our indebtedness to the Honorable Zhabtog Lyonpo, Yeshey Zimba, Ministry of Works and Human Settlements, for being extremely supportive by chairing the tripartite meeting held between Local Government, National Land Commission Secretariat and the Ministry of Works and Human Settlement. His involvement in the project from the very first stage has made this exercise much easier.

We would like to express our appreciation to Dasho Dr. Sonam Tenzin, Secretary, Ministry of Works and Human Settlements, who has been a guiding force in the formulation of this Local Area Plan for Gola Town at Sipsu.

We also like to thank Dasho Sangay Khandu, Secretary, National Land Commission Secretariat, for extending his support and guidance throughout the planning process.

Dasho Karma Weezer, Dzongdag, Samtse Dzongkhag Administration and Dasho Karma Rinchen, Dungpa, Sipsu Dungkhag who have been very supportive, cooperative and instrumental in the process of plan preparation and also during the presentation of the plan to the land owners and other stakeholders.

Mr. Kinzang Norbu, Director, DHS, MoWHS, has extended his support, guidance and insights at critical junctures in the process of Plan preparation. He was extremely supportive by chairing the first public consultation to the stakeholders at Gola Town. His involvements in the project from the very first stage have given a different dimension to the local Area Plan.

Mr. Meghraj Adhikari, Urban Specialist, DHS, MoWHS, has always been very supportive and instrumental in providing the information about the History of Gola Town and the government interventions and developments that have taken place in the town till date.

We would also like to show our appreciation to Mr. Nima Tshering, Chief Urban Land Registrar and Mr. Tenzin Namgey, Chief, Cadastral Information Division from NLCS for their valuable inputs while preparing the plan and also at the initial stage of the plan preparation in providing the updated land record details and cadastral Information.

We are indebted to Ms. Latha Chhetri, Chief Urban Planner, DHS, MoWHS for all her endless efforts and active involvement in the preparation of the plan. She has always been very encouraging and supportive and guided the planning team through a the series of discussion which resulted in preparing an implementable plan which would benefit all the stakeholders of Gola Town.

We would like to place on record our appreciation to Mr. Chhado Drukpa, Chief Urban Planner, C&RRD, Mr. Ugyen M. Tenzin, Chief Urban Planner, RPDD, DHS and Ms. Tashi Wangmo, Chief, Survey & GIS, DHS who has been very resourceful and supportive at the initial stage of the planning process.



We would like to thank Ms. Dorji Wangzom, Sr. Urban Planner and Mr. Sushil Kumar Yadav, Urban Planner for their support and assistance at the initial stage of the planning process and finally Mr. J.B. Gurung, Surveyor and his team from survey section for carrying out the detailed topographical survey of the area.

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Foreword

Gola Town, located in Sipsu and about 48 kms from Samtse Dzongkhag Headquarter, has developed as a market town serving the hinterland and Gewogs around the Sipsu Dungkhag Centre. It is one of the oldest towns, dating back to the 1940s. But it has remained virtually unchanged and the town's need for accelerated growth and a planned development is long overdue. At one time there was a proposal to shift the town to a new location at Belbotey, a few kilometers away, which didn't materialize due to some practical difficulties. Therefore the preparation of the Gola Town development plan was initiated.

The Plan has been prepared by the Department of Human Settlement in consultation and coordination with the local residents, the Dungkhag, the Dzongkhag Administrations and the National Land Commission Secretariat. The main objectives of the Plan are to enable land and plot ownership regularization; to promote a settlement that is safe, functional and accessible; to enhance the living standards and the quality of livelihood of the people and to preserve the natural landscapes. The Plan lays down the land use precinct, road network, open space and the amenities required. The Plan has been presented to and endorsed by the local residents and the officials of Dungkhag and Dzongkhag Administrations.

It is highly commendable that this Plan could be produced successfully. This is a result of the close cooperation among the various agencies concerned. I am very confident of the profound benefit the Plan will have on the local people. It is, therefore, the duty of everyone to implement the plan judiciously. We must also recognize that the Plan will require periodic review and update to keep up with the emerging trends.



Yeshey Zimba

Zhabtog Lyonpo



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Abbreviations

acr	Acre
Approx	Approximate
D	Defense Precinct
DCR	Development Control Regulation
DHS	Department of Human Settlements
deg C	Degree Celsius
E1	Environmental Conservation Precinct
E2	Forest Environments
E3	Agricultural Environments
E4	Agri-based Environments
EIA	Environmental Impact Assessment
FAR	Floor Area Ratio
FSI	Floor Space Index
GIS	Geographical Information System
GNH	Gross National Happiness
H	Heritage Precincts
Ha	Hectare
I	Institutional
Km	Kilometer
KW	Kilo Watt
LAP	Local Area Plan
LIG	Low Income Group
m	Meter
M	Military
MIG	Middle Income Group
MLD	Million Liters per day

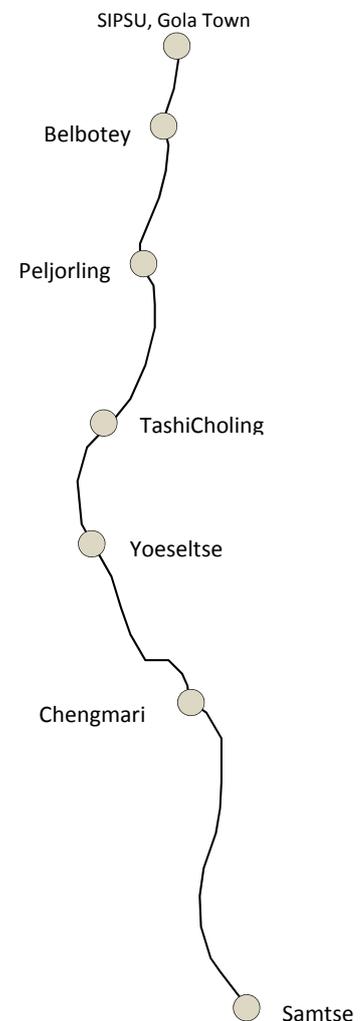


Abbreviations

m	millimeter
MoA	Ministry of Agriculture
MoC	Ministry of Communication
MoWHS	Ministry of Works and Human Settlement
MW	Mega Watt
NLCS	National Land Commission Secretariat
Pph	Person per hectare
RBA	Royal Bhutan Army
RBP	Royal Bhutan Police
RGOB	Royal Government of Bhutan
ROW	Right of Way
RSTA	Road Safety and Transport Authority
Sqm	Square meter
SWD	Storm Water Drainage
SWM	Solid Waste Management
TDR	Transfer of Development Rights
TSP	Thimphu Structure Plan
TV	Traditional Village
Tv	Television
UC	Urban Core
UISD	Urban Infrastructure Services Division
UPDD	Urban Planning and Development Division
UV1	Urban Village Core
UV2	Urban Village Periphery



Introduction



1.1 Background

Gola town is one of the oldest towns in Bhutan dating back to 1940s. The elderly residents narrate that the bazaar was shifted from a place called Sajbotey during the visit of Paro Penlop in 1949. This bazaar/town has been established mainly for the villages in and around Sipsu. However, the people of Sombaykha also benefit from this small town as it is much closer to Sombaykha than Haa town. The residents of the town have been living there since its establishment and had been paying land taxes to the government. However, since 1992 collection of land taxes was suspended as per the revised land taxation policy 1992 which categorized Gola town for relocation. In 1995, Dzongkhag Administration proposed the town to be shifted to Belbotey due to expansion constraints in the existing location. The Dzongkhag Administration has even acquired 85.66 acres of land in Belbotey from private land owners. But in 2003-2004, the base camp of Wing V of RBA was established in Belbotey on the command of His Majesty the King and occupied about 80 acres of land.

Today the remaining acquired area are occupied by religious and other institutions such as the Dratshang, Dungkhag court, Dungkhag Administration office, residences of Dungpa and Drangpon, RBP housing, market shed, etc.



Moreover, it is the wish of Gola residents to stay in the same location with a request to the government to regularize their land holding and resume collection of land taxes.

Thus, the preparation of Local Area Plan has been initiated on the request of the Dzongkhag Administration and Gola residents and also supported by the National Land Commission Secretariat.

1.2 Aims and Objectives

The Local Area Plan of Gola is being prepared with an overall aim to strengthen Gola town as the commercial hub for the south western regions of Samtse Dzongkhag. The plan also attempts to achieve following objectives:

- To regularize the plots and provide secure tenure-ship to the residents of Gola Town.
- To make the plan easily implementable, clear and transparent with the involvement of the stakeholders.
- To facilitate and regulate a pattern of development which can sustain the business and community needs of the area;
- To provide essential infrastructure, public services and amenities to develop the town as a counter magnet for other areas in the vicinity.
- To protect the environment and green areas.
- To facilitate a pattern of development, which can accommodate the area's share of projected population.
- To provide a development option for the area, which exists in balance with nature, while respecting the unique traditional values of the place, guiding future urban growth in a manner sensitive to the ecology of the town and its surroundings;
- To introduce building typologies appropriate for the envisioned future development of the town; and,
- To assure that all the plots of the local area are facilitated through an efficient network of roads and footpaths.



1.3 Vision and Approach



Figure 1: Visions for Gola Town Local Area Plan

Gola Town stands out as a local area accommodating concentrated city level commercial development and public facilities which will cater to the entire South – Western areas of Samtse. Apart from this, the focus of Gola Town Local Area Plan is to promote environmentally sensitive urban development, which facilitates high-medium density population concentrations required for the city to accommodate growth over the next quarter century.

A major concern of Gola Town Local Area Plan is to configure plot sizes suitable for apartments and commercial outlets in and around the proposed Urban Village. These plots will be provided with adequate infrastructure services and access to achieve relatively medium and high-density population.

The urban village core of Gola Local Area Plan would provide services such as Banking facilities (ATM), Convenience shops along with residential use (mix land use), Pharmacy, Bus stops with ticketing facilities, Postal facility, Fire station and centralized parking for private vehicle and designated Taxi stands and parking.



1.4 Process Involved in the Preparation of Local Area Plan

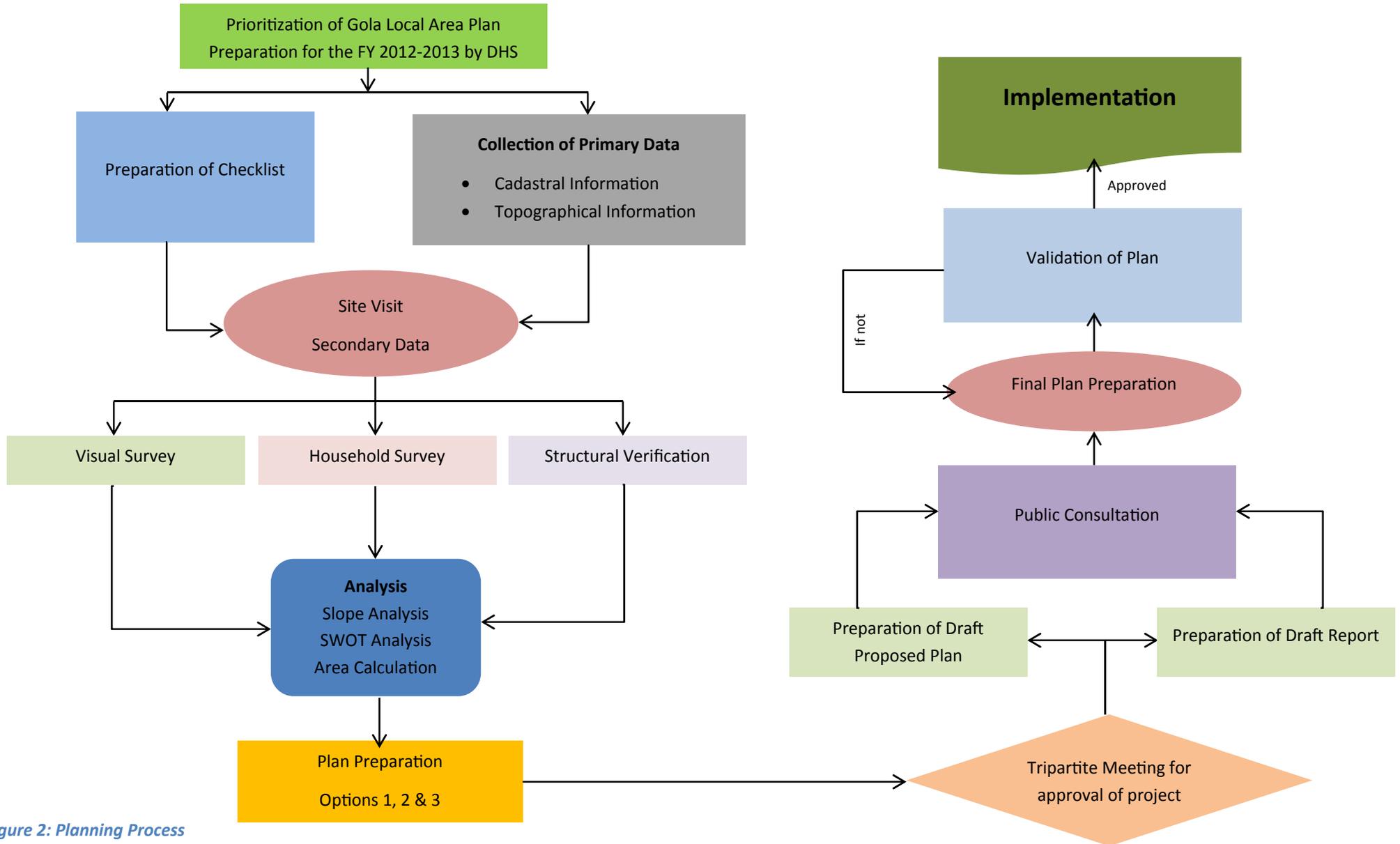


Figure 2: Planning Process



Existing Scenario

2.1 The Existing Gola Town

Gola Town is one of the oldest towns of southern Bhutan and is commonly known as Gola Bazaar. It is about 48 Km away from Samtse town and located along the Indo-Bhutan border at the extreme south-west of the country. It shares border with the Indian town of Jholong under Darjeeling District which is located just across the Jaldhaka River. The town is mainly a commercial town which caters to all the villages in and around Sipsu and also to Sombaykha gewog in Haa Dzongkhag, as it is closer to Sipsu than Haa town. Most of the structures in the town are temporary wooden huts. It also has some semi-permanent structures with Ekra wall and few permanent structures.

The town consists of a centralized parking area and has bituminous paved road till the stream and continuous thereafter as rough road to Biru Gewog and Jyamircot. Some of the residential plots do not have direct access to the paved road but are connected by unpaved off street footpaths. The highway towards Tendu separates Gola Town from the Royal Bhutan Army camp. A stream flows at the other end of the town separating the town from BPC office and the Drungkhag staff quarters.

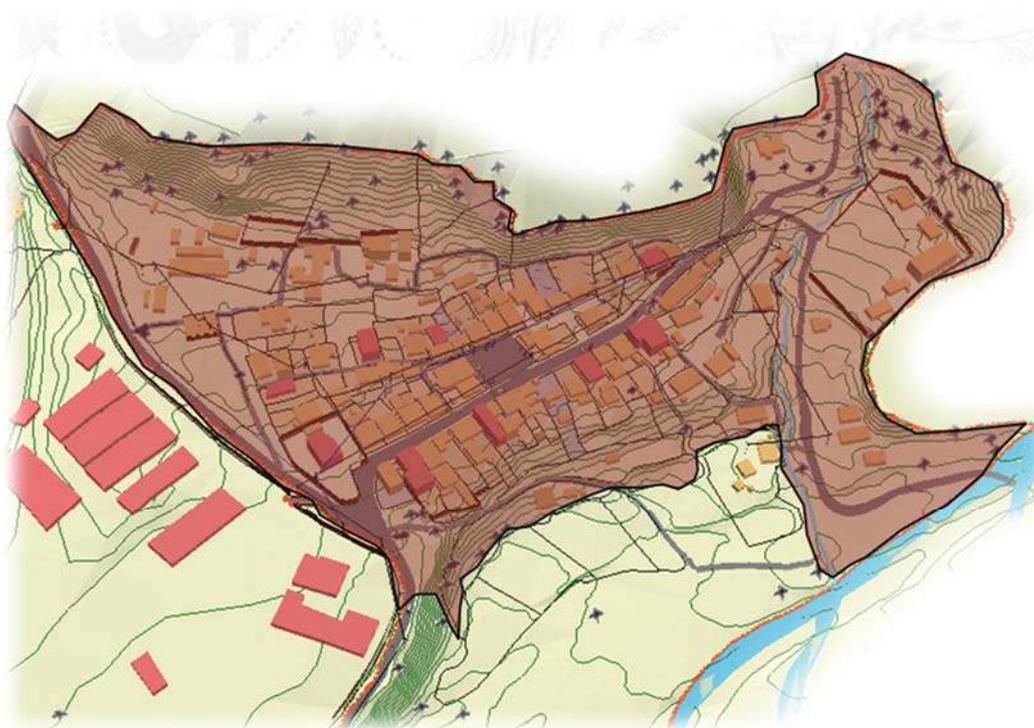
Gola town functions as a linkage between various surrounding settlements which are dependent on the town for the supply of goods and services through retail outlets. Despite its small size, the town is quite vibrant. It has all kinds of business outlets such as groceries, hotels, bars, restaurants, gold smith, hardware and even a beauty parlour. The town also consists of various institutional establishments such as RBP, RBA, BPC, FCB, Bhutan Post, Immigration Office, Grade 1 BHU and few intercity bus ticketing counters.

The residents of Gola have been occupying the land since its establishment in 1949. However the people living in the main Gola town do not have ownership of the land. The land is occupied by people from neighbouring villages of Sipsu and also people from Sombaykha in Haa. The total area within the existing town area is only 4.58 acres out of which 2.035 acres is occupied by the 50 residents and the rest of the area is in the form of road, parking and footpaths.

The existing Gola town of about 4.58 acres consists of the shops and residents of the 50 plot occupants, centralized parking area, unpaved off-street footpaths, the old residence of Dungpa and the central bitumen paved road. During the verification of the site, it was found out that there were some private plots adjoining the occupied plots. It was therefore decided during the tripartite meeting amongst the NLCS, MoWHS and the Local Government of Samtse that the private plots in the immediate vicinity shall be included in the planning boundary for the



preparation of a comprehensive urban development plan. 18nos of plots belonging to 11 private individuals, BPC plot (office), RBP plot (outpost) and 3nos of Dungkhag plots are included in the Planning boundary.



2.2 Climate and Vegetation

2.2.1 Topography and Land Features

Gola town is located in a narrow valley, on a terrace with steep slope towards the north-east, river on the southern side and vertical cliff at the south-west with no expansion scope. The existing settlement is located on the upper terrace and the lower terrace right next to the river is mostly wet land (paddy fields). Since most of the developments are low rise and away from the river, there are no major risks or issues.

The Jaldhaka River and the sprawling town of Jholong under Darjeeling district can be seen from the south-western end of the town. The existing Topographical and Landuse features are shown in Drawing No. 2.1



2.3 Existing Land Use

It can be seen that land utilization in Gola ranges from commercial in the central core, residential in the middle and institutional setups such as RBP, RBA and BPC and cultivation of paddy in the exterior of the town with natural boundary in the form of river, steep slope and vertical cliffs on all the four sides. Existing Basemap for Gola Town is shown in Drawing No. 2.2.

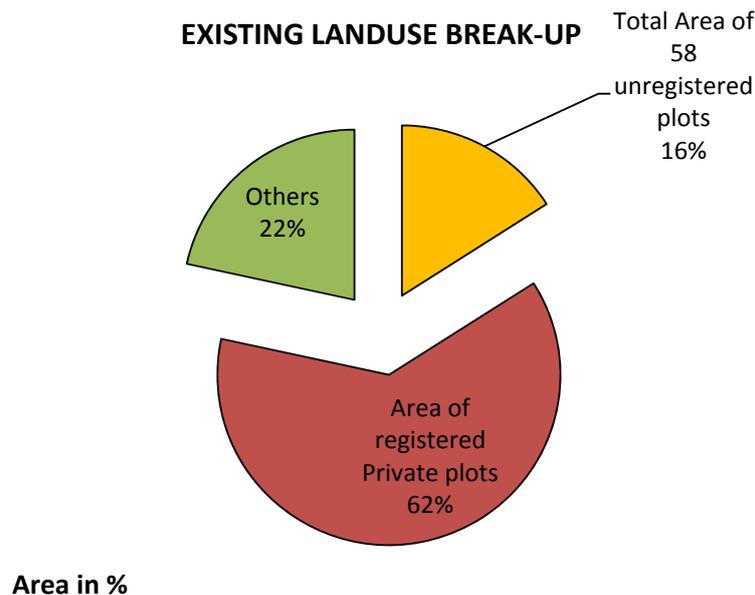
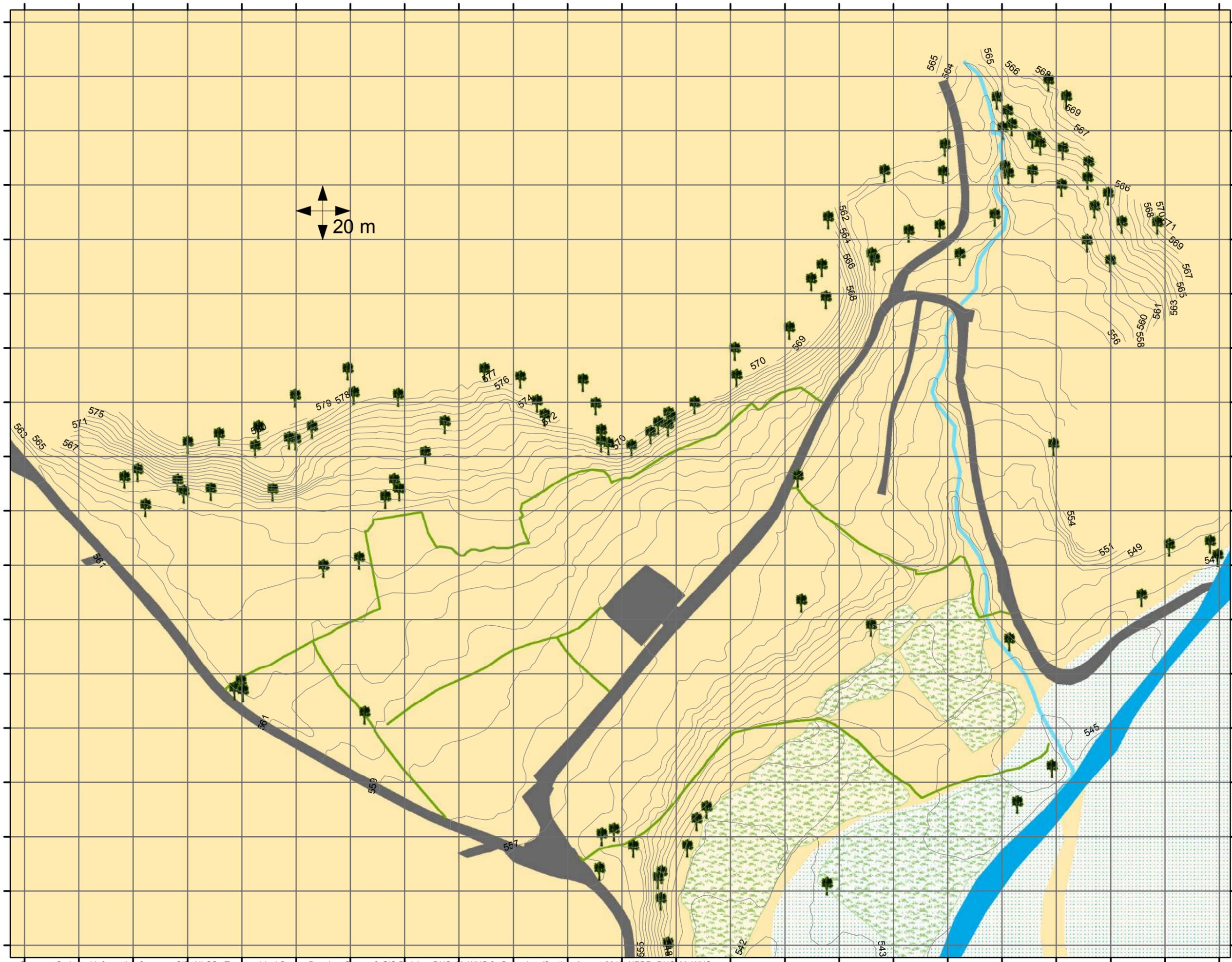


Figure 3 Existing Landuse Breakup

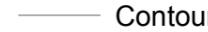
2.3.1 Existing Land Ownership Pattern

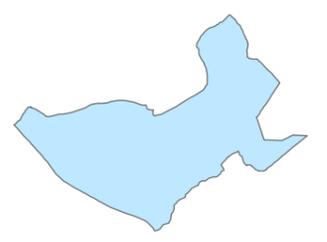
As illustrated in the following table and pie chart, private registered land consists of 18% of the total area of 14.594 acres, 20% registered as RBP land, 11% registered Dungkhag Administration land and 6 % registered BPC land. The state land which is the highest accounting to 45% of the total area comprises of occupied unregistered plots, land taken up by infrastructures and open spaces.





20 m

- LEGEND**
-  Natural Features
 -  Contour
 -  Tree
 -  River
 -  Paddy Field
 -  Stream
 -  River Basin



2.1
EXISTING TOPOGRAPHICAL AND LANDUSE FEATURES

LOCAL AREA PLAN, GOLA TOWN

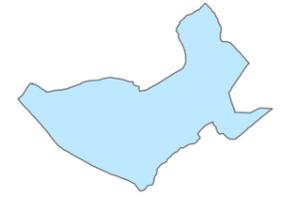
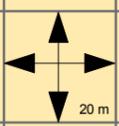
Urban Planning Development
 Division, Dept. of Human Settlement
 Ministry of Works and Human Settlement

0 10 20 40 Meters

Sources: Cadastral Information & maps - CID, NLCS, Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS



- LEGEND**
- Settlement Area
 - Town Boundary
 - Wall
 - Town Area
 - Plot Boundary
 - Buildings**
 - Permanent
 - Semi - Permanent / Temporary
 - Existing Services**
 - Roads
 - Footpath
 - Telephone_Pole
 - Electric_Poles
 - Telecom_Line
 - Electric_Line
 - Septic_Tank
 - Water_Tank
 - Natural Features**
 - Contour
 - Tree
 - River
 - Paddy Field
 - Stream
 - River Basin



2.2
BASE MAP
LOCAL AREA PLAN,
GOLA TOWN
 Urban Planning Development
 Division, Dept. of Human Settlement
 Ministry of Works and Human Settlement

0 10 20 40
 Meters

Sources: Cadastral Information & maps - CID, NLCS, Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS

Table 1: Existing Landuse Pattern

Land Ownership Pattern	Area in acres	% of the Total area
Private Land	2.651	18
BPC	0.865	6
Dungkhag	1.594	11
RBP	2.852	20
State Land(including occupied area)	6.632	45
Total Area	14.594	

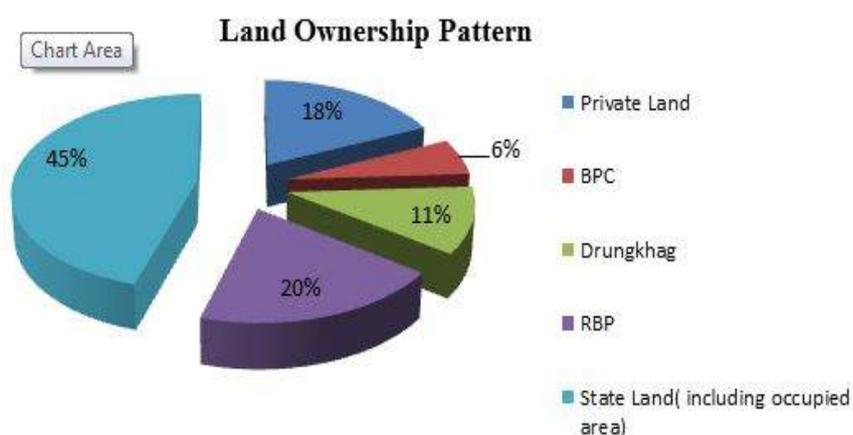


Figure 4 Existing Landuse Pattern

2.3.2 Existing Amenities and Facilities

Gola town consists of public amenities and facilities such as Immigration office, Bhutan Post, FCB, RBP outpost, BPC, Basic Health Unit (grade 1) and few intercity bus ticketing counters. It does not have a bank or an ATM facility or a petrol pump, people have to go all the way to Samtse town to avail these facilities.

2.3.3 Road and Circulation Network

Gola town has black topped road of 5m width which runs through the center of the town and ends at the stream (a few meters away from town) from where it continues as dirt road to Biru gewog and Jyamircot.

The residential plots at the periphery are accessed through unpaved footpaths in between the houses. There are no pedestrian



footpaths along the roads as well and the drains along the road are open which is not desirable for a hot place like Gola.

There is a centralized parking lot for about 10-15 vehicles. Cars parked along the road and causing nuisance is a very common sight in Gola town. The existing transportation network is shown in Drawing No. 2.4

2.3.4 Institutional Establishments and Offices



There are few institutional establishments and offices in Gola such as the Royal Bhutan Police outpost, Bhutan Power Corporation office, Bhutan Postal Corporation, Immigration Office, Basic Health Unit (Grade-1), etc. However most of the Institutional Establishments and government offices are coming up in Belbotey (3.8km from Gola) which is earmarked to be developed into an institutional Centre.

2.3.5 Heritage & Religious Structures



Gola town itself is too small and there isn't any Heritage or Religious Structures but there is a very huge pipal tree at the entrance of the town. There is also a Shiv Mandir and a Chorten about few hundred meters before reaching the town. There is a Monastery (Dzatsang) with a Lam Neten and monk body at Belbotey.



2.3.6 Housing

Most of the houses in Gola town are one storied wooden or CGI sheet houses which are very close to each other. However, there are few permanent two and three storied houses which are built with materials such as cement, concrete, bricks and CGI sheet roofing. The houses are all very old and worn out and in dire need of repair and maintenance. Old PWD stores in the Dungkhag land are also occupied by Dungkhag staffs as residential units. These buildings are also in very poor conditions.



2.3.7 Weekly Market Shed



There is no weekly market facility in Gola town. However there is a Sunday market shed built in Belbotey. Some residents of Gola felt that Gola would become more vibrant if the market shed is shifted to Gola from Belbotey.

2.4 Existing Utility and Services

2.4.1 Drinking Water Supply and Distribution

Water supply for Gola town, Dungkhag office, BHU and nearby settlements is tapped from Sipsu Khola. The intake is located at a place called Kopche which is about 5km from Gola town. The water supply scheme for the town was constructed in 1976. A study conducted by the officials from urban infrastructure



division under the Department of Engineering Services pointed out that the water is being supplied untreated to the town through 80mm GI pipe which are all rusted.

There were also lots of wastages observed from the pipelines and reservoir. Also the water has been tapped at four different locations below the existing intake point of the town for the supply of water to Sipsu Village, RBA, Peljorling HSS and Dungkhag Administration in 1984, 2005, 2006 and 2012 respectively. For this reason, people do not get sufficient water and most hard hit are the settlements of Sipsu Village. In most cases the water is taken inside the house but there are few with shared water taps.

2.4.2 Storm Water Drainage System

There are few newly constructed cement mortar storm water drains but they are open and abruptly end at the beginning of the lower terrace. Thereafter it flows through the paddy fields and directly into the river without a drain.



2.4.3 Sewage and Solid Waste Disposal System

Gola town does not have a piped sewer network. Most of the houses have plot level septic tank soak pit system while there are some with primitive pit latrine system. Gola town also do not have a designated solid waste disposal site and neither a schedule waste collection. This is one of the challenges currently faced by the municipality. Samtse municipality in early 2012 has even conducted an awareness campaign on solid waste management to the Gola residents.



2.4.4 Electricity Supply and Telecom Services

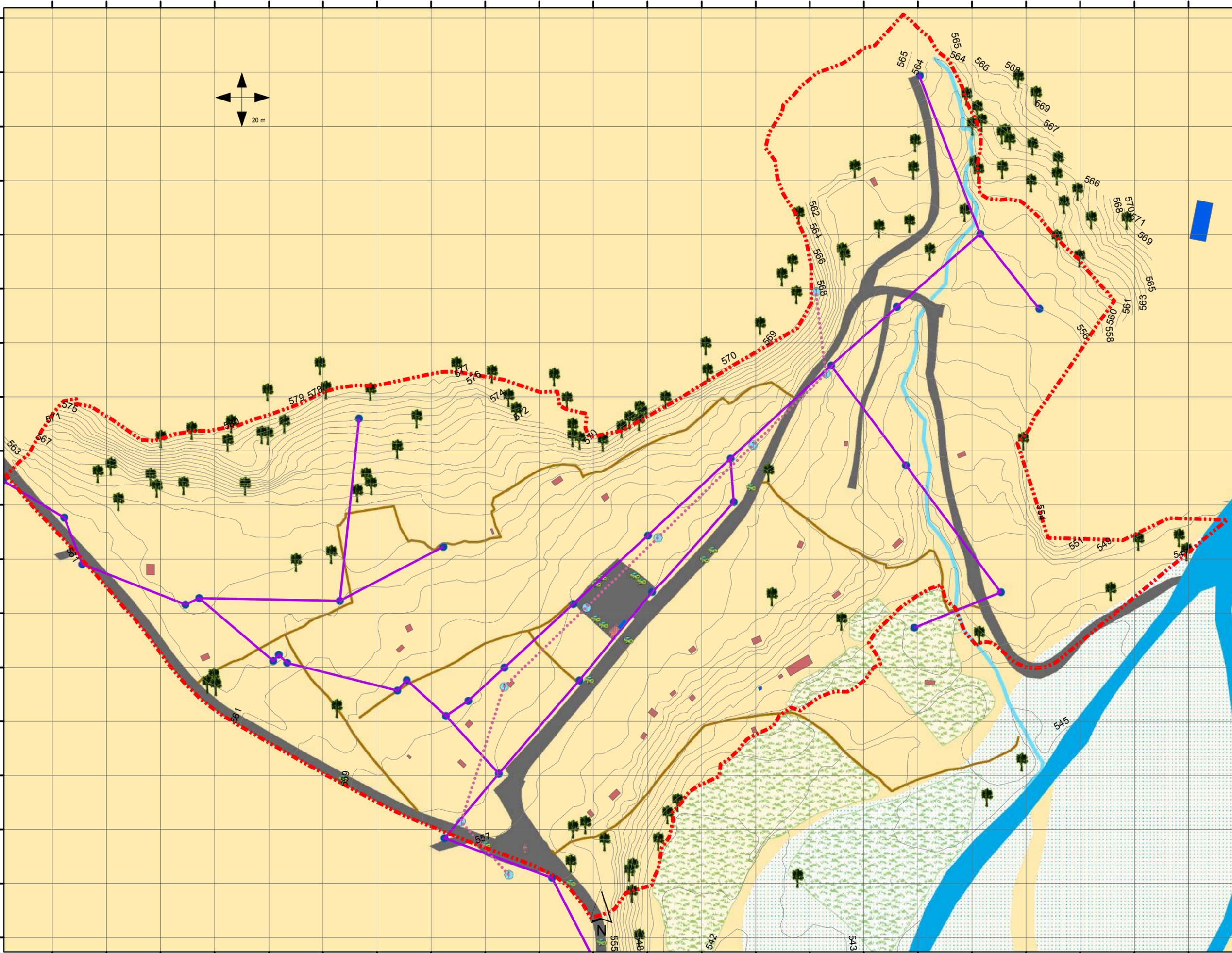
The electricity supply for Gola town is from 35 mw Jaldhaka hydropower plant located on the India side of Indo-Bhutan border in West Bengal State just across Jalong River from Gola. This hydro power station was commissioned in 1967 and supplies free electricity to Gola town since Jaldhaka River is a part of Bhutan. The area also has telecommunication and mobile phone services.



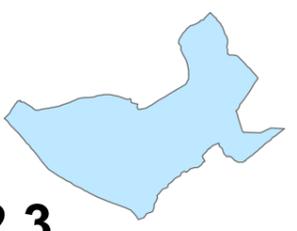
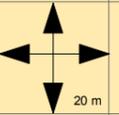
2.4.5 Fire Fighting

A fire hydrant, sand pit, water storage reservoir and fire extinguishers are installed at the center of the town by the Royal Bhutan Police. The existing infrastructure is shown in Drawing No.2.3





- LEGEND**
- Settlement Area
 - Town Boundary
 - Town Area
-
- Existing Infrastructure**
- Roads
 - Footpath
 - Telecom_Line
 - Septic_Tank
 - Water_Tank
 - Electric_Line
 - Telephone_Pole
 - Electric_Poles
 - Fire_Hydrants
-
- Natural Features**
- Contour
 - Tree
 - River
 - Stream
 - Paddy Field
 - River Basin

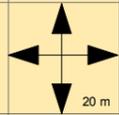


2.3
EXISTING
INFRASTRUCTURE
LOCAL AREA PLAN,
GOLA TOWN

Urban Planning Development
 Division, Dept. of Human Settlement
 Ministry of Works and Human Settlement



Sources: Cadastral Information & maps - CID, NLCS, Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS



LEGEND

- Settlement Area**
- - - Town Boundary
- Contour
- Vehicle
- Roads
- Footpath
- Buildings**
- Permanent
- Semi - Permanent / Temporary
- Natural Features**
- Contour
- 🌳 Tree
- River
- Stream
- River Basin



2.4
TRANSPORTATION NETWORK
LOCAL AREA PLAN, GOLA TOWN
 Urban Planning Development Division, Dept. of Human Settlement Ministry of Works and Human Settlement

0 5 10 20
 Meters

Sources: Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS

Analytical Study

3.1 Regional Context

Gola town in Sipsu Dungkhag will be developed into a commercial center and it will cater to the commercial needs of the people living within its catchment area like Biru, Tendu, Jyamircot, Belbotey, Bara, etc. The people of Haa, Sombaykha also come to Gola for trade and other services. Since Gola is the oldest and the only town in that part of the country, it will continue to retain its importance in the regional context.

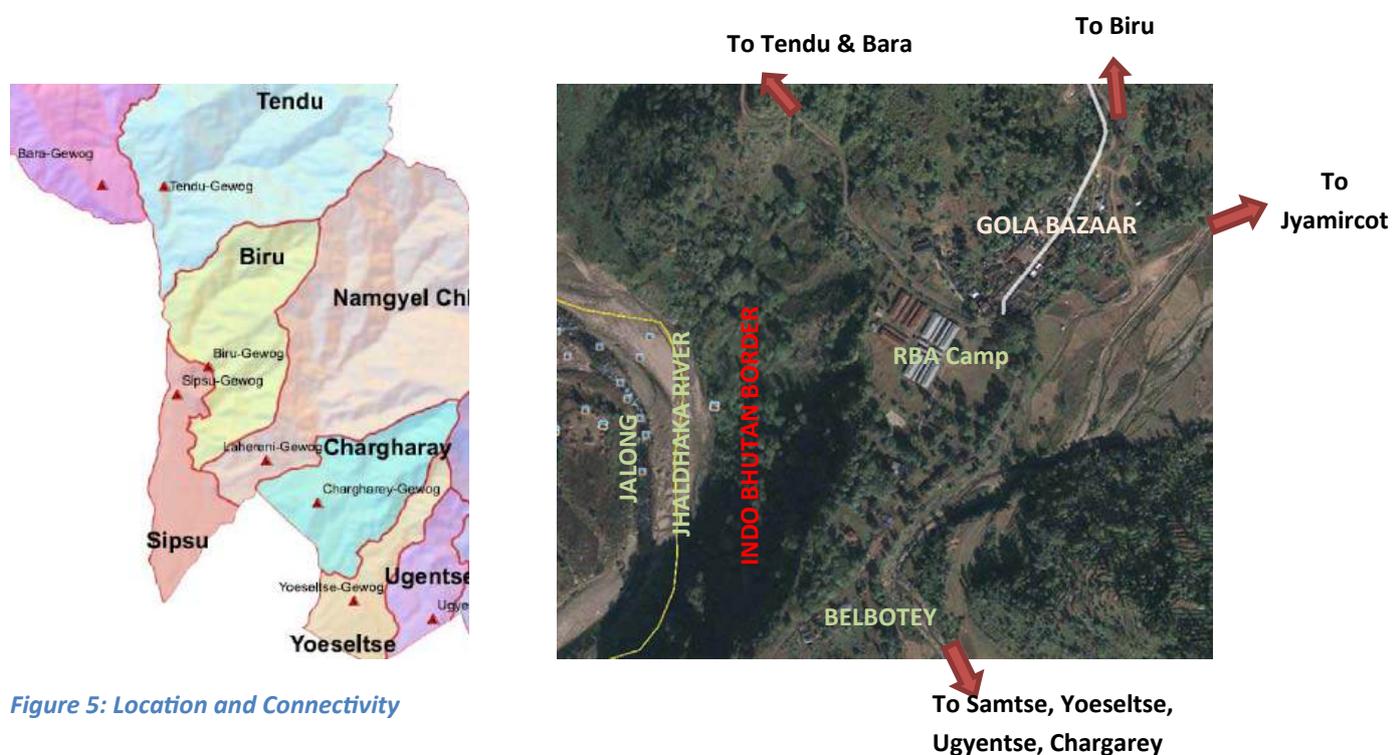


Figure 5: Location and Connectivity

3.2 Land Suitability for Development

Topography, climate, availability of natural resources and existing settlements are the major determinants for the suitability assessment for any settlements. An understanding of the interrelation between the geographical formations, topography, the surface drainage and the physiological characters of the identified zone are essential to determine the suitability of the land for development.

The analysis of the interrelations of the natural determinants in contrast to the potential land uses determinants or the land suitability analysis for the town is shown in Table No. 2



3.3 Slope Analysis

To understand the characteristics of the identified zones it is essential to analyze the slope ranges which determine the compatibility for development. Slope analysis, along with vegetation and natural resources will determine the most appropriate sites for various land uses.

The slope angle is determined by the percentage of the ground slope by the formula

$$\text{Slope \%} = (\text{rise/run}) \times 100.$$

The slopes are classified into four categories based on the steepness of the slope.

1. Gradual slopes (0 – 10 %)
2. Moderate Slopes (10 – 20%)
3. Steep Slopes (20-30%)
4. Very Steep Slopes (greater than 30%)

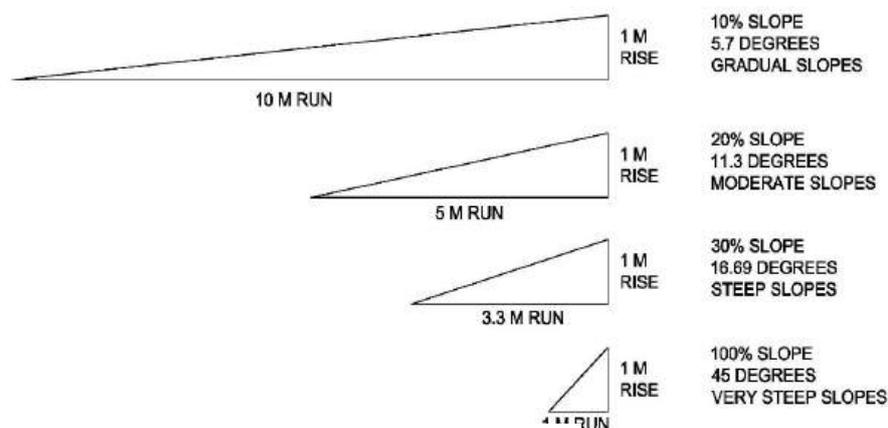


Figure 6 Slope Categories

The analysis determines that most of the area falls under the gradual slope which is most suitable for urban development. The moderate slopes are suitable for disperse kind of settlements or agriculture activities.

The areas greater than 30% slope is not suitable for development due to following reasons

- Development on these slopes involves cutting of slopes and dense forest which will gradually degrade the slope characteristics, affecting the soil stability and increase surface runoff.
- As the proposed town falls under tropical zone it is essential to protect the natural forest and also because of heavy rainfalls it will leads to soil erosion and landslides.

The slope analysis diagram is shown in Drawing No. 3.1



3.4 Aspect Analysis

To identify the environmental aspects of its activities, products and services within the defined scope of the environmental management system that it can control and those it can influence taking into account new planned developments or new or modified activities and proposed products and services. The slope aspect analysis studies the direction of the slope facings and to understand the relation with the sun path as well as wind directions.

The proposals of new development, a building or road alignment are interdependent with the nature of the slope and the local climate. The slope aspect analysis along with climatic data identifies the micro-climatic zones of the settlement. The most significant application of slope aspect is identifying the best possible sites for residential and horticultural land uses. So aspect analysis of any development is essential to facilitate the settlement with effective uses of natural resources. The Aspect analysis for Gola Town is shown in Drawing No. 3.2

3.5 Swot Analysis

A SWOT analysis is a subjective assessment of data which is organized by the SWOT format into a logical order that helps in understanding presentation, discussion and decision-making. The SWOT analysis is normally presented as a 4 x 4 grid, comprising four sections, one for each of the SWOT headings: Strengths, Weaknesses, Opportunities, and Threats.

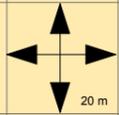
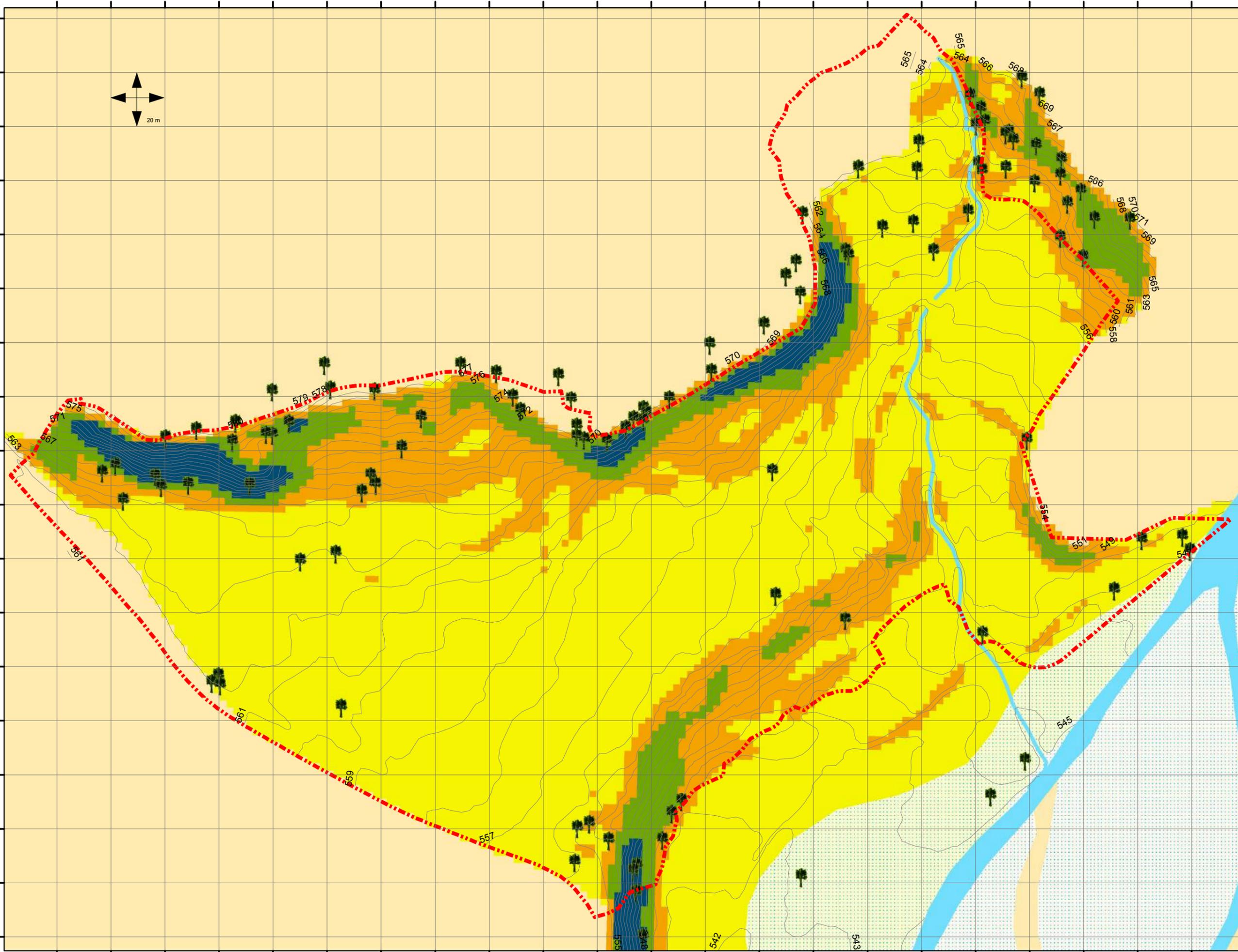
The SWOT analysis is based upon several characteristics of a town like Physical, Economical, Infrastructure, Cultural functions etc. The analysis helps to understand or to project the feasible development with extensive use of city characteristics and available local resources. The assessment for Gola Town is presented in Table. 3.



Table 3: SWOT Analysis

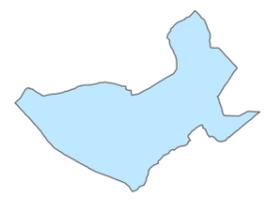
<p>STRENGTHS S</p> <p>Physical and Economic:</p> <ul style="list-style-type: none"> - A connecting settlement and a counter magnet area for the other settlements like Tendu, Biru, Sombaykha, etc. - Nearby settlements dependent on the town for goods and services. - Presence of a stream passing through the town, which gives cooling effect to the town and also visually appealing. - A coffee plantation nursery located in the vicinity creating job for the villagers. - Terrain of the town area is generally flat for development. - People's perception to develop the Town further. <p>Infrastructure:</p> <ul style="list-style-type: none"> - Public transport connectivity is good. - Availability of sufficient water supply. - Access to black topped motorable road. - Presence of electricity, internet and mobile connectivity. <p>Culture:</p> <ul style="list-style-type: none"> - Fair / Mela used to be held earlier in the lower terrace of Gola town. - Existence of a chorten and a Shiv Mandir about half a kilometer before reaching the town. 	<p>WEAKNESS W</p> <p>Physical and Economic:</p> <ul style="list-style-type: none"> - Lack of space for future expansion. - Lack of proper platform for nearby villagers to sell their agricultural goods. <p>Infrastructure:</p> <ul style="list-style-type: none"> - Insufficient spaces for parking. - No municipal garbage collection facility or proper disposal site. - Lack of integrated water supply system and drainage for the town & shortage of water during monsoon season due to blockages in pipe network. - No banking & ATM facilities. - Lack of fuel station in and around the town. - Lack of proper footpath for the pedestrians. - Lack of school bus facility. <p>Environment and Urban management:</p> <ul style="list-style-type: none"> - Degradation of river and stream quality due to dumping and direct drainage of waste water.
<p>OPPORTUNITY O</p> <p>Physical and Economic:</p> <ul style="list-style-type: none"> - The town is in vicinity to the proposed service center of the South, Samtse. - Area along the river can be developed into a recreational area. <p>Infrastructure:</p> <ul style="list-style-type: none"> - Rain water can be harvested as there is plenty of rainfall during monsoon. - Availability of buildable land. - Most of the structures are semi-permanent in nature. 	<p>THREATS T</p> <p>Physical and Economic:</p> <ul style="list-style-type: none"> - Possibility of flooding along the river. - Possibility of losing the customers base to Indian traders due to proximity to Indian Border. <p>Environment and Urban management:</p> <ul style="list-style-type: none"> - Degradation of the environment due to open dumping of the wastes and direct disposal of drainage into the river.





LEGEND

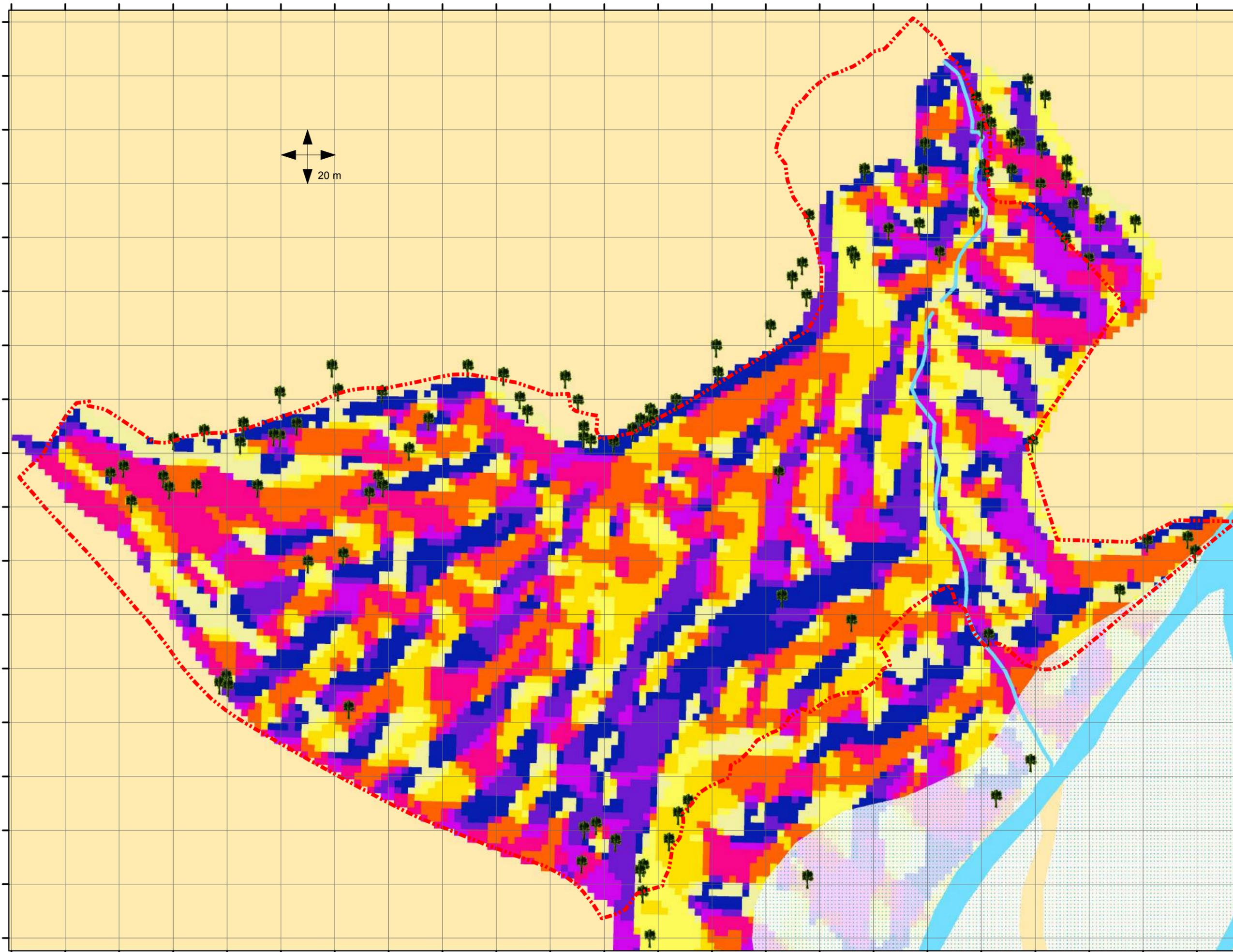
- Settlement Area
- Town Boundary
- <VALUE>**
- < 10
- 10 - 20
- 20 - 30
- > 30
- Natural Features
- Contour
- Tree
- River
- Stream
- River Basin



3.1
SLOPE ANALYSIS
LOCAL AREA PLAN,
GOLA TOWN
 Urban Planning Development
 Division, Dept. of Human Settlement
 Ministry of Works and Human Settlement



Sources: Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS



LEGEND

Settlement Area

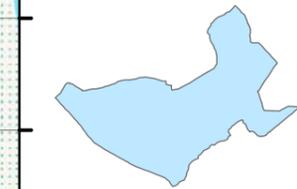
Town Boundary

Aspect Analysis

- North
- Northeast
- East
- Southeast
- South
- Southwest
- West
- Northwest

Natural Features

- Tree
- River
- Stream
- River Basin



3.2
ASPECT ANALYSIS
 LOCAL AREA PLAN,
 GOLA TOWN
 Urban Planning Development
 Division, Dept. of Human Settlement
 Ministry of Works and Human Settlement

0 10 20 40
 Meters

Sources: Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS

3.6 Mode of Land Mobilization

Mobilization of land for urban development at Gola town has been a difficult task due to limited availability of land. The Government of Bhutan has been promoting the concept of Land Pooling for some time now and in this scheme all the land owners in an area contribute a certain agreed percentage of their land holdings toward provision of infrastructure and common amenities. In the Land Pooling Rules 2009, it says that for an area to be suitable for Land Pooling scheme it has to be in an urban area and the proportion of developed plots should not exceed 25%. Further the Land Pooling contribution should not exceed 30% of the total land holding and minimum size of the plot before pooling should not be less than 13 decimal. However, in the case of Gola it is observed that concept of Land pooling is not feasible since major portion of the town is already built up and also the occupied plots are of very small sizes.

Only 14.594 acres of land has been earmarked for development in Gola Town which consists of the commercial area in the center and residential dwellings, RBP, BPC and Dungkhag land in the periphery. The private landowners are allocated plot with their original registered *thram* area only. However, the plot shapes will be regularized with little shift in the location. The 50 nos. plot occupiers (including FCB plot) will be allocated 52 nos. of standard plot with an area of 2400 sq.ft each with an exception in one case where it was not possible to provide the standard plot size due to the presence of permanent structure. As the land available within the Gola town boundary is not sufficient for the provision of proper infrastructure and buildable commercial plots for the plot occupiers, extensive discussions were held between the Dasho Dzungda, Samtse Dzungkhag, Dzungpa, Sipsu Dzungkhag, MoWHS and the land owners and occupiers of Gola town upon which it was decided that the deficit area for the provision of required infrastructure would be acquired from the Dzungkhag land (which comes to around 43 decimal of land). Dasho Dzungpa pointed out that once the plan is approved, the drungkhag shall correspond with the Ministry of Home and Cultural Affairs regarding this issue since the Drungkhag Administration is directly under the Ministry of Home and Cultural Affairs.

3.7 Demography

Population projection is one of the most essential aspects of the preparation of a comprehensive urban plan. The current and projected populations are used to determine the nature and level of infrastructure and services to be provided in a town. It is essential to consider all factors of population projections such as physical, socio-cultural, economic, and historical including the fertility, mortality and migration. But for a small settlement like Gola town inclusion of all the factors may be neither possible nor necessary. Given its small size and unpredictable population growth patterns, it is not possible to derive a reliable rate of population growth.

The current population of Gola Town is around 377 as per the survey conducted by Municipal Administration in the year 2012. Due to Gola town's unpredictable population growth pattern,



it is difficult to derive a reliable growth rate. As per the PHCB 2005, the population growth rate for Samtse Dzongkhag is 1.6 annually. By taking this growth rate for Gola town for projection purpose, it is estimated that the population of Gola town will be 502 by the year 2030.

The Population Projection for Gola Town is shown in Table No. 4

Table 4: Population Projection

Sl.NO	Year	Growth Rate	Population
1	2012	1.6	377
2	2015	1.6	389
3	2020	1.6	421
4	2025	1.6	456
5	2030	1.6	502

(Source: PHCB, 2005 calculated)

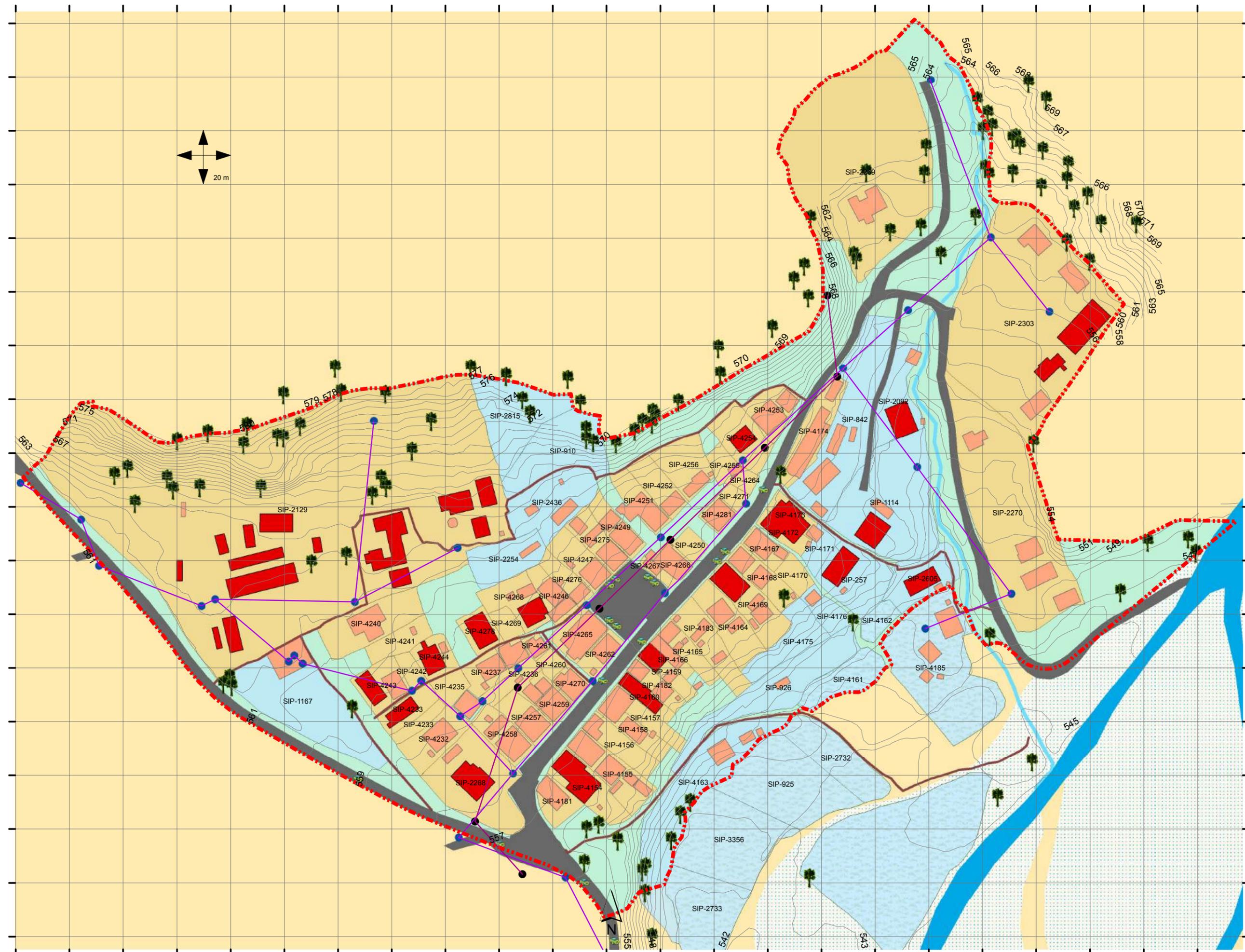
3.8 Plot Size Analysis

Upon analysis of the plot size, it is found out that almost 83% of the plots have area less than minimum urban plot size (i.e. 5.5 decimal) and only 17% of the plots with area greater than 5.5 decimal. It was also found out that the size of the biggest plot is 9.7 decimal and the smallest plot is as small as half a decimal. From this analysis it was concluded that the land available in the town is not sufficient in order to provide buildable urban plots and proper urban infrastructure like road, footpath, drain, parking and recreational area. The plot size analysis in tabular format and pie chart representation are shown in Table 5 & Fig. 6 respectively. The ownership pattern and the Plot size classification map is shown in Drawing No. 3.3 & 3.4 Respectively.

Table 5: Plot Size Classification(unregistered plots)

Plot Size in Sq. ft.	No. of plots	% of the total
>2400	43	83
2400-4356	9	17
Total	52	100





LEGEND

Settlement Area

- Town Boundary

Plot Boundary

Ownership Pattern

- Government Ownership
- Private Ownership
- State Land

Plot Boundary

Buildings

- Permanent
- Semi - Permanent / Temporary

Existing Services

- Telecom_Line
- Electric_Line
- Telephone_Pole
- Electric_Poles
- Footpath
- Roads

Natural Features

- Contour
- Tree
- River
- Stream
- Paddy Field
- River Basin

3.3

OWNERSHIP PATTERN

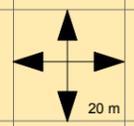
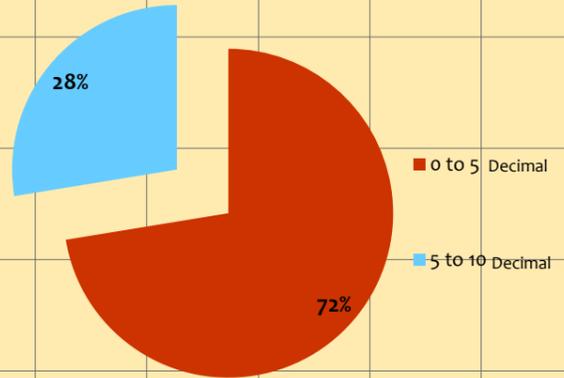
LOCAL AREA PLAN,

GOLA TOWN

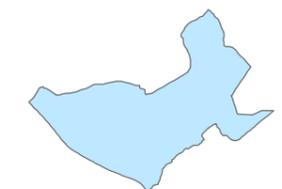
Urban Planning Development
Division, Dept. of Human Settlement
Ministry of Works and Human Settlement

0 10 20 40
Meters

Sources: Cadastral Information & maps - CID, NLCS, Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS



- LEGEND**
- Settlement Area
 - Town Boundary
 - Town Area
 - Area (In Decimal)**
 - < 5
 - 5 - 10
 - > 10
 - Plot Boundary
 - Buildings**
 - Permanent
 - Semi - Permanent / Temporary
 - Existing Services**
 - Roads
 - Footpath
 - Telecom_Line
 - Electric_Line
 - Telephone_Pole
 - Electric_Poles
 - Natural Features**
 - Contour
 - Tree
 - River
 - Stream
 - Paddy Field
 - River Basin



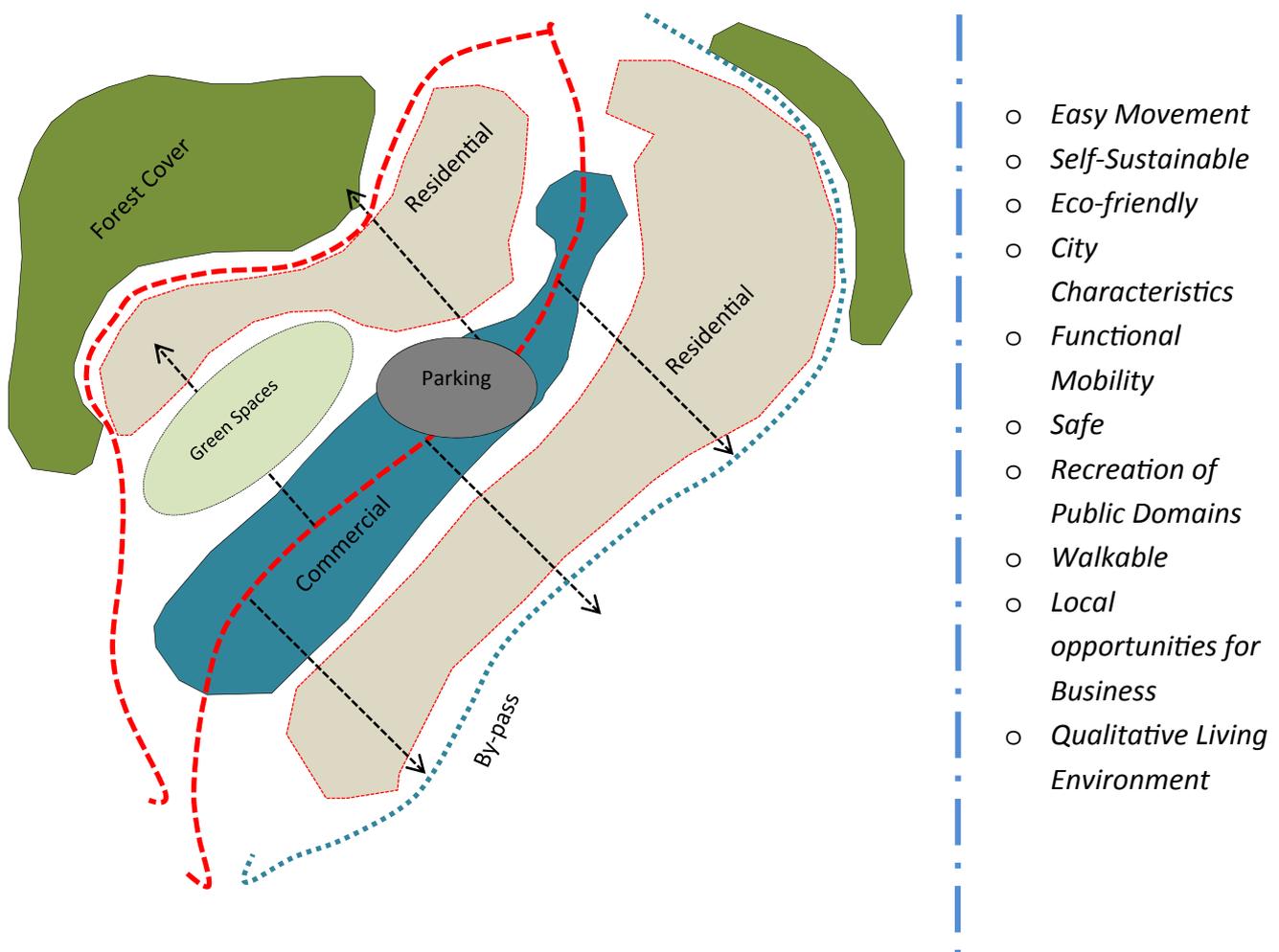
3.4
PLOT SIZE CLASSIFICATION
LOCAL AREA PLAN, GOLA TOWN
 Urban Planning Development
 Division, Dept. of Human Settlement
 Ministry of Works and Human Settlement

Sources: Cadastral Information & maps - CID, NLCS, Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground Verification, August 2012, UPDD, DHS, MoWHS

Proposal for Actions

4.1 Planning Principles

4.1.1 Concept of the Plan



The center of the city is what gives it life and character. It is essential that the core generates exuberance and a variety of activities. It must be dense, safe, clean and easy to move in. Presently the core does not have a particular character but gives an opportunity to create public domains that could suit the place climatically and be acceptable to the users.

The concept plan focuses on the city core, Gola Town as a major target for planning. The core serves the main small scale business activities which serves the adjoining areas and the



connecting settlements. The core will use planters and benches. A pedestrian spine could be proposed along the main core spine reaching adjoining residential areas.

Enrich the main open space at the town center by providing adequate drains and paving, with the minimum gaps. A careful blend of local, flowering trees and shrubs should be used in garden areas. Cobble stone paving will add texture and feel. Benches and other street furniture will be provided so that people can stop, pause, rest, chat with friends, meet new people. Street and footpath lighting will be introduced and planned for the pedestrian areas.

4.1.2 Planning Principles Adopted in Gola Local Area Plan

- To develop Gola as a walkable town with well-connected pedestrian walkways.
- To encourage mix use by allowing mix of commercial and residential uses in one building.
- Accessibility prioritized by provision of road access to all the plots.
- Promotion of public open spaces to enhance community bonding and quality of urban environment.
- Preservation of the natural landforms by designating river and stream buffers

4.2 Proposed Plot Configuration

The upper terrace of the Gola town area is completely built up with temporary as well as permanent structures. The lower terrace consists of few semi-permanent houses but it is mostly barren cultivation land. The existing cadastral map and land ownership data suggest that about 18% of the land is with private ownership 14% of the land with unregistered occupied plots and rest are the lands under government institutions and state land.

14% of the unregistered plots are in the size varying from 0.5 decimal to 9.7 decimal and majority are of very small plot size. It is therefore configured in such a way that all the occupiers will get a plot of equal size which is buildable after keeping the required setbacks. The proposed Plot Reconfiguration is shown in Drawing No. 4.1

4.3 Proposed Precinct Plan

The Precinct Plan of Gola gives a clear indication of the organization of the various land uses in the town. The entire area is divided into following precinct categories: Urban Village Core, Urban Village Periphery, Institutional, Services and Amenities, Defense, Environmental Conservation and Open Spaces. Proposed Precinct plan is shown in Drawing No. 4.2



4.3.1 Urban Village Core

The town center, designated as the Urban Village Core Precinct, is located towards the center of the site. It is located on the upper terrace and has relatively flat terrain suitable for intensive development. This justifies the primary objective of locating all the urban amenities and facilities in the urban core area. It consists of mix use of commercial and residential plots on either side of the central spine with a small open space or playground for children in the center surrounded by plots on all the sides. The children's playground is located in between the plots and far from any major or minor roads for the safety of the small children going to park. The park is located in such a way that parents can see their children play from their balconies. A centralized parking area has been proposed for private cars and bicycles within the Urban Village Core Precinct. All commercial and retail activities are proposed to be confined within the town center area.

4.3.2 Urban Village Periphery

Urban Village Periphery precinct are areas zoned for low density residential development. This precinct is located in the periphery of the central core area and is ideal for both normal residential development and single family homes. Most of the plots in this precinct are private registered plots and situated in the lower terrace. There are few plots on the upper terrace and few others on the right side of the stream. The plots in the lower terrace are accessed through a proposed bypass road.

4.3.3 Institutional Precinct

The institutions with registered land in this precinct consist of RBP and BPC. The proposed Dungkhag municipal office and guest house will also come up in the Dungkhag land within the town near the existing BPC office.

4.3.4 Service Precinct

The essential public amenities, facilities and services have been grouped under the Services and Amenities Precinct. These services include the water reservoir and supply network, street lighting, storm water drainage system and firefighting facilities. The solid waste disposal site needs to be identified few kilometers outside the town by the Dungkhag Administration.

4.3.4.1 Water Supply System

Gola has been facing an acute shortage of water during the lean seasons and constant disruption in supply throughout the year. Biru Khola has been proposed as an alternative source of water



supply for Gola town. It is 6 km from Gola town towards Tendu. The water there is found to be clean and big enough to meet the future demand and besides there are no settlements upstream of the proposed intake. It has been recommended by the officials of UISD who have conducted a feasibility study that water for the entire Sipsu area should be tapped from Biru Khola from sustainability point of view since it is perennial and free from contamination due to absence of settlements above the proposed intake.

4.3.4.2 Sewage Treatment System

Individual septic tank and soak pit system is proposed for each plot in Gola Town since it is more economical. Moreover there is a shortage of land for the construction of common sewage treatment plant. Therefore, the septic tank and soak pit for individual plots are proposed to be constructed at the rear side of each plot.

4.3.4.3 Street Lighting System

There are no proper street lighting systems in the existing Gola town, therefore an adequate street lighting system is proposed along the road network. Appropriate lighting will also be provided along the off-street footpaths.

Table 6: Details of proposed street lighting system

Road Name	Location	Distance	Type
Gola Main Road	Town core	20 meters (staggered)	To be Specified
Gola Upper Road	At the base of slope and along RBP boundary on lower side	20 meters (single side)	To be Specified
Gola FCB Road	Towards the stream from the FCB junction	20 meters (single side)	To be Specified
Gola By-Pass	On the lower terrace from the highway towards the stream	20 meters (single side)	To be Specified
Footpaths, Parking Areas & Central Open Space	Along the plot boundaries	20 meters (single side)	To be Specified
Road Junctions	Entry, Near FCB & Near RBP	3 Numbers	4 Arms Street Head Lights



4.3.4.4 Storm Water Management System

Storm water management system can be based on the principles of Sustainable Urban Drainage Systems (SUDS). It is defined as a sequence of water management practices and facilities designed to drain service water in a manner that will provide a more sustainable approach than the conventional practices of routing runoff through pipes and drains to the water courses. Practices involve water harvesting, reduction in the polluting activities, materials, etc., and facilities are generally constructed arrangements such as permeable surfaces, filter and infiltration trenches, swales, wet land, ponds, French drains, etc.

In Gola, this technology can be applied at the plot level by individual plot owner in the form of rain water harvesting, construction of permeable surfaces for walkways and car parks. At the town level construction of swales, retention ponds and filter drains can be done in the lower terrace before discharging the storm water into the river.

The topography of Gola town is such that it will allow for smooth flow of storm water drainage into the stream and river systems. However, a proper drainage network has been proposed along the road and footpaths.

4.3.4.5 Fire Fighting Facilities

Firefighting facilities are very much essential for any town irrespective of the size of the town. This facility is already in place in the existing town located at the central parking lot and it will be maintained in the proposed plan as well. However, the capacity of the reservoir will be increased taking into consideration the projected population of the town. Approximately 15% of the domestic water supply capacity shall be reserved for firefighting and other emergencies.

4.3.5 Environmental Conservation Precinct

A network of protected spaces is proposed within the Gola Local Area Plan. Green spaces for conservation have been proposed despite the fact that Gola has very limited area for development. This is done in order to preserve the natural environment and promote conservation of environment. Areas under this precinct include the river/ stream/ flood protection corridor along the river and stream, steep drops, vertical cliffs, forest, gullies and other sensitive and unstable areas.

4.3.6 Open Space Precinct

Open Space Precinct is another land use related to the environmental conservation areas. The open space system not only helps to protect sensitive areas from the adverse effects of development but also promotes and enhances the quality of urban life and living environment.



The central recreational area is an important feature of the open space system. Vegetation and plantation of trees in these areas will help to beautify the area and make the local climate more pleasant especially during the hot summer months.

4.3.7 Circulation System and Road Networks

A network of road and pedestrian circulation system is proposed for Gola Town. The system has been designed and proposed with a primary objective to provide access to every plot with minimum impact on the environment and also to provide easy and safe off-street pedestrian movement. The road right of way for Gola main road is 5.9m with footpath on both the side with one way traffic movement. A vehicle will have to enter the town via the Gola main road from the Tendu-Gola Highway and exit via Gola upper road which has 4.7m road right of way and one way traffic movement. In order to go to Biru Gewog centre or Jyamircot, one will have to take Gola FCB road which has 7.2m ROW and has footpath on one side. Gola FCB road continue as Biru Road and Jyamircot Road which are both rough roads. There is also a bypass road proposed in the lower terrace named as Gola Bypass road which will cater to heavy vehicles so that congestion and pollution problems are avoided in the town core. A proper hierarchy of road with standard size could not be provided in Gola LAP since there is an acute shortage of land in Gola and also such a proposal is not possible in Gola because planning technique like land pooling or land acquisition has not been employed due to which land for provision of infrastructure is very limited.

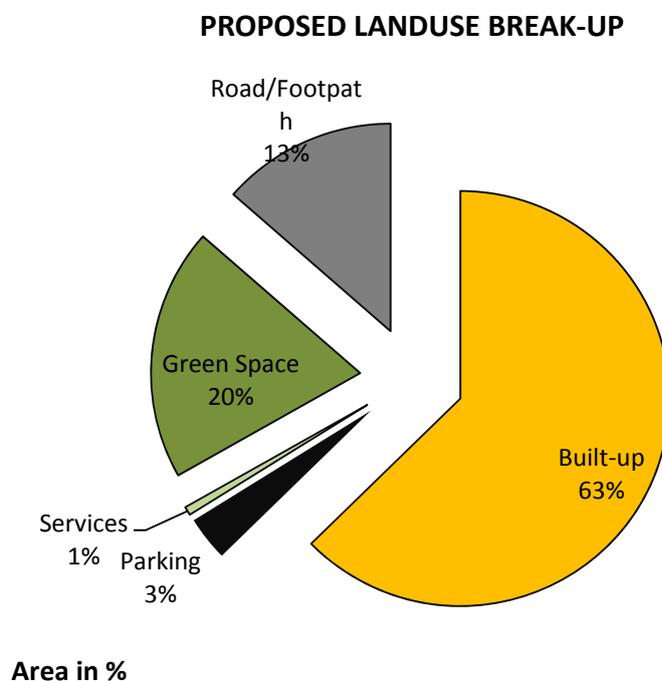


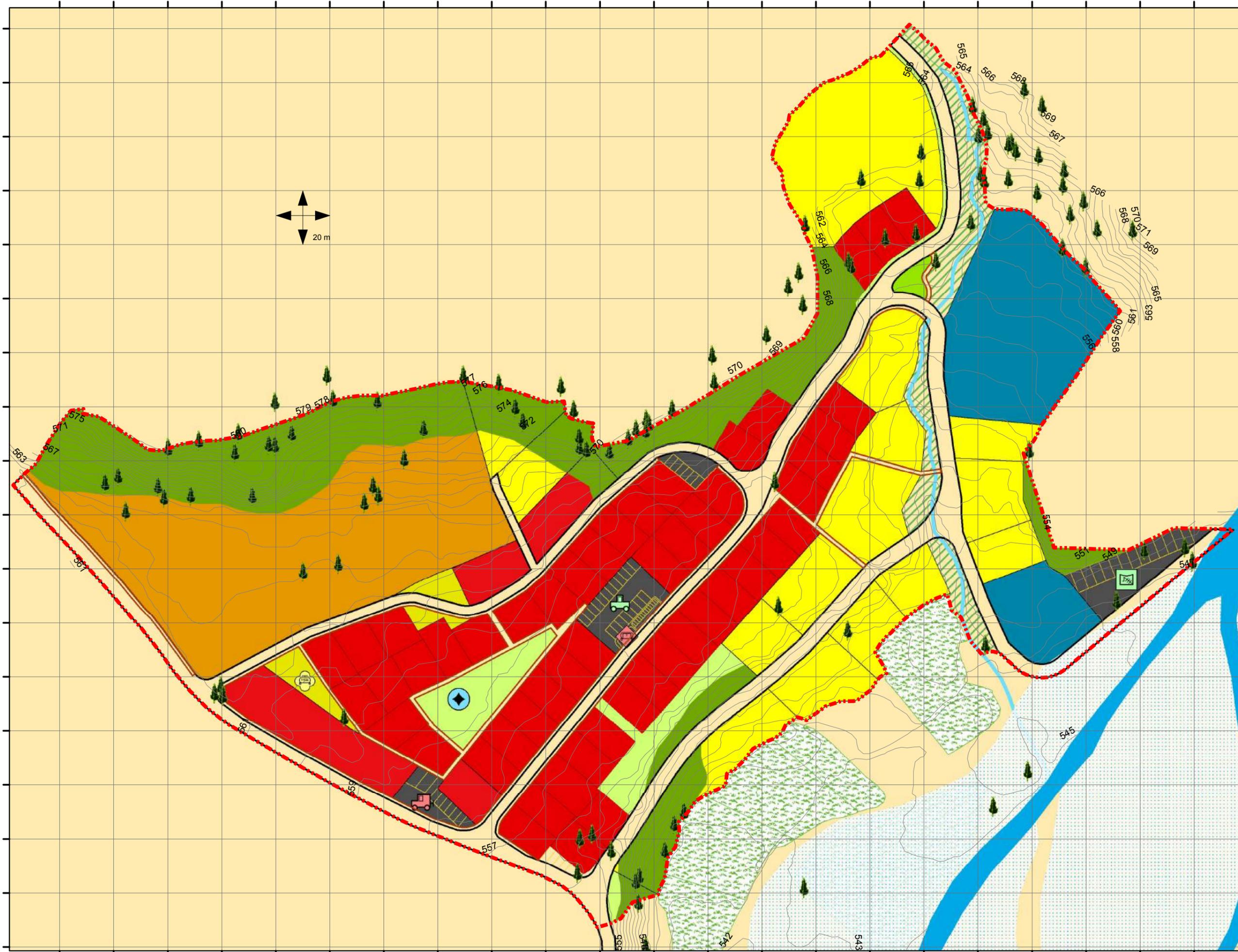
Figure 8 Proposed Landuse Breakup



Table 7: Proposed Landuse Breakup

PROPOSED LAND USE BREAK-UP				
SL. NO	LANDUSE	Area		AREA IN %
		Sq.ft	Acres	
1	Built-up	398305	9.144	63
2	Road/Footpath	86103	1.977	13
3	Vehicular Parking	22048	0.506	3
4	Service plots	4298	0.099	1
5	Green Space	124950	2.868	20
	Total	59058.821	14.594	100





LEGEND

Settlement Area

Proposals

- UV-1 Urban Village Core
- UV-2 Urban Village Periphery
- Roads
- Footpath
- Institutional
- Defense
- Service Plots
- Parking

Features

- Bus / Taxi Parking
- Car Parking
- Fire Hydrants
- Transformer
- Children's Park
- Truck Parking
- Tree
- River
- Stream

Proposed Greens

- E - 1 Environmental Conservation
- E - 2 Forest Environment
- E - 3 Agriculture Environment
- E - 4 Flood Prone Zone
- E - 6 LocalGreen Space System

4.2

PROPOSED PRECINCT PLAN

LOCAL AREA PLAN, GOLA TOWN

Urban Planning Development
Division, Dept. of Human Settlement
Ministry of Works and Human Settlement

0 10 20 40 Meters

Sources: Topographical Survey Drawing- Survey & GIS Division, DHS, MoWHS & Ground verification, August 2012, UPDD, DHS, MoWHS

Development Control Regulations

5.1 Title, Commencement and Jurisdiction

The Development Control Regulations have been formulated as part of the Gola Local Area Plan and Urban Design Proposals. They support the aims of the Plan through the introduction of regulations. These Regulations shall be called the Gola Town Development Control Regulations 2013 (GT-DCR 2013). These Regulations shall come into force with effect from the date of their notification by the Royal Government of Bhutan. The jurisdiction of these regulations includes the area within the Gola Local Area Plan boundary. The provision in the BBR 2002 shall supplement the GDCR 2013. This DCR shall supersede the BBR 2002 and all other local rules and regulations.

5.2 Implementation and Monitoring

- The Dzongkhag Municipality shall be the Implementing authority till the time Drungkhag Municipality is competent of taking up the implementation of these Regulations while the MoWHS shall be the sole Competent Authority.
- All utility agencies will have to seek approval from the Dzongkhag Municipality for laying of utility infrastructure in a coordinated manner.
- All development shall have to seek approval or permit from the Dzongkhag Municipality.
- Deviation from the approved proposal or drawing or permit shall not be considered.
- The Dzongkhag Municipality shall impose fines or penalties to any individual or developer or proponent of project if found violating these Rules and any other relevant laws.



5.3 Proposed Precinct

URBAN VILLAGE PRECINCT

UV – 1 Urban Village Core

Convenience shopping, basic services and amenities precincts for the Urban Villages mix Landuse precinct.

UV – 2 Urban Village Periphery

Medium and Low Density, Residential Precinct.

INSTITUTIONAL PRECINCT

I – 1 Institutional

Local, National and International Institutions.

ENVIRONMENTAL PRECINCT

E – 1 Environmental Conservation Precinct

Enhancement and protection of fragile ecological legacy.

E – 2 Forest Environments

Precincts devoted to the natural forest preserves in the “no development zone”.

E – 3 Agricultural Precinct

All kind of agricultural activities

E – 4 Flood Prone Zone

Zones with risk of flooding where development must be allowed only after necessary flood protection measures are adopted.

E – 6 Local Green Space System

Precincts of public assets like parks, gardens, sports and recreation areas.

DEFENCE PRECINCT

D -- Defense

Precincts related to national security.

The type of development in each precinct shall be regulated as per the following table.





དཔལ་ལྷན་འགྲུག་གཞུང་། རྒྱལ་ཁོག་ལྷན་ཁག་།
 ROYAL GOVERNMENT OF BHUTAN
 MINISTRY OF WORKS AND HUMAN SETTLEMENT
 DEPARTMENT OF HUMAN SETTLEMENT
 THIMPHU: BHUTAN



"Construction Industry: Solution through innovation and improved technology"

Annex 2:

The approved Development Control Regulations for Gola town Local Area Plan (2013-2030)

Sl.No	Designated Precincts		Max. Plot Coverage (%)	Setback	Max. Height (No. of Floors)	Remarks
1. Urban Village Precincts <i>The precinct takes into cognizance the residential uses, mix land use and its immediate needs.</i>						
1.1	UV 1	222.967 – 404.686	45	2m on the sides, 1.5m at the front and 5m on the side accommodating the septic tank.	2	
		>404.686	45	3m on the three sides and 5m on the side accommodating the septic tank.	3	
1.2	UV 2	404.686 - 1000	45	3m on the three sides and 5m on the side accommodating the septic tank.	3	
		GB1-61 and GB1-62	20		1	More than half of the plot fall in E-1 precinct.

3.0	ENVIRONMENTAL PRECINCT				
	The precinct takes into cognizance the environmental aspects related to Throm at various levels and concerns.				
3.1	E -1 Environmental conservation	-	-	<ul style="list-style-type: none"> • No construction zone • Available for public recreations. • Tree plantation. 	-
3.2	E – 2 Forest Environment	-	-	<ul style="list-style-type: none"> • No construction zone. Tree plantation. • Restriction on cutting of forest woods. 	-
3.3	E – 3 Agriculture Environment	-	-	-	-
3.4	E – 4 Flood prone Zone	-	-	<ul style="list-style-type: none"> • No construction zone. • Available for public recreations. • Tree plantation. 	-
3.5	E – 6 Local Green Space System	-	-	<ul style="list-style-type: none"> • No construction zone. • Available for public recreations. • Tree plantation. 	-
4.0	DEFENCE PRECINCT				
4.1	D Defence	-	30	2	

5.2.1 Plot Coverage and Set Back Rules

- In case of both residential and commercial buildings, either the maximum plot coverage or the minimum setbacks; whichever is less shall be followed.
- In case of corner plots having curvature on one or two sides, the shape of the building shall be constructed in accordance with the shape of the plot.



5.2.2 Balconies

- In case of building in the urban village core, cantilevered projections/structures (1.2m from the external face of column) shall be allowed only on the rear side.
- In case of buildings in urban village periphery, cantilevered projections/structures up to 1.2 m from the external face of column shall be permitted. Such projections/structures shall not be allowed on the front side and also such projections in the ground floor shall not cover the septic tanks.

5.2.3 Building Height

The permissible number of floors is inclusive of the ground floor and will be determined from the ground floor level. In addition to the precinct regulations the height of buildings shall be governed by the “Guidelines on Traditional Architecture of Bhutan”.

5.2.4 Parking Requirements

Plot level parking is not allowed, whereas parking is provided separately from plot level to centralized system.

5.2.5 Vehicle Circulations

Gola main road and Gola upper road are restricted to one way traffic movement. Vehicles can enter via Gola main road and exit via Gola upper road or via Gola FCB road which has a two way traffic movement. Heavy vehicles are restricted from entering through the city core. However, bypass road is provided to divert the heavy vehicle movements from the town core.

5.2.6 Regulations for Future Individual Plot Sub-Divisions

A person or a developer intending to carry out development in or over a land or subdivide land or a building within the limits of LAP shall obtain prior permission for the same from the implementing authority by applying and furnishing all required information.

Subdivision of a land into smaller parcels for developing a layout or for construction of buildings shall not be permitted unless it derives access from an authorized and developed street/means of access. This implies that land locked/trapped shall not be subdivided.

For subdividing of plots, the minimum plot size should be followed permitted as per the land use.



5.2.7 Minimum Plot Sizes

Unless otherwise stated specifically, the minimum plot/shall be as follows:

Table 9: Minimum Plot Sizes for Different Precincts

SI No.	Category of use/ Occupancy	Minimum Plot Size (square Meters)
1	UV—1 Urban Village Core	222.967
2	UV—2 Urban Village Periphery	404.686
3	I Institutional	1000

5.2.8 Tree Plantation

Tree Plantation at the rate of one tree at every 100 square meter of plot area, shall be undertaken and maintained in all developments within the municipal limit. These trees shall preferably be planted at a spacing of 4m along the edge of the footpaths and common open spaces. Cutting down trees in the Environment Precincts are strictly prohibited unless otherwise mentioned. As per the guideline for planning and development of human settlement in Bhutan, it says that slow growing and native trees must be included in all major planting schemes, especially those related to institutional campuses and urban development plans since slow growing plants have longer life span and native plants require low degree of maintenance. However, fast growing species should also be considered in a scenario where immediate soil stabilization is to be done or to act as wind breaks and shelterbelts and as ‘nurse plant’ to protect the slower growing sensitive species when necessary.

5.2.9 Site Development

Every development shall take care of the safety of the surrounding plots and any cutting of the site shall maintain a proper angle of repose for site stability. Site plan with topographical information such as contours and any other natural features such as streams gully and drops, etc., should be submitted with the building drawings to the municipality (approving authority) for the development of the site.

5.2.10 Rain Water Harvesting

Installation of rain water harvesting system should be made compulsory at every plot level in the long run. This can be done by collecting rain water from the roofs sheeted either with tiles



or corrugated mild steel where the latter is preferable as it is the easiest to use and gives the cleanest water. Asbestos sheeting and lead painted surfaces should be avoided. This rain water can be collected from the roofs through gutters along the eaves of the building. The rain water drains through the down-pipes which discharge into the storage tank. These storage tanks can be installed either on the ground or underground. The first runoff collected should be flushed out since it may contain dirt from the roof and the surrounding air. It should be placed in a location where seepage from septic tank and soak pit doesn't occur. The collecting box with mesh strainers and other filter media should be used to prevent the ingress of potential pollutants. The illustration of a typical rain water harvesting system is shown in Figure no. 9.

5.2.11 Discharge Of Storm Water

Every site development shall provide channels at lower elevation/level of the site which collects rainwater runoff over the site and discharges into public storm water drains or the rain water harvesting mechanism installed in the plot. The lower plot shall provide an easement or allow/ provide a right of way or channel for the discharge of storm water runoff from natural sources or adjacent plots of higher elevation into the public storm water drains.

Figure 9: Typical Cross Section and plan for Rain Water Harvesting System



Figure 9: Typical Cross Section and Plan for Rain Water Harvesting System



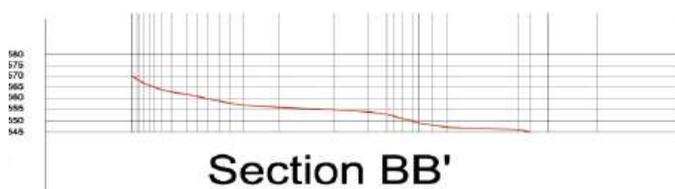
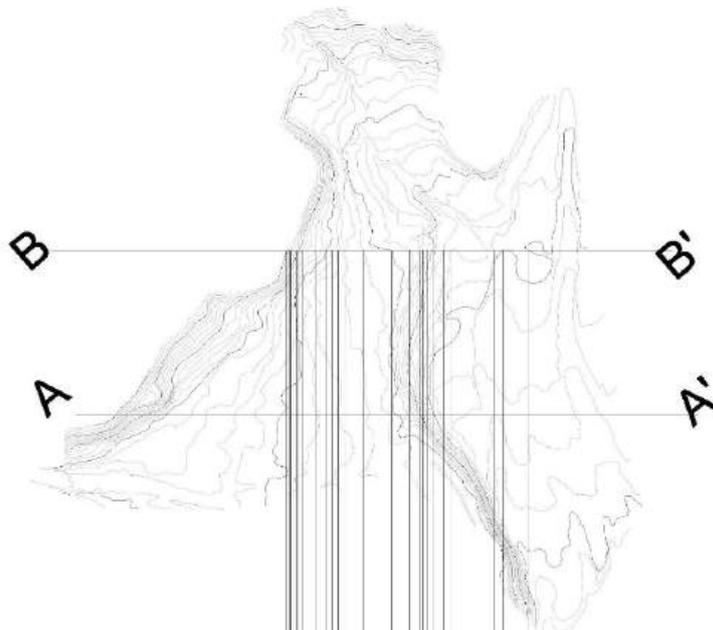
Urban Design Guidelines

6.1 Principles

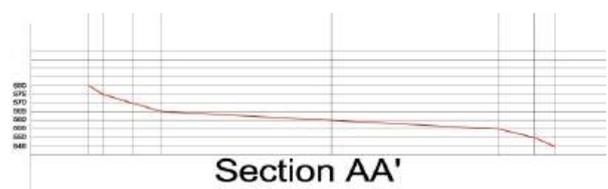
Urban design is concerned with the physical characteristics of the city and the implications of design and planning decisions for the public realm of the city. The urban design strategy must serve as an integrating tool, which coordinates how various public and private development proposals, including transportation and public infrastructure will affect the town physically.

The focus of concern is the public realm of the city: the public faces of buildings, interior public spaces, and the streets, sidewalks, parks and plazas that provide the outdoor public venues for a multiplicity of activities.

The characteristic green areas and the hills around define the region and hence the major urban design realm will be preservation of such beautiful views and vistas.



Section BB'



Section AA'



The Town area will need to have comprehensive urban design guidelines to control the unwanted development not only along new movement corridors but also at various public places and other areas demarcated for public uses. These areas include riverfronts, open green spaces, street edges etc.

6.1.1 Commercial Street

Roads, streets and footpaths are the main elements of circulation. They ensure efficient connectivity and ease of accessibility within the town and the channelization between different pockets of the settlements.

The main road of Gola town or the commercial street of Gola provides access to the commercial plots and shops and at the same time connects the core to the other precincts of Gola Town.

The settlement level design guidelines will ensure protection of both public and private realm and how harmoniously they merge with each other. Pedestrian connectivity, movement networks among different modes of transport, public interaction areas, street furniture, landscape elements etc. Any level of intervention should respond to the topographical features of the place.

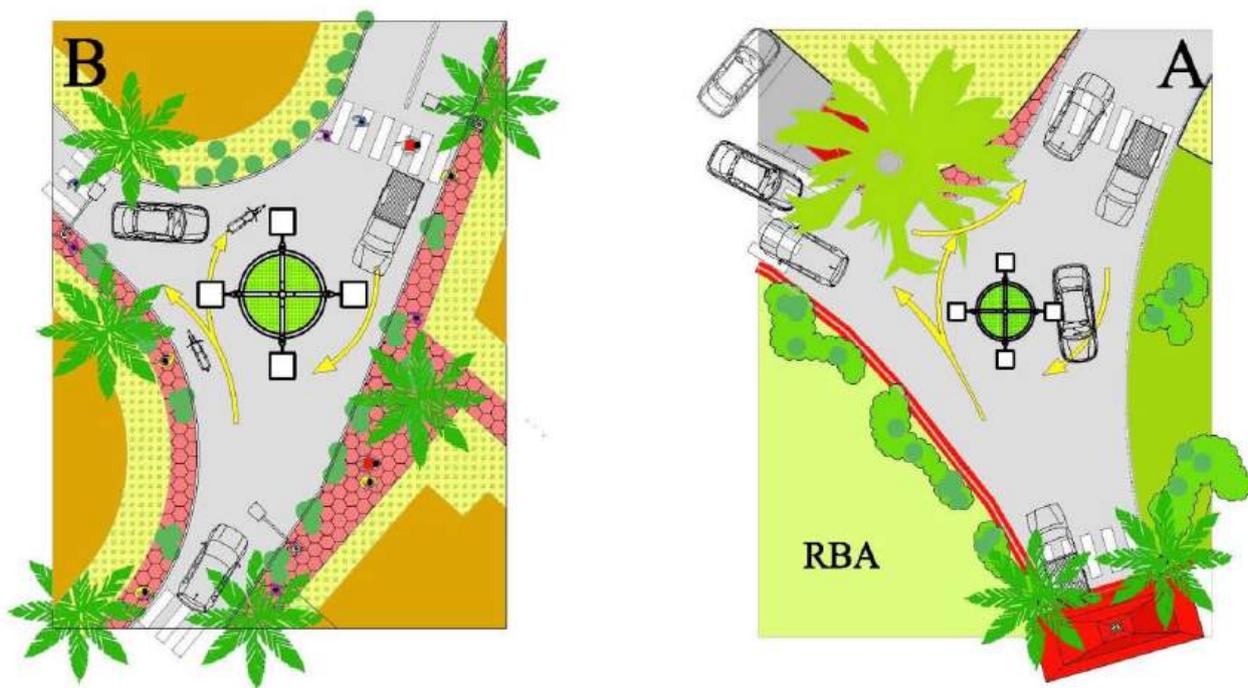


Figure 10: Road Junction Details



6.1.2 Public Open Spaces

Well designed and maintained public open spaces engender a strong sense of community, pride and identity. The parks and green spaces should be made as accessible as possible to the people of all ages. The public open space includes the spaces provided for passive, active, formal and informal recreation as well as for conservation purposes.

Design Principles

- The most sensitive landscape areas, both environmentally and visually, are the steep slopes, river & stream edges. The slopes should be preserved as the green backdrop to the urban development of the city and there should be minimum interventions on these slopes.
- The attractiveness and functionality of the public open spaces should be enhanced with the provision of benches, shades, proper lighting, toilets, drinking water taps, flower gardens, etc.
- Locally available materials should be utilized for the construction of pavements, fencing and other associated facilities and also material requiring low maintenance cost should be considered.
- Environment friendly materials and technology should be used for landscaping of the public open spaces.



Figure 11 A view of the town core and the central open space

6.1.3 Town Level Guidelines

- New buildings and developments should respect the existing organization of street and building patterns.
- Streetscapes and the pocket greens should follow the local area plan.
- Streetscape designs should include a system of pedestrian way finding signs, kiosks and other environmental graphics to supply directions to the pedestrian.
- One tree for every 100 sq.m of required open space to be planted. The trees and



landscape elements should provide appropriate shade and necessary visual screens to improve the amenity of the open spaces.

- One garbage receptacle for every 800 sq.m of each physically separated public open space is to be provided.
- New public spaces should provide as many seating opportunities as possible.

GOLA MAIN ROAD



Figure 12 Commercial Street (Gola Main Road)

GOLA UPPER ROAD



Figure 13 Commercial plus Residential Street (Gola Upper Road)



GOLA BY-PASS

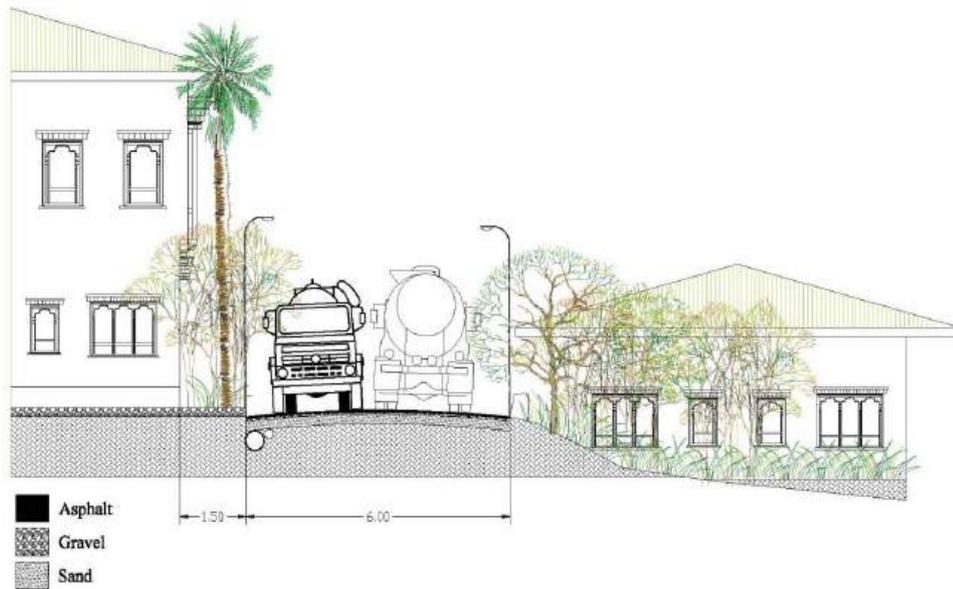


Figure 14 Proposed By-Pass Road

- For development in E-1 & E-2 precincts, where low and medium density residences or resorts are permitted, the overall natural character of the area has to be retained.
- Proper signage with no or very minimal obstruction along and across the road is necessary.
- Ensure that the streets have proper footpaths, parking areas clearly marked with legible lines, upright kerb and pavements for conflict free movements and safety.



Figure 15 Precinct Uses along the roads



- Uniform building frontage should be maintained in order to enhance visual containment of the street.
- The landscape elements such as street benches, trees and street lights to be oriented and located considering the scenic views, climatic condition, visual continuity of the street and buildings and the safety and comfort of the pedestrians.
- The facades of buildings defining the street should have traditional Bhutanese architecture and should contribute towards enhancing the aesthetic of the street.
- The streets should be designed as per the topographical conditions of the site. The split level design and construction should be encouraged to avoid excessive excavation.

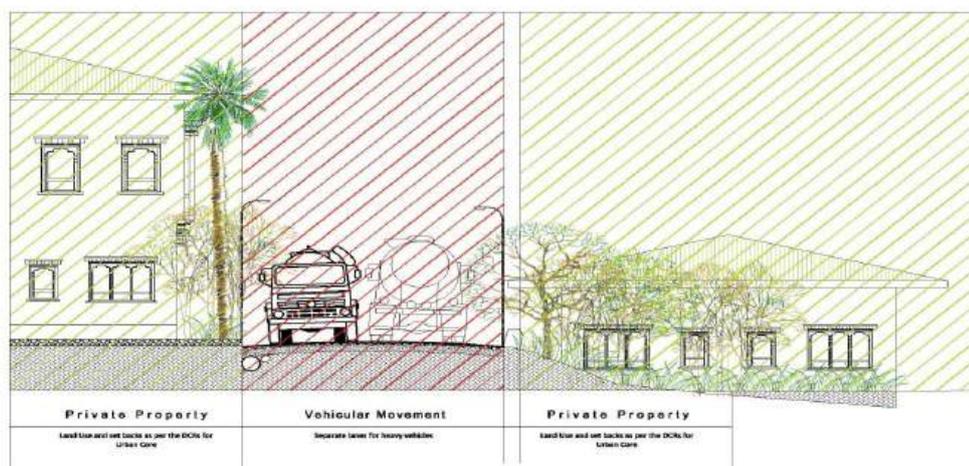


Figure 16 Precinct Uses along the roads (By-Pass)



References

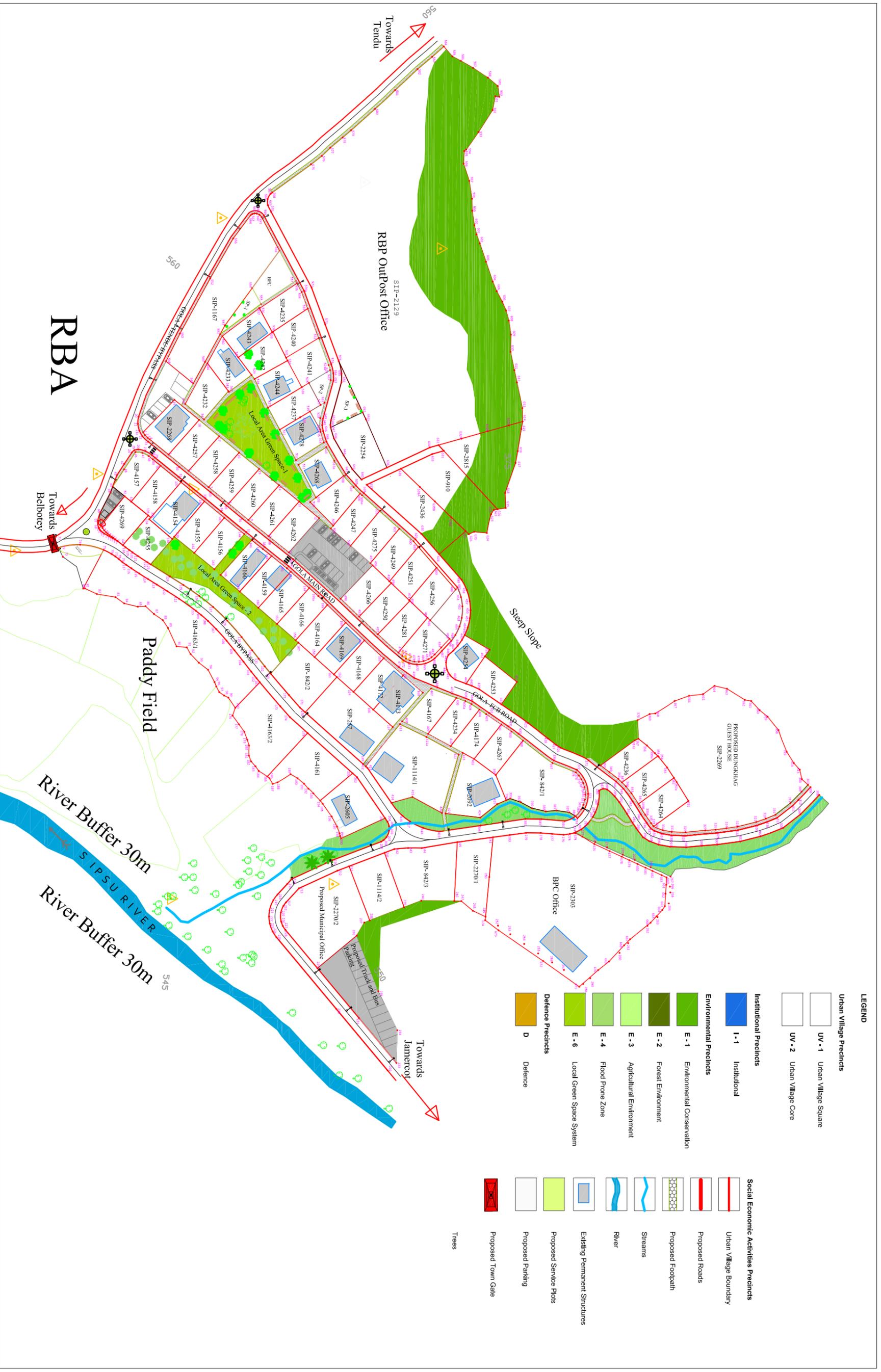
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Editors

Kinzang Deki

Avik Nandy





LEGEND

	Urban Village Precincts
	UV - 1 Urban Village Square
	UV - 2 Urban Village Core

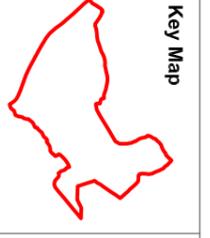
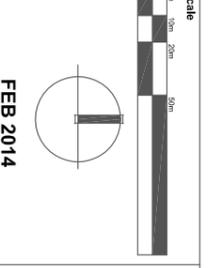
	Institutional Precincts
	I - 1 Institutional
	Environmental Precincts
	E - 1 Environmental Conservation
	E - 2 Forest Environment
	E - 3 Agricultural Environment
	E - 4 Flood Prone Zone
	E - 6 Local Green Space System
	Defence Precincts
	D Defence

	Social Economic Activities Precincts
	Urban Village Boundary
	Proposed Roads
	Proposed Footpath
	Streams
	River
	Existing Permanent Structures
	Proposed Service Plots
	Proposed Parking
	Proposed Town Gate
	Trees

Source :
 Cadastral Information & Maps - CID, NLCS
 Topographical Survey Drawings provided
 by GIS & Survey Division, MoWHs, RGOB
 Ground Verification, August 2012 by UPD,
 DHS and Samisai Municipal Corporation

Hon'ble Secretary, MoWHs	Hon'ble Zhabtlog Lyompo
Director, MoWHs	Chief Urban Planner, UPD, MoWHs

GOLA LOCAL AREA PLAN (As Demarcated)
 Gola Town Local Area Plan, Sipsu
 URBAN PLANNING DIVISION
 DEPARTMENT OF HUMAN SETTLEMENTS, MoWHs, RGOB



Drawing :
 Page No.

HOUSEHOLD SURVEY
GOLA BAZAR, SAMTSE DZONGKHA

Surveyor Name: _____ Date: _____

PERSONAL DETAILS:

Household Name: _____

Age: _____ Sex: _____ Members (family): _____

Plot No: _____

Occupation: _____

House Type: _____

Assets: (Car/bikes/others) _____

SERVICE FACILITIES:

Drinking Water: _____ Electricity: _____

(Depending upon the basic need, service adequacy)

OPINION SURVEY:

What, in your opinion, is the adequacy of the following services in meeting the Region's needs?

	Very Adequate	Adequate	Not Adequate
Public Transportation			
Parks and Recreation Facilities			
Education Facilities			
Fire Protection			
Parking Facilities			
Medical Facilities			
Garbage Disposal			
Road Infrastructure			
Market Facilities			

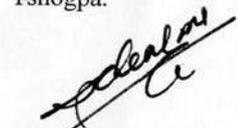
Vision for Future:



Terms and conditions for regularization and allotment of plot at Gola Thromdey.

The following terms and conditions are drawn in consultation to Gola land Tshogpa and people representative of Gola Throm in the office of the Dungpa, Sipsu on 7/3/2012 as a result of the outcome of the meeting held on 19/2/12 at Sipsu Dungkhang administration between Dzongkhag administration, NLC and Gola Government plot (land) occupier.

1. All Gola plot occupier(s) should not claim the plot as a matter of right but instead comprehend it as the Government land owing to lack of plot registration in the system for many years.
2. All plots stands as Government land until and unless the office of the National Land Commission receives Lhengye Zhungtshog's or Druk Gyalpo's consent and approval.
3. All plot occupier(s) should agree to land pulling and redistribution of the available land within Gola Throm in the interest of the Government and the good town planning :-
 - (a) Unconditionally part away with some portion of the land as required by the Government plan
 - (b) Unconditionally occupy and settle in the allocated piece of land as per the Government plan
 - (c) Unconditionally abide with the Gola Thromdey plan and process of the Government
 - (d) Will not expect to be allocated the same area of land occupied but willingly accept the area of land as allocated by the Government.
 - (e) Will willingly agree to demolish old structure as deem required by the Government plan and not seek any compensation.
4. All Gola plot occupier(s) should agree for registration of the plot as per the original list of people and the prevailing records maintained by the Dungkhang administration.
5. All plot occupier(s) must agree to any kind of ownership in the event the standardised land distribution is inadequate at Gola Thromdey.
6. All plot occupier(s) should accept comprehensive ideal thromdey plan inclusive of space for proper road, proper drainage, proper sanitation, proper water supply, proper fire line space, proper street lighting, proper recreation, proper parks and proper service facilities.
7. All plot occupier(s) will cooperate to implement the survey of the actual ground occupation of the Gola Throm as per the original list of names and area of plot recorded and maintained in the Dungkhang and will not claim any excess land.
8. All plot occupier(s) will agree to relocation of Gola throm to Balbotey in the event of Government plan.
9. All plot occupier(s) should agree to respect the work of the nominated Gola land Tshogpa.

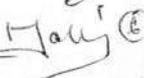
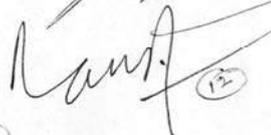

Karma Rinchen
(Dungpa)


Norpen
(Gola land Tshogpa)


Dilip Kumar Giri S/o Tika Ram Giri
(People representative)



10

1. ✓ Norpen  ①
2. ✓ Tika Ram Giri  ②
3. ✓ Lachey Dolma  ③
4. ✓ Ranjit Gurung  ④
5. ✓ Jit Bdr. Ghalley  ⑤
6. ✓ Taki Drukpa  ⑥
7. ✓ Harka Raj Gurung
C/o (Wife) Kawshila Gurung  ⑦
8. ✓ Late Damber Singh Ghalley
C/o (Son) Tula Ram Ghalley  ⑧
9. ✓ Shiva Raj Ghallley  ⑨
10. ✓ Sabitri Gurung
C/o (Sis.) Bawani Gurung  ⑩
11. ✓ Late Janga Bir Gurung
C/o (Son) Deo Kumar Gurung  ⑪
12. ✓ Deo Kumari Gurung
C/o (Husband) Ranjit Gurung  ⑫
13. ✓ Damchoe  ⑬
14. ✓ Lal Bdr. Gurung
C/o (Son) Krishna Kumar Gurung  ⑭
15. ✓ Bhim Psd. Gurung
C/o (Son) Santosh Gurung  ⑮
16. ✓ Kinga Drukpa  ⑯
17. ✓ Sunita Gurung  ⑰



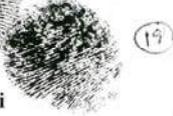
(11)

18. Namgay



19. Dorji

C/o (Son) Phub Dorji



20. Late Ranjit Gurung

C/o (Daughter) Renuka Gurung



21. Gita Raj Gurung

Gedu Raj Gurung



22. Penjor

C/o (Wife) Ugyen Lhamo



23. Bala Ram Giri



24. Tshering Yangzom

C/o (Husband) Sangay

Sangay

25. Nar Bdr. Giri

C/o (Son) Nandu Giri

Nandu

26. Nanda Raj Gurung

C/o (Son) Hem Raj Gurung

Hem Raj Gurung

27. Nar Bdr. Giri

C/o (Son) Nandu Giri

Nandu

28. Bishnu Bakta Sharma

C/o (Son) Rudra Psd. Sharma

Rudra Psd. Sharma

29. Zheb

C/o (Uncle) Kinga Drukpa



30. Samdrup

C/o (Bro.) Phub Dorji



31. Choden

C/o Phub Dorji



32. Phub Dorji

Phub Dorji



33. Birkha Bdr. Subba
C/o (Son) Suk Bdr. Subba

34. Karuna Gurung
C/o Ranjit Gurung

35. Khem Raj Ghalley

36. Late Raj Man Gurung
C/o (Wife) Aiti Maya Gurung

37. Tshering Wangchu

38. Rinzin Dolma

39. Bir Bdr. Ghalley

40. Durba Raj Gurung
C/o Hem Raj Gurung

41. Durga Maya Gurung
C/o Ranjit Gurung

42. Laxchimi Psd. Gurung

43. Pabitra Maya Gurung
C/o (Son) Deo Kumar Gurung

44. Suk Maya Rai

45. Khem Raj Ghalley

46. Gita Sharma
C/o Ranjit Gurung

47. Gom Raj Ghalley

48. Rudra Maya Gurung

49. Nitra Maya Ghalley

50. Naku
C/o (Son) Taki Drukpa

12

Subba

Ranjit

KR

M

Phal

Raj

Ranjit

Suk

Ranjit

Gom

Nitra



UNREGISTERED PLOT OCCUPIERS , GOLA THROM

Annexure -III

Sl.No	Name	Existing Landuse	Plot ID	Resurveyed Area (Existing)			Reconfigured Area			Remarks
		R = Residential C = Commercial P = Plot Only		(acre)	(Sq.m)	(Decimal)	Sq.m	Sq.ft	Acre	
1	Ranjit Gurung	C	SIP-4154	0.087	353.032	8.72	278.607	2999	0.069	Excess area of 599 Sq.ft to provide minimum setback
2	Durga Maya Gurung	C	SIP-4155	0.071	287.999	7.12	222.967	2400	0.055	
3	Deo Kumari Gurung	C	SIP-4156	0.051	208.103	5.14	222.967	2400	0.055	
4	Namgay	C	SIP-4157	0.048	195.096	4.82	222.967	2400	0.055	
5	Damchoe	C	SIP-4158	0.051	208.103	5.14	222.967	2400	0.055	
6	Nar Bdr. Giri	C	SIP-4159	0.040	162.580	4.02	222.967	2400	0.055	
7	Nar Bdr. Giri	C	SIP-4160	0.034	137.682	3.40	222.967	2400	0.055	
8	Bhim Psd. Gurung	C	SIP-4164	0.090	362.786	8.96	222.967	2400	0.055	
9	Lal Bdr. Gurung	R	SIP-4165	0.046	185.806	4.59	222.967	2400	0.055	
10	Laximi Psd Gurung	C	SIP-4166	0.021	85.564	2.11	222.967	2400	0.055	
11	Balaram Giri	C	SIP-4167	0.027	107.303	2.65	222.967	2400	0.055	
12	Zhep	C	SIP-4168	0.062	251.489	6.21	222.967	2400	0.055	
13	Jit Bdr. Ghalley	C	SIP-4169	0.097	393.444	9.72	222.967	2400	0.055	
14	Nanda Raj Gurung	C	SIP-4172	0.027	108.697	2.69	222.967	2400	0.055	
15	Netra Maya Ghalley	C	SIP-4173	0.027	108.697	2.69	222.967	2400	0.055	



16	Sunita Gurung	C	SIP-4174	0.041	167.876	4.15	222.967	2400	0.055	
17	Lt. Janga Bir Gurung	R	SIP-4232	0.055	222.967	5.51	222.967	2400	0.055	
18	Tshering Yangzom	C	SIP-4233	0.026	106.838	2.64	222.967	2400	0.055	
19	Durga Raj Gurung	P	SIP-4234	0.022	88.258	2.18	222.967	2400	0.055	
20	Choden	R	SIP-4235	0.046	185.806	4.59	222.967	2400	0.055	
21	Lhachoe Dema	R	SIP-4236	0.092	371.612	9.18	222.967	2400	0.055	
22	Samdrup	R	SIP-4237	0.046	185.806	4.59	222.967	2400	0.055	
23	Phub Dorji	R	SIP-4240	0.056	227.798	5.63	222.967	2400	0.055	
24	Dorji	P	SIP-4241	0.051	204.387	5.05	222.967	2400	0.055	
25	Birkha Bdr. Subba	R	SIP-4243	0.022	87.329	2.16	222.967	2400	0.055	
26	Tshering Wangchuk	C	SIP-4246	0.030	120.774	2.98	222.967	2400	0.055	
27	Harka Raj Gurung	C	SIP-4247	0.053	214.606	5.30	222.967	2400	0.055	
28	Taki	C	SIP-4249	0.052	210.147	5.19	222.967	2400	0.055	
29	Lt. Karuna Gurung	P	SIP-4242	0.016	64.103	1.58	222.967	2400	0.055	
30	Rinzin Dema	P	SIP-4250	0.013	52.026	1.29	222.967	2400	0.055	
31	Norpen	C	SIP-4251	0.031	123.561	3.05	222.967	2400	0.055	
32	Khem Raj Ghalley	R	SIP-4244	0.008	33.445	0.83	222.967	2400	0.055	
33	Khem Raj Ghalley	R	SIP-4253	0.016	65.032	1.61	222.967	2400	0.055	
34	FCB	C	SIP-4254	0.064	260.128	6.43	222.967	2400	0.055	
35	Gita Sharma	P	SIP-4255	0.012	49.053	1.21	222.967	2400	0.055	
36	Rudra Maya Gurung	P	SIP-4271	0.015	59.272	1.46	222.967	2400	0.055	
37	Naku	C	SIP-4256	0.051	207.360	5.12	222.967	2400	0.055	



38	Sabitri Gurung	C	SIP-4257	0.044	176.887	4.37	222.967	2400	0.055	
39	Kuenga Drukpa	C	SIP-4258	0.044	177.816	4.39	222.967	2400	0.055	
40	Penjor	C	SIP-4259	0.041	164.160	4.06	222.967	2400	0.055	
41	Ranjit Gurung	C	SIP-4260	0.008	32.516	0.80	222.967	2400	0.055	
42	Bir Bdr. Ghalley	C	SIP-4261	0.008	33.352	0.82	222.967	2400	0.055	
43	Gita Raj Gurung	C	SIP-4262	0.031	125.419	3.10	222.967	2400	0.055	
44	Gomraj Ghalley	C	SIP-4264	0.005	19.324	0.48	222.967	2400	0.055	
45	Suk Maya Rai	C	SIP-4267	0.007	26.756	0.66	222.967	2400	0.055	
46	Lt. Ranjit Gurung	C	SIP-4265	0.041	167.225	4.13	222.967	2400	0.055	
47	Shiva Raj Gurung	C	SIP-4266	0.048	195.096	4.82	222.967	2400	0.055	
48	Lt. Rajman Gurung	C	SIP-4268	0.037	148.273	3.66	222.967	2400	0.055	
49	Pabitra Maya Gurung	P	SIP-4269	0.021	84.728	2.09	222.967	2400	0.055	
50	Tikaram Giri	C	SIP-4275	0.052	210.704	5.21	222.967	2400	0.055	
51	Lt. Bisnu Bakta Sharma	C	SIP-4278	0.027	109.440	2.70	222.967	2400	0.055	
52	Lt. Damber Singh Ghalley	C	SIP-4281	0.025	99.406	2.46	222.967	2400	0.055	

11649.924

2.879



PRIVATE PLOT OWNERS, GOLA BAZAR

Annexure -IV

Sl.No	Owner Name	Plot	Area (ac)	Area (sq.m)	Total	New Plot Nos.	Reconfigured Plot Areas		Remarks
							Sq.M	Acre	
1	Thrimsung Yektshang Dang	SIP-2129	2.852	11541.633	11541.633	SIP-2129	11541.633	2.852	
2	Nima Tshering	SIP-2815	0.171	692.012	692.012	SIP-2815	692.012	0.171	
3	Tashi Tshering	SIP-910	0.17	687.966	687.966	SIP-910	687.966	0.170	
4	Tika Ram Giri	SIP-2436	0.149	602.982	602.982	SIP-2436	602.982	0.149	
5	Rekha Giri	SIP-2254	0.095	384.451	384.451	SIP-2254	384.451	0.095	
6	Sharda Dhital	SIP-1167	0.303	1226.197	1226.197	SIP-1167	1226.197	0.303	
7	Amber Singh Gazmer	SIP-4163	0.291	1177.635	1950.585	SIP-4163/1	1282.058	0.317	Renamed as SIP-4163 Fragmented into 2 plots
		SIP-926	0.191	772.949		SIP-4163/2	668.527	0.165	
8	Pabitra Gazmer	SIP-4161	0.088	356.123	489.670	SIP-4161	489.670	0.121	Combined into one plot (SIP-4161) Shifted to Dungkhag area
		SIP-4162	0.033	133.546					
9	Devi Maya Gurung	SIP-2605	0.101	408.732	408.732	SIP-2605	408.732	0.101	
10	Khara Nanda Dhakal	SIP-842	0.3	1214.057	1837.273	SIP-842/1	753.746	0.186	Re-Configured into 3 plots and SIP-842/3 shifted to Dungkhag area
		SIP-4175	0.089	360.170		SIP-842/2	433.77	0.107	
		SIP-4170	0.031	125.453		SIP-842/3	649.757	0.161	
		SIP-4171	0.034	137.593					
11	Phul Mati Gurung	SIP-4176	0.043	174.015	675.825	SIP-257	675.825	0.167	Verification from NLCS is required for this plots
		SIP-257	0.124	501.810					



12	Passang Lepcha	SIP-1114	0.328	1327.369	1327.369	SIP-1114/1	922.698	0.228	
						SIP-1114/2	404.671	0.100	
13	Bir Bdr. Ghalley	SIP-2092	0.11	445.154	445.154	SIP-2092	445.154	0.110	
14	Logmay Layzen	SIP-2303	0.865	3500.530	3500.530	SIP-2303	3500.350	0.865	
		SIP-2269	0.804	3253.672	3253.672	SIP-2269	2986.628	0.738	
24	Dungkhag Dakchong	SIP-2270	0.572	2314.802	2314.802	SIP-2270/1	433.924	0.107	Fragmented into 2 plots
						SIP-2270/2	1007.493	0.249	
		SIP-2268	0.218	882.215	882.215	SIP-2268	284.091	0.070	





འབམས་རྒྱལ་ལྷན་ཁག་། དཔལ་ལྷན་འབྲུག་གཞུང་།

ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF WORKS & HUMAN SETTLEMENT
DEPARTMENT HUMAN SETTLEMENT
 P.O. Box No. 129, THIMPHU: BHUTAN
"Towards Quality Infrastructures"

October 25, 2012

MINUTES OF MEETING

A meeting was called on 3rd October 2012 between the Local Government, National Land Commission Secretariat and the Ministry of Works and Human Settlement in the MoWHS conference hall at 02:30 pm. The agenda was to present the Concept Plan of Gola Town and to discuss the issues related to Gola town. On the same day Denchi Land Mobilization was also presented and the issues related to trap land and residual land were also discussed. The meeting was chaired by the Hon'ble Zhabtog Lyonpo and following officials were present:

1. Hon'ble Secretary, Ministry of Works and Human Settlement.
2. Hon'ble Secretary, National Land Commission.
3. Dasho Dzungda, Dzongkhag Administration, Samtse.
4. Executive Secretary, Gelephu Thromde.
5. Dasho Dungpa, Dungkhag Administration, Sipsu.
6. Director, Department of Human Settlement, MoWHS.
7. Ms. Lhadon Pema, Chief Planning Officer, PPD, MoWHS.
8. Mr. Nima Tshering, Chief Urban Land Registrar, NLCS.
9. Mr. Tenzin Nangay, Head, CID, NLCS.
10. Mr. Ichharam Dulal, Specialist, UISD, DES.
11. Mr. Pema Thinley, Chief Engineer, UISD, DES.
12. Mr. Ugyen Norbu, Dzongkhag Engineer, Pemagatshel.
13. Mr. Chopel Dorji, Municipal Engineer, Gelephu.
14. Mr. Sangay Tenzin, Municipal Engineer, Samtse Municipal.
15. Ms. Tashi Wangmo, Chief, Survey & GIS, DHS.
16. Mr. Ugyen M. Tenzin, Chief RPDD, DHS.
17. Mr. Chhado Drukpa, Chief C&DD Urban Designer, DHS.
18. Mr. Tashi Penjor, Sr. Urban Designer, DHS.
19. Mr. Nangay Dophu, Sr. Urban Planner, DHS.
20. Mr. Tshering Dorji, Urban Designer, DHS.
21. Ms. Dorji Wangzom, Sr. Urban Planner, DHS.
22. Ms. Ugyen Choden, Urban Planner, DHS.
23. Ms. Kinzang Deki, Urban Planner, DHS.
24. Mr. Yeshey Jamtsho, Architect Planner, DHS.
25. Mr. Avik Nandy, Urban Planner, DHS.
26. Mr. Sushil Kumar Yadav, Urban Planner, DHS.

The Hon'ble Zhabtog Lyonpo, welcomed all the members for this meeting and expressed his appreciation for attending the meeting.

Tel # 02 322920





འབམས་རྒྱལ་ལྷན་ཁག་། དཔལ་ལྷན་འབྲུག་གཞུང་།

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The Director, DHS made an introduction and explained the sequence of the presentation. The presentation was started by Kinzang Deki, Urban Planner with a brief introduction, detailed background and the existing scenario of Gola town.

Mr. Avik Nandy, also an Urban Planner presented the analysis such as Population projection, slope analysis and SWOT analysis. The three options for boundary delineation and the proposed concept plans were also presented.

Finally the issues regarding Gola town plan was presented to the floor by the Director, DHS. Following are the issues presented and decision given to each of the issues.

ISSUES:

- **Boundary Delineation for Planning;**

For boundary delineation, three options were presented together with pros and cons of each option and the area covered by each option.

In the first option of the planning boundary only the central core area is considered. It consists of the 58 nos. of unregistered plot occupiers, one registered plot and the old dungpa's resident.

In the second option of the planning boundary, the RBP area and 33 nos. of registered plots are also integrated with the option one boundary.

In the third option, The RBA area, the dungkhag office area, the old PWD area (now belonging to Dungkhag administration) on the other side of the stream are also added to the option two boundaries.

- **A person occupying two plots;**

As per the land record detail provided by the NLCS for the 58 unregistered land occupiers there is one person occupying two plots. The question is whether to allot him two plots or just one plot.

- **Discrepancies on the no. of plots;**

It was reported to the floor that there is a discrepancy on the no. of plots in Gola town. According to some letters only 50 plots are mentioned where as in some letter there are 51 plots but in the land record detail provided by the NLCS there is a total of 58 occupied plots consisting of 1 RGOB plot, 1 FCB plot, 3 plots marked as absconded, 2 marked as emigrants. It was explained to the floor that planner need a proper directives on the nos. of plots to be created in order to avoid complications in the future.

- **Size of the plots to be allotted;**

NLCS secretary mentioned that these plots could be regularized as Khimsa as per the rules and regulation of the Commission but since the land holding at Gola town is as small as half a decimal, it would not be buildable and lead to more complications in future. Therefore the planning intervention is required before regularizing these plots.





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The planning team proposed a minimum plot size of 2400 sq.ft. to be allotted in Gola town for the unregistered plot occupiers. It was also explained to the floor that the plot would not be buildable if the plot size is less than 2400 sq. ft.

- **7 plots of chuzhing in the Planning area;**

It was explained to the floor that there are seven plots of chuzhing (wet land) in the planning area. The issue is whether to retain it as a chuzhing or to convert it to urban uses since it is very close to the town.

- **Other Issues;**

Ms. Tashi Wangmo informed the floor that since the planning boundary consists of both the unregistered plots (occupied plots) and registered private plots, two different planning techniques may have to be employed. Land allotment will be done for the unregistered plot occupiers whereas land pooling or guided land development may have to be done for the registered private plots.

DECISIONS:

- On this boundary delineation, it was unanimously decided to go for the option two boundary but with some changes. It was decided to leave out the bigger plots of wet land but to include the two small plots of wet land and to convert it to urban uses.



Approved boundary for Gola Town Development Plan





འབྲུག་རྒྱལ་ཁབ་ཀྱི་རྒྱུ་རྐྱེན་དང་འཕུལ་རྒྱུ་གཞི་རྒྱུ་

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- On a person occupying two plots in Gola town, it was made very clear in the discussion that the person will be eligible for only one plot.
- On the number of plots to be created, it was decided to create only 51 plots after excluding the 5 nos. of Z-plots, 1 RGOB plots and one plot from the person occupying two plots.
- On the minimum size of the plots to be allotted, it was decided to allot a plot size of 2400 sq. ft to all the plot occupiers of Gola town.
- On the 7 plots of chuzhing in the planning area, it was decided to retain the 5 bigger plots of chuzhing as it is and to convert the 2 chuzhing plots of smaller sizes and located at the upper part of the town into urban uses. The two small chuzhing plots are included in the approved planning boundary while the 5 chuzhing plots at the lower side are excluded from the planning boundary.
- On the planning techniques to be employed for the occupied government plots and the private plots, the planners were instructed to go ahead with whatever planning technique may be required by the plan after consultation with the stakeholders.

Prepared by:

Kin

Kinjang Deki, UPDD

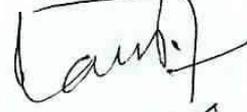
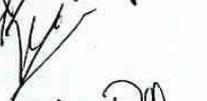
Avik

Avik Nandy, UPDD

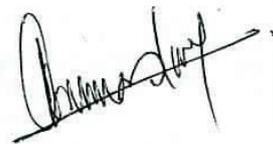
Tel # 02 322920



3. સ્ત્રી સેવા 22/12/12 ના મેંબરોએ આશીર્વાદ આપ્યા હતા તેમજ
કોલેજીયલ સેવા 06/12/12 ના મેંબરોએ આશીર્વાદ આપ્યા હતા તેમજ

- 1) કુટુંબ સેવા: - 
- 2) કોલેજીયલ સેવા: - 
- 3) કોલેજીયલ સેવા: - 
- 4) કોલેજીયલ સેવા: - 
- 5) કોલેજીયલ સેવા: - 
- 6) કોલેજીયલ સેવા: - 
- 7) કોલેજીયલ સેવા: - 
- 8) કોલેજીયલ સેવા: - 
- 9) કોલેજીયલ સેવા: - 
- 10) કોલેજીયલ સેવા: - 
- 11) કોલેજીયલ સેવા: - 
- 12) કોલેજીયલ સેવા: - 
- 13) કોલેજીયલ સેવા: - 
- 14) કોલેજીયલ સેવા: - 
- 15) કોલેજીયલ સેવા: - 
- 16) કોલેજીયલ સેવા: - 

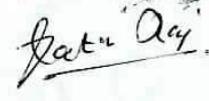


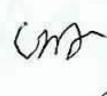
14) लक्ष्मीजायाः - 

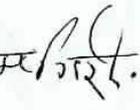
15) कुडुवाः - 

16) कुडुवाः - 

17) केशवरावरावः - 

18) श्रीजानकायाः - 

19) उमावतीः - 

20) दायाजीः - 

21) केशवरावरावः - 

22) कुडुवायाः - 

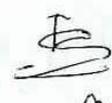
23) श्रीजानकायाः - 

24) कुडुवायाः - 

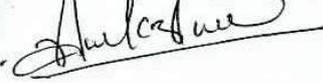
25) श्रीजानकायाः - 

26) कुडुवाः - 

27) केशवरावः - 

28) कुडुवाः - 

29) कुडुवाः - 

30) श्रीजानकायाः - 

31) कुडुवायाः - 

૩૫) ભેંસા રેલો મળ્યાં :-

KR

૩૬) રૂંચાવા રેલો મળ્યાં :-

૩૭) રૂંચાવા મળ્યાં :-



૩૮) રૂંચાવા મળ્યાં :-

KR

૩૯) રૂંચાવા મળ્યાં :-

૪૦) રૂંચાવા મળ્યાં :-

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૪૧) રૂંચાવા મળ્યાં :-

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૪૨) રૂંચાવા મળ્યાં :-

૪૩) રૂંચાવા મળ્યાં :-

૪૪) રૂંચાવા મળ્યાં :-

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૪૫) રૂંચાવા મળ્યાં :-

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૪૬) રૂંચાવા મળ્યાં :-

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૪૭) રૂંચાવા મળ્યાં :-

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૪૮) રૂંચાવા મળ્યાં :-

૪૯) રૂંચાવા મળ્યાં :-

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૫૦) રૂંચાવા મળ્યાં :-





འབྲུག་རྒྱལ་ཁབ་ཀྱི་རྒྱུ་རྐྱེན་དང་འཕུལ་སྐྱོད་ལྷན་ཁག་གི་འཕྲིན་ལྷན་པོ།

ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF WORKS & HUMAN SETTLEMENT
DEPARTMENT HUMAN SETTLEMENT
 P.O. Box No. 129, THIMPHU: BHUTAN
"Towards Quality Infrastructures"

January 05, 2013

MINUTES OF MEETING

The Public Consultation Meeting for the Gola Local Area Plan was conducted on 28th December 2012 at the RNRC conference hall in Belbotey, Samtse. The Meeting was chaired by Dasho Dzongdag, Samtse Dzongkhag Administration and following officials were present:

1. Director, Department of Human Settlements, MoWHS
2. Dasho Dungpa, Dungkhag Administration, Sipsu
3. Chief Urban Planner, Urban Planning Division, MoWHS
4. Mr. Sangay Tenzin, Municipal Incharge, Samtse Municipality
5. Mr. Pema Wangchen, D/Engineer, Samtse Dzongkhag
6. Mr. K. R. Ghalley, Biru Gup, Samtse
7. Mr. N. Raj Giri, Sipsu Gup, Samtse
8. Mr. Suraj Subba, Namgay choling Gup, Samtse
9. Mr. Uttam Sunar, Asst. Manager, BPC, Sipsu
10. Mr. Tula Ram Rai, Asst. Manager, FCB, Sipsu
11. Mr. Tashi Namgyel, Asst. Land Registrar, Sipsu
12. Mr. Sonam Gyelsthen, JE, Samtse Municipality
13. Ms. Kinzang Deki, Urban Planner, UPD, MoWHS
14. Mr. Avik Nandy, Urban Planner, UPD, MoWHS
15. Mr. Bakta Raika, Surveyor, Samtse Municipality

The list of the officials and landowners present in the Public Consultation Meeting is attached as appendix (i) and (ii) respectively.





འབམས་རྟོག་ལྷན་ཁག། དཔལ་ལྷན་འབྲུག་གཞུང་།

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All the Landowners of registered and unregistered land falling within the Gola Throm LAP boundary were present for the Public Consultation Meeting. DASHO DZONGDAG welcomed all the public and the officials from the Ministry of Works and Human Settlements and other officials for the meeting. He explained to the public that in order for the plan to become a success, the public should give their full support and cooperation to the Municipality and the planning team.

Then the Director of the Department of Human Settlements gave an introductory speech and thanked all the land owners for making it to the meeting and then he explained the sequence of the presentation. The presentation was started by Kinzang Deki, Urban Planner with a brief introduction about the town detailed background, existing scenario of Gola town and then followed by analysis and proposals. The presentation was made in the national language, Dzongkha but since most of the landowners were illiterate and did not understand Dzongkha, Mrs. Latha Chhetri, the chief of Urban Planning Division was requested to translate the presentation in Lhotsamkha so that all the people present can understand the plan and is able to participate in the discussion of issues.

The terms and conditions prepared on 18th February 2012 between Dzongkhag administration, NLCS and all the unregistered plot occupier of Gola Town was read out and explained one by one to the public. The points of discussion of the tripartite meeting between NLCS, MoWHS and LG held at Thimphu on 3rd October 2012 such as the delineation of town boundary, minimum plot size for unregistered plot occupier was also highlighted by the presenter. Finally the proposal for the plan prepared by the urban planners of DHS was presented. The proposal consisted of the proposed plot reconfiguration, Proposed Precinct Plans and Proposed Road Network Maps, etc.

Listed below are some of the issues that were discussed and the decisions given to each of the issues :

1. Lack of land for public infrastructures

Gola town being a very small congested town does not have enough land for all the plot occupiers, services and infrastructures. Therefore it was proposed to acquire some land from the Dungkhag in order to provide proper infrastructures services and buildable plots to all the plot occupiers of Gola town. It was decided to plot the remaining plots in Dungkhag area if the Ministry of Home and Cultural Affairs approves the proposal of acquiring the Dungkhag Land for the benefit of Gola Throm.

2. Number of Plots to be allotted

It was decided to allot 52 Nos of Plots against 50 Plots which was decided then in the Tripartite Meeting with the NLCS, MoWHS and the Dzongkhag Administration on 3rd October. This decision was taken since there was a permanent structure built on the Plot and moreover the plot occupier had been paying land taxes separately for the plots prior to 1992.





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3. Bypass road

It was also discussed whether a bypass road below the town would be viable for the town so that people going to other villages of Sipsu and other Gewogs like Biru would not have to enter the town. It would aid in smooth traffic flow and to avoid congestion of vehicle in the town core.

4. Relocation of Transformer

A transformer had been installed right in the middle of the town in the proposed children's park by BPC. Since the presence of transformer in the children's park is not safe, it is proposed to be shifted to another location. Upon site visit, it was decided to shift the transformer to a location near the RBP area where some parcel of land has been occupied by the electric substation.

5. Joint ownership of Plots

As per the decisions of the tripartite meeting, the size of the plot should not be less than 2400 sq.ft or 222.967 Sq.M. The area available is not at all sufficient if minimum plot size is to be allotted to each of the 52 plot occupiers and then proper infrastructures and services are to be provided as per the requirement of a town.

In order to solve the above mentioned problem, the joint ownership of plots had been proposed at the public consultation meeting. But the public were not in favour of joint ownership since they believe that it will give rise to more problems in future related to land ownership and even during construction. It was then decided to go for individual ownership and not joint ownership as proposed.

The planning team also made a site visit to Gola town for visual understanding, site familiarization and to check the feasibility of bypass road from below the town and also to identify the site for relocation of the transformer from the existing location which falls inside the children's park in the proposed plan. An area for the municipal office and Dungkhag Guest House was also identified.

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