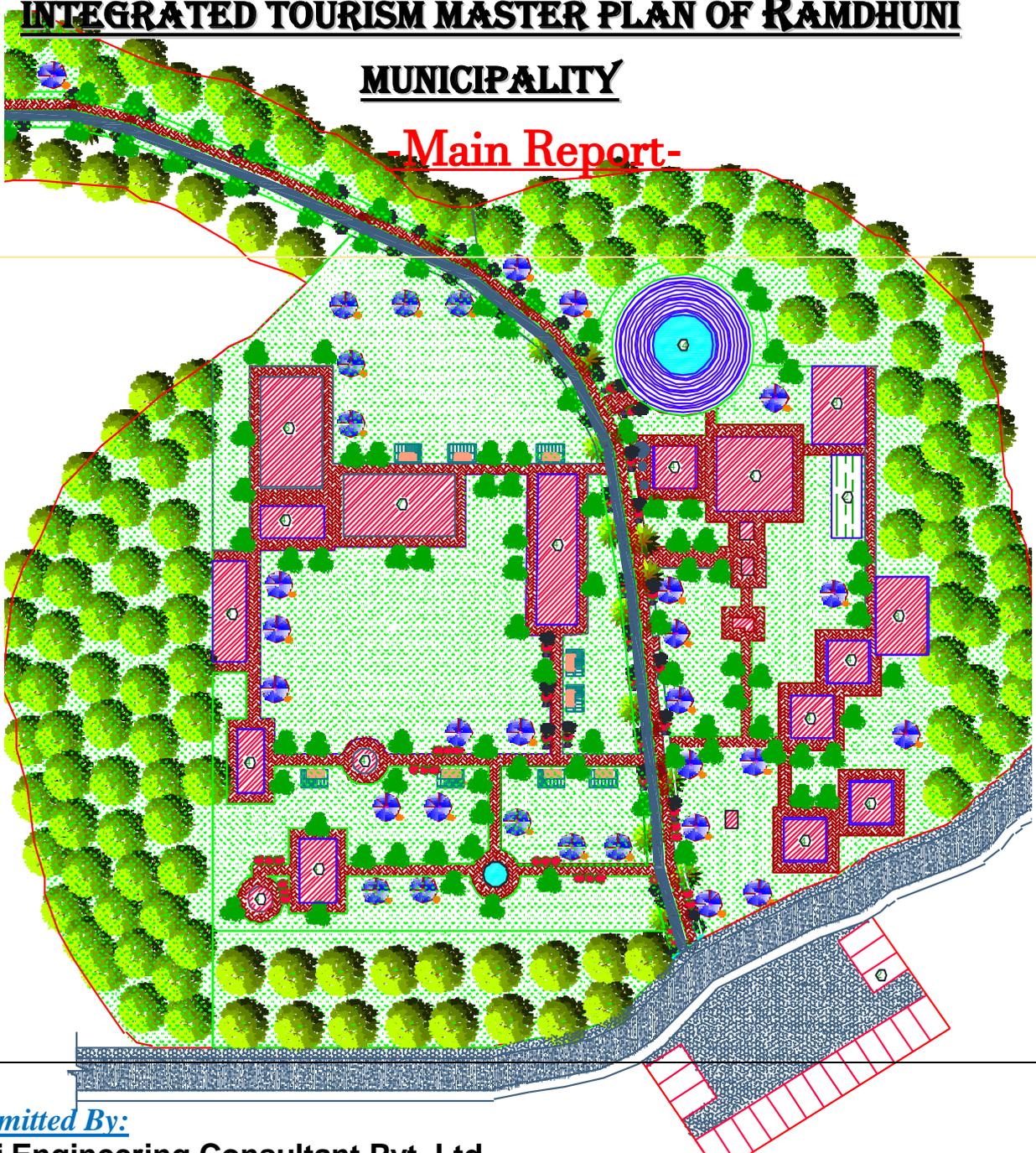




Government of Nepal
Ministry of Federal Affairs and Local Development
Ramdhuni Municipality
Sunsari

PREPARATION OF FOR DETAILED PREPARATION OF
INTEGRATED TOURISM MASTER PLAN OF RAMDHUNI
MUNICIPALITY

Main Report-



Submitted By:

Raj Engineering Consultant Pvt. Ltd.

Kathmandu, Nepal

Ph: 01- 5165159/9851199219/9801017593

Email: rajconsultancy2014@yahoo.com

TABLE OF CONTENTS

1	PROJECT INTRODUCTION	3
1.1	BACKGROUND	3
1.1.1	<i>History of Tourism</i>	5
1.1.2	<i>Early Historical Review of Tourism in Nepal</i>	5
1.1.3	<i>Tourism after Unification of Nepal</i>	5
1.1.4	<i>Tourism after 1950</i>	6
1.2	TREND OF TOURISM DEVELOPMENT IN NEPAL	6
1.2.1	<i>Gender-wise Tourist's Trend</i>	6
1.2.2	<i>Age wise Tourist Trend</i>	6
1.2.3	<i>Nationality Trend of Tourism</i>	7
1.2.4	<i>Purpose wise Trend of Tourists</i>	7
1.2.5	<i>Seasonal Trend of Tourist Arrivals</i>	7
1.2.6	<i>Trend of Tourists Length of Stay</i>	7
1.2.7	<i>Trend of Mode of Tourist Arrivals</i>	8
1.3	NATIONAL TOURISM STRATEGIC PLAN 2016-2025.....	8
1.4	MAJOR TOURISM DEVELOPMENT PROJECTS CURRENTLY UNDERWAY IN NEPAL	9
1.4.1	<i>South Asia Tourism Infrastructure Development Project (SATIDP)</i>	9
1.4.2	<i>Government of Nepal's Tourism Infrastructure Development Project (TIDP)</i>	10
1.4.3	<i>Samarth/Nepal Market Development Project (Samarth/ NMDP)</i>	10
1.4.4	<i>International Centre for Integrated Mountain Development (ICIMOD)</i>	10
1.4.5	<i>World Wildlife Fund (WWF) and Hariyo Ban Program</i>	11
1.4.6	<i>Nepal Tourism Board's district tourism development plans</i>	11
1.5	SCOPE AND LIMITATIONS	11
1.6	GOAL AND OBJECTIVES.....	12
1.7	METHODOLOGY	13
1.7.1	<i>Literature Reviews</i>	13
1.7.2	<i>Data Collection</i>	13
1.7.3	<i>Field Visit and Site Study</i>	13
1.7.4	<i>Analysis</i>	13
1.8	OUTPUTS.....	14
2	PREVAILING SITUATIONS AT RAMDHUNI MUNICIPALITY.....	15
2.1	LOCATION MAP	15
2.2	INTRODUCTION TO RAMDHUNI MUNICIPALITY	16
2.3	TRANSPORTATION ACCESS	16
2.4	POLITICAL AND ADMINISTRATIVE BORDERS	16
2.5	DEMOGRAPHIC DATA (2074 B.S).....	17
2.6	GEOGRAPHY.....	17
2.7	HOUSING STATUS.....	18
2.8	LITERACY STATUS	18
2.9	TOURISM STATUS OF RAMDHUNI MUNICIPALITY	18
2.9.1	<i>Religious/pilgrimage sites</i>	18
2.9.2	<i>Ramdhuni Temple Area</i>	19
2.9.3	<i>Festivals/ Fairs and Events</i>	24
2.9.4	<i>Principal gateways to Ramdhuni zone</i>	24

2.9.5	Principal tourism sector supporting infrastructures	24
2.9.6	List of ponds and lakes.....	25
3	PROPOSED TOURISM PLANS AND VISIONS OF RAMDHUNI MUNICIPALITY	25
3.1	RAMDHUNI TEMPLE AREA	25
3.2	WAY TO RAMDHUNI TEMPLE.....	29
3.3	RAMDHUNI COMMUNITY FORESTS	31
3.4	DURGAPUR COMMUNITY FOREST.....	31
3.5	BHADGAON POKHARI.....	33
3.6	DANGRAHI POKHARI	34
3.7	RANI POKHARI.....	35
3.8	JUDI SIMSHAR AREA	37
3.9	PREM TAAL.....	39
3.10	SHANKARBELI SIMSHAR AREA	40
3.11	RA SA TAAL	42
3.12	SHIVA SAROBAR.....	44
4	CONCLUSION.....	46

ANNEX

- FIELD PHOTOGRAPHS

1 Project Introduction

Nepal is blessed with natural with natural and scenic beauty and has been successful in presenting herself the wonderful in front of the world. It is because tourism and its development has been a subject of major concern. It is considered to be one of the powerful developing aspects for our country. Nepal though a poor country has been blessed with rich natural and cultural heritage and hence has opened gate of opportunities for her. Tourism has come long way with its root back developed in 50s. With its growing and valuable contribution toward the development of the Nepalese economy in context of increase in national production and income, creating employment opportunity, improving regional imbalance and to develop the image of Nepal. In an international community, made an immense need to promulgate different plans and programs, implementation strategies, facilities and incentives scheme creation of institutional arrangements, develop and expand tourist attraction points.

Tourism has ever been a medium to familiarize foreigners to Nepal. It is a highly profitable and booming business, as it has become a major source of foreign exchange. Also tourism development indirectly helps the nation in creating additional employment opportunities. So, tourism has been recognized as a very important sector for good impact in enlistment of Nepalese economy. Tourism is one of the major employments generating sector in developing countries like Nepal.

Tourism has an important role to play in uplifting the Nepalese Economy. It is therefore, essential to consider all the aspects of tourism development to present the country the best place to travel explore and adventure. The lack of sound tourism marketing, planning, processing and research system, Nepal could not achieve better result in tourism as per its potentiality. T h e international tourism marketing was carried out without sound linkage between the products and their target market. The limited funds and scattered marketing activities hardly achieve any desired targets. Due to the government instability and the bureaucratic procedures, tourism was hardly treated as a professional business sector that needs competitive marketing strategy. The environment pollution and degradation hinder upon the natural beauty.

Though tourism was pointed out as one of the major foreign exchange earnings, the priority should be given to tourism sector. Therefore, the need for a planned tourism development has been realized. Hence, Tourism Development Master Plan seems an ideal solution for planning tourism areas of Nepal. The report is on Tourism Development Master Plan of Ramdhuni Municipality.

1.1 Background

Tourism is often regarded as an extreme form of recreation, involving longer time periods, traveling longer distance and often staying overnights. The world is getting smaller everyday

due to the rapid advancement of transport and communication. As a result man's life is getting busier. Man by nature cannot live within a certain limits. He likes changes. He always wants to experience a new taste of life. For to fulfill his desire he moves from one place to another place for various purpose like to see his friends and relatives, visit different places, for relaxation, for study, health, religion, sport, business etc. Tourist is a temporary leisured person who voluntarily visits a place away from home for the purpose of experiencing a change. Tourism is the temporary movement of people to destination outside their normal places of work and residence.

Nepal is uniquely endowed with rich and diverse natural and cultural attractions due to its geographical location in the Himalayas. Nowhere else on earth is there such an incomparable cultural heritage nor such a rich environmental spectrum from the highest mountains to the Terai plains. Tourism is valued as the major contributor to a sustainable Nepal economy, having developed as an attractive, safe, exciting and unique destination through conservation and promotion, leading to equitable distribution of tourism benefits and greater harmony in society.

Nepal is one of the small but richest countries in the world in the in terms of bio-diversity due to its unique geographical position and altitude variation. It is one of the world's best places to explore as religious, culture and natural resources. Because of the presence of fine blend of art, culture and tradition along with natural beauty, with varieties of beauty and pleasure to offer, Nepal has a great potential to attract all types of tourist from all over the world. The main attraction of the tourist due to having following ingredients: Nepal's natural attraction resulting from physical, historical and cultural monuments and temples, Art treasure and festivals and its wildlife, Himalayas and their scenic beauties are also the prominent attraction to the visitors, The land of yeti and land of Buddha, Peaked mountain river and lakes conductive climate and mysterious charm.

The recent trend of tourists' arrival in Nepal seems satisfactory. However, from the perspective of tourism based resources and its availability in the country seems rather pessimistic. To promote tourism sector and its contribution to socio-economic sector of the country, we need to utilize available resources properly and beneficially. For this, there is need of dynamic and tourism friendly policy and joint effort of the government and the private sector as well.

Considering the growing importance of tourist, government had formed different plans and policies and an implementation strategy provides various facilities and incentives to

develop the tourism sector. Besides these the institutional arrangement like tourism council, ministry of tourism and civil aviation, department of tourism and tourism development board have been created for its development.

1.1.1 History of Tourism

The evolution of tourism dates back to ancient times. In Nepal, tourism, despite having a long history was developed since 1950s only. There was no plan and policy regarding tourism in Nepal till 1950s. For the first time the written study on tourism was made in late 1950s. Tourism planning in Nepal goes back to the mid-1950s with the formulation of the First National Development Plan 1956-1960 with that plan identifying various tourism development opportunities and infrastructure requirements. Since then, a number of tourism policies, acts and plans have been produced, many of these is having already been satisfactorily summarized in the current National Tourism Strategic Plan (NTSP) 2016-2025.

In 2007, the Government of Nepal declared tourism to be a priority sector in the country and decided to formulate a new policy to replace the Tourism Policy 1995. The long-term vision for tourism expressed in the resulting Tourism Policy 2065 (2008) is: “to develop Nepal as an attractive, pleasing, safe and unique destination in the global tourism map through conservation and promotion of the natural, cultural, biological and human-made heritage of Nepal,” while the policy’s mission is: “to improve the living standards of the people through tourism activities with a substantial contribution towards the national income by sustainable use of the national heritage”.

1.1.2 Early Historical Review of Tourism in Nepal

Before the unification of Nepal by late King Prithivi Narayan Shah, tourism was closely related to religion, politics and business. Many visitors, namely from the neighboring countries of China, India and Tibet visited Nepal for religious purpose. Among are notable persons. But "Manjushree" is the first visitors in Nepal to make the valley fit for human habitation either India or China. During the time of Lichhavi rulers the famous Chinese traveler Huich-Tsang and also Chinese envoy, Li-Y-Pio and Wang Hiuentse visited Nepal with his companions.

1.1.3 Tourism after Unification of Nepal

After the unification of Nepal, visitors from Britain came to Nepal for political purpose. Among the Knox, Hamilton and captain Kirkpatrick were notable persons. During the region was vertically closed for outsiders, especially Europeans in other to preserve unity and independence.

1.1.4 Tourism after 1950

1846, One of the important dates in Nepal's history: it marked the advent of the "RANA" regime that lasted until 1950; 104 years during which the successive Kings of Nepal, although formally remaining on their throne with all the external decorum were in fact relegated to purely nominal and honorific role, deprived of all power and authority. During that period, Nepal was a forbidden land for foreigners except for the small traders and Indian pilgrims. From time to time several distinguished botanists and naturalists including Sir Brian Hodgson, F.R.S. (who was resident from 1822-1843) and Sir Joseph Hooker F.R.S. who had made botanical surveys and collection of Nepal's flora and fauna, traveled the country. Among the European visitors, British King George v Prince of Wales came to Nepal for the purpose of hunting tigers in Terai forest in 1911 and 1921 respectively. Due to the deliberately conservative policy of Rana rulers, Nepal remained virtually isolated and unknown to the outside world. From the point of view of tourism the great revolution of 1951 was a boon for Nepal. In the realization of this fact, Nepal obtained the membership of international union of official travel organization in 1959.

1.2 Trend of tourism development in Nepal

Sound growth has been recorded in Nepal's tourism industry in the past decades with the number of tourists visiting the country growing. Tourist arrivals in Nepal, despite showing a steady trend on most occasions have also shown relative stagnancy and fluctuations.

1.2.1 Gender-wise Tourist's Trend

The gender wise trend of tourist arrivals in Nepal shows that the number of male tourists is always larger than that of female tourists, which indicates male preference for Nepal. In the beginning years the number of female tourists was bigger. In the year 1962 almost half the tourists (47.7) were females, but in the following year it was in a decreasing trend and the ratio reached at the lowest 31.3 percent in 2005. Since 2006 there has been a gradual increase in the ratio and the share of female tourists reached 44.8 percent in 2007. In the year 2010 the ratios of male and female tourists 'arrivals in Nepal were 60.0 and 40.0 respectively of the total arrivals. It indicates that there is a need to develop appropriate products to attract the female visitors.

1.2.2 Age wise Tourist Trend

According to the age wise tourist arrivals trend in Nepal, in the early periods the highest share was occupied by the younger age group 16-30 followed by the age group of 31-45, 46-60 & over and 0-15 since 1965 to 1991 except in 1985. But since the year 1992 to 2010 the trend showed that the age group of 31-45 has a higher share and age group of 16-30, 46-60, 61 & over and 0-15 secured

second, third, fourth and fifth position. In the year 2010 among the total tourist arrivals in Nepal 58.3 percent were under the age of 45 and 39.4 percent were over the age of 45 years and the rest 2.3 percent tourists has not specified the age group. It shows that Nepal is popular both for youths and adults.

1.2.3 Nationality Trend of Tourism

In terms of nationality, the largest number of tourists coming to Nepal is from India and other major nationalities include UK, USA, Sri Lanka, Japan, Germany, France, etc. India has an increasing trend from 17.8 percent share in 2001 to 25.5 percent in 2003 and 2005. The highest share of 33.2 percent India nationalities were recorded in the year 1984. According to the data, the highest percent of tourist arrivals in Nepal in 2010 was from India with 20.1 percent share and other major market for Nepal among top ten nations are Srilanka (7.6%), USA (6.0%), UK (5.8%), France (4.1%), Japan (3.9%), Germany (3.7%), Australia (2.7%), Spain (2.3%) and Netherland (2.2%) respectively.

1.2.4 Purpose wise Trend of Tourists

Most of the tourists visiting Nepal come for holiday/pleasure purpose. Since the beginning above 75 percent tourists of arriving Nepal came with the holiday/pleasure purpose and it remained so until 1989. In recent years, the number of tourists coming for holiday/pleasure has been decreasing, for example in 2009 and 2010 the tourists coming for holiday/ pleasure purpose are only 8.0 and 12.4 percent only. And the number of tourists coming for trekking/mountaineering purpose has been increasing with the share growing from 0.4% in 1965 to 27.9% in 2001. According to the data for 2009, most of the incoming tourists (26.1%) come for mountain tourism. This proves that mountain tourism is the prominent tourism product of Nepal and the country is the market leader in this sector.

1.2.5 Seasonal Trend of Tourist Arrivals

The tourist flow in Nepal is generally confined during the spring and autumn seasons. March, April of Spring season and October, November of Autumn season, these four months are peak seasons for tourist coming to Nepal. Among the total tourists arrival in a year about 13 percent tourists visit the country in the month of October followed by March (10.3%), November (10.0%) and April (7.8%) respectively. Similarly, June and July are recorded as lowest tourist arrival months. Generally tourists are more concentrated in four months March, April, October and November; however, recently there is indication that tourists are coming to Nepal slowly in other seasons too.

1.2.6 Trend of Tourists Length of Stay

The tourists' length of stay in the country has important role in tourism development. Higher length of stay is more beneficial for the country. In Nepal shortest length of stay of tourists is recorded 7.92

days in 2002 and the longest 13.51 days in the year 2004 during the period 2000 and 2010. The average length of stay of tourists in Nepal is about 11.0 days. The trend shows stagnation around 11 days in the tourist's length of stay in the years 2007, 2008 and 2009. However, in the year 2010 it increased to 12.67 days. It seems that generally the tourists who come for mountain tourism activities have longer length of stay in Nepal.

1.2.7 Trend of Mode of Tourist Arrivals

The available transport service, whether it may be air or land has a crucial factor to attract tourists in the country. More than 80 percent tourists came to Nepal by air transport. In the early years above 80 percent tourists uses air service while visiting Nepal and below 20 percent tourists they came by land transport service. However, the mode of transport of tourists visiting Nepal has changed since 2002. Since 2002, except the year 2003, below 80 percent tourists came by air and above 20 percent came via land. This may be due to the increasing road and transport facilities in the country.

1.3 National Tourism Strategic Plan 2016-2025

Prior to 2013, the tourism policies, strategies and plans that had been formulated were not supported by detailed implementation action plans that could help guide the Government and its partners in their efforts to develop the sector. Stakeholders therefore decided to commission the preparation of a strategic plan that had a 10-year horizon and was supported by a detailed 5-year action plan. The overall goal of the resulting National Tourism Strategic Plan 2015-2024 (NTSP) (recently updated and now referred to as the National Tourism Strategic Plan 2016-2025) is “to provide the Government and stakeholders with a guiding framework along the economic development vision through technical and financial assistance for developing the tourism industry as a key catalyst for rapid economic growth and job creation.

The six specific objectives of the NTSP are to:

1. *Increase revenues and employment opportunities and contribute to GDP growth per capita through tourism.*
2. *Diversify the country's tourism attractions and services.*
3. *Increase tourist arrivals without compromising sustainability and environmental and cultural quality.*
4. *Market and brand Nepal in key generating markets.*
5. *Improve the quality of the product and tourism human resources.*
6. *Alleviate poverty and encourage community participation.*

Interventions under the NTSP are grouped under 11 specific Strategic Goals, these relating to:

1. **Planning and development**– to develop tourism in a planned and sustainable manner.

2. **Branding** – to establish a universally recognized Nepal tourism brand and a desirable tourism image locally and abroad.
3. **Marketing** – to achieve consistently high growth in tourism arrivals throughout the year and significantly improve value derived from visitors in terms of revenues, seasonality and geographic spread.
4. **Tourism economy** – to contribute to greater GDP growth and employment, reduce poverty and increase sustainable access to foreign exchange for national development.
5. **Investment and business environment** – to attract investment and improve/expand commercial tourism facilities and services in the sector.
6. **Human resource development** – to improve the tourism human resource capacity, quality, quantity and performance.
7. **Quality improvement** – to improve the quality of accommodation, food, safety and public sector services to enhance the tourism experience in Nepal.
8. **Tourism infrastructure** – to provide clear guidelines of necessary tourism infrastructure development that will be incorporated into MoCTCA policy and work plans for immediate implementation.
9. **Institutional, management and policy** – to provide an effective institutional, regulatory framework to support the development and growth of the sector.
10. **Cultural heritage** – to protect, preserve and promote the diverse tangible and intangible cultural heritage of Nepal and generate income and employment through sustainable tourism development.
11. **Natural environment** – to minimize the impact of tourism on the environment through a proactive planning and implementation strategy and promotion of good practice.

1.4 Major tourism development projects currently underway in Nepal

A number of tourism-related projects and initiatives are currently underway in Nepal at national and local level, several of which have relevance to this TDAP.

The most significant ones are the following:

1.4.1 South Asia Tourism Infrastructure Development Project (SATIDP)

- One of only three Asian Development Bank (ADB) projects that focuses specifically on the tourism sector (the other two are directed at the Mekong), this regional project began in

November 2009 and focuses on upgrading and improving transport and other infrastructure and public services in key tourism sites in Bangladesh, India and Nepal. Within Nepal the project is focused on upgrading the Gautam Buddha Airport in Bhairahawa (Rupandehi District) to become Nepal's second international airport. In the past, the SATIDP also supported improvements to the nearby Buddhist pilgrimage site at Lumbini, birthplace of the Lord Buddha.

1.4.2 Government of Nepal's Tourism Infrastructure Development Project (TIDP)

- Initially established with the assistance of the German Government in 1972 and later supported by the Asian Development Bank (ADB), the current TIDP began in February 2009 and is funded by the Government of Nepal and implemented by the MoCTCA. The project presently involves upwards of 20 tourism development initiatives around the country.

1.4.3 Samarth/Nepal Market Development Project (Samarth/NMDP)

- This five-year DfID-funded pro-poor rural market development programme began in March 2012 and is directed primarily at the agriculture sector within 22 districts of Nepal, including Sankhuwasabha District. One of the ten focal areas the project addresses is tourism through which it aims to improve the economic opportunities through tourism in rural Nepal in the Himalayan region by developing innovative visitor products, improving marketing efforts and supporting destination area management. Current project interventions include: destination area management; product and infrastructure improvement; industry standards improvement; industry linkage creation; revenue stream enhancement; strategic marketing efforts; and industry knowledge and capacity enhancement.

1.4.4 International Centre for Integrated Mountain Development (ICIMOD)

- This 8-member country regional intergovernmental learning and knowledge sharing center aims to assist mountain people in understanding, adapting to and making the most of new opportunities brought about by globalization and climate change and the influence that these have on fragile mountain ecosystems and their livelihoods. With respect to tourism, Tourism Destination Area Plan (TDAP) for Eastern Nepal October 2016 ICIMOD aims to enhance community involvement in tourism by improving capacities to host tourists, strengthening product and service linkages, valuing and preserving the natural and heritage elements that enable visitors to enjoy an authentic tourism experience and revitalizing trading routes and trails

through the mountains. ICIMOD also: supports national and local authorities in crafting suitable tourism-related policies and strategies; stimulates national and regional platforms to share knowledge and shape policies and adaptation mechanisms; builds the capacity of host communities to improve service quality and value chain linkages; and collaborates with the private sector to encourage more responsible tourism practices.

1.4.5 World Wildlife Fund (WWF) and Hariyo Ban Program

- Through its sustainable livelihoods program, WWF promotes the involvement of asset-deprived, vulnerable and marginalized communities living in and around protected areas in ecotourism. WWF's 5-year, USAID-funded Hariyo Ban Program works to empower Nepal's local communities, primarily in the Terai Arc Landscape (TAL) and in the Chitwan - Annapurna Landscape (CHAL), in safeguarding the country's living heritage and adapting to climate change through sound conservation and livelihood approaches. The latter includes involvement in environmentally-sustainable tourism.

1.4.6 Nepal Tourism Board's district tourism development plans

- Ten tourism development plans have been or are currently being formulated by NTB in conjunction with respective district authorities. This includes districts falling within the region covered by this TDAP and mentioned above.

1.5 Scope and Limitations

Scope of consulting services for preparation of Tourism Master Plan include but not necessarily limited to the following:

- *The consultant shall spell out the vision of the municipality. The vision should articulate the desires of the municipality and its citizens, and will provide the guiding principles and priorities for the plan's implementation.*
- *Prepare overall Tourism Master Plan of Ramdhuni Municipality.*
- *Conduct additional study on local economy and its activities including change in demographics and migration trend for future year's period.*
- *Identify the potential areas for Tourism development based on various factors.*
- *Analyze present and future needs and recommend strategies for future.*
- *Conduct studies on present and future demand in infrastructures (such as transportation, communication, electricity, water supply and sewerage system) and their supply that would assist in tourism development of municipality.*

- *Identify and assess natural hazards, including how significant weather events have and will impact these assessments, which may cause a threat to the vision of the Tourism Master Plan, along with strategies for avoidance / mitigation of such hazards in the course of future development.*
- *Preparation of detail engineering design of overall municipality.*
- *Recommend an implementation strategy for implementing the Tourism Master Plan.*
- *The consultant shall submit draft report with map with final demarcation of land for tourism areas to be required for future development purposes and finalize the report in stipulated time frame.*

1.6 Goal and Objectives

The scope of the study area is to prepare tourism master plan of Ramdhuni Municipality, Sunsari district. Many areas of this municipality carry high potential of tourism development. Ramdhuni Municipality is the gateway to some of the historical places of Sunsari District. It provides the easiest access to the devotees traveling to Chatara (also known as Parchin Haridwar), Barahkshetra Mandir (Baraha Temple), and Ramdhuni Mandir.

The main objectives of the study are as follows:

1. *To set out long-term vision and overall goal, objective and strategies for Ramdhuni Municipality.*
2. *To develop Ramdhuni Municipality as a tourism hub linking with adjacent tourism areas of other municipalities.*
3. *To develop the industry and create jobs in order to improve the living standard of the people, especially poverty alleviation through ecotourism and rural tourism.*
4. *To develop Ramdhuni Municipality as a major tourism destination and promote and conserve its natural and cultural heritage.*
5. *To upgrade Ramdhuni temple, this carries a high historical religious importance.*
6. *To upgrade and maintain all the ponds and lakes existing in Ramdhuni Municipality which could be the center of attraction for tourists visiting the Ramdhuni Municipality.*
7. *To improve livelihoods of the people across the country by developing integrated tourism infrastructure.*
8. *To expand and extend tourism products and services by enhancing community capacity to participate in tourism activities.*
9. *To publicize, promote and enhance the image of Ramdhuni Municipality in international tourism source markets.*
10. *To attract new investment in creating new tourism facilities, products and services.*

11. To prepare detail engineering design of all the tourism areas of Ramdhuni Municipality.

1.7 Methodology

This Tourism Master Plan was commenced with literature reviews. There was a data collection (primary and secondary data) and followed by field-visit to validate the data and further information acquisition. Meetings were conducted on municipality level for preparing a development plan with participatory way. Then the collected data were analytically compared for identifying a gap in the planning process. Finally, a Tourism Master Plan was prepared based on these findings.

1.7.1 Literature Reviews

A comprehensive plan was prepared with a dream of a good tourism environment based on the reality of technical and financial resources of Municipality. For this, some Planning and Development Principles and Government Policies were reviewed.

1.7.2 Data Collection

Along with the literature reviews, primary data and secondary data necessary for the preparation of tourism master plan was collected from all the relevant sources. These data helped in preparation of GIS Base map and municipal profiles. It also aided in identifying the lagging points of the existing infrastructures and services for tourism development that directed in preparing a proper sustainable tourism master plan.

1.7.3 Field Visit and Site Study

For creating a better idea of the project, a field visit is necessary for any of the projects. In this project also, a field visit was conducted to have a clearer picture of the physical, social and economic amenities directly or indirectly related to tourism sector. During the visit, the consultant has observed the different parts of municipal area and identified the major development issues. Some site surveys were conducted for gathering the lacking information and preparing a detail GIS base map as mentioned in the scope of work. Apart from survey, meeting and gatherings were conducted with the concerned local personnel to ascertain the vision, and requirement of the municipality and its inhabitants. There were introductory meeting, information dissemination meeting.

1.7.4 Analysis

After the literature reviews, field study and data collection, it was analyzed based on the standard norms. The analysis of existing tourism development was done for identifying the current trends of tourists' visits and future probabilities to identify the growth trend and profitable infrastructure investments of the city for tourism development. Similarly, strength, weakness, opportunities and threats were identified. The existing infrastructure and current status of tourism areas were

evaluated and a lagging or deficit point was achieved. Future projection was made and planning was done to cater the future demand.

1.8 Outputs

The Tourism Master Plan has its output as the followings:

- a) Assessment and Preparation of Base Map (various GIS maps)*
- b) Municipality Profile*
- c) Detail engineering design of prioritized tourism areas*

The Tourism Master Plan is anticipated to provide improvement in the economic, physical and social conditions of a municipality.

2.2 Introduction to Ramdhuni Municipality

Sunsari District, a part of Province No.1 in Terai plain, is one of the seventy-five districts of Nepal in Terai plain of Southern Nepal. The district, with Inaruwa as its headquarters, covers an area of 1,257 km². The area was part of Morang District but became its own district in 1962 when Nepal was divided into 14 zones and 75 districts. Major cities in Sunsari district are Inaruwa, Itahari, Jhumka and Dharan.

Geographically, Ramdhuni Municipality is in the Terai region of Nepal. Its elevation is approximately 185m from the sea level. This means most of the part of town lies in a proper plain land. Ramdhuni is a beautiful small municipality located in the Sunsari district, Koshi Zone of Eastern Nepal. It was established in 2014. Ramdhuni-Bhasi was previously known as Jhumka Bazar. It is approximately 356km far from Kathmandu. This town lies in the middle of two famous cities Itahari and Inaruwa. Ramdhuni has a total area of 91.69 square kilometers. It has a population of 55,516 of which 24,878 are males and 29,773 are females living in 11,491 individual houses (According to the data of 2074 B.S). The border of this Municipality touches Itahari Sub-Metropolitan City in east, Inaruwa Municipality in south, Baraha Municipality in west and Dharan Sub-Metropolitan City in north.

The maximum area of the Ramdhuni Municipality is covered by agricultural sector. Chatara Canal provides water to the irrigation system of the town and surrounding places. Chatara Canal (Sunsari Morang Irrigation Project) originates all the way from Koshi River and flows through the town from north to south. This canal plays an important role in the agriculture of Sunsari and Morang district.

2.3 Transportation Access

It is well connected by roads to the major cities of Nepal including the capital Kathmandu. Mahendra Highway passes right through the heart of the town. The nearest airport is Biratnagar Airport which is approximately 30 km from the town of Ramdhuni. Dharan, Itahari, Inaruwa and Biratnagar are some the nearest cities to Ramdhuni. Regular bus service is organized from Dharan, Biratnagar via Ramdhuni to the other major cities of Nepal. The distance from Ramdhuni Municipality to other largest places of Nepal such as: Itahari is around 15 km far, Dharan Bazar is around 20 km far and Biratnagar is around 27 km far.

2.4 Political and Administrative Borders

After restructuring all the local authorities, Ramdhuni Municipality was established in 2014. This new municipality was further divided into 9 wards. The border of this Municipality touches Itahari Sub – Metropolitan City in east, Inaruwa Municipality in south, Baraha Municipality in west and Dharan Sub- Metropolitan City in north.

Table 1: Political and Administrative Borders of Ramdhuni Municipality

<i>No of Wards</i>	<i>9</i>
<i>In East</i>	<i>Itahari Sub- Metropolitan City</i>
<i>In West</i>	<i>Baraha Municipality</i>
<i>In South</i>	<i>Inaruwa Municipality</i>
<i>In North</i>	<i>Dharan Sub- Metropolitan City</i>

2.5 Demographic Data (2074 B.S)

Table 2: Demographic data of Ramdhuni Municipality

<i>Total Population</i>	<i>55516</i>
<i>Females</i>	<i>29773</i>
<i>Males</i>	<i>24878</i>
<i>Total Households</i>	<i>11491</i>
<i>Indigenous people</i>	<i>28324</i>
<i>So called Dalit</i>	<i>5750</i>
<i>Madhesi</i>	<i>4417</i>
<i>Other Tribes</i>	<i>13231</i>
<i>Population Increase Rate</i>	<i>1.19 %</i>
<i>Sex Ratio</i>	<i>83.47</i>
<i>Disabled People</i>	<i>658</i>

2.6 Geography

Table 3: Geographical Situation of Ramdhuni Municipality

<i>Geographical Situation</i>	<i>Terai (Plain)</i>
<i>Area</i>	<i>91.69 sq. km</i>
<i>Main Tourism Area</i>	<i>Ramdhuni</i>
<i>Agricultural Area</i>	<i>15165 hectares</i>
<i>Residential Area</i>	<i>1415 hectares</i>
<i>Forest Area</i>	<i>2022 hectares</i>
<i>Elevation from sea level</i>	<i>182-185 m</i>
<i>Average Temperature</i>	<i>16 – 36 Degree Celsius</i>
<i>Average Rainfall</i>	<i>1100 mm</i>

2.7 Housing Status

Table 4: Residency Status of Households in Ramdhuni Municipality

Types of Houses	
Stone Masonry Houses with Mud Mortar	245 Numbers
RCC houses with pillar systems	1304 Numbers
Houses with use of timber	6910 Numbers
Roofing Types	
Khar and Straw	2055 Numbers
Iron Sheets	7757 Numbers
RCC Slabs	1483 Numbers
House Ownership	
Private Houses	10855 Numbers
Houses on Rents	499 Numbers
Institutional Houses	35 Numbers

2.8 Literacy Status

Table 5: Literacy Status of Ramdhuni Municipality

Total Literacy Rate	69.49 %
Males	78.92 %
Females	61.44 %
Indigenous people	68.83 %
So called Dalit	48.94 %
Madhesi	63.25 %
Other Tribes	81.47 %

2.9 Tourism Status of Ramdhuni Municipality

2.9.1 Religious/pilgrimage sites

Table 6: List of religious and pilgrimage sites of Ramdhuni

Tourist Area	Specialty	Remarks
Ramdhuni forest and Temple	Temple and Park	Ramnawami
Harihareshwor Shivalaya	Temple	Shivaratri
Durga Temple	Temple	Nawaratri
Bhairaveswor Shiva Temple	Shivalaya	Shivaratri, Bala Chaturdashi

Tourist Area	Specialty	Remarks
<i>Ramjanaki Temple</i>	<i>Temple</i>	<i>Various Occasions</i>
<i>Jhumkeshwor Temple</i>	<i>Temple</i>	<i>Various Occasions</i>
<i>Darwar Temple</i>	<i>Temple</i>	
<i>Langot Temple</i>	<i>Temple</i>	
<i>Radha Krishna Temple</i>	<i>Temple</i>	
<i>Hanuman Temple</i>	<i>Temple</i>	
<i>Gramthan Temple</i>	<i>Temple</i>	
<i>Dinabhadri Temple</i>	<i>Temple</i>	

2.9.2 Ramdhuni Temple Area

The most important tourist area in this Municipality is Ramdhuni Temple. The Ramdhuni Temple area is around 21 hectares. This temple area lays in ward no 4 of Ramdhuni Municipality. The area has a great importance because of its park area and religious value and nearly 50 people visit this site daily. Most of the area of Ramdhuni is covered by forest. There are around 10 community level forests existing in Ramdhuni Municipality recently. This temple is popular for the festival Ramnawami and Bala Chaturdasi. Eastern Region's capital Dhankuta is approximately 38 km / 23 mi away from Ramdhuni Temple. The distance from Ramdhuni Temple to Nepal's capital Kathmandu is approximately 250 km / 132 mi.



Figure: Ramdhuni Temple

The main importance of this Ramdhuni Temple is its historical importance. It is said that this Dhuni Temple existed around 3000 years ago. There is a continuous ignition of a "Saajh" logs inside the Ramdhuni Temple from 3000 years back. In past, the pilgrimages entered from India, Punjab and settled there. These pilgrimages were facilitated by Dhār masala for their residential purposes which exist in the temple area up to this time. The Sunsari River flows alongside the Ramdhuni Temple area. There is a provision of bathing spots in Sunsari River in some special occasions for visitors. In Ramayana, it is said that Sursari name existed before the name Sunsari which was named a name of a district after due to the importance of Ramdhuni Temple lying in Sunsari district.



Figure: Ramdhuni Temple Entrance gate

The other existing features in Ramdhuni Temple area are as follows:

1. *Dhuni Temple and Guthi Temple*
2. *Sita Pokhari also called as Kamandal Kunda*
3. *Osho Meditation House*
4. *Ramdhuni Baba Bankhandi Temple Guthi Management Committee Office*

5. *Hanuman Temple*
6. *Sanidev Temple*
7. *Historical Well*
8. *Raath Pangra, Jaato*
9. *Forest Area : Sakhuwa Trees, Mango Trees*
10. *Monkeys and Deer*



Figure: Sita Pokhari



Figure : Hanuman Temple

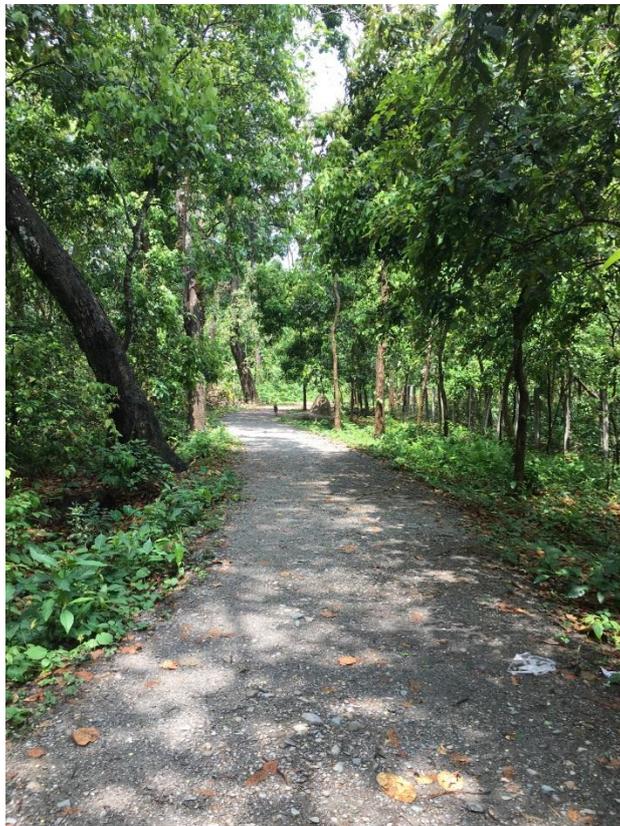


Figure: Ramdhuni Forest Area



Figure: Raath Pangra



Figure: Jaato

2.9.3 Festivals/ Fairs and Events

Table 7: Lists of festivals, fairs and events in Ramdhuni Municipality

S.N	Festivals / Fairs and Events	Celebrating Months	Celebrating Communities
1	Jitiya Festival	Ashwin	Madhesi Community and indigenous people
2	Ananta Puja	Bhadra	Various Tribes
3	Ram Nawami	Chaitra	Various Tribes
4	Eid, Bakra Eid and Ramjan	Jestha	Muslim Community
5	Chhath	Kartik	Various Tribes
6	Maghi, Siruwa Jatra	Various occasions	Terai Community
7	Dashain, Tihar, Chaitra Dashain, Shiva Ratri, Krishna Janmastami, Buddha Jayanti, Lhosar, etc.	Various occasions	Various Tribes
8	Bar Jatra	Chaitra	Chaudhary and Maajhi
9	Karma Dharma Dance	Bhadra	Urau
10	Jhumari and Shakewa Dance		
11	Ashadhe Puja	Ashad	Native people
12	Koshi Puja		Maajhi

2.9.4 Principal gateways to Ramdhuni zone

1. *By road from Kathmandu on Mahendra Highway (AH2)*
2. *By road from Kakarbhitta on Mahendra Highway (AH2)*
3. *By road from India via Biratnagar (H08)*
4. *By road from Central Zone via Dhankuta and Bhedetar.*
5. *By road from Kathmandu along Sunkoshi River valley – future main road*
6. *By air through Biratnagar Airport – currently only domestic flights, but possible international ones in the future*

2.9.5 Principal tourism sector supporting infrastructures

1. *Mahendra Highway (AH2) – from Kathmandu to Kakarbhitta via Koshi Barrage, Inaruwa and Itahari.*
2. *Koshi Highway – from Biratnagar to Kimathangka via Itahari and Dharan.*
3. *Koshi Barrage on Koshi River.*
4. *Improvements to Biratnagar Airport – also possible upgrading to international airport*

2.9.6 List of ponds and lakes

Table 8: List of Ponds and Lakes existing in Ramdhuni Municipality

S.N	Names	Location/ Ward No
1	<i>Bhadgaon Pokhari</i>	1
2	<i>Dangrahi Pokhari</i>	5
3	<i>Rani Pokhari</i>	7
4	<i>Prem Taal</i>	7
5	<i>Ra sa Taal</i>	6
6	<i>Shankarbeli Simshar</i>	6
7	<i>Judi Simshar</i>	7
8	<i>Shiva Sarobar</i>	6

3 Proposed Tourism Plans and Visions of Ramdhuni Municipality

3.1 Ramdhuni Temple Area

Ramdhuni Temple Area has a historical importance from 3000 years back. Ramdhuni Temple area consists of Dhuni Temple, Guthi Temple, Sita Pokhari, Osho Medication Camp, Pigeons' habitats, Dhār masala, Hanuman Mandir, Ramdhuni Baba Bankhandi Temple Guthi Management Committee Office, Baba Bankhandi Meditation Spot, Bathing spots, Resting house, Historical Well, Gausalas, Sanidev Temple, etc. All these structures needed to be upgraded to some level. Monthly budget for temple area maintenance and development is been allocated by the Guthi.

The various proposed plans of Ramdhuni temple area for tourism development are as follows:

- *Sita pond is to be upgraded and maintained. It is proposed to decorate Sita pond by using tiles in its periphery. Also, fountains are proposed in Sita Pond.*
- *Ramdhuni Temple and Guthi Temple is also planned to upgrade and maintain well.*
- *Ten hectares area of forest of Ramdhuni Temple area is proposed for zoo. This area was initiated by the community level for locating zoo by placing 5 deer's in past and has been fenced already. This area also consists of monkeys in adequate amount.*
- *A park area is also proposed inside the compound of temple area.*
- *A bathing spot is proposed alongside the Sunsari Khola. The existing bathing spot needs an extension. Separate restrooms are planned nearby the bathing spots.*
- *A meditation spot of Baba Bankhandi also needs to be upgraded and maintained which lies almost near to the Sunsari Khola.*
- *An Aryaghat is under construction along the bank of Sunsari Khola. A road of around 200 m is proposed which links Aryaghat with the bathing spot of Ramdhuni Temple area.*

- *An entrance gate needs to be rehabilitated and maintained for its aesthetic beauty which could be the center of attraction of Ramdhuni Temple area.*
- *There is an existing Dhār masala which accommodates around 50-100 people. It needs to be upgraded and extended for accommodation for large amount of pilgrimages visiting the Ramdhuni Temple in special occasions.*



Figure: Proposed Zoo Area



Figure: Aryaghat under construction



Figure: Proposed Park area inside Ramdhuni Temple area



Figure: Baba Bankhandi Meditation Spot (Rehabilitation required)



Figure: Existing bathing spot alongside Sunsari Khola



Figure: Proposed Extension areas for bathing spots and restrooms



Figure Masterplan of Ramdhuni Temple Area

3.2 Way to Ramdhuni Temple

In proposed plans, there are various locations on the way to Ramdhuni temple from Mahendra Highway. These locations could be the attracting factors for the tourists visiting Ramdhuni Temple.

All the proposed plans for the tourism development are listed below:

- *Two entrance gates are proposed on the way to Ramdhuni Temple.*
- *Restaurants and guest houses for tourist night stay are planned alongside the way to Ramdhuni Temple in open spaces.*

- *Small pond is located on the way to Ramdhuni Temple almost near one of the entrance gates. This pond is proposed for fishing purposes.*
- *A sports playground located near the entrance gate on the way to Ramdhuni Temple has a high potential for development. Some of the regional games have already been played there and could be one of the national stadiums for future regional games to be played. This ground is proposed to upgrade and develop in regional level and could be one of the attracting physical amenities for tourism attraction.*
- *Road alongside the Chatara Canal is proposed to be shifted to the left side from the existing location and the remaining spaces are proposed for smart plantation of trees and develop it as a park area. This area also demands boating spots for tourism.*



Figure: Proposed Location for entrance gate on the way to Ramdhuni Temple



Figure: Proposed area for Restaurants and Guest Houses

3.3 Ramdhuni Community Forests

Ramdhuni Municipality has 10 community level forests in different wards. These forests are monitored from municipality level, ward level and local level. Forest area consists of mainly Sakhuwa trees in adequate amount and lots of mango trees. It is been said that mangoes from these mango trees give the smell and taste of Sakhuwa. Recently, it has been found that these forests have trees and plants with medicinal values which could be used for processing medicines. These medicinal plants could be brought to market for economic development. So, an Ayurveda Research Centre has been proposed in this municipality for research and development of such medicinal plants. If these could be brought to the market, there will be a huge economic growth of Ramdhuni Municipality.

3.4 Durgapur Community Forest

Durgapur community forest lies in the ward no 3 of Ramdhuni Municipality. It is being monitored from the municipality level. A temple is also located inside the forest. Siniya Khola Canal also flows across the forest.

The proposed plans for tourism development are as follows:

- *A children park is proposed inside the forest area*

- *Siniya Khola Canal exists there in unmanaged way. So, the management of Siniya Khola Canal is proposed in this master plan.*



Figure: Durgapur Community Forest



Figure: Existing condition of Siniya Khola Canal

3.5 Bhadgaon Pokhari

Bhadgaon Pokhari lies in ward no 1 of Ramdhuni Municipality. A temple exists there having a religious importance associated with Tharu community. The natives of Tharu community call it as a Tharu Gramthan temple. A dumping site is also located alongside the Bhadgaon Pokhari for waste management.

The proposed plans for tourism development are as follows:

- *An indigenous park with plantation of trees is proposed in the tourism plan around the periphery of Bhadgaon Pokhari.*
- *Gramthan is proposed for upgrading and its proper management.*
- *Fountains are also proposed inside the Bhadgaon Pokhari.*
- *The dumping side should be well maintained for systematic solid waste management.*



Figure: Bhadgaon Pokhari

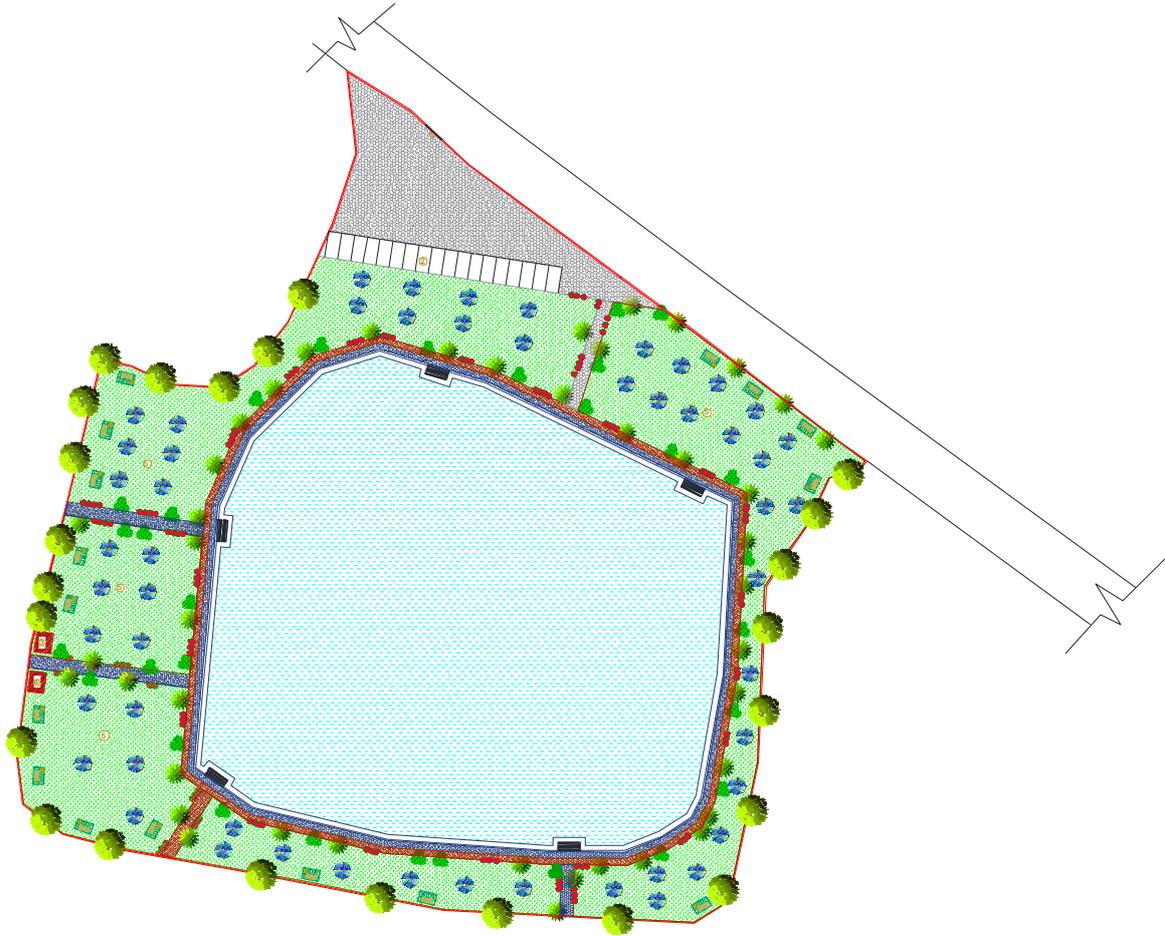


Figure Adibasi Park Masterplan

3.6 Dangrahi Pokhari

Dangrahi Pokhari is located in ward no 5 of Ramdhuni Municipality. The proposed plans for tourism development are as follows:

- *The circumferential area of Dangrahi Pokhari has large spaces. Toilets, kitchens and canteens are proposed in those areas.*
- *The boundary walls are the requirements of this location with proper fencing and edging of the Pokhari.*
- *Children Park is also proposed under the master plan alongside the Pokhari.*
- *The Pokhari area can be developed as the boating spot for tourism development due to its large area and its geographical structure.*



Figure: Dangrahi Pokhari

3.7 Rani Pokhari

Rani Pokhari is located in ward no 7 of Ramdhuni Municipality. This Pokhari exists in around 10 Bigha land. This Pokhari has a great historical importance. The main feature of this Pokhari is that there is a continuous release of water from the base of Jamuna Tree which has been collected in few decades and there was a origin of this Pokhari. In history, it is said that Bhatabhungo King has made this Pokhari for his bathing purpose. Some of the historical evidences were also found related to this Pokhari. Naturally there has been seen growth of Lotus flowers in the months of Falgun and Chaitra abundantly. In 2057, some of the viewers have noticed some objects sparkling in this Pokhari. After, it was realized those might be fishes. There is also a history of golden buffalo noticed inside the Pokhari.

The proposed plans for tourism development are as follows:

- *Due to its large area, it is proposed for boating spots and other recreational activities such as fishing for tourism attraction.*

- *Picnic spot is also proposed in this area. This area could be developed as a large picnic spot for tourists visiting there.*
- *The remaining area could be developed as parks.*
- *Restaurants and hotels for accommodation of tourists have also been proposed in this Pokhari area.*



Figure: Rani Pokhari



Figure: Master Plan Rani Pokhari

3.8 Judi Simshar Area

Judi Simshar is located in ward no 7 of Ramdhuni Municipality. The main feature of this area is that it consists of large length of wetted land and ponded areas. It has a length of around 2-3 kilometers. The other feature of this area is that there is continuous release of water from the base of trees located in this area.

The proposed plans for tourism development area as follows:

- *This area could be the best place for recreational activities like picnic spots and get together which has been proposed under the master plan.*
- *The surrounding open spaces have a beautiful scenes and views. So, these spaces could be developed as park areas as been proposed.*
- *Because of its importance of having large length it could be used for adventure sports like long distance boating and fishing. Fishing spots have also been proposed in this area.*



Figure: Judi Simshar Area



Figure: Proposed Area for Long distance Boating (Judi Simshar)

3.9 Prem Taal

Prem Taal is located in ward no 7 of Ramdhuni Municipality. It has already been developed as a tourism spot a few years back. It has been developed as a meeting point for lovers as a symbol of love by local communities. The main feature of this Taal is its large area and its shape (M) which is directly associated with love in Nepali (Maya).

The proposed plans for the tourism development are to develop this lake as a boating spot, picnic spot and link this area with the Sarbeshwor Mahadev Temple which was established in 2060 BS. This temple area also consists of a small pond which is few distance away from Prem Taal. A proper maintenance and decorations would be enough for tourism attraction of this place.



Figure: Prem Taal



Figure: Prem Taal Masterplan

3.10 Shankarbeli Simshar Area

Shankarbeli Simshar is located in ward no 6 of Ramdhuni Municipality. It has a huge area of wetted lands, ponded areas and greenery. The main feature of this area is that it consists of beautiful flowers called "Sirish" in large amount which has given beautiful scenes around the Simshar area. This area also consists of forests in its periphery and has been monitored from community level for its protection.

The proposed plans for tourism development are as follows:

- This area is mainly proposed for park where people could get directly attached with the natural beauty of the area.
- Some of the area is proposed for children Fun Park with installations of fun equipment for children.



Figure: Shankarbeli Simshar Area



Figure: Sirish Flower (Inside Shankarbeli Simshar Area)



Figure: Sankar belly Masterplan

3.11 Ra Sa Taal

Ra Sa Taal is located in ward no 6 of Ramdhuni Municipality. It has a larger area which has a specialty of a small island in between the lake which is given a name of "Love Danda". Ra Sa Taal has a area of around 17 hectares. It is a well facilitated area for visitors. Small hotels have been located there and some fun areas have also been developed. This place has already gained daily visitors for boating purposes and it has started to develop as a tourism area to some extent.

The proposed plans for tourism development area as follows:

- This area is proposed to develop as a picnic spot for visitors.
- It has an abundant land that can be used for Children Park and Fun Park for children.
- It is proposed to establish high class restaurants, hotels and lodges for visitor's accommodation and food services. This could enhance economy of local people.
- A proper fencing is proposed to surround the area and ticket counters should be established for entrance purpose.



Figure: Ra Sa Taal

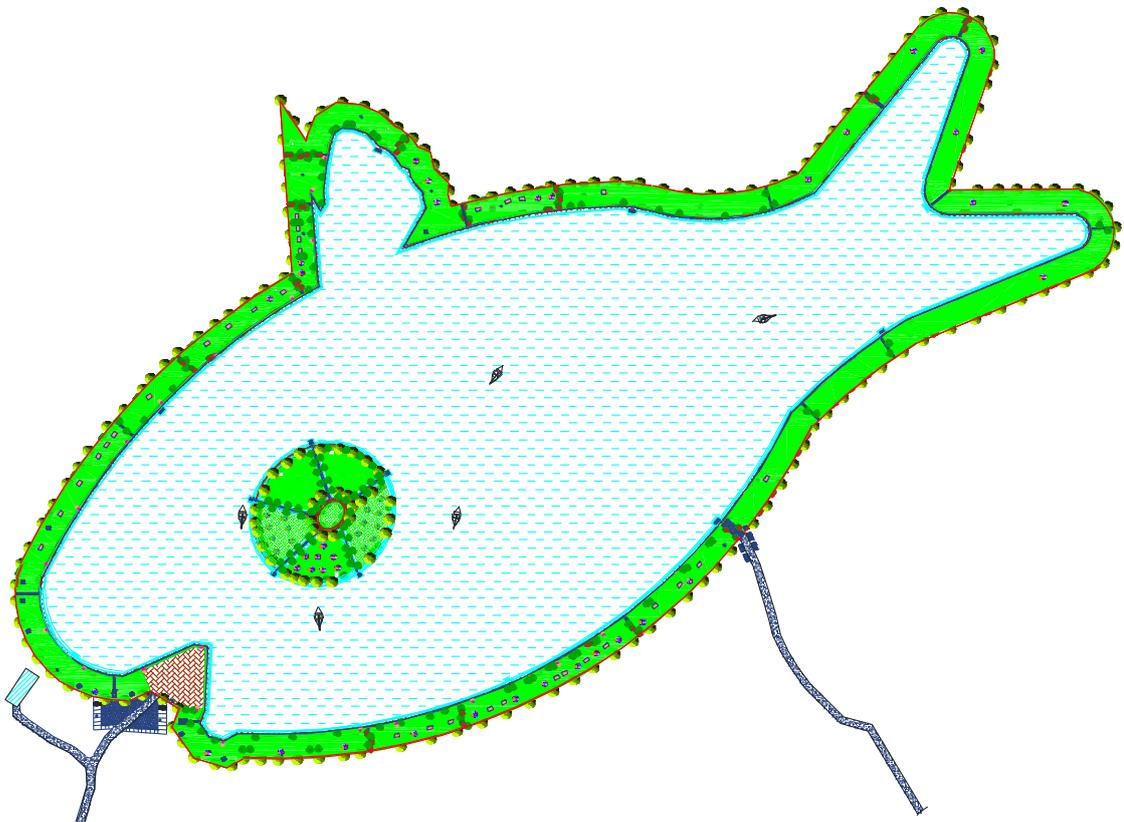


Figure: Ra Sa Taal Masterplan

3.12 Shiva Sarobar

Shiva Sarobar is located in ward no 6 of Ramdhuni Municipality. This area consists of a Shiva Temple and a lake.

The proposed tourism development plan is to develop this lake area by proper gabion protection around the edges. There is a proposal to create an island in between the lake to locate a temple on that island.



Figure: Shiva Sarobar

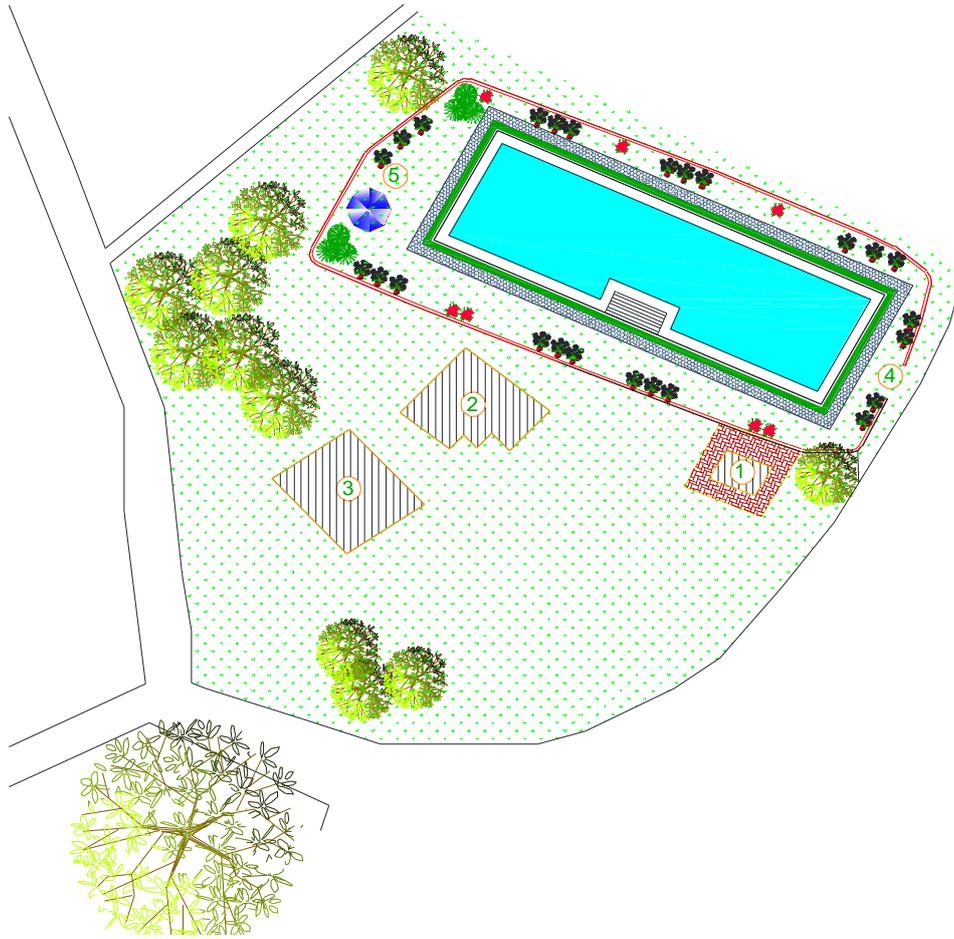


Figure: Shiva Sarobar Masterplan

4 Conclusion

Every activity is performed with certain objectives which have to be achieved. Similarly fieldwork study has also some objectives which were to highlight upon the tourism development and its aspect in the context of Ramdhuni Municipality, to assess the tourism market in this Municipality, to identify and analyze the major problems of tourism development of Municipality and to provide specific suggestion for improvement for improvement of tourism development of the Municipality. Hence to achieve all these objectives a Tourism Master plan was created. With this Tourism Master Plan and its outputs, in coming future years this Ramdhuni Municipality will certainly achieve its goals to develop it as a tourism hub.

The study mainly concentrated on tourist arrivals to the specific locations of Ramdhuni Municipality. Tourists' arrivals are always found quantitative rather than qualitative. The major purpose of their arrival is sightseeing and for pleasure. After visiting the field there is no doubt that Ramdhuni Municipality would give an immense pleasure to its every visitor.

- **FIELD PHOTOGRAPHS**



Figure 1 Aryaghat Location



Figure 2 Ramdhuni Entrance



Figure 3 Ramdhuni Temple Area



Figure 4 Group Discussion & presentation



Figure 5 Temple area



Figure 6 Siniya Khola



Figure 7 Bhadgaon Pokhari



Figure 8 Dhagarahi Pond



Figure 9 Rani Pond



Figure 10 Judisimsar



Figure 11 Prem tal



Figure 12 Ra Sa Tal



Figure 13 Shankarbeli



Figure 14 Sankarbeli



Figure 15 Shivasarobar