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# CHAPTER 1: INTRODUCTION

## 1.1 BACKGROUND

Government of Nepal Ministry of Federal Affairs and Local Development, Suryodaya Municipality is developing as a tourism city and rapidly urbanization city of Eastern Nepal. As a long term policy initiative, municipality is preparing and implementing various urban development's plans and programs i.e. Periodic Plan, Preparation of municipal profile etc.

In this circumstance, Suryodaya Municipality has a program for GIS based resources mapping in municipality. Mapping provides an alternative approach to the more common "needs" or "deficit" models of youth services. Mapping focuses on what communities have to offer by identifying assets and resources that can be used for building a system. It is not a "one-shot" drive to create a published list or directory, but rather a catalyst for joint planning and professional development, resource and cost sharing, and performance-based management of programs and services.

Social source mapping is a visual method of showing the relative location of settlements and the distribution of the main source, different types of service delivery outlets, different types of community together with the social structure of an area. Social source map is use by the policy maker to find out the available source and distribute in the process of plan formulation. It is easy to see the different social sources in the one plan. Resources can be classified in two categories one is Personal and other is social. Personal resources are resources belonging to an individual and Social resources are belonged to public.

Resource mapping identifies the resources that can realistically be mobilized for campaigning. Relevant resources financial resources, material and institutional assets, and networks (contacts, potential allies). Mapping resources helps you decide on the nature and scope of your campaign. It also assists in deciding which alliance members or participating organizations and individuals need to be brought in for their expertise, e.g. communications or design, campaign experience, monitoring and evaluation. Even with limited resources, a small group can obtain good results if it strategically uses the strengths of resources existing in the locality.

### 1.2 OBJECTIVES AND SCOPES

#### 1.2.1 Objectives of the work

The major objective of the project is to prepare the Resource Mapping of Suryodaya Municipality followed by following specific objectives:

- To prepare the municipal map that shows all wards and boundary in all directions.
- To prepare the map of slope, hill shade, aspect, contour, TIN of Municipality.
- To shows the all water bodies such as River, Lakes, ponds, streams etc.
- To shows cultural, Historical, Archeological, topographical aspects of municipality.
- Condition of existing roads, Existing foot trails, horse trails, Trekking routes.
- To Locate Airports, Helipads, Playgrounds, Parks, Bus stops in Municipal map.
- To locate existing health institutions, educational institutions, service Centers, Financial institutions, public places in municipality map.
- To prepare land use map of municipality showing agricultural lands, settlements, forest area, barren land etc.
- To locate industrial region, hydropower, communication tower etc.
- To make interactive/dynamic web portal this shows location of all existing resources.

#### 1.2.2 Scopes of the project

The scope of works is, but not limited, to cover the following:

- Collection of cultural, Historical, Archeological, topographical and socio- economic data that shows the profile of resources present in each wards of the municipality.
- Study of Local people and municipal office interaction and their co-operation in participatory approach for implementation and operation of the project.
- Preparation of design and drawings as per requirement e.g. Land use map, Location map of Suryodaya municipality.
- Presentation and analysis of collected data in a GIS/excel software.

## Resource Mapping of Suryodaya Municipality

Moreover, the scopes of the work are described in following phases:

### *a. Preliminary Design Phase*

- ❖ Field Reconnaissance, collection of municipal wards data.
- ❖ Study the site features, topography, locality, climate, vegetation, orientation, visual quality and existing approach roads.
- ❖ Study and apply in maps the prevailing municipal data.
- ❖ Verification/update of topographical survey using GPS and standard survey method, preparation of topographical maps delimiting the exact boundary with details of existing land and infrastructural features (road, bus stops, playground etc.) of site,
- ❖ Preparation of reports based on field survey.

### *b. Design Phase*

Preparations of GIS map of existing boundary, socio-economic, cultural, topographical, and structural and hence present these data in web portal.

# CHAPTER 2: METHODOLOGY

To achieve above mentioned objectives and scope of the project, required information and data were collected and the desk study was done. During the desk study the professionals has collected and reviewed the available documents, maps, reports for resource mapping. Based on the study, the following two phases were adopted.

## 2.1 FIELD WORK PHASE

The proposed site is surveyed with the qualified engineers and surveyors and data is collected through the surveying using GPS and Google earth. The approach and methodology during field visit includes;

- To conduct survey of project area.
- Field visit of the site
- Interviews and discussion with beneficiary locals and other stakeholders. Interview will be held with individual local people in groups.
- To collect sufficient primary data.

Moreover, the field work phased is described in following phases.

### 2.1.1 Desk study and collection of information

The consultant is required to gather extensive firsthand information of the study area. The methods to gather primary data may involve maps/ drawing collection, interview /groups appraisals with the key officials and persons. The other relevant data may also gather from the official records of concerned agencies such as survey office, municipality etc

### 2.1.2 Group Discussion and consultation meeting:

One discussion program will be conducted with the participation of elected members of municipality and officials. Following points are discussion on that interaction:

- What types of social sources are available in the municipality by the geographic location and words

## Resource Mapping of Suryodaya Municipality

- What is the important of that are the available sources in municipality and what is the important resources for showing in the map
- Can municipality support to find out the available source location and appointed the local person for field data collection process

### 2.1.3 Data collection:

Field researchers and municipality selected person visit the source location for the collection of geographic location by the use of GPS device and took photo of that place.

### 2.1.4 Data analysis:

Collected information is analysis and find out what are the importing source and how to show in the map with categorized the source on the basic of ward and municipality. Incorporate all resources in the map on the basic of municipality demand.

### 2.1.5 Map Develop

On the basic of collected data, required of Clint the consultant will produce the social resource map by the use of GIS software ward wise, feature wise and municipality.

## 2.2 REPORT PREPARATION PHASE

After the Surveying of project area the data was analyzed through Softwares GIS and excel and verified with project team and related professionals. Report Preparation phase focuses on;

- Compilation, verification and sorting of collected data
- Synthesizing and analyzing of primary and secondary data
- List out the findings and make suggestions/recommendations

Furthermore, preparation of report focuses on:

### 2.2.1 Inception report writing:

On the basic of field level collected data, group discussion finding and GIS map consultant team develop the inception report of resource map work.



### **2.2.2 Draft Report presentation:**

Consultancy will be organized the one discussion meeting with municipality representatives and share the draft report of social source map. Gather the valuable feedback, comments and constructive suggestion for finalization the resource map.

### **2.2.3 Final report preparation:**

After the feedback, comment and suggestion from municipality, consultant will finalize the source map and submit to the municipality.

### **2.2.4 Web Development:**

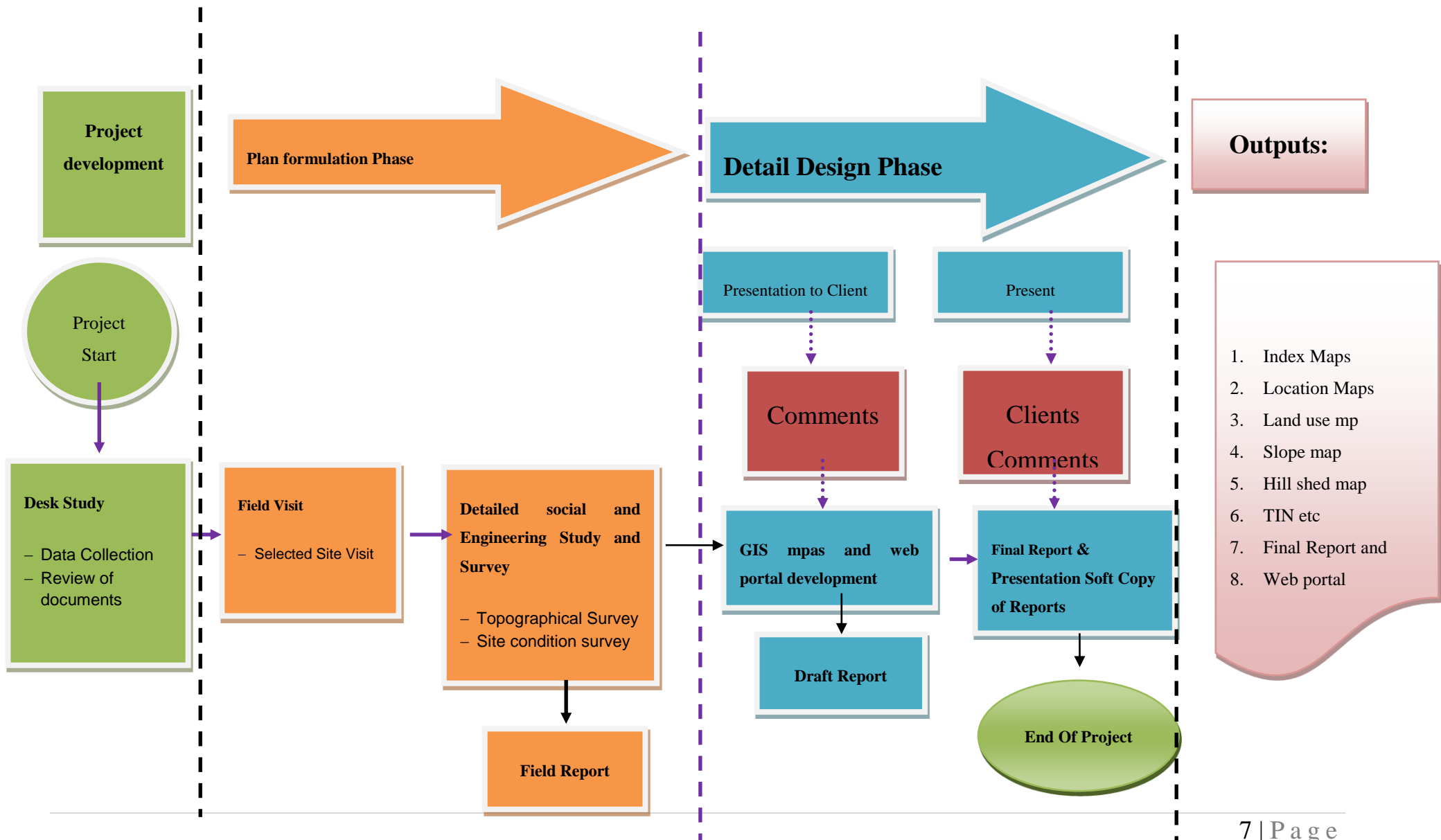
At last the interactive/dynamic portal was created by hosting the geoserver which can be accessed by public as in Google map.

## **2.3 WORKFLOW OF THE ACTIVITIES/METHODOLOGY**

Social resources map is developed on the basic of respective geographic area. In the contest of municipality, consultant develops the social map on basic of municipality wards and categories of resources. In the process of developing social resources map of respective municipality consultant will be carried out the following process:

The workflow of the activities describes the flow chart of the methodology of the assignment which will be carried out by the Consultant to best deliver the project objectives within the specified time and to comply with desirable professional standards. It has been designed as a set of carefully considered and interconnected series of activities, whose outputs combine to achieve the project objectives, as stated in the ToR.

**Figure 1: Work Flow of the Activities and Outputs**



### CHAPTER 3: OVERVIEW OF PROJECT AREA

#### 3.1 DELINEATION OF SERVICE AREA

Suryodaya Municipality, with its name being the Nepali translation of “ Rising Sun “ formed in 2013, with the merge of village Development Councils of Fikkal, Panchakanya and Kanyam. After, the constitution of Nepal promulgated in 2015, more village development councils had been merged including Gorkhey, Pasupatinagar, Sriantu , Samalbung , Laxmipur and Jogmai Word no. 8 and 9 and has resulted in the increase of its area span, with now, its size being 225.52 sq.km. It is located centre part of Ilam district. Darjeeling west bangle is in east, Ilam municipality in West, Rong Rural municipality in south, majogmai rural municipality in north and Mai Municipality in southwest. it has three transit points with India including Pasupaitinagar, Chhabise and Manebhanjang. Geographically it lies in the hill region which is mostly known as Mahabharat range with natural scenery and pleasant weather.

Populated with fifty-seven thousand people, it has fourteen wards. The Municipality’s head office is located in Fikkal Bazaar. Suryodaya municipality is also the major tea production area, most of the peoples are engaged in tea farming. Besides this, most of the people are based on the agriculture and animal husbandry. The milk production is also very popular in this area including other villages of Ilam. This municipality has a comparatively good quality of life than other areas of Ilam. The status of local facilities like roads, drinking water, schools and other utilities is also better.

In suryodaya municipality, there is huge opportunity in tourism development. Suryodaya municipality itself is a very beautiful place with many touristic attractions. There are thousands of internal and foreigners visiting and admiring its beauty every year. Suryodaya Municipality hosts many attractive places like Kanyam tea garden, Fikkal bazaar, Karfook etc. These places are spectacular for the people who love the nature. The government is working to set up an immigration office at the Pashupatinagar checkpoint in Ilam district to allow foreign tourists to enter Nepal through the checkpoint. According to Suryodaya Municipality, necessary physical infrastructure for the office have already been readied. This will benefit the entire eastern region.

The salient features of Suryodaya municipality are listed below:

## Resource Mapping of Suryodaya Municipality

Boundary: East: Darjeeling, West Bengal India

West: Ilam municipality

South: Rong Rural Municipality

South-West: Mai Municipality

North: Maijiogmai Rural Municipality

Latitude: 26°53'27"N

Longitude: 88°3'54"E

Climate: sub-tropical and sub-humid

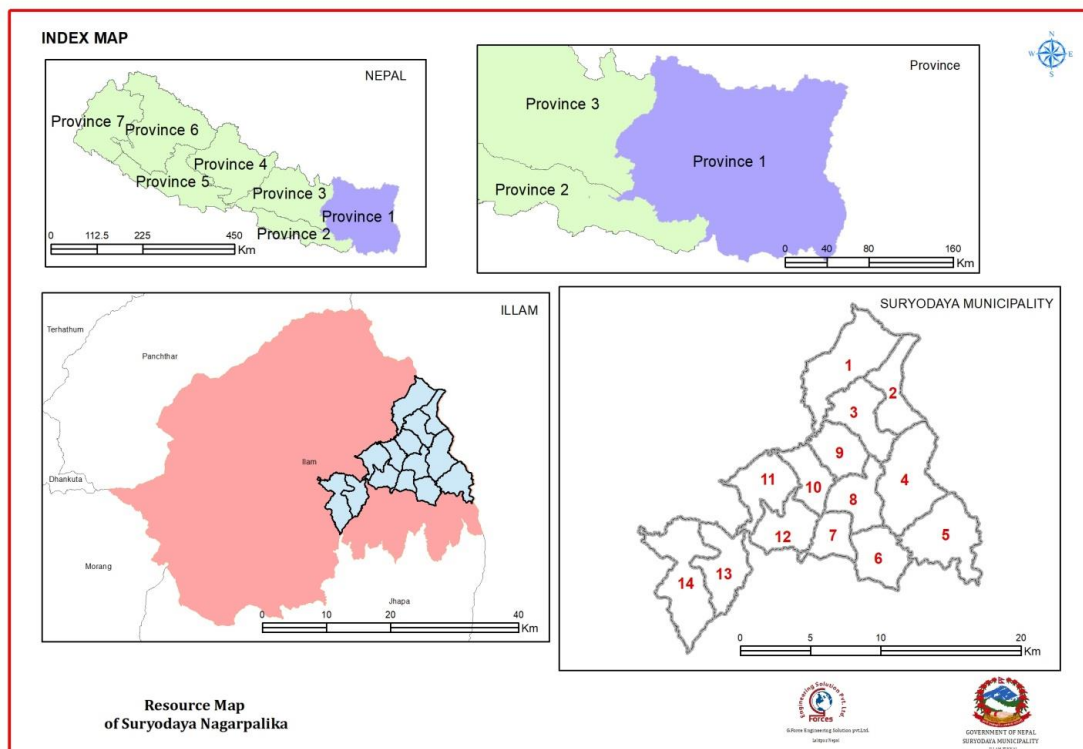
Topography: Terrain

Elevation: 1,565 m (5,135 ft)

Area: 225.52 km<sup>2</sup>

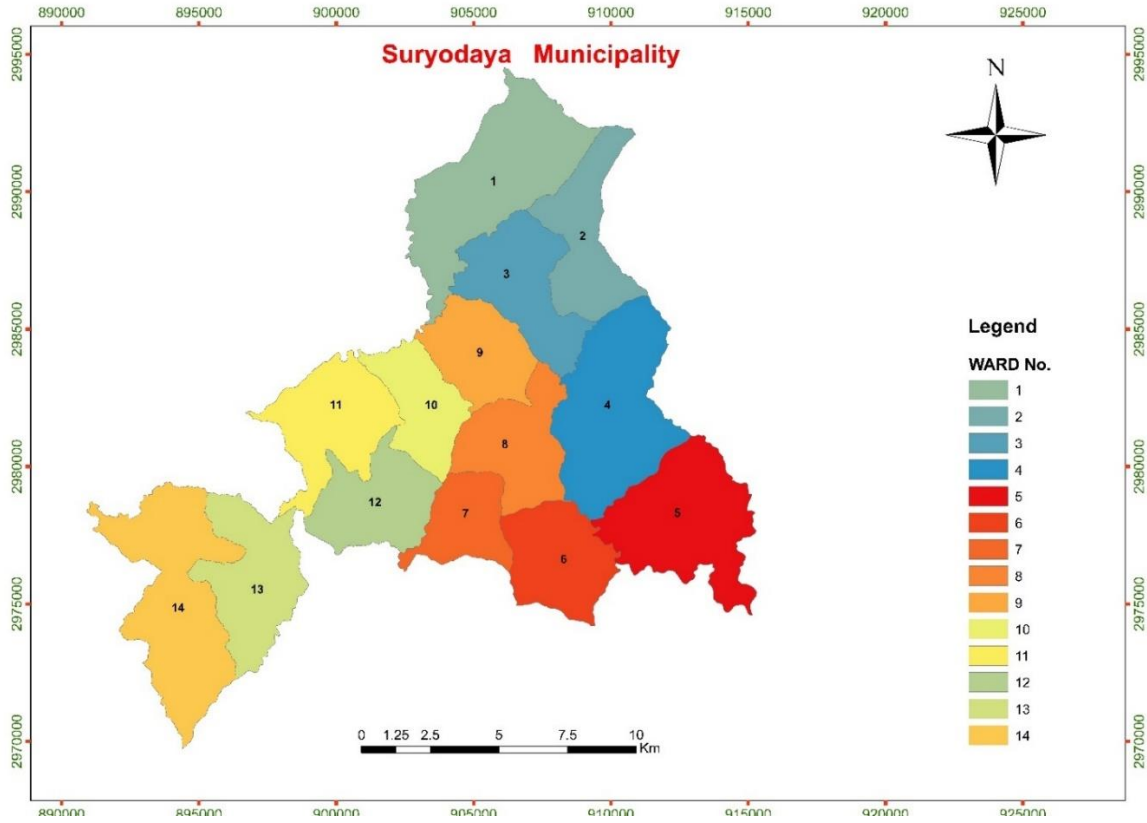
Population: 56691

Population Density: 251/km<sup>2</sup>



**Figure 2: Suryodaya Municipality Index Map**

# Resource Mapping of Suryodaya Municipality



**Figure 3: Suryodaya municipality**

### 3.2 SETTLEMENTS AND ADMINSTRATIVE UNITS

The settlements of all wards of suryodaya municipality are listed below with the coverage area of all wards.

**Table 1 Ward wise name of the major settlements**

Ward no.	Area in Sq.Km.	Name of the Settlements
1	25.27	Thumke, Chitre, Dhap, Makarjung, Timbure, Gorkhe, Banging, Mangalbare, Srikholagaun
2	13.44	Arthetar, Lalikharka, Kamidhara, Hile Bhanjyang, Pashupati Nagar, Bagbire, Simana
3	15.08	Mihelbote, Rungsung, Jil, Tinkhute, Bauddhadham, Dhoare, Majhgaun, Katebung
4	24.08	Unitar, Antu, Takpat, Tinblak, Salleri, Shribung, Chhiruwa
5	21.17	Samalbung, Gairigaun, Nangedada, Karphok, Mahendrabeshi, Disha, Shantidhara,
6	13.11	Targaun, Phajigaun,
7	8.96	Sukepokhari, Harkate, Gogane, Ambigaun
8	13.43	Malum, Chhipitar, Biring, Manegaun, Siddhigaun, Dabbugaun, Paltange, Mane, Kajeni
9	11.55	Ramphok, Barbote, Chilidada, Sundarpani, Gairigaun, Dhode,
10	10.37	Fikkal Bazar, Arubote, Ahale, Karphok, Yang, Daktarkholagaun

## Resource Mapping of Suryodaya Municipality

11	15.41	Bhitri, Parale, Suntale, Maghe, Sisnebesi, Kerabari, Aitabare
12	13.07	Sundarbeshi, Malim, Athghare, Ghalegaun, Lebuk, Murti,
13	15.53	Arubote, Guranse, Kolbote, Lakshmipur, Sukhipokhari Bhanjyang, Pipaldada , Malbase , Khani Bhanjyang
14	25.06	Bhuteni, Chungbang, Dangsarang, Simle, Khudruke, Jaringge, Batase, Hanggim

### 3.3 DEMOGRAPHIC CHARACTERISTICS

The total numbers of households are 13211 and total population 56621 persons with 27824 male and 28797 female. The average family size is 4.29 and population density is 251.05 persons per sq km. The coverage areas and population coverage of the service area is presented in the following table;

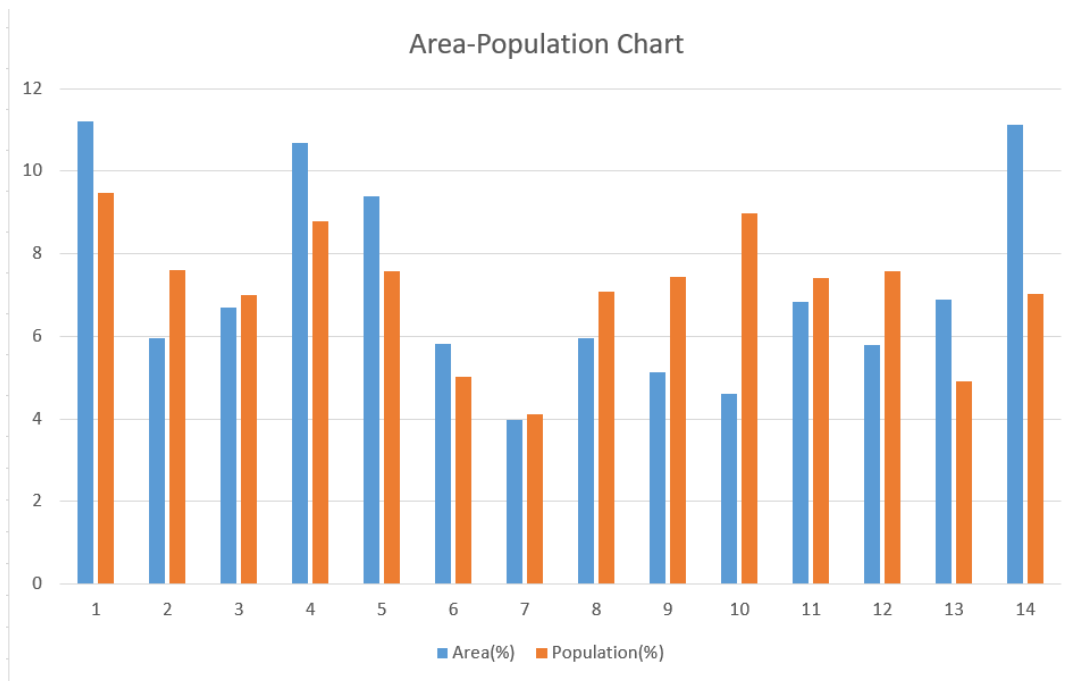
**Table 2 population and coverage Area of all wards of suryodaya municipality**

Ward No.	Area(sq. km)	Total Population
1	25.27	5358
2	13.44	4303
3	15.08	3968
4	24.08	4981
5	21.17	4297
6	13.11	2837
7	8.96	2322
8	13.43	4009
9	11.55	4218

## Resource Mapping of Suryodaya Municipality

10	10.37	5080
11	15.41	4199
12	13.07	4289
13	15.53	2775
14	25.06	3984
<b>Total</b>	<b>225.52</b>	<b>56621</b>

source: *mofald.gov.np*



**Figure 4: Population area chart**

### 3.4 CLIMATE

The climate is tropical during the summer and subtropical during the winter. The seasons can be divided into three distinct parts. The spring season is warm and dry, summers are warm, wet and humid and winters are cool and normally dry. In the same way, the months of November to February are cool and dry,



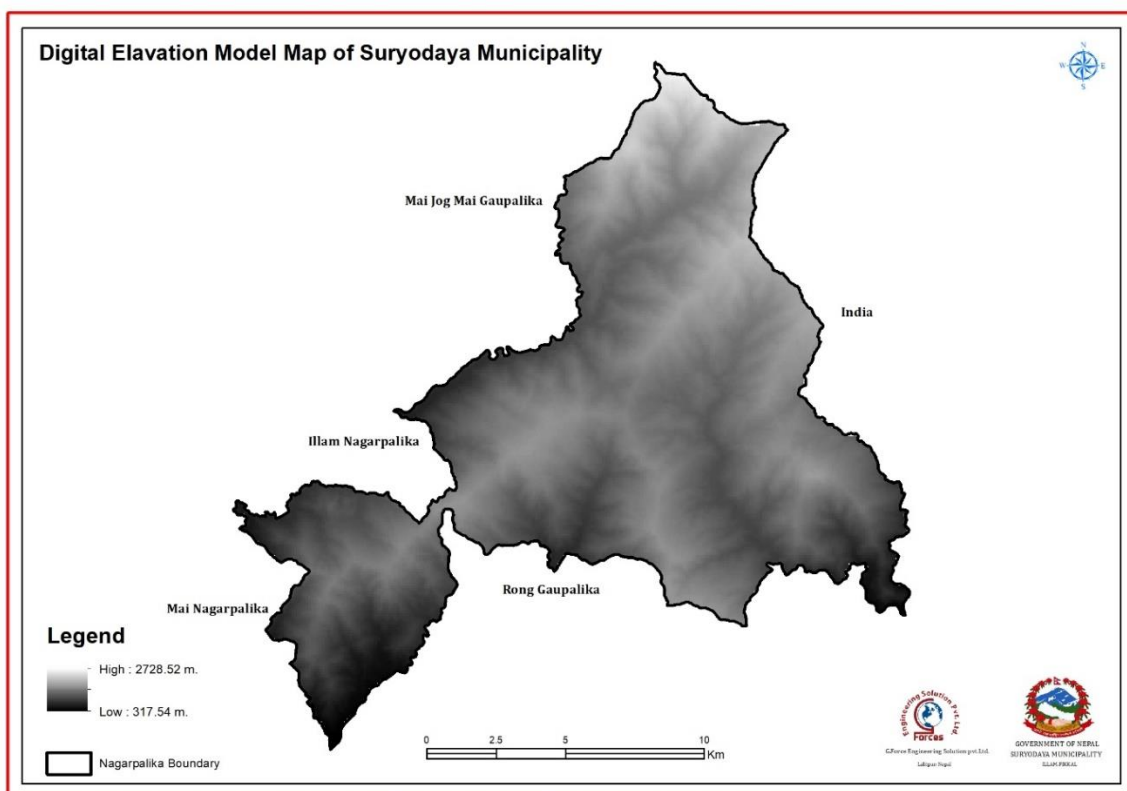
## Resource Mapping of Suryodaya Municipality

March to June is hot and dry, July to August is warm and humid and September to October is pleasant.

According to the New Loc Clim tool, the nearest Meteorological station is situated at Ilam which is in 19km distance from project area. From this tool it was known that the annual temperature of project area ranges from 6<sup>0</sup> to 28<sup>0</sup> C, similarly, the mean annual precipitation is 207 mm/month; Annual wind speed is 4.4km/h.

### 3.5 TERRAIN

Almost all the area of Municipality falls under the slopping land. Elevation of this Municipality ranges at the altitude 317.54m. to 2728.52m. above mean sea level. The following slope maps will show the slope situation of the Municipality.



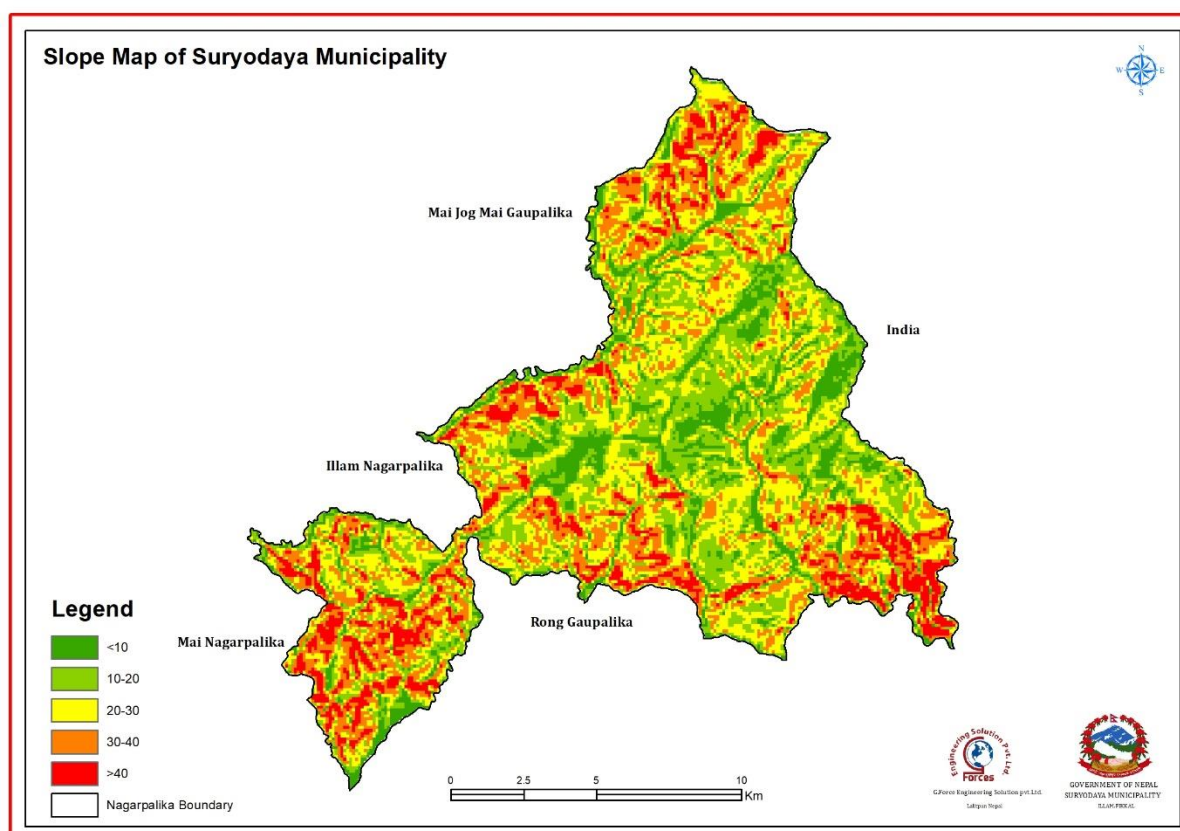
**Figure 5: Terrain of Suryodaya Municipality**

### 3.6 SLOPE

The terrain of Middle hill is flat to steep. The 10.39 % of area has less than 10<sup>0</sup> slope, 46.82% of area has 10<sup>0</sup>-20<sup>0</sup> slope, 36.64% of area has 20<sup>0</sup>-30<sup>0</sup> slope, and 5.47% of area has 30<sup>0</sup>-40<sup>0</sup> and 0.15% of area has more than 40<sup>0</sup>. The following table, figure and maps and will show the slope situation of the Municipality.

**Table 3: Slope Data of the Municipality**

S.N.	Slope in degree	Area (sq. km)	Percentage
1	0 to 10	24.619255	10.936063
2	10 to 20	105.397687	46.818467
3	20 to 30	82.483699	36.639896
4	30 to 40	12.291828	5.460125
5	40 above	0.327432	0.145448
	<b>Total</b>	<b>225.119901</b>	<b>100</b>

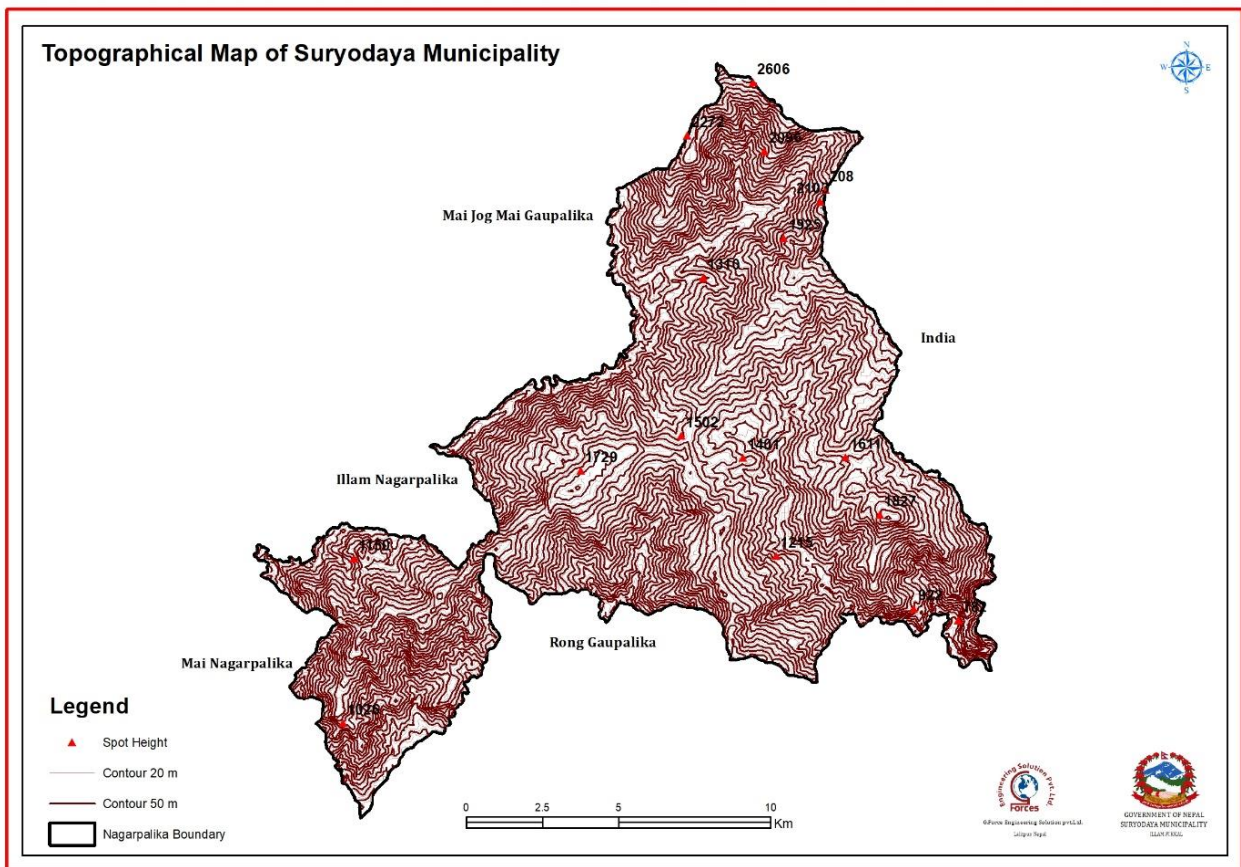


**Figure 6: Slope map of the Municipality**

## 3.7 ELEVATION

Elevation of this Municipality ranges at the altitude 317.54m. to 2728.52m. above mean sea level. The following contour map will show the elevation situation of the Municipality.

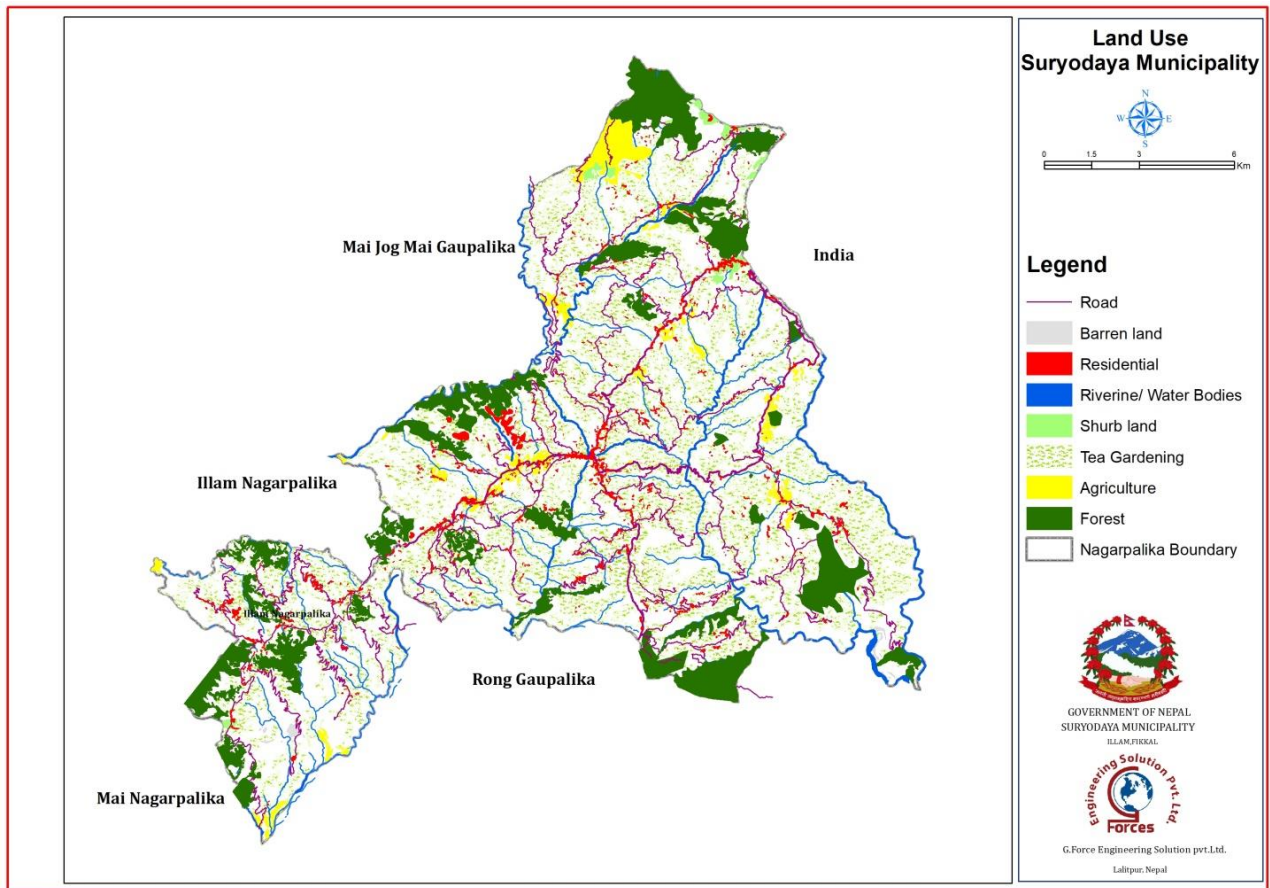
The topographic map attached below will show the situation of elevation of the Municipality.



**Figure 7: Contour Map of the Suryodaya Municipality**

### 3.8 LAND USE PATTERN

The Land use map attached below will show the situation of land covered by forest, barren land, agriculture, settlements, water bodies etc. of the Municipality.



**Figure 8: Land Use Pattern**

### 3.9 CULTURAL, HISTORICAL, RELIGIOUS AND TOURISM AREA

#### 3.9.1 CULTURE AND RELIGION

Human traditions, rituals, characters, religions, cultures and living standards have considered in the social system of the community. The culture is essential

## Resource Mapping of Suryodaya Municipality

part of human life. The culture has existed in human society from the very beginning. The Community people who contributed a lot Nepali culture and civilization. It is observed that different type of feast and festival are their way of living in the Municipality.

Most of the people in community follows hindu religion, Buddhist religion and Christian religion and others. The community mainly celebrate udhau li uvauli and usually celebrates Dashai, Tihar, Chhath, Holi, Krishna Janmastami etc. furthermore celebrates buddha Jayanti, Losar etc. and Christmas too.

The following tables gives the information about the religious places in suryodaya municipality;

**Table 4: Religious places of Suryodaya municipality**

S.N.	Name Of Religious place	Ward	Easting	Northing	Elevation(m)
1	Chitre Gumba	1	88.111553	26.989545	2312
2	tharpoling gumba	1	88.080428	26.971364	1931
3	Sinha Devi Mandir	1	88.080826	26.990382	2256
4	Bhume Mandir	1	88.069778	26.968961	1928
5	Devi Sthan	1	88.078112	26.955082	1340
6	Ram Mandir	1	88.077051	26.954402	1331
7	Kirat Manghim	1	88.092634	26.963541	1462
8	Durga Mandir	1	88.11988	26.987248	1967
9	Singa Devi Mandir Ca Ghare	1	88.100019	26.970926	1644
10	sakiya samdupling gumba	2	88.110584	26.947394	2040
11	pashupatnath mandir	2	88.114488	26.948962	2089
12	bagashowari mandir	2	88.112959	26.951005	2061
13	binda basini mandir	2	88.13194	26.933287	1833
14	bhimsen mandir	2	88.104966	26.941893	1973



## Resource Mapping of Suryodaya Municipality

15	teenkanya singha devi mandir	2	88.107031	26.944078	2023
16	kirat manghim	2	88.118179	26.947585	2091
17	nyanwa sangi ghumba	3	88.101793	26.934988	1860
18	sakya xorkholing ghumba	3	88.084435	26.950538	1543
19	urgan xoling ghumba	3	88.091087	26.925312	1810
20	maney golai	3	88.077657	26.936159	1479
21	bajraratna chholing gumba	3	88.107907	26.913613	1431
22	shree krishna pranami mngal manadir	3	88.073704	26.949124	1375
23	ghatte dada siddeshwor shivalaya mandir	3	88.088351	26.945135	1500
24	kirat manghim	3	88.096152	26.935432	1784
25	katte bung kirat manghim	3	88.104927	26.917805	1576
26	kaude daha singa devistan	3	88.084207	26.945913	1398
27	tamu ghumba	4	88.111163	26.89569	1442
28	antu shivalaya mandir	4	88.126264	26.883462	1660
29	siddha duni baba mandir	4	88.105909	26.867938	1055
30	singabahini mandir	4	88.121788	26.885119	1552
31	pancha kanya singadevi mandr	4	88.125214	26.882848	1656
32	sano sirbung shiva mandir	4	88.139632	26.891704	1385
33	seti nageshwori	4	88.132509	26.906798	1665
34	Kirat manghim	4	88.1331	26.909691	1710
35	takpat sivalaya mandir	4	88.115749	26.892742	1516
36	manghim	4	88.122477	26.922224	1603

## Resource Mapping of Suryodaya Municipality

37	tintle devethan mandir	4	88.117345	26.906695	1483
38	sirbung shiv mandir	4	88.119329	26.91334	1526
39	shantidhara church	5	88.165714	26.867347	1032
40	church	5	88.158535	26.855176	1121
41	theakten coiling gumba	5	88.148594	26.873204	1527
42	samdup ling gumba	5	88.130694	26.860682	1459
43	tamang maney	5	88.162856	26.841824	743
44	shiva mandir	5	88.139156	26.872922	1807
45	asi sekher shiva mandir	5	88.143544	26.874352	1699
46	seti devi mandir	5	88.149786	26.874772	1483
47	nageshwory mandir	5	88.149989	26.872262	1482
48	mankhim mandir	5	88.161658	26.864119	1133
49	siddimechi devistan	5	88.171371	26.827281	1410
50	kashyap peswar shiva mandir	5	88.152272	26.869385	1431
51	gumba	6	88.084364	26.860517	1577
52	siddeswor shiva mandir(proposed)	6	88.104497	26.838315	1495
53	bisesworananda shiva mandir	6	88.084596	26.843562	1708
54	siddi binayak ganesh mandir	6	88.109706	26.859649	1059
55	bhalubari singha devasthan	6	88.102505	26.849454	1304
56	budi baju mandir	6	88.098426	26.851115	1444
57	ram janaki mandir	6	88.098276	26.841241	1481
58	sidda devistan	7	88.076204	26.866613	1529
59	singha devistan	7	88.07752	26.871561	1527
60	singha devistan	7	88.076543	26.870299	1506
61	manghim	7	88.064548	26.871115	1209
62	shiddaseti devistan	7	88.070351	26.861435	1440
63	bojoghri singha devistan	7	88.073963	26.856509	1528

## Resource Mapping of Suryodaya Municipality

64	gupti shigadevi stan	7	88.078927	26.853956	1552
65	yangthung budha gumba	8	88.098894	26.899784	1362
66	padma xoling gumba	8	88.073665	26.889643	1538
67	300-year-old mane	8	88.076796	26.881762	1593
68	singha devi mandir	8	88.0942	26.876667	1330
69	shahi mandir	8	88.082676	26.879262	1591
70	shiva mandir	8	88.081755	26.878661	1608
71	jagateshwor shiva mandir	8	88.075212	26.884488	1553
72	church	9	88.076018	26.909809	1564
73	dhode church	9	88.060193	26.920548	1301
74	Pandam Church	9	88.073813	26.927178	1479
75	barbote bouddha mane	9	88.076939	26.907583	1545
76	dhyan chub xuling ghumba	9	88.069828	26.910768	1523
77	kaji ghumba	9	88.071621	26.912454	1568
78	old lapcha mane	9	88.066025	26.913853	1479
79	maili pathivara mandir	9	88.075149	26.900343	1455
80	sidheshwoir mandir	9	88.075865	26.900631	1455
81	sidhashwor shiva mandir	9	88.083896	26.905383	1399
82	devasthan	9	88.08405	26.905692	1400
83	barbote shiva mandir	9	88.075692	26.905058	1508
84	mahakal baba than	9	88.070989	26.909174	1481
85	Kirat Manghim	9	88.073354	26.927281	1467
86	Shiva Mandir Pandam	9	88.068861	26.928999	1347
87	Singa Devi Sthan	9	88.06967	26.903876	1388
88	fikkal church	10	88.065133	26.894965	1583
89	fensong ghumba	10	88.061756	26.895406	1589
90	fikal gumba	10	88.061675	26.895907	1586
91	shree shree shree kanakamai	10	88.070911	26.894669	1572



## Resource Mapping of Suryodaya Municipality

92	shiv mandir	10	88.070739	26.894287	1573
93	krishna pranami mandir fikal	10	88.063388	26.895179	1586
94	krisna parnami mandir arbote	10	88.054529	26.902491	1525
95	shiva mandir yang	10	88.052378	26.882291	1465
96	shiva mandir fikkal	10	88.068907	26.894729	1561
97	panchakanya mandir	11	88.037908	26.887067	1728
98	saraswoti mandir	11	88.027744	26.895218	1533
99	shiva mandir aetabare	11	88.031032	26.883462	1731
100	laxminarayan mandir	11	88.017615	26.892725	1398
101	sakela than	11	88.034388	26.900467	1555
102	church	12	88.020333	26.872611	1588
103	mane	12	88.053934	26.86507	961
104	Bimong mane	12	88.046732	26.855459	948
105	sidhadevi mandir	12	88.042526	26.871749	1460
106	Ushivalaya mandir	12	88.014821	26.867659	1664
107	devistan	13	87.983867	26.859441	1413
108	jalasidda seti devi mandir	13	87.987805	26.855713	1587
109	kirat rai mankhim mandir	13	87.980344	26.84732	1521
110	simley church	14	87.973366	26.824613	849
111	wyi sher sering ghumba	14	87.954164	26.82066	1184
112	singha bahini mandir	14	87.973747	26.849792	1500
113	jimmi raja rani mandir	14	87.962868	26.868424	1195
114	rameshor shivalaya mandir	14	87.960518	26.838625	1453

### 3.9.2 TOURISM AREA

Suryodaya municipality has lots of possibility of tourism development. It encourages the people in suryodaya municipality to increases the economic status. Suryodaya Municipality hosts many attractive places like Kanyam tea garden, Fikkal bazaar, Karfook etc. and other religious and tourism area. Tourists from Nepal as well as foreign countries mostly visit these areas in any seasons. The list of tourism places of Suryodaya Municipality are tabulated below;

**Table 5: Tourism areas of Suryodaya municipality**

S.N.	Name of Tourism place	Ward	Easting	Northing	Elevation(m)
1	Purposed View Tower	1	88.076293	26.990637	2280
2	tintale jharna	3	88.092997	26.946193	1567
3	mane bardada	3	88.074948	26.936152	1409
4	tarae bhir	3	88.082162	26.931852	1487
5	chuche dhuna paryatak area	4	88.110267	26.882683	1289
6	pahare vir	4	88.125287	26.884308	1639
7	lapchha sangrahalya	4	88.129886	26.889019	1595
8	guphaa patale aretak area	4	88.141093	26.925622	1981
9	histoical place of lepchha(juthi)	5	88.162459	26.840316	691
10	antu dada view point	5	88.140415	26.87288	1807
11	kiwa gupha	7	88.074731	26.852185	1367
12	the mountain range	8	88.082638	26.89325	1438
13	mountain view paraglidiing	8	88.086128	26.873133	1598
14	salamander sarakchayan area	9	88.086637	26.922648	1781
15	botnical area	12	88.042559	26.889405	1704
16	yalember salik	12	88.018056	26.868984	1560

## Resource Mapping of Suryodaya Municipality

17	suryoda abalokan area masale dada	13	87.96694	26.845597	1471
18	mane dada paryatak area	14	87.962139	26.838026	1431

### 3.10 EDUCATIONAL STATUS

The most important infrastructure of social development is education. In case of Suryodaya Municipality the literacy rate was 81.64% (*source: 2011 census data*). The list of educational institutions in established in suryodaya municipality are listed below;

**Table 6: List of educational institutions**

S.N.	Name of Educational Institute	Ward	Easting	Northing	Elevation ( m )
1	Sarashwoti P. School	1	88.117471	26.984454	1966
2	Sinha Devi P School	1	88.082508	26.986902	2140
3	Himalaya H S School	1	88.079959	26.95713	1404
4	SinhaDevi S. School	1	88.097182	26.965572	1476
5	Mahondraya P.School	1	88.099157	26.970279	1641
6	Bhagawati p. school	1	88.081196	26.969854	1878
7	Durg Bhwani P. School	1	88.059497	26.962735	1701
8	Sidda Devi P School	1	88.072009	26.961269	1687
9	ChandraKala P School	1	88.062018	26.945933	1341
10	Mimngma Bal Bikash Kendra	1	88.099134	26.971077	1672
11	Lali gurash Bal Bikash Kendra	1	88.093158	26.969484	1535
12	mahendra ratna Adharbhut Bidyalaya	2	88.108544	26.956669	1896
13	pashupati national academy	2	88.110408	26.946198	2040
14	montesorri	2	88.112945	26.946824	2042
15	Sarbajanik Adharbhut Bidyalaya	2	88.114079	26.948872	2088

## Resource Mapping of Suryodaya Municipality

17	Mahendra Adharbhut Bidyalaya	2	88.122343	26.935994	1803
18	bouddh dham s.school	2	88.103154	26.936994	1879
19	bhim jyoti Adharbhut Bidyalaya	3	88.092413	26.950258	1658
20	ratna sudaar Adharbhut Bidyalaya	3	88.078885	26.95112	1439
21	narbada kalyan boarding school	3	88.071887	26.947726	1352
22	east point englsh barding school	3	88.100021	26.934613	1866
23	shanta Adharbhut Bidyalaya	3	88.080644	26.936528	1542
24	urgan xoling Adharbhut Bidyalaya	3	88.091371	26.925382	1807
25	sigha mai Adharbhut Bidyalaya	3	88.096481	26.916307	1541
26	laxmi rastiya Adharbhut Bidyalaya	3	88.107648	26.917152	1511
27	chandra daya p.schppl	4	88.111615	26.870156	1274
28	bhagyadaya boarding school	4	88.129536	26.888619	1596
29	janak s.school	4	88.125991	26.888034	1585
30	antu school	4	88.129977	26.883467	1641
31	kancha jang p.school	4	88.125003	26.884022	1640
32	mechi s.school	4	88.135972	26.919831	1869
33	anshu bharna Adharbhut Bidyalaya	4	88.112361	26.906901	1377
34	rastria Adharbhut Bidyalaya	4	88.117238	26.893547	1549
35	mahendra Adharbhut Bidyalaya	4	88.124523	26.922563	1631
36	bhanubhakta p.school	4	88.133916	26.88149	1632
37	sambung s.school	5	88.15007	26.873809	1477
38	namuna p.school	5	88.129913	26.847458	1123
39	bidhya mandir boarding school	5	88.147575	26.876906	1512

## Resource Mapping of Suryodaya Municipality

40	golden habben boarding school	5	88.155418	26.864126	1327
41	shantidhara Adharbhut Bidyalaya	5	88.165099	26.864599	1036
42	saraswoti adarbhut bidyala	5	88.1581	26.85571	1149
43	boudha Adharbhut Bidyalaya	5	88.143592	26.845824	1039
44	gorak nima Adharbhut Bidyalaya	5	88.128248	26.859692	1419
45	kopila bal bikas kendra	5	88.15914	26.87683	1182
46	sagarmatha bal bikas kendra	6	88.096219	26.851095	1496
47	panchakanya Adharbhut Bidyalaya	6	88.086946	26.851714	1652
48	bal bikas Adharbhut Bidyalaya	6	88.106126	26.856016	1163
49	saraswoti niwas Adharbhut Bidyalaya	6	88.105627	26.838073	1493
50	shreekante bal bikash kendra	6	88.101285	26.861509	1232
51	gyayetri sanskrit bed bidyalaya	7	88.074829	26.871045	1458
53	bhagyo daya Adharbhut Bidyalaya	7	88.071134	26.867293	1438
54	navajyoti Adharbhut Bidyalaya	7	88.066187	26.860917	1291
55	padam adarbhut bidyalaya	7	88.061858	26.851827	1201
56	golden future school	7	88.084765	26.848886	1694
57	malum p.school	8	88.086879	26.891296	1420
58	adarsha Adharbhut Bidyalaya	8	88.098931	26.904536	1427
59	siddha p.school	8	88.090931	26.87882	1450
60	tea gurde english school	8	88.083717	26.880152	1556
61	fikkal college	8	88.070846	26.892496	1534
62	new world boarding	9	88.076186	26.904189	1506

## Resource Mapping of Suryodaya Municipality

	school				
63	harrow well schol	9	88.07516	26.903059	1502
64	illam glorious school	9	88.074312	26.924267	1441
65	bishnu jyoti p.school	9	88.081007	26.905716	1460
66	kanti bal bikash kendra	9	88.093079	26.9111	1503
67	bala guru gyan bigyan sikshya nketan	9	88.091993	26.912383	1540
68	holy angel boarding school	9	88.086671	26.920625	1761
69	rastriya Adharbhut Bidyalaya	9	88.074021	26.912692	1606
70	budhanilkanth p.school	9	88.060409	26.919516	1320
71	Diyalo Adharbhut Bidyalaya	9	88.074994	26.927292	1510
72	fikkal h.s school	10	88.070759	26.89446	1574
73	shree krishna p.school	10	88.044511	26.904209	1499
74	moden boarding school	10	88.050244	26.893837	1679
75	rastiya p.school	10	88.054942	26.903891	1520
76	shree adarsa p,school	10	88.056021	26.881005	1378
77	everland boarding school	10	88.0596	26.896225	1579
78	peace land acadamy school	11	88.036675	26.889148	1710
79	bhawani Adharbhut Bidyalaya	11	88.027561	26.895301	1532
80	birendra s. school	11	88.030065	26.882679	1716
81	punya smarika Bidyalaya	11	88.019792	26.876625	1628
82	sent agastine school	11	88.015945	26.87346	1650
83	glorious english school	11	88.018873	26.895138	1382
84	krishna Adharbhut Bidyalaya	11	88.012986	26.891422	1294
85	shanti nketan boarding school	11	88.03504	26.89989	1573
86	shree kera bari school	11	88.033435	26.900326	1547
87	padam balbikas kendra kerabari	11	88.028746	26.902241	1471
88	bal bikas kendra	11	88.02596	26.90606	1279

## Resource Mapping of Suryodaya Municipality

89	tribhuwan p.schol	11	88.011266	26.866805	1705
90	karpuk s.school	12	88.039657	26.886397	1699
91	pathivara p.school	12	88.023968	26.864499	1339
92	umrishe p.school	12	88.016264	26.858873	1423
93	devigunj p.school	12	88.020743	26.850555	1244
94	gneshwori s.school	12	88.044706	26.861574	1175
95	pnychanknya Adharbhut Bidyalaya	12	88.046821	26.877601	1448
96	snowview school	12	88.040558	26.873472	1515
97	laganshil k.s.school	12	88.048133	26.878987	1470
98	jyoti s.school	13	87.987985	26.856362	1575
99	bal kalyan p.school	13	87.997451	26.845195	1263
100	gyanodaya Adharbhut Bidyalaya	13	87.993241	26.829276	897
101	Auradaya awas school	13	87.984166	26.846573	1555
102	sarasoti bal bikas kendra	13	87.982463	26.860326	1368
103	jimmikhat Adharbhut Bidyalaya	14	87.968696	26.856442	1343
104	saraswoti s.s batasey	14	87.969396	26.849561	1487
105	saradha Adharbhut Bidyalaya	14	87.952147	26.856194	1223
106	budhha s. school	14	87.957009	26.830135	1238
107	balkalyan Adharbhut Bidyalaya simley	14	87.972981	26.824028	854
108	katushe namuna boarding school	14	87.963101	26.845734	1459

### 3.11 HEALTH CENTRES

Fikkal hospital is the major health institute of suryodaya municipality. Furthermore, health institutions in suryodaya municipality are listed below;

## Resource Mapping of Suryodaya Municipality

**Table 7: Name of Health institutions in suryodaya municipality**

S.N.	Name of Health Institute	Ward	Easting	Northing	Elevation( m )
1	Health Post	1	88.076905	26.954475	1333
2	PHC pashupati nagar	2	88.113074	26.948913	2082
3	Health Post	4	88.124414	26.894651	1586
4	Health Post	5	88.150544	26.872896	1471
5	proposed Health Post	6	88.102607	26.840141	1445
6	kanyam upa Health Post	7	88.081114	26.869055	1626
7	ward 8 Health Post	8	88.093072	26.877806	1381
8	red cross office	8	88.083136	26.880096	1565
9	Health post	8	88.071428	26.89284	1558
10	Sawastha khop kendra	9	88.077132	26.925842	1565
11	pathibhara medical hall	10	88.064634	26.895663	1576
12	fikkal hospital	10	88.064716	26.895294	1582
13	Health Post panchakanya	11	88.037745	26.886686	1729
14	mechi anchal ayurved aushadalaya	11	88.031261	26.883628	1734
15	kera bari khop kendra	11	88.028889	26.901215	1475
16	sahari swaste kendra	12	88.047836	26.856936	1059
17	gaughar clinic	12	88.044556	26.868699	1310
18	khani bhangyanj khop kendra	13	87.992828	26.829735	890
19	Health Post laxmipur	14	87.970934	26.853279	1452



### 3.12 TELECOMMUNICATION SERVICE

The tele communication services in the suryodaya municipality are as follow;

**Table 8: Tele communication services in suryodaya municipalaity**

<b>S.N.</b>	<b>Name of Tele Communication service</b>	<b>Ward</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation(m)</b>
1	Ncell Tower	1	88.062184	26.95023	1434
2	Nepal telecom tower	2	88.1144	26.94996	2109
3	Ncell tower	3	88.093537	26.93059	1848
4	Nepal telecom tower	4	88.137807	26.87305	1816
5	Ncell tower	4	88.134698	26.87685	1727
6	Nepal telecom sky tower	5	88.150301	26.86844	1483
7	Fikkal fm	9	88.071123	26.91248	1562
8	Ncell tower	10	88.064557	26.89538	1581
9	buddhabadi FM	10	88.06621	26.89492	1576
10	Nepal telecom tower	10	88.055542	26.89575	1666
11	TV tower	11	88.007002	26.86695	1744
12	w link tower	11	88.007496	26.86752	1745
13	Ncell tower	11	88.010546	26.8686	1738
14	pathivera fm tower	11	88.007483	26.86755	1745
15	Ncell tower	14	87.971281	26.85057	1505
16	Nepal telecom tower	14	87.963456	26.84467	1503
17	Ncell tower	14	87.95457	26.82073	1183
18	Nepal telecom tower	11	88.007301	26.86742	1745
19	Ncell Tower		88.11977	26.98733	1968

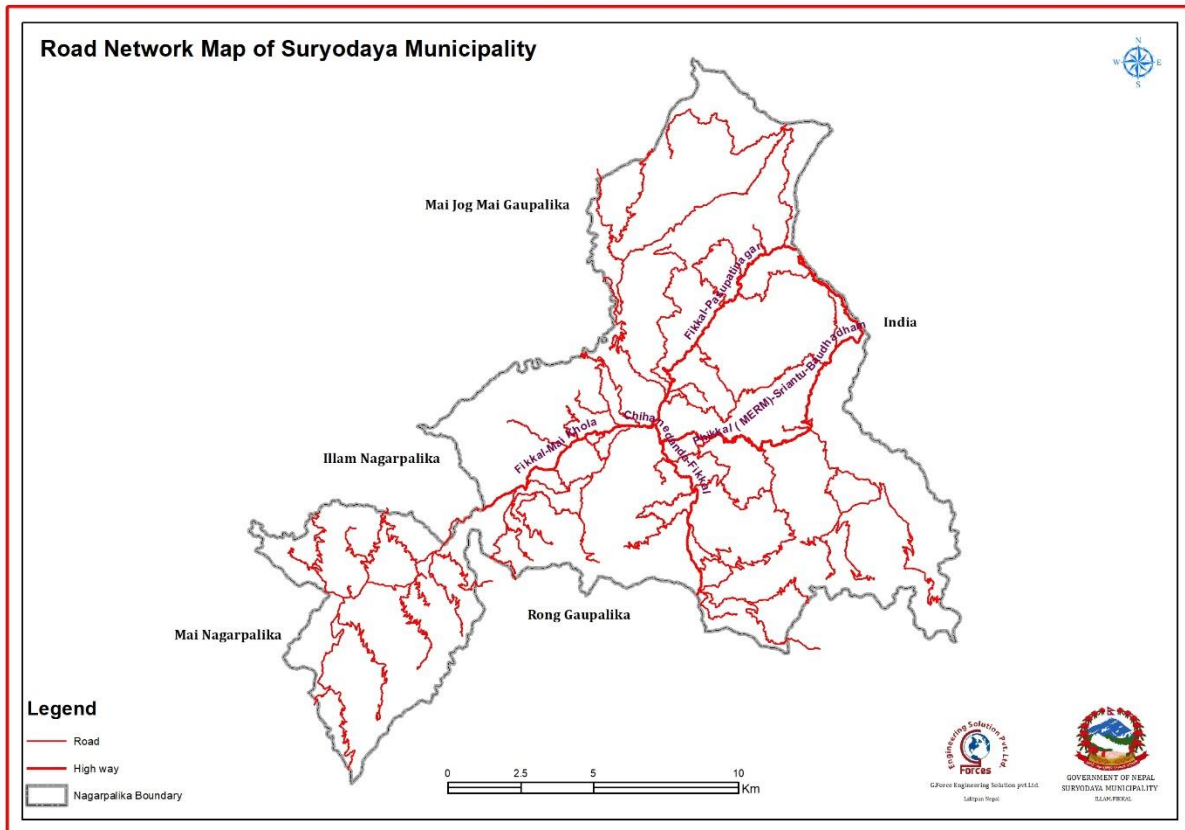
### 3.13 TRANSPORTATION SERVICE

Transportation plays a vital role to develop an economy of any area, rather it a prerequisite for any development process. some roads in suryodaya municipality are listed below;

**Table 9: some roads of suryodaya municipality**

<b>S.N.</b>	<b>Name of Road</b>	<b>Length (m)</b>
1	Aailaare aathghare Road	1.291016
2	Athghare Malim Road	4.785541
3	Barbote Mehelbote Road	9.989864
4	Chihanedanda-Fikkal Road	7.843726
5	Fikkal-Mai Khola Road	7.80438
6	Fikkal-Pasupatinagar Road	10.31154
7	Fikkal Nayabazaar Namsaling Road	9.836484
8	Fikkal to Arubote Road	3.749007
9	gorkhe to jogmai Road	4.934034
10	Kalapani Maghe Road	2.697996
11	mahendra basi ghaat Road	5.977645
12	mahendra besi ghaat - samdup ling gumb Road	3.27722
13	Manebhanjan Gorkhe Road	6.380834
14	Manebhanjyang Gorkhe Road	5.585281
15	Fikkal (MERM)-Sriantu-Baudhadham Road	8.087682
16	Premejung Namsaling ilam by pass Road	5.734032
17	Tinghare to fikkal Road	5.678453

## Resource Mapping of Suryodaya Municipality



**Figure 9: Road network in suryodaya municipality**

### 3.14 FOREST

A forest is a large area dominated by trees. Hundreds of more precise definitions of forest are used throughout the world, incorporating factors such as tree density, tree height, land use, legal standing and ecological function. Human society and forests influence each other in both positive and negative ways. Forests provide ecosystem services to humans and serve as tourist attractions. Forests can also affect people's health. Human activities, including harvesting forest resources, can negatively affect forest ecosystems.

In suryodaya Municipality, Simhadevi , Thumke, hile chitre are some forest these forest are popular for red panda zone. *utis, Japanese sallo, malaria, chilaune, katus, chaap, guras etc.* are major trees found in upper belt of municipality while *saal, saaj, kyamuna, pipali, kholme, mauwa, falame, kaulo, lokta, argeli, chiraito, mafito, saur, siris, kutmiro, payu, aangare, gogun, etc.* are major trees and shurbs found in lower belt of municipality respectively.

## Resource Mapping of Suryodaya Municipality

The table below gives the information of community and private forest in municipality;

**Table 10: List of Community Forest**

S.N.	Name of Community Forest	Ward No.	Area In Ha
1	Simhadevi , Thumke	1	206.3
2	Chitre hile lamidhura	1	222
3	Deurali muwatar	1	24
4	Deep kamal	4	28.12
5	Ojale	3	2.56
6	Rani	2	68.99
7	Raja	2	50.91
8	Buddha Adarsha	4	15.12
9	Urlu	10	5.84
10	Simha Devi	6	133.82
11	Aape	13	9.83
12	Sisne Odane	13	7
13	Kopche	14	141.37
14	Pragatisheel	13	141.14
15	Thulo Yardu	14	192.9
16	Shree Antu paryatan	5	24.76

**Table 11: List of Private Forest**

S.N.	Name of Private Forest	Ward	Area in Ha.
1	Dalimkot Timilsina	12	1.37
2	Raghunath Timilsina	12	1.62
3	Lekhanath Bhattraï	4	0.61
4	Gita Devi Bhattraï	4	0.0025
5	Thir Kumar Kadka	2	12 ropani
6	Lal Bahadur Basnet	2	10 ropani

### 3.15 DRAINAGE/HYDROLOGY AND WATER BODIES

Suryodaya Municipality has many small tributaries of river channel as drainage network of locality flowing north to south. The area is drained by Mechi River and Mayum khola, Ramphok . The almost part of Municipality is covered by tea Gardening.

Some major rivers that flows from suryodaya municipality are tabulated below;

**Table 12: List of major Rivers**

S.N.	Name of major River	S.N.	Name of major River
1	Adheri Khola	19	Lewa Khola
2	Ambi Khola	20	Maghe Khola
3	Antu Khola	21	Malum Khola
4	Ashale Khola	22	Mayum Khola
5	Biring khola	23	Mechi Nadi
6	Chhiruwa Khola	24	Pandam Khola
7	Chungbang Khola	25	Ramphok Khola

## Resource Mapping of Suryodaya Municipality

8	Dhobi Khola	26	Rangsung Khola
9	Gorakh Khola	27	Sakale Khola
10	Goyang Khola	28	Sarki Khola
11	Jil Khola	29	Siddhi Khola
12	Jogmai Khola	30	Sri Khola
13	Jure Khola	31	Sribung Khola
14	Karphok Khola	32	Sundar Khola
15	Kerabari Khola	33	Tangting Khola
16	Khahare Khola	34	Targau Khola
17	Khani Khola	35	Tarim Khola
18	Koche Khola		

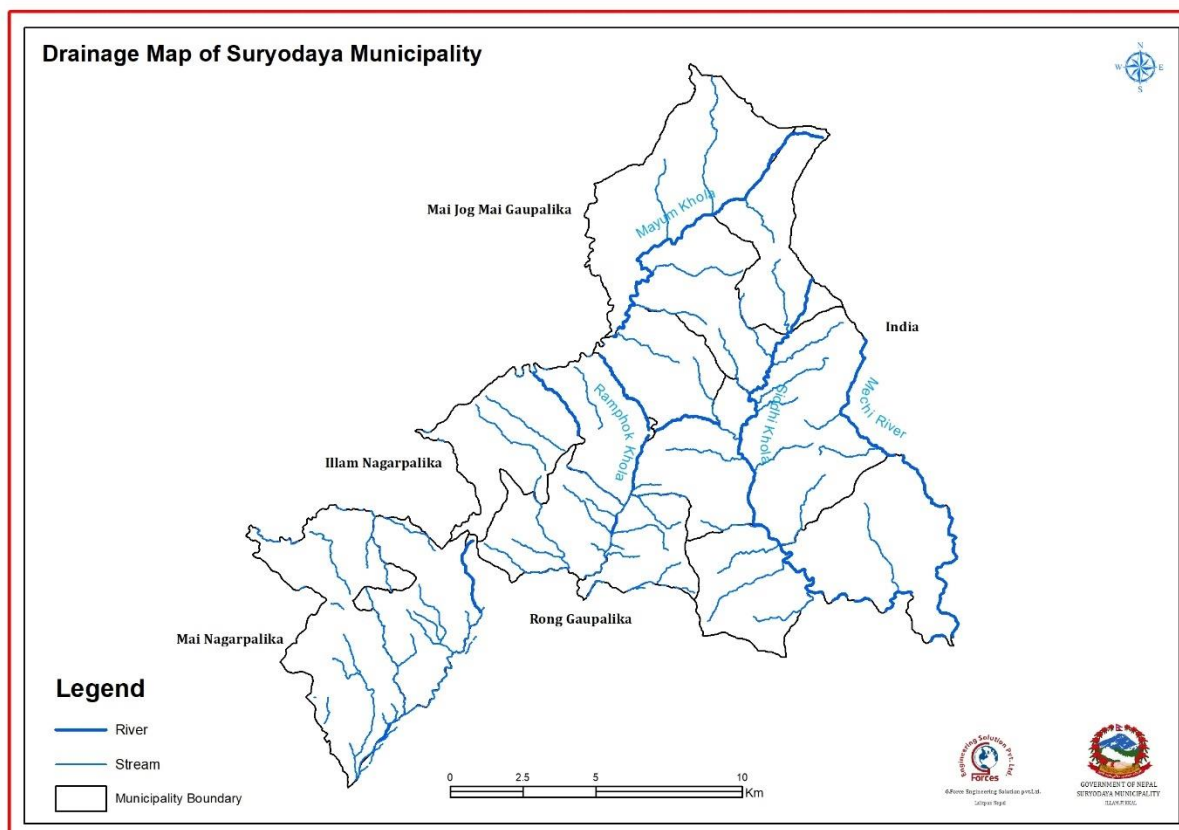
Suryodaya Municipality has many ponds and other water bodies. such as nag pokhari, antu pokhari which are popular tourism area. The beauty of ponds makes the suryodaya municipality attractive. Here some water bodies are listed;

**Table 13: List of major water bodies**

S.N.	Name of Water Bodies	Ward	Easting	Northing	Elevation(m)
1	Nag Pokhari	1	88.079898	26.988789	2334
2	Proposed Pokhari	1	88.076849	26.990567	2213
3	antu pokhari	4	88.127887	26.881664	1664
4	thalthale pokhari	6	88.104751	26.836961	1506
5	katwal gau pokhari	7	88.073757	26.864167	1495
6	ward estariya pokhari ward 8	8	88.085081	26.893115	1444
7	jor pohari	13	87.988167	26.855951	1588
8	suke pohari	13	87.993844	26.858677	1561
9	bojoghari pokhari	13	87.982312	26.844854	1520
10	Simsar	1	88.069791	26.969378	1934
11	simsar	1	88.073624	26.971797	1856

## Resource Mapping of Suryodaya Municipality

The Hydrographical Map shows the drainage situation of the Municipality.



**Figure 10: Hydrographical Map of Suryodaya Municipality**

### 3.16 GOVERNMENT SERVICE CENTRES

Suryodaya municipality offices, Bhansar office, forest office are some major government offices in suryodaya municipality. The other government offices are listed below;

**Table 14: List of government offices**

S.N.	Name of Government Offices	Ward	Easting	Northing	Elevation(m)
1	Suryodaya municipality office	10	88.06551	26.89574	1568
2	Ward no. 1 Office	1	88.077905	26.95534	1343
3	Bhansar office	2	88.120984	26.94884	2138
4	Sima pasasan	2	88.114711	26.94882	2085

## Resource Mapping of Suryodaya Municipality

	karyalaya				
5	Pasu quarentinen check post	2	88.110368	26.94687	2038
6	Bidhut pradhikaran office	2	88.112196	26.94693	2041
7	Ilaka ban karyalaya	2	88.116505	26.94918	2106
8	ward no. 2 office	2	88.115368	26.94913	2034
9	post office	2	88.115589	26.94917	2095
10	ward no. 3 office	3	88.102421	26.93775	1885
11	ward no. 4 office	4	88.118581	26.89328	1553
12	ward no. 5 office	5	88.148884	26.87314	1517
13	purposed ward office	5	88.149372	26.87432	1496
14	purposed ward office	6	88.092007	26.85593	1500
15	ward no. 6 office	6	88.095622	26.85161	1500
16	atirikta hulak karyalaya kanyam	7	88.081041	26.8691	1623
17	ward no.7 office	7	88.081088	26.8691	1625
18	nepal telecom office	8	88.072152	26.89248	1550
19	ward no. 8 office	8	88.077832	26.88438	1532
20	purposed ward office	8	88.088964	26.88452	1421
21	kendria alechi bikas kendra karyalaya	9	88.074267	26.91195	1600
22	ward no. 9 office	9	88.074606	26.90274	1501
23	bidhut pradhikaran office	10	88.058381	26.89525	1596
24	purposed ward office	10	88.055551	26.89843	1622
25	ward no. 10 office	10	88.057464	26.89733	1574
26	ward no. 11 office	11	88.037813	26.88677	1727
27	Ward no 12 office	12	88.024897	26.878	1633
28	ward no. 13 office	13	87.967835	26.84693	1483
29	ward no. 14 office	14	87.988232	26.85226	1586



### **3.17 POLICE STATION AND APF CAMP**

The following are the list of police station and apf camp established in suryodaya municipality.

**Table 15: List of police station and apf camp**

<b>S.N.</b>	<b>Name of police station</b>	<b>Ward</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation(m)</b>
1	Police Sation	1	88.077957	26.95518	1340
2	elaka police office	2	88.12144	26.9479	2126
3	police check post	2	88.122068	26.94837	2126
4	samudahik prahari sewa kendra	2	88.113997	26.94806	2070
5	traffic chowkki	4	88.125365	26.89206	1548
6	police station	5	88.148677	26.87315	1524
7	police station	6	88.084492	26.84358	1699
8	police station	8	88.071602	26.89329	1560
9	prahari chouki aetabare	11	88.028868	26.8838	1724
10	teenghare prahari chuoki	12	88.021593	26.87679	1630
11	APF camp	2	88.120742	26.94872	2136

### **3.18 INSTITUTIONAL ORGANIZATIONS**

The table below shows the institutional organizations such as red panda office, maiti Nepal, sahakari sastha, and other non-governmental organizations etc.;

**Table 16: List of institutional organizations**

<b>S.N.</b>	<b>Name of Institutional organization</b>	<b>Ward</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation(m)</b>
1	Red Panda Office	1	88.080923	26.98804	2200
2	kiran krishi samuha	2	88.101321	26.9598	1656

## Resource Mapping of Suryodaya Municipality

	office				
3	maiti nepal office	2	88.112747	26.94739	2053
4	immigration office	2	88.121157	26.94875	2138
5	samaj kalyan dudh uthpadak sahakari sasta	2	88.101823	26.95958	1666
6	baag biey dudh uthpadak sahakari sasta	2	88.109634	26.95447	1913
7	Tourist information center	2	88.121119	26.94876	2138
8	help desk	2	88.121702	26.9484	2128
9	sayapatri pariwar office	3	88.114018	26.92301	1525
10	pasupati maila sahakari sasta	3	88.101833	26.9364	1866
11	mehelbote dudh uthpadak sasta	3	88.080715	26.9504	1452
12	mangal deep dudha uthpadak sahakari sasta	3	88.075305	26.94985	1391
13	sana kisan sakari sasta	4	88.12534	26.89381	1555
14	sana kisan sahakari sasta	5	88.141994	26.87703	1650
15	shantidhara yuwa club	5	88.164913	26.86504	1044
16	gaurabh najikrik samchetana kendra	5	88.140798	26.84728	1147
17	brisya gau sachetana kendra	5	88.157383	26.85479	1087
18	urbeli jaributi krisak samuha	6	88.095142	26.84105	1523
19	tara gau dudha utpadak sahakari sasta	6	88.106996	26.84042	1408
20	krishi sahakari sasta	6	88.085015	26.8439	1713
21	manakana dudha utpadak sahakari sasta	6	88.087908	26.85622	1544

## Resource Mapping of Suryodaya Municipality

22	sagarmatha bou udashya sahakari sasta	6	88.101087	26.86097	1244
23	fagi gau dudha uthpadak sahakari sasta ltd	6	88.108134	26.85264	1211
24	sigha devi dudha uthpadak sahakari sasta	6	88.098657	26.85325	1450
25	namuna pasupalan and krisak samuha	6	88.09782	26.85112	1462
26	kanyam valley nagade tatha tarkari bli samuha	6	88.100515	26.86047	1268
27	janachetana krisak tatha pasualan samuha	6	88.108268	26.85284	1209
28	srijan sil krisak samuha	6	88.107969	26.85196	1208
29	chiya sahakari	6	88.101039	26.83788	1552
30	dhurba tara dudha utpadak sahakari sasta	6	88.111872	26.84317	1308
31	utate jadibuti samuha	6	88.101521	26.84241	1422
32	gogane chiya uthpadak sahakari sasta	7	88.076468	26.87195	1492
33	pragati bahu udasya sahakari sasta	7	88.076261	26.87069	1494
34	jumbhu ghari khane pani ayojana	7	88.072917	26.86967	14411
35	factory kholsi khane pani ayojana	7	88.079279	26.86892	1582
36	amrit dhara dudh sahakari sasta	7	88.067487	26.86123	1329
37	suryodaya mahila sahakari sast	7	88.08485	26.84862	1694
38	mangal jyoti prastithan Untitled Placemark	8	88.080624	26.89145	1446

## Resource Mapping of Suryodaya Municipality

39	nagar estariya nursery uthpadan kendra	8	88.093534	26.89592	1266
40	siddababa dudh sahakari sasta	8	88.095001	26.87895	1337
41	mane gau khane pani ayojana	8	88.082887	26.87383	1605
42	paltage khane paani aayojana	8	88.083611	26.87437	1606
43	mane gaun khane pani aayojana	8	88.081671	26.87877	1605
44	gardane bhanjang krishi sahakari sasta	8	88.076109	26.88396	1561
45	yakata rid tatha bachat sahakari sasta	8	88.083201	26.87915	1582
46	damshing dudha saakari sansta	8	88.092061	26.88477	1365
47	malum krishi sahakari sasta	8	88.088516	26.89243	1403
48	chipitar dudha utpadak sasta	8	88.072749	26.89034	1540
49	aalaichi sahakari sasnta	9	88.085487	26.90709	1430
50	dhode dudha sasta	9	88.062544	26.91797	1367
51	Pandam Dudha Sastha	9	88.067435	26.9269	1329
52	Fikkal Tea and coffee Office	9	88.072564	26.9127	1582
53	sungawa dudh uthpadak sahakari sasta	10	88.053746	26.91109	1408
54	jagruti dudha sasta	10	88.043562	26.90513	1408
55	shree krishna dudha sasta	10	88.045422	26.90231	1535
56	arbote dudha sahakari sasta	10	88.055124	26.90393	1519
57	janahit krishi sahakari sasta	11	88.028362	26.89501	1533

## Resource Mapping of Suryodaya Municipality

58	mahila manakana bou udasya sahakari sasta	11	88.029081	26.88373	1725
59	atabare yuwa club	11	88.030723	26.88389	1733
60	himshikar chiya utpadak sahakari sasta	11	88.019277	26.8765	1624
61	laxminarayan dudh uthpadak sahakari sasta	11	88.017194	26.89322	1383
62	neharika rin tatha bachat saakari sasta	11	88.034414	26.9004	1556
63	kera bari dudha sasta	11	88.035103	26.90069	1553
64	dreams club	12	88.018202	26.86938	1558
65	pravab shali kishi sahakari sasta	12	88.044451	26.86108	1169
66	mechi dudhka uthpathak saha kari sasta	12	88.044465	26.86783	1300
67	art ghare kirsisahkari sansta	12	88.046972	26.87784	1452
68	laxmipur dudha upthpadak sahakari sasta	13	87.988233	26.85217	1586
69	kolbote dudha sahkari sasta	13	87.998082	26.84484	1249
70	kusiyali krisi sahakari sasta	13	87.998129	26.86041	1570
71	shree ram dudha sahakari sasta	13	87.987593	26.85943	1487
72	laxmi dudh upthpadak sahakari sasta	13	87.984094	26.85927	1408
73	daju bhai dudh sahakari sasta		88.005006	26.86924	1621

### **3.19 INDUSTRIES**

Ilam district is famous for tea production and most of the industries are tea factory. In suryodaya there are many tea factory such as kanyam tea estate, panchakanya tea factory, ilam tea estate etc. furthermore people in this municipality are engaged in dairy product factory that produces churpi, cheese, lollipop, ghee etc.

some of the small, middle and large-scale industries are listed below;

**Table 17: List of industries in suryodaya municipality**

<b>S.N.</b>	<b>Name of Industry</b>	<b>Ward</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation(m)</b>
1	sarada Tea factory	2	88.120688	26.93506	1761
2	ilam cheese Factory	2	88.132956	26.936773	1879
3	manila tea factory	2	88.120234	26.94001	1895
4	sadana dairy factory	2	88.111509	26.948647	2037
5	panchamrit dairy factory	2	88.102354	26.939732	1923
6	DDC factory	3	88.10627	26.945265	1999
7	kanchan lalipop factory	3	88.101709	26.936285	1864
8	niliyam dairy factory	3	88.102726	26.940546	1923
9	nepal green tea factory	3	88.097456	26.932311	1875
10	lucky dairy factory	3	88.093003	26.929731	1842
11	la mandala tea factory	3	88.091198	26.925631	1813
12	suryadaya cow farm	3	88.092603	26.926064	1793
13	ganesh himal tea factory	4	88.111598	26.888111	1375
14	hialayan tea factory	4	88.107655	26.874442	1211
15	ilam tea factory	4	88.126361	26.890569	1591

## Resource Mapping of Suryodaya Municipality

16	antu tea factory	4	88.130559	26.912276	1759
17	summer valley tea factory	4	88.136664	26.878927	1710
18	Akariti valley tea estate	4	88.142357	26.881715	1488
19	setinagh dairy factory	5	88.14875	26.874696	1511
20	Tea factory	6	88.085711	26.857147	1574
21	dairy farm	6	88.087624	26.841993	1671
22	Tea factory	6	88.084505	26.860616	1572
23	Tea collection Centre	6	88.100071	26.857664	1319
24	himal chuli tea factory	6	88.110309	26.859262	1062
25	himal chuli dairy factory	6	88.098718	26.850808	1445
26	Taragau tea factory	6	88.103146	26.835554	1565
27	kanyam tea Estate	7	88.078648	26.867797	1571
28	gogane factory pvt ltd	7	88.072757	26.867559	1471
29	bhangtar tea factory pvt ltd	7	88.076866	26.857456	1629
30	ambhi dudh sahakari sasta	7	88.064919	26.852508	1237
31	himalayan tea factory	8	88.075975	26.891229	1468
32	uttan oil pump	8	88.073959	26.888068	1540
33	raktakali tea factory	8	88.098882	26.890707	1213
34	aroma tea factory pvt ltd	8	88.08586	26.892582	1432
35	lumbini tea factory	8	88.085476	26.893714	1429
36	bipana tea factory	8	88.081938	26.89164	1437
37	trisakti pathivara tea factory	8	88.07689	26.884686	1533
38	green illam tea factory	8	88.081016	26.881372	1508

## Resource Mapping of Suryodaya Municipality

39	suryodaya organic tea factory	8	88.086122	26.882276	1473
40	kanyam lolipop factory	8	88.086579	26.881962	1473
41	siddakali sanjibani tea processing centre	8	88.097989	26.883025	1306
42	siddibesi animal husbandry and agri farm	8	88.103147	26.869965	1061
43	jhulke gham tea factory	8	88.085597	26.871803	1612
44	deepam tea factory	8	88.084095	26.866355	1577
45	Milk collection centre	8	88.090013	26.866746	1423
46	sayapatri tea factory	8	88.094988	26.878989	1339
47	sunmai tea factory	8	88.085892	26.876595	1570
48	kanyam sahakari tea factory	8	88.089915	26.876695	1482
49	chahan tea factory	8	88.088914	26.880717	1417
50	rourng tea factory	8	88.077837	26.880591	1592
51	indrabati tea factory	8	88.089836	26.880908	1406
52	kanyam milk processing centre	8	88.082787	26.879387	1587
53	baba haleshi tea factory	8	88.081012	26.886033	1459
54	samridhi animal husbandry and dairy factory	8	88.084256	26.886789	1423
55	sidhi kinara tea factory	8	88.09613	26.8896	1301
56	malum tea factory	8	88.07594	26.891219	1468
57	Head Agro Milk factory	9	88.075817	26.913475	1639



## Resource Mapping of Suryodaya Municipality

58	milk chilling center (DDC)	9	88.073046	26.899444	1500
59	dairy factory and saw mill	9	88.075412	26.904725	1506
60	gramin tea factory pvt. ltd.	9	88.093531	26.909669	1455
61	ilameli tea processing factory	9	88.080492	26.909402	1546
62	mechi valley tea factory	9	88.077647	26.9078	1547
63	gorkha tea estate	9	88.081033	26.9167	1694
64	halesh tea factory	9	88.075671	26.912547	1633
65	Milk collection center pandam	9	88.07312	26.927501	1463
66	Ramfock Tea Factory	9	88.070592	26.912226	1555
67	Mountain Organice Tea Factory	9	88.072805	26.912458	1587
68	dr khola chiya factory	10	88.054249	26.893213	1640
69	gyanu subba tea factory	10	88.047938	26.894788	1695
70	ayush factory	10	88.067678	26.896135	1542
71	krishna gopal tea factory	10	88.056736	26.902315	1510
72	arbote tea estate	10	88.05188	26.912311	1361
73	kala pani tea factory	11	88.045377	26.896798	1675
74	bhawani milk sasta	11	88.028275	26.894813	1535
75	siddibinayak tea factory	11	88.045399	26.896826	1671
76	ilam tea estate	11	88.026346	26.879368	1674
77	mini tea factory	11	88.043672	26.898998	1615
78	dairy ghee churpi factory	11	88.031161	26.902362	1489

## Resource Mapping of Suryodaya Municipality

79	mini tea factory	11	88.037238	26.902104	1527
80	churpi factory	11	88.028449	26.879848	1648
81	panchakanya ilam tea factory	11	88.032854	26.88198	1722
82	shree krishna dairy production	12	88.040651	26.873677	1516
83	churpi factory	12	88.035783	26.88299	1723
84	aycharya dairy farm	12	88.047591	26.874359	1344
85	tea factory	12	88.044018	26.890524	1705
86	sikher tea factory	13	88.004502	26.864933	1662
87	laxmi tea factory	13	87.99068	26.859153	1531
88	organic Nepal tea factory	13	87.988177	26.852034	1584
89	pradip kutani pisani mill	14	87.964301	26.84286	1488
90	bardhu tea factory	14	87.955985	26.828682	1223
91	fikkal tea and coffee company pvt. ltd.	14	87.971641	26.873495	972
92	Tea Production Area	1	88.06497	26.963486	1846
93	Tea Production Area	1	88.063286	26.957364	1675

### 3.20 COMMUNITY/TOWN HALL

some of the community hall that are established for conducting seminars, party, meetings are listed below;

**Table 18: List of seminar, community and town hall**

S.N.	Name of community Hall	Ward	Easting	Northing	Elevation(m)
1	Aathiti bhawan pashupatinagar	2	88.113087	26.94777	2063
2	Janajati bhawan	4	88.121785	26.89337	1561

## Resource Mapping of Suryodaya Municipality

3	Resam bhawan	5	88.154937	26.86442	1340
4	Semi chung bhawan	6	88.10991	26.8537	1173
5	Dubbu gau krihi sahakari bhawan	8	88.085751	26.86963	1565
6	shanti yekata club bhawan	9	88.086908	26.9055	1405
7	samajik sewa pratisthan bhawan	9	88.094436	26.91104	1470
8	sundar pani chiya sahakari sansta ko bhawan	9	88.082511	26.91616	1696
9	proposed city hall	10	88.067213	26.89763	1503
10	Community Hall	10	88.042304	26.90719	1448
11	kirat bhawan	10	88.042386	26.90729	1448
12	Arbote Community Hall	10	88.053713	26.91114	1408
13	mai pujey yuwa club bhawan	11	88.028129	26.89474	1535
14	Community Hall	11	88.019925	26.87635	1632
15	janajati bhawan	13	87.967623	26.84642	1483
16	kirat yakthum chumlung bhawan	14	87.970509	26.85362	1435

### 3.21 HAT BAZZAR, MARKET AND TRADE CENTRE

Fikkal bazar, pashupati bazar are the major market or trade center of suryodaya municipality and the other market and trade centre are as follows;

**Table 19: List of market and hat bazzar**

S.N.	Name	Ward	Easting	Northing	Elevation(m)
1	Bhanjang bazzar	4	88.130738	26.881014	1648
2	mechi bazar	4	88.136503	26.919188	1852
3	santi bazar haate	5	88.149005	26.873772	1511
4	krishi thok kendra	9	88.078863	26.905736	1489
5	Fikkal bazar	10	88.0682	26.895433	1556
6	Sahid chowk	10	88.056037	26.900426	1561

## Resource Mapping of Suryodaya Municipality

7	Ratna chowk	10	88.043178	26.906654	1470
8	Naya chowk	10	88.047843	26.893482	1708
9	katushey bazar	14	87.961609	26.846087	1433
10	apple plaza	10	88.067957	26.895289	1561

### 3.22 CREMANTATION PLACES

In suryodaya municipality, here are some cementation places (dahasaskar stal) are listed below;

**Table 20: List of cremation places**

S.N.	Name of Cremation point	Ward	Easting	Northing	Elevation(m)
1	arya ghaat pasupatinagar	2	88.116215	26.960103	1901
2	samasan ghaat	2	88.119507	26.951705	2147
3	dev ghaat samranan chetra	4	88.105047	26.904158	1276
4	mahendra besi durga ghaat	4	88.114104	26.858718	995
5	tamang ghaat	6	88.103622	26.851209	1295
6	tara gau dhoban siddi ghatt	6	88.115449	26.853462	959
7	budhist ghaat	6	88.083918	26.840623	1728
8	malbase malami toharo	7	88.065083	26.873065	1192
9	siddhi ghat	8	88.101005	26.890944	1161
10	janjati ghat	8	88.089629	26.891008	1384
11	sidda baba ghat	8	88.103276	26.874191	1056
12	lapcha ghat	9	88.066125	26.913042	1478
13	tamang ghat	9	88.066049	26.913285	1478
14	Tribeni ghat sabdha grihya	8	88.094216	26.89661	1263
15	sangam ghat sabdha grihya	9	88.089488	26.89965	1303

### 3.23 OTHER INFRASTRUCTURES AND FACILITIES

The other facilities and infrastructures such as playgrounds, bridges, buspark, public toilet etc. in suryodaya municipality are listed in following tables;

**Table 21: List of playground**

S.N.	Name of Playground	Ward	Easting	Northing	Elevation(m)
1	Foot Ball Ground	1	88.069408	26.96831	1918
2	bagbira khel maidn	2	88.108825	26.95676	1894
3	utare khel maidan	4	88.129137	26.88874	1596
4	khola bagar khel maidn	4	88.112268	26.91221	1352
5	ambhi khel maidan	7	88.060084	26.85202	1156
6	antarastria cricket rangasala	8	88.098101	26.89974	1369
7	khel maidan	8	88.103282	26.87209	1051
8	karpuk kelmaidan	12	88.039257	26.88711	1718
9	foot ball ground	12	88.017824	26.86882	1564
10	uttarey khel maidan	13	87.979885	26.84773	1581
11	simley khel maidan	14	87.973091	26.82504	840

**Table 22: List of major bridges**

S.N.	Name of Bridges	Ward	Easting	Northing	Elevation(m)
1	jholunge pool	5	88.11645	26.8562	979
2	jholunge pool	5	88.120624	26.85074	951
3	siddhi khola pul	8	88.100846	26.89	1151

**Table 23: List of buspark**

S.N.	Name of Buspark	Ward	Easting	Northing	Elevation(m)
1	old bus park	2	88.110196	26.94664	2039
2	suryaaya buspark	8	88.07514	26.88945	1505

**Table 24: List of public toilet**

S.N.	Name of Public Toilet	Ward	Easting	Northing	Elevation(m)
1	Public Toilet	2	88.114716	26.948349	2073

## CHAPTER 4: WEB PORTAL

### 4.1 INTRODUCTION OF WEB PORTAL

Web portal is a specially designed website that brings information from diverse sources together in a uniform way. Usually, each information sources gets its dedicated area on the page for displaying information (a portlet); often the user can configure which ones to verify. Variants of portals include mashups and intranet “dashboards” for executives and managers. The extent to which content is displayed in a uniform way may depend on the intended user and the intended purpose, as well as the diversity of the content. Very often design emphasis is on a certain metaphor for configuring and customizing the presentation of the content and the chosen implementation framework or code libraries. In addition, the role of the user is an organization may determine which content can be added to the portal or deleted from the portal configuration.

### 4.2 DEVELOPMENT OF WEB PORTAL

After collecting and compilation of Suryodaya municipality ward wise field data the social resource map was made by the use of GIS software. The interactive/dynamic portal was created by hosting the geo server which can be accessed by public as in Google map and these data were imported in portal that can be accessed in municipality website. The maps and related data can be exported easily by public in municipal website. Moreover, it can be updated by municipality if necessary to update the data in portal.

## **CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS**

With the implementation of this project the existing resources of Suryodaya Municipality such as Demographic Characteristics, Historical Religious and Tourist Area, Educational Status, Health Centers, Telecommunication Service, Transportation Service, Forest, Water Bodies, Service Centers etc can be visualized by public that can be accessed by viewing web portal in Municipality website.

This project can be a model to other project and help to observe the municipality resources. It also plays vital role in tourism development of municipality which can force to change the lifestyle and economic status of people in municipality as well as Ilam district.

Therefore, the project is recommended for implementation.