



Khajura Rural Municipality
Office of the Rural Municipal Executive
Province No-5, Banke

Rural Municipality Transport
Master Plan (RMTMP)



Volume- I-Main Report

Submitted By

Bazar Bikas Kendra Pvt. Ltd.

Anamnagar, Kathmandu

Khajura Rural Municipality

Office of the Rural Municipal Executive

Province No-5, Banke

This document is the final report prepared for the project, “Rural Municipality Transport Master Plan (RMTMP)” undertaken by Khajura Rural Municipality Office, Banke. This document has been prepared by Bazaar Bikas Kendra Pvt. Ltd. for Khajura Rural Municipality Office of the Rural Municipal Executive, Banke. The opinions, findings and conclusions expressed herein are those of the Consultant and do not necessarily reflect those of the Rural Municipality.

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The job was entrusted to the Bazar Bikas Kendra Pvt. Ltd, Anamnagar, and Kathmandu. This report is prepared and submitted as Final report.

The consultants' team would like to express its appreciation to the officials from Khajura Rural Municipality. We are highly grateful for their help and co-operation. We are very grateful to the Chairperson, Vice Chairperson and Chief Administrative Officer and other personnel's of the Rural Municipality and local peoples who directly and indirectly contributed during this study and field survey.

Finally, the project team would like to express thanks to all staffs and colleagues for their anxious support for this study.

EXECUTIVE SUMMARY

The Constitution of Nepal has envisioned Rights of the local government as enlisted on Annex -8 of the constitution. Local Government Operation Act 2074 elaborates and specifies those rights to be exercised by the local government. Article 11, Sub-Articles 2(G) and (K) specify the rights of the local government to devise and implement policies and plans regarding roads, transportation and other relevant development projects directly concerned with the local level.

Khajura Rural Municipality has allocated fund after endorsements from the village Assembly, for the preparation of Rural Municipal Transport Master Plan (RMTMP). Therefore, this RMTMP report is the product of an extensive field study and study of relevant documents, interactions with the villagers, people representatives and stakeholders in the Rural Municipality and ward levels.

Khajura Rural Municipality, is situated in Banke District of Province No. 5 which was established on 10 March, 2017 by merging then existing six Village Development Committees (VDCs). This RM is located along the Nepalganj-Gulariya highway with high potential of future development. The total population of this RM stands at 50961 as per CBS 2011 with 23504 male and 27457 female populace. As per the population projection, the total population of this RM is expected to reach up to 65063 in the year 2033 considering 1.12% of average growth rate. Considering the economically most active populace i.e. within the age group of 15-59 years, the total percentage of this population is calculated as 55%. Musalman dominates the other castes in this RM with a total of 13621 populace (26.73%) followed by Chhetri 7958 (15.62%) and Magar 5994 (11.76%) respectively.

Similarly, in terms of religious groups, Hindus dominate the others in this Rural Municipality by 68.08% against 26.72% Islamic people and remaining Buddhists and Christians.

Geographically this RM is extended in 101.91 sq. km area where cultivable land alone covers up to 88% of its entire area. The average population density of Khajura Rural Municipality stands at 500 population in its total area of 101.91 sq. km

According to census 2011, the overall literacy rate of this RM is recorded at 63.42%. Students have ample of choices of study up to higher secondary level but it shrinks down considerably after they reach to the bachelor level. Amongst 10,288 HHs, 97.38% stay in their own housing units made up of mud and cement masonry load bearing walls. Nearly 87% of the households rely on underground sources of water like tube wells and hand pumps for drinking

water and most of them consume water without further purifications. Till more than two third of the total households of this RM rely on firewood for cooking purpose. Likewise, access to electricity has been limited to some 77% of the total RM households. As per the CBS 2011, some 48% of the households from this RM toilets in their dwelling units but the situation have changed significantly in the recent years.

Motorbikes have been identified as the most frequently used/preferred mode of transportation plying over the municipal roads of Khajura Rural Municipality followed by tractors and other vehicles like jeeps and buses. The Origin and Destination surveys held during the field survey indicates that people travel along the roads in connection with agricultural, educational, health and other livelihood related activities. Most of the roads under this RM lack road furniture and are in inferior condition. Inner mobility and other development activities of this RM fully depend on improvement and expansion of rural road network within the district. Khajura Rural Municipality widely lacks all-weather transport facilities as large no. of municipal roads are earthen ones

Regarding methodological part, Ward level meeting in every ward or ward cluster were done where information on RMTMP were collected. Demand form for each ward had been provided which were later on collected after the form were duly filled in given time. After collecting road demand from the respective settlements, bottom up approach of planning was applied. Likewise, analysis of data regarding the accessibility situation in each settlement, population forecasting for each sector, major road linkages were all completed. Similarly, all the roads demanded in demand form were verified in field by the survey team.

Development of the scoring criteria and prioritization criteria based on the provided guidelines were prepared and its approval from the municipality and RMRCC was done. These basic criteria of the scoring include 1 Population Served 2 Access to services and facilities 3 Demand Priority of wards and 4 Linkages with other transport linkages

Altogether 273.36 km of road stretch along the territory of this RM in which Class A, Class B, Class C and Class D covers 58.29km, 48.63km, 95.69 km and 61.86 km respectively. Similarly, a total of 8.88 km of Feeder Road also passes through this RM. NRs. 122,245,957 is the projected total amount to be spent in Class A roads, NRs 73,347,574 in Class B roads and NRs 48,498,383 is the projected amount to be spent in Class C roads.

A total of NRs 39,900, 00 has been proposed for the base year i.e. 2018/2019 followed by NRs 45,885,000 in the year 2019/20; NRs 52,767,750 in the year 2020/21; NRs 60,682,913 in

the year 2021/22; NRs 69,785,349 in the year 2022/23 and NRs 80,253,152 in the year 2023/24. Thus, a total of NRs. 309,174,164 is expected to be spent in the five years period excluding the base year's amount. The share of construction interventions has been forecasted as NRs 216, 561,915 against NRs 92,812,250 for maintenance related interventions as shown in the table below.

Base Year		Forecasted Year (Amount in NRs.)					
year		-	First	Second	Third	Fourth	Fifth
f/y		2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Amount		39,900,000	45,885,000	52,767,750	60,682,913	69,785,349	80,253,152
Intervention Type	Construction	27,930,000	32,119,500	36,937,425	42,478,039	48,849,745	56,177,206
	Maintenance	11,970,000	13,765,500	15,830,325	18,204,874	20,935,605	24,075,946

Similarly according to road types, the length of different types of roads are: Bituminous roads -29.6 km, Gravel road 186.35 km, Earthen road 56.28 km , New track 1.18 km. Ward wide, the distribution of total road in the existing eight wards of this Khajura Rural Municipality is as following: Ward 1- 22.70 km, Ward 2- 53.59 km, Ward 3-54.87 km, Ward 4 -33.03 km, Ward 5-19 km, Ward 6-23.24 km, Ward 7- 30.25 km and Ward 8-36.68km.

Altogether 168 roads have been enlisted in the list of perspective plan of this Khajura Rural Municipality among which a total of 7 roads fall under Class A, 10 roads under Class B, 49 roads under Class C and 102 roads under Class D. Out of these perspective roads, only 18 roads have been considered as prioritized roads among which 7 comes under Class A, 6 under Class B and 5 under Class C.

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Chapter-1: Introduction

1.1 Background

The Constitution of Nepal has envisioned Federal Democratic Republicanism as the essence of its governance system. Rights of the local government have been enlisted on Annex -8 of the constitution. Local Government Operation Act 2074 elaborates and specifies those rights to be exercised by the local government. Article 11, Sub-Articles 2(G) and (K) specify the rights of the local government to devise and implement policies and plans regarding roads, transportation and other relevant development projects directly concerned with the local level.

As a local government, Khajura Rural Municipality had allocated fund, endorsed by the village Assembly, for the preparation of Rural Municipal Transport Master Plan. Therefore, this report is the product of an extensive field study and study of relevant documents, interactions with the villagers, people representatives and stakeholders in the Rural Municipality and ward levels for the preparation of Rural Municipal Transport Master Plan (RMTMP).

Physical infrastructure development has been extremely sluggish esp. in rural level in Nepal since long due to extended political turmoil and transition. Development of transportation infrastructure is one of the most essential groundwork for opening other avenues of development. Proper development of transportation system opens accessibility of the people to larger markets, service centers and overall economic sectors. Development of roads also leads to the development of urban centers with amenities like hospitals, schools, markets, services etc. Roads establish significant linkages with the large neighboring cities with vibrancy of economy, human activities and transactions. This sort of linkage is a key for the development of rural areas. Therefore, development of transportation basically through the development of road linkages is a fundamental necessity of this Rural Municipality. It has prioritized the development of sustainable Rural Municipal Transport Master Plan which is expected to address the need of opening an easy access to people's mobility in particular and inception of avenues of all kinds of development in general.

Chiefly this RMTMP aims to assess the present status of roads and transportation within the Rural Municipality through extensive field survey and inventorying the details of existing roads and transport situation. The study has also unfolded the problems and genuine necessities on road and transportation along with the recommendation of key interventions to be made for the sustainable development of road and transportation network. Planning

approach adopted by the consultant is fundamentally bottom up and participatory. Study and analysis of existing road status and need assessment have been the basis for this overall planning.

RMTMP is a long-term visionary plan which aims to systematize the road and transport development processes in the Rural Municipality. It identifies the roads and creates a complete inventory of the roads. It categorizes the roads into four classes A, B, C, and D according to their importance. It prioritizes the interventions and allocates the estimated budget for the necessary interventions. Above all, it systematizes the process of road and transportation development according to the need of the Rural Municipality. The consultant has followed all the prevailing norms and standards for the planning. It is based on the Approach Manual prepared by DOLIDAR and MTMP guidelines prepared by the then MoFALD. It has determined the Rural Municipal Road Core Network as practical in planning process of DTMP and has identified the key linkages with other road network. A complete road network has been identified to make a basis for future development of roads which primarily helps to develop the transport access to all the settlements in the Rural Municipality meeting the national standard of nominal duration to reach the core road network or all weather roads.

1.2 Objective

The key objective of this project is to prepare Rural Municipality Transport Master Plan which would be a road map for the systematic development of road network and transportation in the Rural Municipality. Other specific objectives pertaining to the key objective are:

- identify all the existing roads
- analyze the current accessibility situation
- determine Rural Municipality Roads Core Network
- develop indicative Development Potential Map
- prepare Rural Municipality Road Inventory Map
- Collection of demands for new roads and necessary interventions
- Road categorization through standard scoring method
- Road Nomenclature
- Preparation of Perspective Plan of Interventions of Services and Facilities
- Recommendation of fund management

- Finalization of financial Implementation Plan of Prioritized Roads for the RMTMP period (Year wise Budget Distribution)

1.3 Scope of the Work

The scope of the consulting service includes:

- Preliminary presentation of overall planning process in the Rural Municipality level
- Assist the formation of Rural Municipality Roads Coordination Committee (RMRCC)
- Field survey and data collection in ward levels
- Collection of demands
- O-D Survey
- GIS work for the finalization of all sorts of maps
 - Preparation of Indicative Rural Municipality Development Potential Map
 - Preparation of Rural Municipality Road Inventory Map
 - Preparation of Base Map
- Study of all relevant secondary data and information including previous RMTMP (If any)
- Prepare field report
- Road classification coding and nomenclature
- Categorization of roads according to standard criteria
- Collect feedback and necessary corrections from the stakeholders Prepare the final report of RMTMP
- Recommend for the approval from the village Assembly for the implementation

1.4 Limitation

This transport master plan is limited within the territory of the Rural Municipality. Since the data collected for the planning were based on the information provided by the villagers in the ward levels, they may have supplied limited information. Although Enumerators have attempted their best to reach all the roads for the necessary data, there are chances of missing the data to some extent. Misnaming of the road may occur due to the pronunciation error or hearing problem by the respondent as well as enumerators. Chances of error may occur during data entry and tabulation. The scale used to work on GIS is also likely to generate some errors. Though such limitation and errors are obvious, attempts have been made to minimize such errors taking precautions in the error prone areas.

1.5 Approach and Methodology

The consultant has gone through the general procedures well defined in the ToR for the completion of the project. Participatory Rural Appraisal approach has been the core of the planning approach. A preliminary presentation was made in the Rural Municipality among the village executive members, related officials, line agencies members and stakeholders for the clarification of how RMTMP is prepared consulting the villagers, ward chairman and members for the collection of data on roads and transportation status as mentioned in the ToR. After the completion of the ward level meeting and field survey, O-D survey, demand collection, field data were organized to finalize IDPM, Rural Municipality Inventory Map of Road Network and base map. On the basis of the IDPM and other maps and data RMTMP draft report was prepared. Furthermore, the draft report was sent to Rural Municipality for the necessary correction and feedbacks. After incorporating the correction and feedback, the final report was prepared for the approval from the village assembly for the implementation.

Field survey and data collection were done to study the existing accessibility condition of the villagers and analyze the necessary interventions to be made in the future. Demand survey was done to assess the existing condition and future necessity of road extension and transport infrastructure. Participatory bottom-up approach was ensured in the overall planning process. Integrated Rural Accessibility Planning (IRAP) has been the foundational concept of overall planning which emphasizes on improving the accessibility condition of all the settlements in the Rural Municipality.

1.5.1 General Methodological Overview

S. N.	Task Description	Activities	Outcomes
1.	Preliminary Presentation on Khajura Rural Municipality	Expert team conducted initial presentation among the village executive members and all related stakeholders	Stakeholders sensitized
2.	Study of secondary resources on roads and transportation related to the Rural Municipality	Study and review of all relevant laws, by-laws, best practices, norms and standard of planning <ul style="list-style-type: none">Review of previous RMTMP (if any)	Expert team got familiarized with existing information regarding Rural Municipality Transport Infrastructures and previous efforts for the development

3.	Ward level meeting	Participatory Rural Appraisal method adopted during ward level meetings in all wards for data collection demand survey; 0-0 survey traffic count-survey and all other necessary information	Primary data collected from the ward level formed strong ground for the necessary interventions to be made in the future
4.	Data Management and analysis	Data obtained from the field were tabulated; GIS work done to develop base map, IDPM, inventory map and other maps; and nomenclature, coding and grading of roads	Data organized and maps prepared
5.	IDPM and RMRIM Preparation	As the part and product of data management, Indicative Development potential Map(IDPM) and a complete Rural Municipality Road Inventory Map (RMRIM) was prepared	IDPM and RMRIM developed
6.	Perspective Plan	After identification and preparation of the existing status of all the roads IDPM and RMRIM were prepared and prioritization of key interventions finalized <ul style="list-style-type: none"> • Finalize the required interventions 	Perspective plan helped to prioritize and systematize the planning process
7.	RMTMP Preparation	<ul style="list-style-type: none"> • After analysis of all the existing infrastructures 5 years RMTMP was prepared • Implementation plan prepared • Fund availability and access to funds recommended 	RMTMP was prepared
8.	Approval	<ul style="list-style-type: none"> • After all necessary correction and feedbacks, final report of the RMTMP was submitted to village assembly for the approval and implementation 	RMTMP was approved from the village assembly ensuring the ownership of the villagers

1.5.2 Comprehensive Task Description

1.5.2.1 Rural Municipal Level Initial Presentation

Expert team conducted a day-long presentation and workshop to clarify the village executive members and stakeholders about the holistic process of preparing RMTMP.

1.5.2.2 Ward Level Meeting for Primary Data Collection

Enumerators and surveyors were deployed in each ward for the required interactions with the villagers and for the collection of all necessary data on the existing condition of roads from the ground level at respective wards.

1.5.3 Data Collection

1.5.3.1 Primary Data

During the ward level meeting and after surveyors were deployed to collect all the necessary data viz. Road name, condition, length. Similarly, traffic count survey and O-D survey were conducted. All other relevant information was collected to prepare base map and IDPM which formed a groundwork for overall planning.

1.5.3.2 Secondary Data

The following documents and sources were reviewed for the important data as the secondary data and information.

1. The constitution of Nepal.
2. Local Government Operation Act 2074.
3. DOLIDAR's Approach Manual
4. Nepal Rural Road Standard
5. Nepal Urban Road Standard
6. Rural Municipal Profile
7. Demographic Data from CBS
8. Previous RMTMP (if any)
9. Relevant Plans and policies (Federal Provincial, Local)
10. SDGs
11. Yearly Plans, Policies and Programs of the rural municipality
12. RMTMP/MTMP of adjoining municipalities or rural municipalities
13. Annual reports and policies of line agencies
14. Land use plan and policy
15. Agricultural Plan and Policy
16. Traffic data (if available)
17. All other relevant documents
18. Maps:
 - Topographical maps of 1:25,000 scale
 - Rural Municipality administrative map
 - Arial Photographs
 - Rural Municipality trail map

- National Highways, SRN maps
- Land use map
- Other thematic maps

Data Sources

- Office of the Rural Municipality
- District Coordination Committee
- Government Line Agencies
- All related Sectoral Offices (Agriculture, Education, Irrigation, Forest, etc.)
- Chamber of Commerce
- Road Division Office
- Local and National NGOs and INGOs
- Department of Survey
- National Planning Commission
- Provincial Planning Commission

1.5.4 Data Analysis

After collecting the necessary data, analysis was done to assess the existing condition of accessibility. It revealed the demands for the improvement as well as sustainable development of all transport infrastructure basically roads. Human settlement patterns, core road network and lack of roads are identified for the planning process. Analysis was done adopting the proven techniques, norms and standards.

1.5.5 Base Map with Indicative Development Potential Map

1. Base map is the foundation for all kinds of planning. Therefore base map was prepared with following information.
 - Geo-political boundaries
 - Land use or Land cover
 - National Highways and Strategic Road Network
 - District Road Network
 - Bridges
 - Important historical, religious, natural landmarks
 - Water bodies, Watershed
 - Elevation, aspect
 - Major settlement, all settlement, urban centers, industrial areas
 - Major touristic locations
2. Future development potential zones include: (IDPM)

- Areas with extensive agriculture and future expansion
- Areas with forest and future expansion
- Areas with business activities or marketplace
- Areas with touristic importance
- Areas with industry and future expansion
- Watershed areas
- Potential service sector expansion areas
- Areas with open space, recreation, stadium, parks, etc.
- Disaster prone area

IDPM was prepared based on the base map. IDPM indicates the future expansion areas where management of proper transportation system may become urgent according to the nature of the potential zones and volume of anticipated traffic after future expansion.

1.5.6 Preparation of RMRIM (Rural Municipal Road Inventory Map)

RMRIM include a complete plotting of the roads within the municipality on the basis of the data collected from the ward levels. This map includes all the linkages with bridges and trails. It is a complete coverage of all the existing roads or like a profile of the roads or road networks. The roads are classified, codified, named and indicated on the map according to the above features with separate index.

1.5.7 Perspective Plan

Perspective plan covers the nature of the key interventions to be made upon the roads in the future in accordance to their importance and necessity. This plan is based on the data collected from the grassroots level. As a local government Rural Municipality itself determines the requirements and demands from the ward levels and necessary interventions are recommended in accordance to the demands and necessity of the local people. Such required interventions are based on criteria 'B' of the approach Manual. This perspective plan is finalized after being approved by the Rural Municipality.

1.5.8 Preparation of RMTMP

After finalization of fundamental components like base-map, IDPM and perspective plan RMTMP is prepared based on these components. RMTMP rests on the following interventions types in one way or other. They are:

- New construction
- Upgrading
- Rehabilitation
- Recurrent Maintenance
- Periodic Maintenance

The consultant has prioritized the above interventions on the basis of interaction with the villagers and the necessity of the place and time. Availability of fund for the execution of the projects have been analyzed and five years projected financial plan devised. Target for the year and types of interventions have been finalized accordingly.

This report will be submitted for the approval from the village assembly.

Chapter-2: Review of Existing Infrastructure Situation

2.1 General Overview

Municipal and ward level surveys have revealed that the overall transport infrastructure, primarily road network appears to be in weak as well as vulnerable state in Khajura Rural Municipality. Despite being located in plain and geographically accessible region, this RM lags far behind in terms of road infrastructures. The major characteristics of the roads in this RM is manifested by muddy ones during the rainy/wet seasons and entirely dusty during the winter/dry seasons. At present, Nepalgunj-Khajura road is the only life line road of this Rural Municipality as all weather road. Most of the roads in this Rural Municipality have been observed as fair weather roads and need to be improved and upgraded in order to bring into operation round the year.

Most of the roads do not have basic road furniture and lack basic components like culverts, bridges, cross structures, drains and the like. This very fact indicates that the overall development of road transportation is at the elementary stage in this RM that requires interventions from the basic level and incurs a huge investment.

2.2 Existing Transportation Infrastructure Situation

Khajura Rural Municipality, also known as Khajura Bazaar, is one of the Rural Municipalities of Banke District of Province 5. Khajura Rural Municipality was established on 10 March, 2017 by merging then existing six Village Development Committees (VDCs) i.e. Radhapur, Sitapur, Bageshwari, Sonpur, Udarapur, Raniyapur. This RM is located along the Nepalgunj-Gulariya highway with high potential of future development.

Geographically this RM is extended in 101.91 sq. km area where cultivable land alone covers upto 88% of its entire area followed by some 6.36% areas as settlement/residential area. Remaining 1.78% and 1.76% area are covered by water and forest area respectively.

Nepalgunj city, headquarter of Banke district lies towards the east of Khajura Rural Municipality which is almost 8 km away from this RM. Similarly, Gulariya, the district headquarter of Bardiya district is situated in the west. The southern section stretches upto the Indian border which is just 6 km away from Khajura and Kohalpur lies towards the north.

The field survey indicates that a total of 273.358 km of road serves the entire population of this Rural Municipality in which the share of gravel road stands to be 68% followed by 20% earthen roads while the blacktopped or bituminous road constitutes only upto 11% in the totality. The portion of new track opening in the total road portfolio is quite negligible –

almost 0.4%. The condition of gravel road is not satisfactory at all. They have been affected by water and overloaded vehicular movement via tractors, heavy trucks etc. The wooden wheels of bull carts also contribute significantly in eroding/worsening of gravel as well as earthen roads. In fact, the gravels are rarely seen in most of the gravel roads which makes the operations clumsy and difficult during the monsoon/rainy season. Regarding earthen roads, they come under operations only during the fair weather and almost impossible to pass through due to deep muddy reels, and excessive slippery.

The blacktopped road passes through only 6 wards viz. 2, 3,5,6,7 and 8 among which ward no. 2 and 3 together cover almost two third of the entire blacktopped roads. The earthen roads pass through all of the wards of this RM but together wards 2, 3,7, and 8 cover more than two third of the total earthen road. Ward No. 8 holds the longest portion of earthen road which is 11.46 km long and covers more than one fifth of the total earthen road portion of Khajura Rural Municipality. Likewise, the gravel road passes through each of the ward from this Rural Municipality. However, wards 2, 3, and 4 together hold more than half the length of the entire gravel roads. In terms of gravel road, ward no. 3 holds the longest stretch while ward no. 5 shares the shortest stretch of 11.01 km and the remaining wards share in between. Similarly, the new track of 1.12km has been opened in the territory of ward no. 3.

For the purpose of RMTMP, the entire roads of Khajura Rural Municipality have been classified into four categories viz. Class 'A', Class 'B', Class 'C' and Class 'D'. In total 58.28 km of the road stretch falls under Class "A" as per the field survey while Class "B" holds 48.63 km; Class "C" -95.69 km and Class "D" -61.86 km of the total road length. Similarly, some 8.88 km of the road in this Rural Municipality falls into the category of Feeder Road.

Class "A" Road: Class "A" roads pass through all of the wards of Khajura Rural Municipality. Ward no. 8 holds the longest stretch of Class "A" road i.e. 15.07 km followed by 12.07 km (ward no.2) and 8.42 km (ward no. 3) respectively. Likewise, ward no. 5 holds the shortest stretch of Class "A" road which is calculated as 1.84km.

Class "B" Road: Class "B" roads pass through all of the wards except ward no.4 of Khajura Rural Municipality. Ward no. 2 holds the longest stretch of Class "B" road i.e. 13.95 km followed by 11.26 km (ward no.3) and 9.97 km (ward no. 7) respectively. Ward no. 8 holds the shortest stretch of Class "B" road which is computed as 5.80 km.

Class "C" Road: Class "C" roads pass through all of the wards of Khajura Rural Municipality. Ward no. 4 holds the longest stretch of Class "C" road that is calculated as

19.20 km followed by 16.00 km (ward no.3) and 15.23 km (ward no. 8) respectively. Ward no. 6 shares the shortest stretch of Class “C” road which is calculated as 5.80 km.

Class “D” Road: Class “D” roads pass through all of the wards of Khajura Rural Municipality. Ward no. 3 holds the longest stretch of Class “D” road that is calculated as 16.69 km followed by 13.72 km (ward no.2) and 8.34 km (ward no.4) respectively. Ward no. 5 shares the shortest stretch of Class “D” road which is calculated as 1.21 km.

Feeder Roads: Similarly, the Feeder roads pass through ward no. 3, 5, 6 and 7 among which ward no. 7 holds the longest stretch of 4.34 km followed by 2.49 km for ward no. 3. Ward no. 6 holds the shortest stretch amongst Feeder roads

Table No. 1 : General summary according road type (in km).

Road Types	Km.
Bituminous	29.6
Earthen	56.28
New Track	1.118
Gravel	186.35
Grand Total	273.358

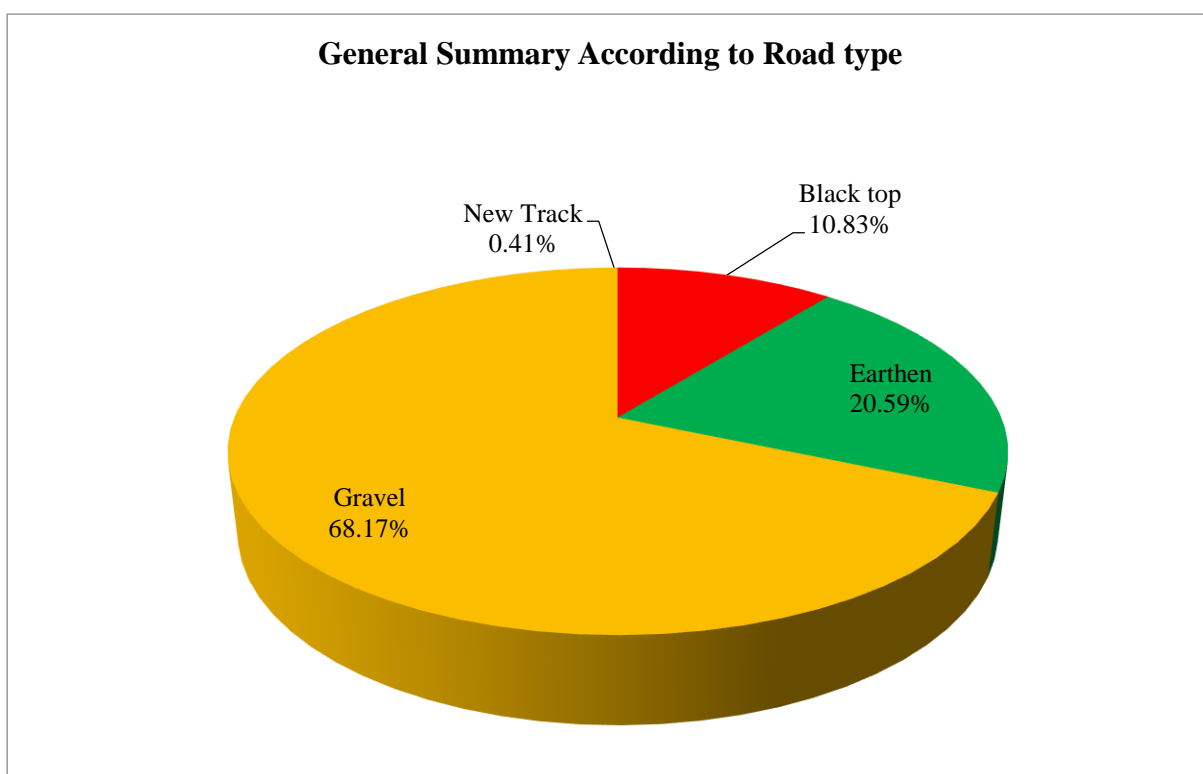


Table No. 2 : Summary according to road category (in km)

Road Category	Earthen	Blacktopped	Gravel	New Track	Grand Total
A		19.68	38.59		58.28
B	10.87		36.64	1.11	48.63
C	21.89		73.79		95.69
D	23.51	1.02	37.31		61.86
FR		8.88			8.88
Grand Total	56.28	29.60	186.35	1.11	273.35

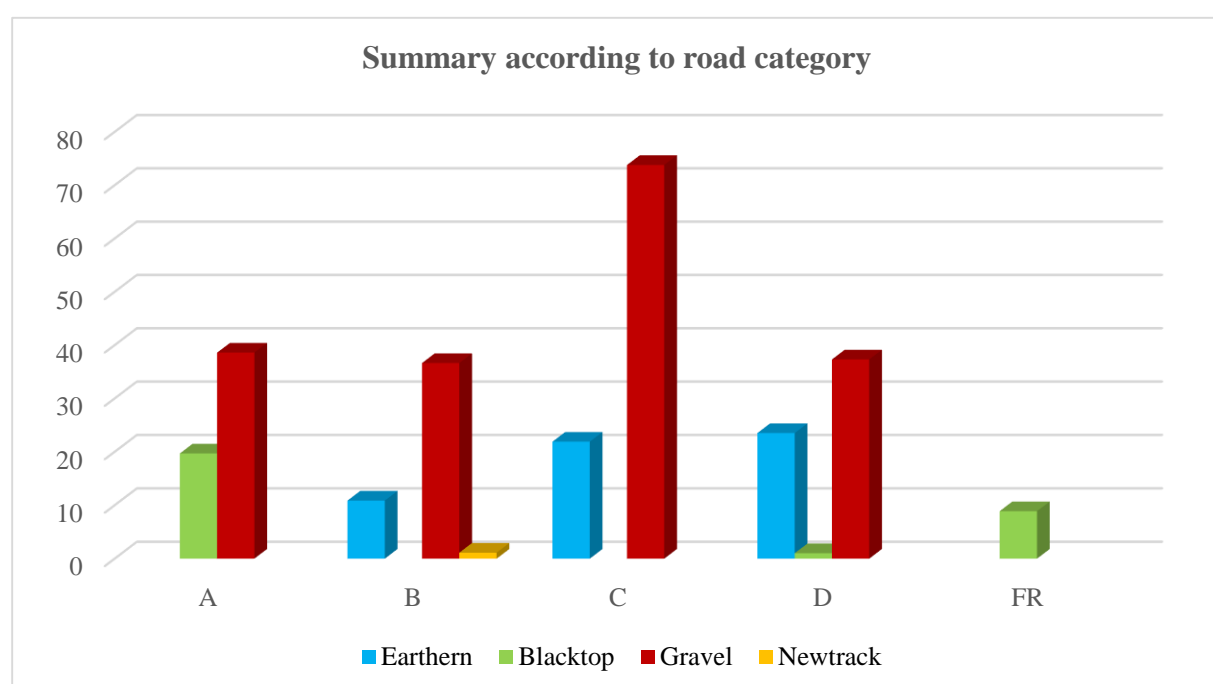


Table No. 3 : Ward wide road summary (in km)

Ward No.	Black top	Earthen	Gravel	New Track	Grand Total
1		2.80	19.90		22.70
2	9.64	9.42	34.53		53.59
3	8.89	9.35	35.52	1.12	54.87
4		3.34	29.69		33.03
5	1.46	6.53	11.01		19.00
6	0.58	4.65	18.01		23.24
7	4.34	8.74	17.16		30.25
8	4.68	11.46	20.54		36.68
Grand Total	29.60	56.28	186.36	1.12	273.36

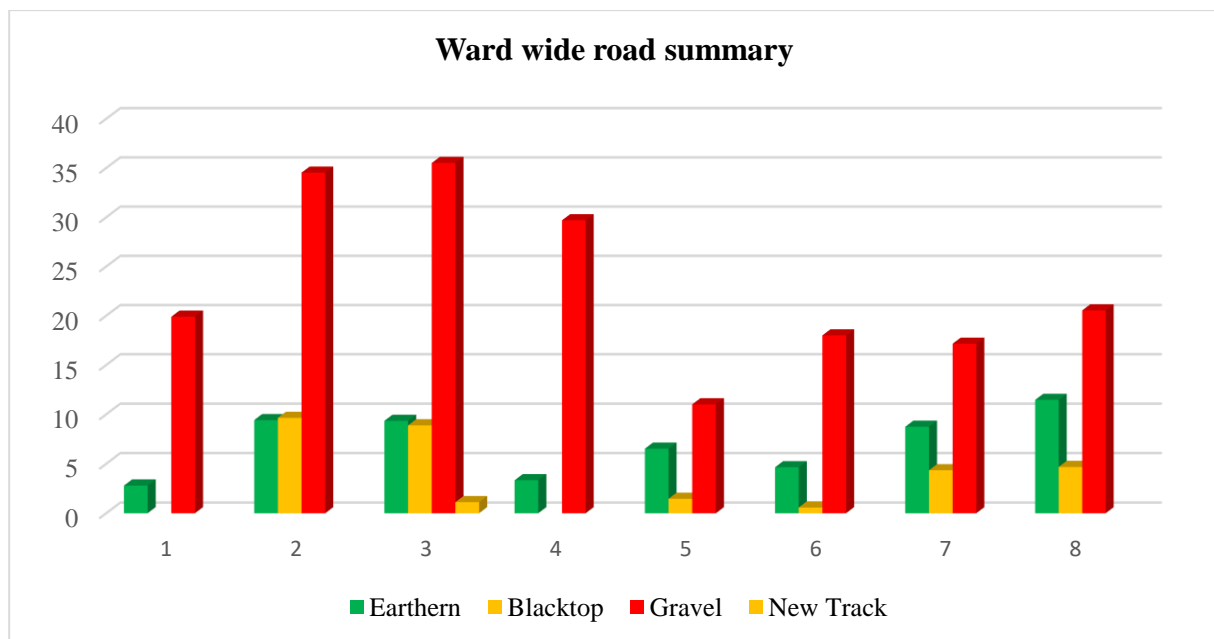
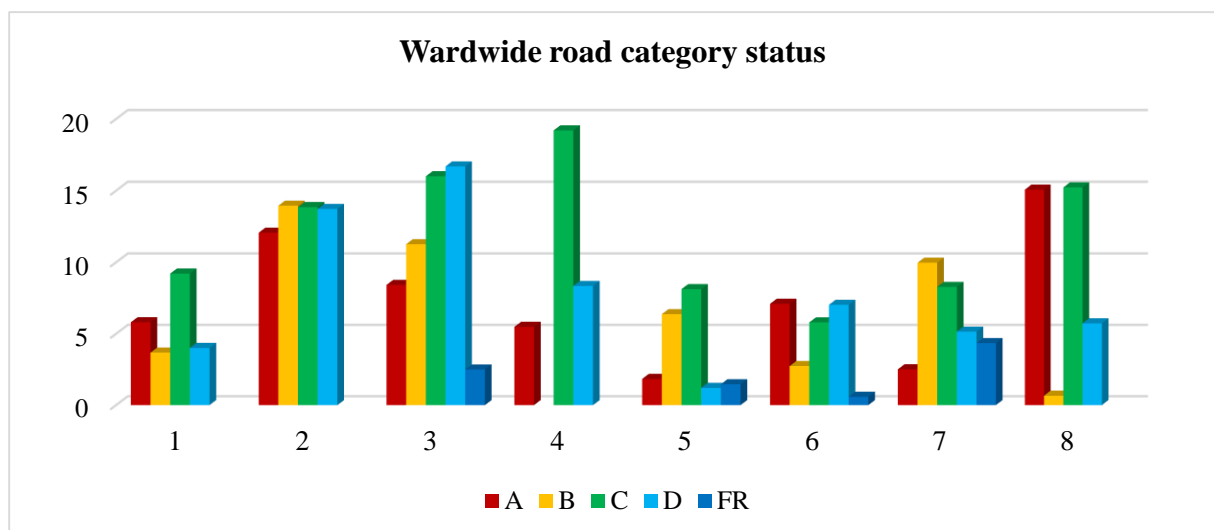


Table No. 4 : Ward wide road category status

Ward No.	A	B	C	D	FR	Grand Total
1	5.81	3.68	9.21	4.00		22.70
2	12.07	13.95	13.85	13.72		53.59
3	8.42	11.26	16.00	16.69	2.49	54.87
4	5.48		19.20	8.34		33.03
5	1.84	6.37	8.12	1.21	1.46	19.00
6	7.10	2.74	5.80	7.03	0.58	23.24
7	2.51	9.97	8.28	5.14	4.34	30.25
8	15.07	0.66	15.23	5.73		36.68
Grand Total	58.29	48.63	95.69	61.86	8.88	273.36



2.3 Visionary City Development Plan

Khajura Rural Municipality has prepared a long term Comprehensive Development Plan (CDP) which has chiefly focused on the physical infrastructures. The annual plan and programs of fiscal year 2075/2076 envisions optimum utilization of natural as well as human capitals and foresee partnership amongst different stakeholders including the RM staff and bodies, local people, national and international non government organizations, central and provincial government agencies to materialize its long term vision of prosperous and beautiful Khajura. The CDP emphasizes basically on the development of agriculture, industry, commerce and tourism sectors to attain its long term vision as mentioned earlier. The RM cannot ignore its basic social services like health and education as well to achieve its long term goal. However, development of road and transportation sector is the foremost condition to attain its long term vision and goals. The Long term vision of the Rural Municipality has been summarized as following: “हाम्रो खजुरा राम्रो खजुरा, समुन्नत खजुरा हाम्रो चाहाना” The English version of the same will be, “Our Dream: Beautiful and Prosperous Khajura.”

2.4 Major Plans, Policies and Programs in terms of visionary city development

2.4.1 Transportation Sectors

Policies and programs set for the fiscal-year 2075/076 have taken the agenda of upgrading the existing roads that connect the RM center with all of its ward centers; connection of RM center with strategic roads like National highway or Feeder roads. Similarly, emphasis was laid on the upgrade of those roads that connect ward centers with the RM Center. This Rural Municipality is committed to join all the major settlements in its territory with reliable road network within 5 years' time and it intends to get developed into a smart rural municipality with quality infrastructures in the next 15 years. The RM has also made a strategy to negotiate with the transport entrepreneurs to run public transport services from RM centers to different wards and the RM center with major destinations like Nepalgunj, Gulariya, and Kohalpur. The RM is also in the process to develop a mechanism of rapid responses in case of any hindrances on the main roads during rainy season so that those roads could be termed as "all weather" roads. Preparation of RMTMP is also one of the key steps taken by the RM to move ahead sustainably for the sake of road and transportation development. The key objectives taken by the long term plans are:

- Upgrade all the major roads in the RM into safe and smooth all weather roads

- Increase an easy access of the RM in National Highway Network so that access to large cities will be ensured
- Install and maintain basic road furniture in the prioritized roads
- Explore possibilities of mutual cooperation and partnership with private sectors in order to ensure safe, economic and reliable transport services and overall management of public transportation in an efficient manner
- Conduct feasibility studies to check the viability of other modes of alternative transportation like metro and mono rails, and air shuttle during emergencies
- Establish a mechanism that ensures routine maintenance to keep the road in regular operation.
- Make transportation system easy, safe and smooth from all aspects
- Opening of new tracks, construction of culverts and bridges etc. as per the need

2.4.2 Land Use Pattern

The Visionary City Development Plan requires study of existing settlement pattern along with possibility of its future expansion. As per the present land cover status arable land covers 87.93 percentage, forest area covers 1.76 percent, settlement areas cover 6.36 percent and water bodies cover 1.78 percent while the rest 2.17% constitute other areas which are insignificant in terms of percentage.

Table No. 5 : Table Existing Land use Status of Khajura Rural Municipality

Land use	Percentage
Arable land	87.93%
Settlement/residential area	6.36%
Water bodies	1.78%
Forest area	1.76%
Other areas	2.17%
Grand Total	100.00%

Source: Khajura RM profile

As shown in table below, almost 70% of the total area of this RM rest at the range of 1.23 ° to 4.68° slope; nearly one fourth of the entire area falls under the slope of 1.23 ° while only quite a less i.e. around 3% of the entire land area is extended at the slope range between 4.69 ° to 11.9°. It implies that most of the area of this RM falls under plain area where roads are rarely constructed with side slope cutting. Rather embankments are made for the road construction purpose. The construction materials should not be collected haphazardly without considering the environmental impacts. Proper environmental procedures and guidelines need to be

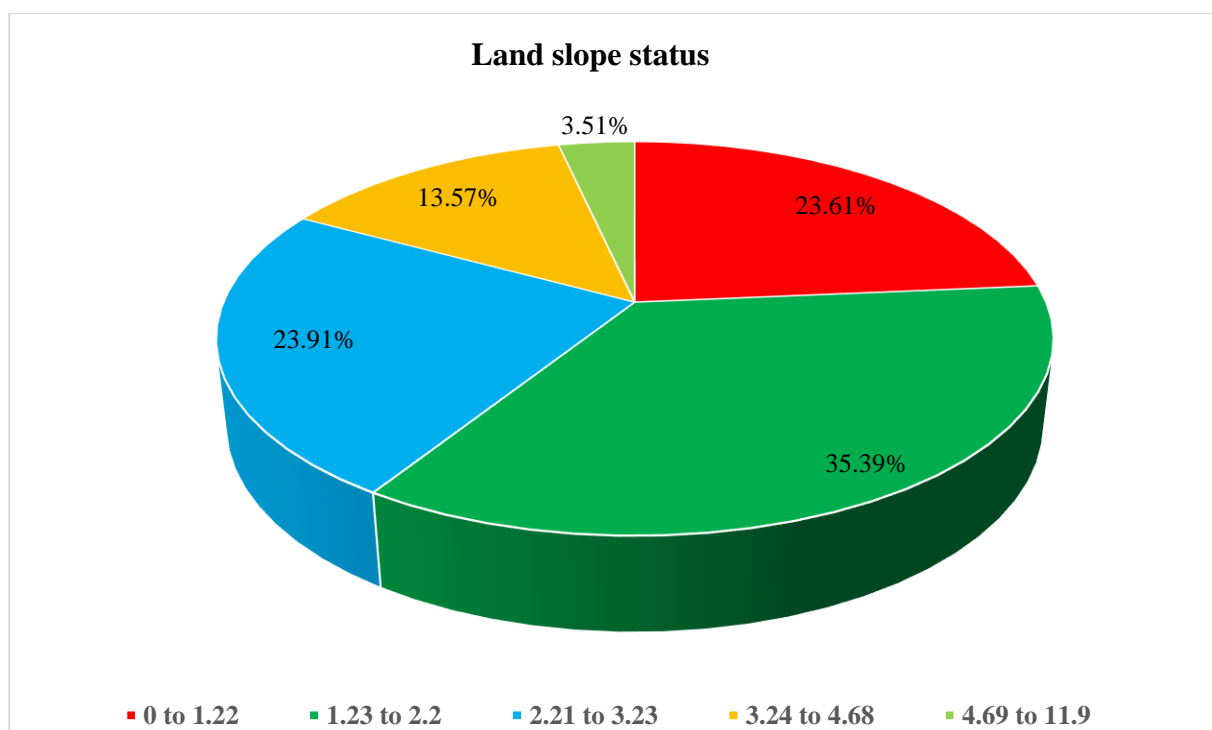
followed while extracting construction materials from the nearby rivers or natural quarry sites. As the entire RM falls under the risk zone of floods and inundations, the basic service providing institutions like schools, colleges, health posts etc. need to be built on high rise (upper land) if possible to minimize the chances of inundations.

Table No. 6 : Table Land slope status

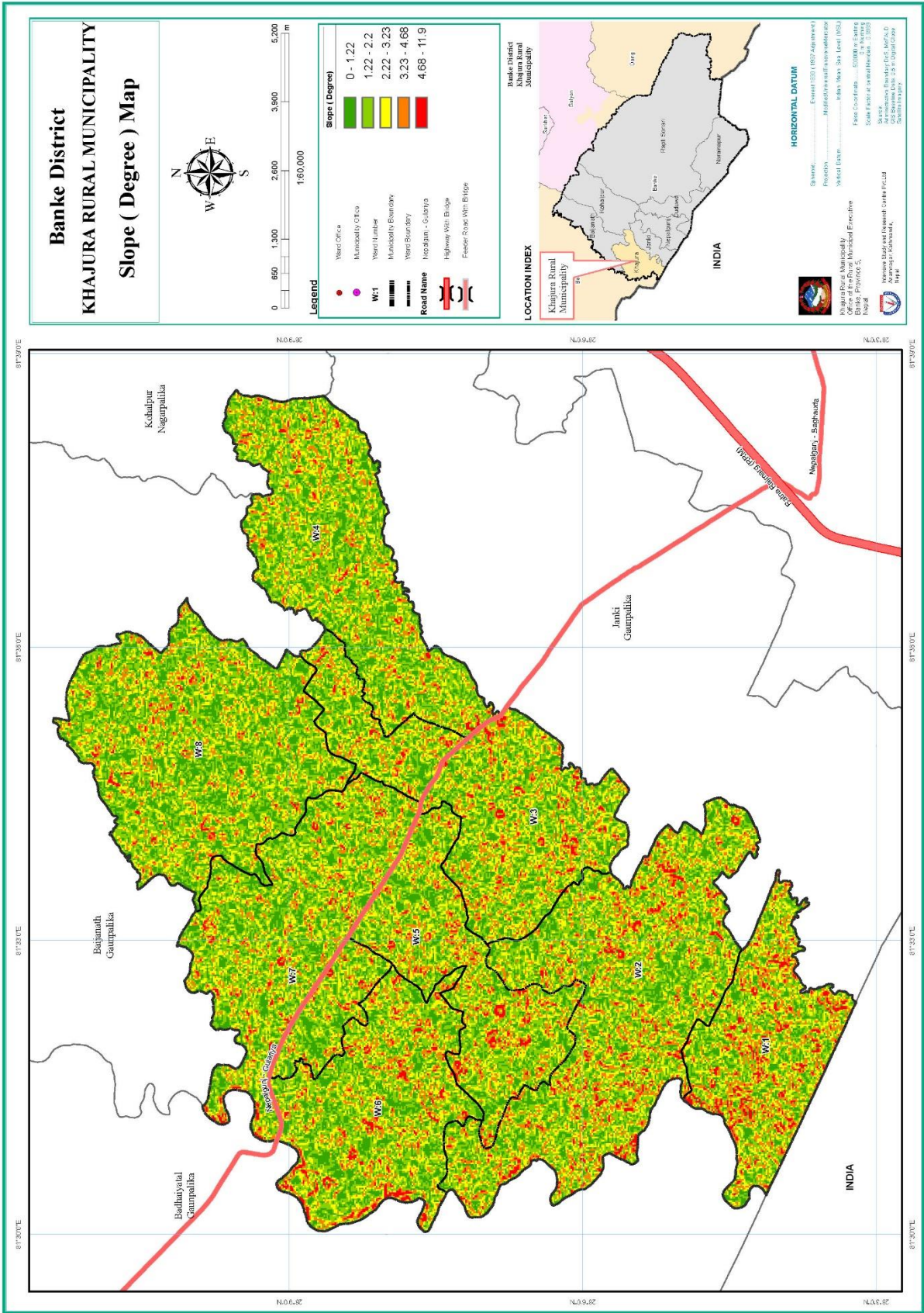
SN	Slope in degree	Area(Sq.km)	Percentage
1	0 to 1.22	24.06	23.61
2	1.23 to 2.2	36.07	35.39
3	2.21 to 3.23	24.37	23.91
4	3.24 to 4.68	13.83	13.57
5	4.69 to 11.9	3.58	3.51
	Total	101.91	100.00

Source: Khajura RM Profile

Figure Land Slope Status of Khajura RM



Source: Khajura RM profile



2.4.3 Market centers/village centers

People visit the following village centers/market centers to purchase normal household commodities. They also travel up to Nepalgunj, Kohalpur or nearby Indian border markets for especial or huge purchase.

S.N.	Wards	Village Centers (Potential Development Zones)
1.	1	Chandrapur, Birpur, Bahadurpur and Jal Pokhari,
2.	2	Rimjhim chowk, Babasthan, Highschool Danda, Ward Office Chowk and Kiran Pulchowk
3.	3	Khajura
4.	4	
5.	5	Udarpur, Basantapur, Madi Chowk and Dhanauri
6.	6	Mahani Chowk
7.	7	Bathawa, Bodhhana and Hanuman Chok
8.	8	Khan Chowk, Dahawa, Chowk, Purwa and Lihar Tole

2.4.4 Prospective areas for future settlement

Due to availability of abundance of plain fertile areas, the cultivators and their groups have scattered around this RM resulting into the growth of haphazard settlements. Areas like New Gurashpur of Ward No.2, Bagmati and Khajura Bazar of Ward No. 3 and Sinduri of Ward. No. 7 have been identified as some of the prospective areas for the development of planned and integrated settlement. In terms of other possible areas some road accessible rural quarters are being developed considerably. The development in road and business sector along with Nepalgunj- Gulariya road corridor is being developed into residential as well as commercial hubs. The integration of sparsely scattered settlements into organized clusters not only help develop settlements in integrative manner but also facilitates efficient services. Other prospective areas in this pursuit include RM Centre, ward centers, both sides of proposed ring road, Nepalgunj-Gulariya road corridor among others.

2.5 Constraints in the Implementation of RMTMP

Road network is believed to be the lifeline of infrastructure. The doors of other physical as well as social development possibilities are unlocked through the proper development of roads and transportation. Since the existing condition of roads in the RM is very poor, large portion of budget is required to address the problem of road upgrade and maintenance. This budgetary problem is surely a major obstacle for the timely implementation of the RMTMP. Besides this other possible constraints are:

- Problem of connecting the sparse settlements with roads which is expensive
- Lack of natural drainage due to minimal land slopes
- Problem of waterlogging and flash floods
- Finalization of standard ROW from the base level is problematic
- Lack of technology
- Lengthy procurement process for hiring construction work
- Lack of qualified manpower and labor force
- Lack of smooth and reliable supply of construction materials
- Lack of stable and favorable working environment

Chapter - 3: Indicative Development Potential Map (IDPM)

3.1 Municipal Profile

Khajura Rural Municipality is extended into 101.91 sq. km area where Ward no. 2 holds the largest area i.e. 18.37 sq. km followed by ward no. 8 and 7 respectively with 16.33 sq. km and 14.2 sq. km respectively. Area wide ward no.1 is the smallest one holding only 8.37 sq. km area. Ward no. 5 is slightly bigger than ward no. 1 that occupies 8.57 sq. km are in total.

Regarding avg. household size, ward 7 holds the biggest size with 5.78/HH followed by ward no. 8 - (5.71/HH), ward no.5-(5.61/HH) and ward no. 6-(5.1/HH) respectively. Ward no. 4 retains the lowest household size i.e. 4.29/HH.

Likewise in terms of number of households, ward no. 2 retains the highest size with 2003 HHs followed by ward no. 3 and ward no. 7 respectively with 1499 and 1412 HHs whereas ward no. 1 holds the lowest number of households i.e. only 756.

In terms of population, ward no. 2 retains the highest number of population (8626) followed by ward no. 7 (8156). Ward no. 1 is the least populated ward with meagre 3555 population. The total male population has been recorded as 23504 against 27457 of their female counterparts. Thus, the total male to female population ratio of this entire RM stands at 0.8560.

In terms of density of the populations, ward no. 5 has been identified as the most densely populated ward with 705 population in the area of 8.57 sq. km while ward 8 is the least densely populated one with 394 population in the area of 16.33 sq. km. The average population density of Khajura Rural Municipality stands at 500 population in its total area of 101.91 sq. km.

Table No. 7 : Table Ward wide population, households and population density

Wards	Area	Avg. HHs	Total HHs	Male	Female	Total	Pop. Density
1	8.37	4.70	756	1535	2020	3,555	425
2	18.37	4.31	2,003	3700	4926	8,626	470
3	12.65	4.61	1,499	3136	3778	6,914	547
4	12.74	4.29	1,341	2505	3252	5,757	452
5	8.57	5.61	1,074	2928	3098	6,026	703
6	10.68	5.10	1,075	2643	2842	5,485	514
7	14.2	5.78	1,412	4004	4152	8,156	574
8	16.33	5.71	1,128	3053	3389	6,442	394
Total	101.91	4.95	10,288	23504	27457	50961	500

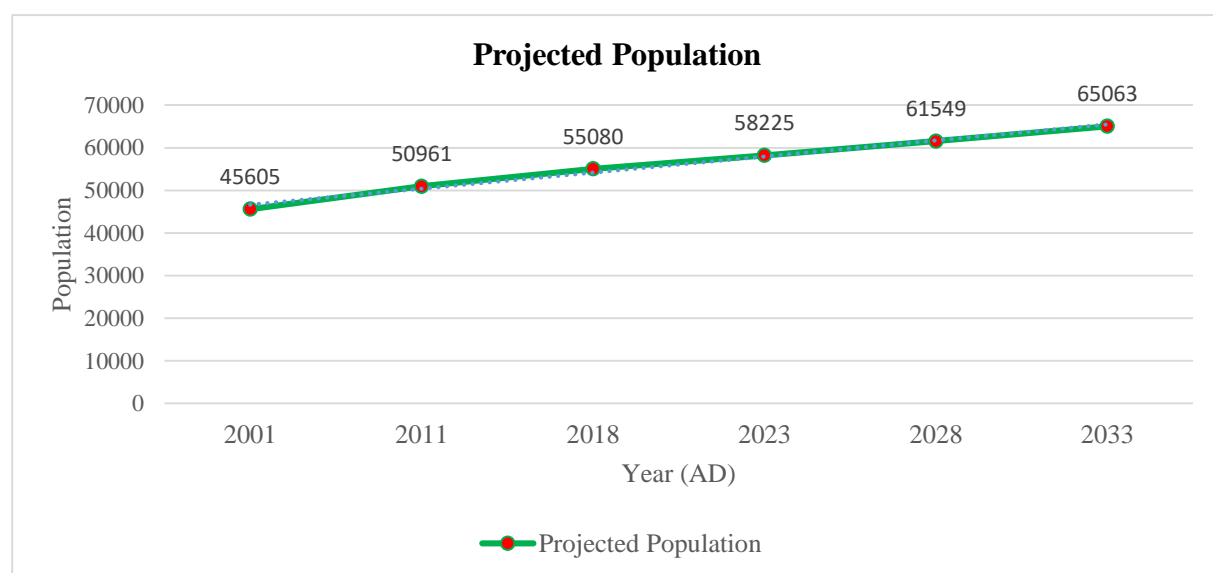
Source: CBS 2011

3.2 Demographic Status

The pathetic state of physical infrastructure for e.g. weak road networks, unemployment, dearth of social and other basic services, slow economic activities, etc. result into the meagre growth of rate of population of Khajura Rural Municipality as compared to other parts of southern plain area of the country. However, lack of social awareness, reluctance towards family planning, preference to male child etc. contribute to the growth of population in this RM to some extent. This particular trend is not going to change in the near future contributing to the growth of population size of this RM. That is the reason for the slight growth rate of population of Khajura RM. The population of this RM was calculated as 45605 in 2001 and 50961 in 2011. On the basis of population growth from 2001 to 2011 and then 2018, the population projection status for next 15 years has been shown in the projection table as below which shows that the population growth rate stands at the rate of 1.12%. From this projection, the size of population of this RM is expected to be 65063 in the year 2033 as shown in the tables below.

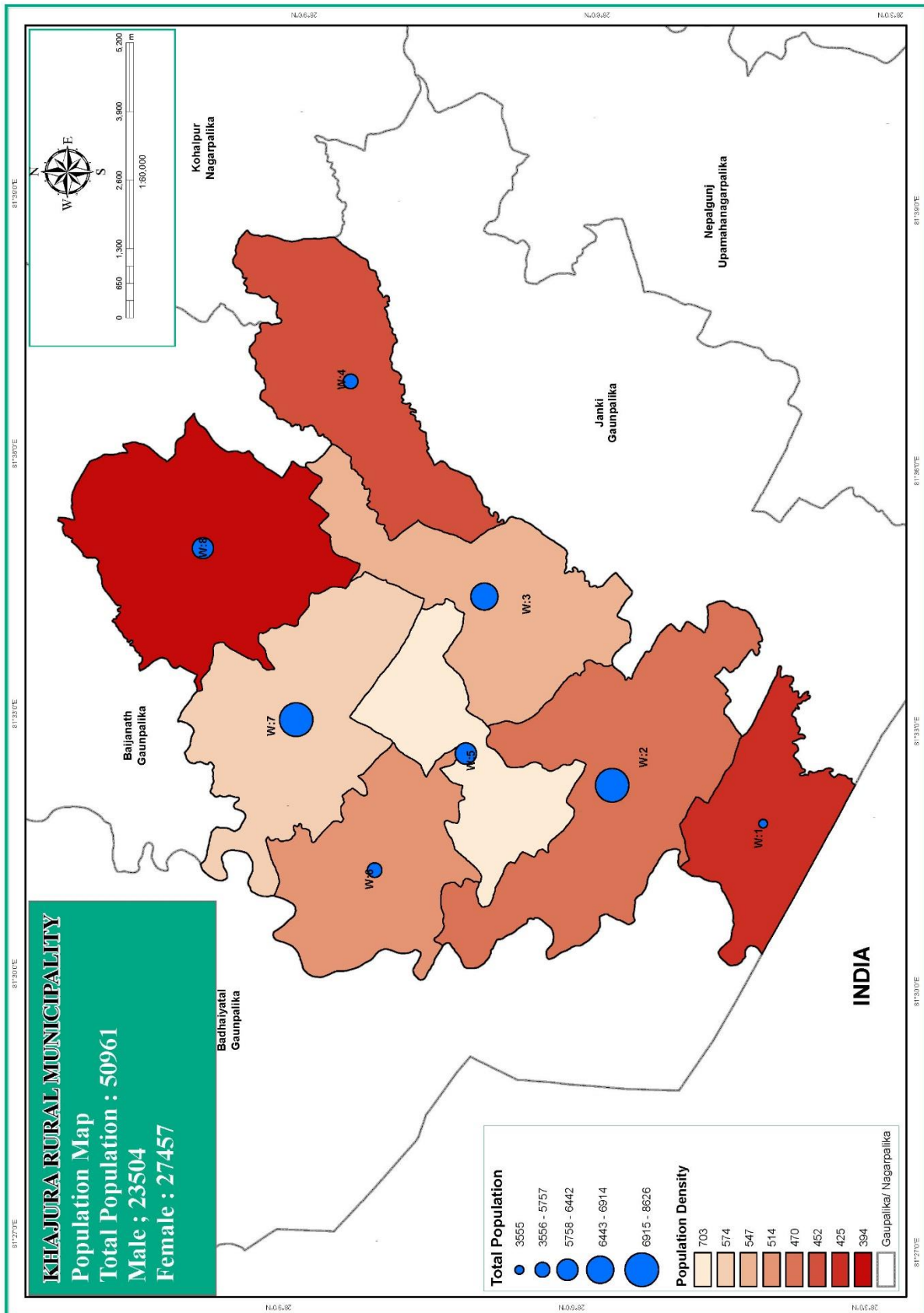
Table No. 8 : Table Next 15 years' population projection of Khajura Rural Municipality

Year (AD)	2001	2011	2018	2023	2028	2033	Growth Rate
Projected population	45605	50961	55080	58225	61549	65063	1.12%

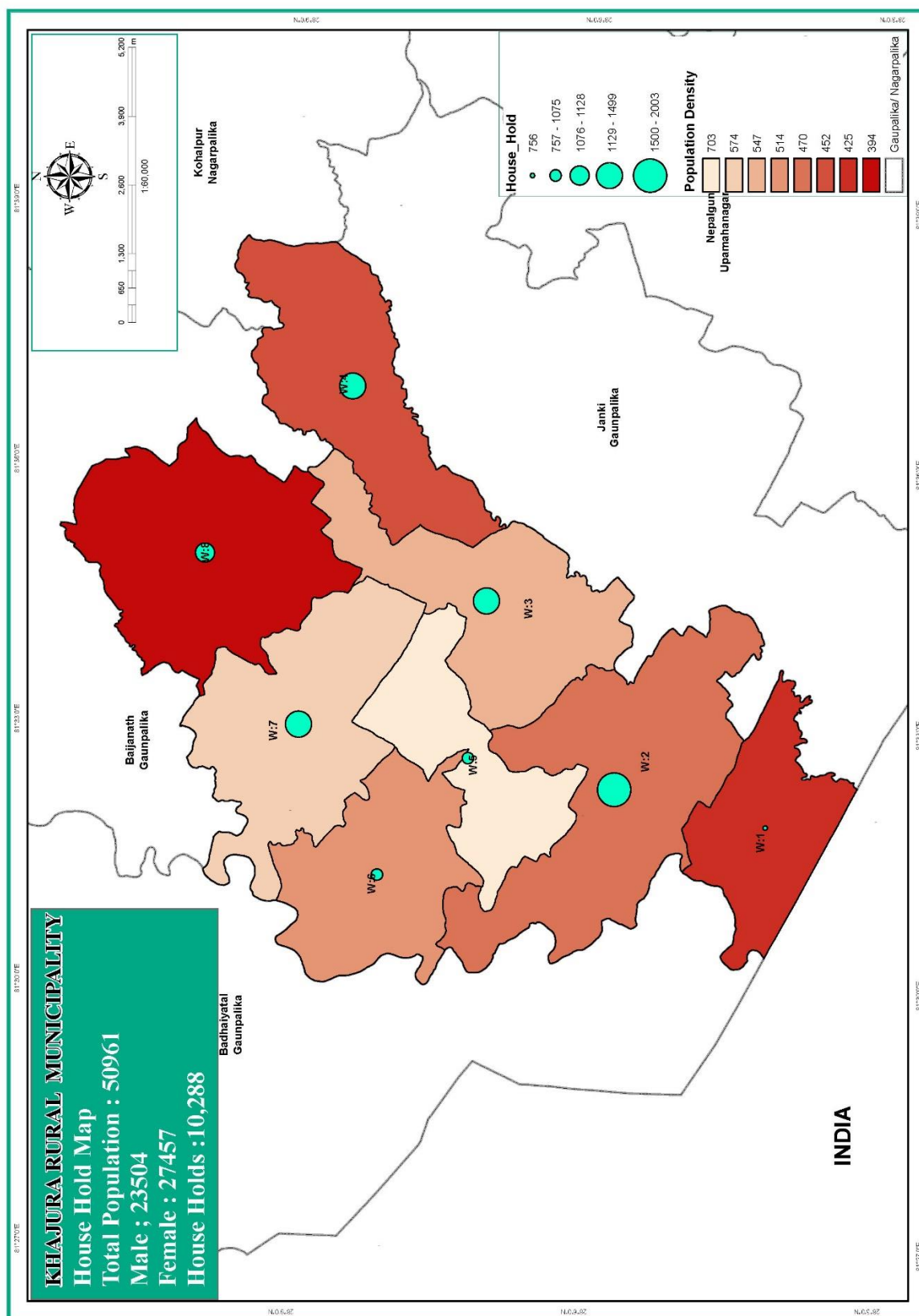


This is not significant increment of population since the trend of population growth is negative in remote rural areas throughout Nepal at present. Road network development planning should be compatible with serving this population and their mobility from settlements to several destinations. Integrated urban/or settlement plans will be highly

appropriate to minimize the cost of road construction which is often necessary in the areas where population is too low.



According to CBS data 2011, this RM consist of 10288 households with total population 50961 out of which 27460 are female and 23530 are male. Population density per square Kilometer is 500 and average house hold size is 4.95 persons.



Regarding ward wide distribution of population, ward 2 holds largest rank with 8626 people whereas ward 7 holds 8156 people. According to the existing nature of population variables the population growth rate will not be significantly high. In coming 15 years, if the nature of demographic variables remains constant the size of population will reach to 65063.

3.2.1 Age wide Distribution of Population

According to national census 2011, the highest number of population lies between age group 10-14 (13.83%) followed by age groups 5-9 (12.68%) and 15-19 (11.59%). These three age groups together constitute more than one third of the entire population constitution. Considering the economically most active populace i.e. within the age group of 15-59 years, the total percentage of the population is calculated as 55%. Similarly, lower sex ratios of male populace in the youth categories like age groups 20-24, 25-29, 30-34, 35-39, 40-44, all indicate that male youth populace migrating elsewhere for seasonal and permanent work opportunities. Secondly, the table below also shows that number of active population has remained higher in this RM which indicates that the degree of mobility being higher in comparison to dependent or passive population. This age specific data keeps high significance in road and transportation planning like other planning.

Table No. 9 : Table Age wide population constitution in Khajura Rural Municipality

Age group	Male	Female	Total	Percentage	Sex ratio
0-4	2733	2578	5311	10.42	1.06
5-9	3191	3273	6464	12.68	0.97
10-14	3578	3471	7049	13.83	1.03
15-19	2766	3138	5904	11.59	0.88
20-24	1686	2706	4392	8.62	0.62
25-29	1449	2447	3896	7.65	0.59
30-34	1168	1861	3029	5.94	0.63
35-39	1148	1745	2893	5.68	0.66
40-44	1111	1494	2605	5.11	0.74
45-49	1029	1143	2172	4.26	0.90
50-54	877	848	1725	3.38	1.03
55-59	690	718	1408	2.76	0.96
60-64	680	717	1397	2.74	0.95
65-69	563	577	1140	2.24	0.98
70-74	401	339	740	1.45	1.18

Age group	Male	Female	Total	Percentage	Sex ratio
75-79	237	205	442	0.87	1.16
80-84	112	124	236	0.46	0.90
85-89	50	38	88	0.17	1.32
90-94	22	18	40	0.08	1.22
95+	13	17	30	0.06	0.76
Total	23504	27457	50961	100	0.86

Source: CBS 2011

3.2.2 Caste/Ethnicity

Out of the total population constitution of Khajura RM, Musalman dominates the others in terms of caste with a total of 13621 populace (26.73%) followed by Chhetri 7958 (15.62%) and Magar 5994 (11.76%) respectively. The other dominant caste include Kami (9.91%), Brahmin (hill) (6.88%), Yadav (4.07%), Thakuri (3.99%), Tharu (3.56%), Gurung(2.43%), Sanyasi(1.54%), Damai/Dholi (1.50%), Chamar/Harjan/Ram (1.48%), Dhobi (1.03%) and Kurmi (1.02%). The remaining caste have been calculated as less than 1% and mentioned in the table below. Ethnicity wide, in the total population constitution, the percentage of Aryan people is almost 80% including Muslim community whereas the population constitution of Mangolian people is less than 20%. Ethnic composition also affects the mobility of people. Past history shows that indigenous population have lesser mobility in comparison to other ethnic groups.

Table No. 10 : Table Population constitution in terms of caste

Caste	Total	Percentage
Musalman	13621	26.73
Chhetri	7958	15.62
Magar	5994	11.76
Kami	5048	9.91
Brahmin(hill)	3505	6.88
Yadav	2075	4.07
Thakuri	2032	3.99
Tharu	1814	3.56
Gurung	1233	2.43
Sanyasi	784	1.54

Caste	Total	Percentage
Damai/Dholi	762	1.50
Chamar/Harijan/Ram	754	1.48
Dhobi	526	1.03
Kurmi	518	1.02
Dusadh/Pashwan/Pashi	490	0.96
Sarki	475	0.93
Newar	465	0.91
Dalit(others)	430	0.84
Kori	328	0.64
Badhai	223	0.44
Kathbaniya	188	0.37
Kanu	185	0.36
Others	1553	3.05
Total	50961	100.00%

Source: CBS 2011

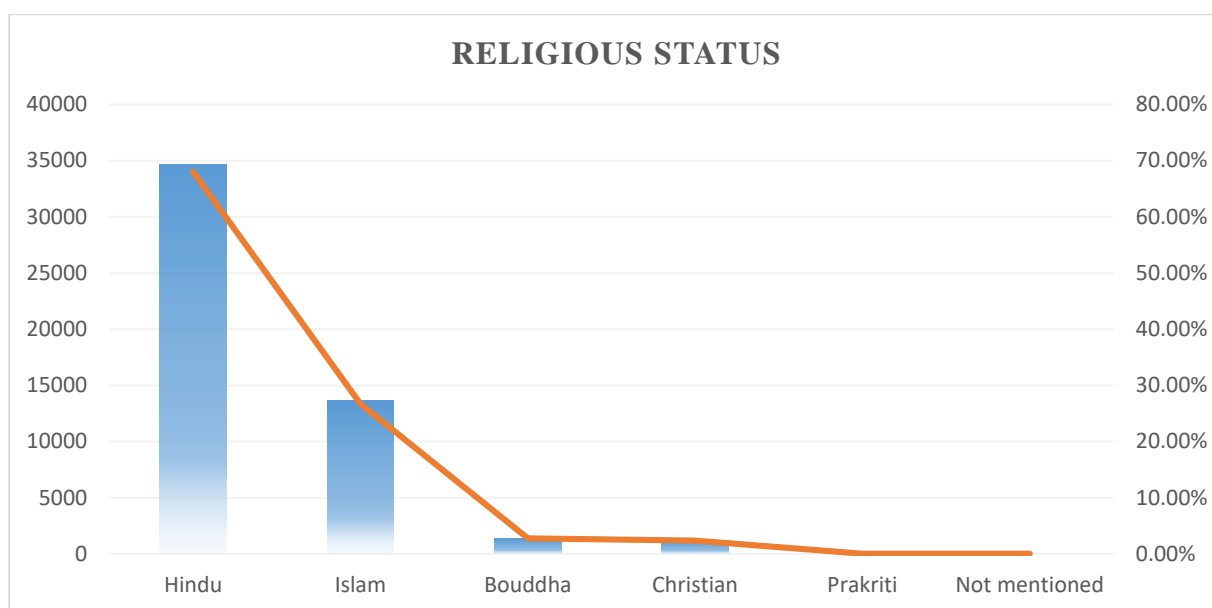
3.2.3 Language Spoken

In terms of spoken language, majority of the people from this Rural Municipality speak the national language i.e. Nepali language the percentage of which is calculated as 55.16% followed by Urdu speaking populace of 26.29%. Likewise, Awadhi is spoken by 13.22% followed by Tharu (2.47%) and Magar (1.55%). Other languages spoken by less than 1% of the entire populace include Newar, Maithili, Gurung, Bhojpuri, Hindi, Tamang, Doteli, Chepang, and others.

3.2.4 Religious Composition

Out of the total population constitution Hindus dominates the others in this Rural Municipality by 68.08% followed by 26.72% Islamic people. The Bouddhist are the third largest religious group which constitutes 2.76% of the total population and Christianity stands at the fourth largest religious group by 2.40%. Few Prakriti believers also reside in this RM which is calculated as 0.03% and remaining 0.02% have not mentioned their particular religion.

Table Religious status of the population of Khajura Rural Municipality



Source: CBS 2011

3.2.5 Differently able (disable) population

In the total population constitution, 1.79% of the entire population have been reported as differently able (disable) populace who sustain some kind of disability. Among the total disable populace, some 35.38% sustain physical disability; 18.18% sustain hearing related disability; 17.31% of the disable populace fall under vision related disability, 8.00% sustain speech related disability; and 7.56% sustain mental related disability and the rest sustain combined of one or many disabilities.

3.3 Basic Services

3.3.1 Education

According to census 2011, the overall literacy rate of this RM is recorded at 63.42% in which male literacy rate stands at 72.25% against 56.10% female literacy rate.

There are 33 government schools including 1 Child Development Centre, 2 colleges, 19 boarding schools and 13 Madrasa in operations in this Rural Municipality. Technical subjects like Agriculture and Civil Engineering are also taught in the high school level in some of the schools viz. Janta High School-(Agriculture) and Gyanodaya High school- (Civil Engineering) located in ward no. 3 of this RM. Similarly, there is also facility of studying Business Studies in the Bachelor level and both Management and Science in +2 level Studies within the territory of this RM. The government schools are also equipped with Library as well as E-Library facilities in this RM. The Madrasa have also started teaching Nepali to its students up to standard 3. Improvement has been seen in rate of students' enrollment

especially girl child enrollment. Despite all these, lack of competent and proficient teachers, poor quality of drinking water and sanitation facilities, unsafe buildings, lack of sports and other educational support, lack of female friendly toilets, poor condition (muddy/dusty) of the road to schools are some of the commonly observed problems in this RM. The education imparting institutions need to be centrally located as possible so that the commuting distance remain more or less equal or similar to the majority of the students along with good quality road round the year.

Table No. 11 : Table Literacy Status among the population of Khajura Rural Municipality

Ward No.	Read and Write		Read only		Can't Read and Write		Not Stated		Total		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1	1195	1364	2	2	121	468	0	1	1318	1834	3152
2	2738	3207	20	44	423	1194	2	2	3183	4447	7630
3	2537	2675	27	33	243	775	0	0	2807	3483	6290
4	1826	2098	33	55	352	818	0	0	2211	2971	5182
5	1344	821	47	55	1067	1749	2	0	2460	2625	5085
6	1290	1040	111	138	771	1235	3	4	2175	2417	4592
7	2062	1273	131	145	1217	2143	1	1	3411	3562	6973
8	1519	1112	47	78	954	1695	0	0	2521	2885	5406
Total	14511	13590	418	550	5148	10077	8	8	20086	24224	44310
Percent	28.47%	26.66%	0.82%	1.07%	10.10%	19.77%	0.02%	0.02%	39.41%	47.53%	86.94%

Source: CBS 2011

3.3.2 Health Services

This RM does not have any well facilitated hospital to cater to its populace. However, Susil Koirala Memorial Cancer Hospital is under construction in ward no. 7 of this Rural Municipality. An eye hospital is also proposed in ward no. 3 of Khajura Rural Municipality. At present, people need to visit either Nepalgunj or Kohalpur for major infirmities/ailments and they also travel to Lucknow or Kathmandu in the cases of serious nature health complications. In general, primary health services is provided by the health posts situated in five wards of this Rural Municipality except Ward no. 4 and 6. These health centers provide basic services and services like TB treatment, Leprosy, family planning services and reproduction services. This RM is also planning to provide special grants to the chronic patients from the ultra-poor communities.

These health posts are also equipped with basic lab facilities and regulated by Health Assistant under whom a number of CMAs are in place. There is also one Birthing Centre (located in ward no.3) along with three dozen vaccination centres in this RM. Khajura Rural Municipality has also made health plans to ensure efficient, affordable and quality health services to its people. The factors like accessibility also play vital roles in terms of achieving quality and timely health services. Thus due priority has been given to those particular roads linking the major health facilities of this RM. Basically the emergency treatment centres like snake bite treatment facilities, proposed cancer hospitals should be reached fast by upgrading of the roads.

Majority of the populace of this RM lack reliable piped water services and are forced to consume underground water from tube wells, hand pumps and covered/uncovered wells. No further purification of such water is in practice posing high risk of arsenic contamination among the water users. The water quality test should be made mandatory in case of community water supply schemes. The RM needs to focus upon activities like rain water harvesting, cleaning of sources of water, and extensive lab testing of drinking water from various wards. Lab testing of drinking water had been initiated in ward no. 6 by INF and Nepal Red Cross and the RM needs to take high initiatives to continue the same in other wards too mobilizing other like-minded partner organizations/agencies. Similarly, proper response mechanism against snake bites shall be established in the existing health facilities along with further investment if required. Provision of ambulances, 24 hour health services, proper lab facilities including services of cold chain, alternative energy, sufficient no. of quality health professionals, efficient response mechanism in emergency cases, proper water supply and sanitation related services and provision of basic surgery kits and tools are some of the major shortcomings observed particularly in the health sector. Awareness campaigns against various transmissible diseases, and mobilizing the populace towards Yoga, Pranayama and other physical/mental exercises will have positive implications regarding precautionary measures. In the same way promotion of indigenous Herbal or Ayurveda treatment, Homeopathic treatment etc. should be given due emphasis in order to enhance health tourism at one hand and eventually develop this particular area as health destination in the long term. Last but not the least, it is only through reliable, smooth and improved road transportation, can one achieve the quality health services as mentioned earlier. Thus, roads leading to the basic health institutions or having specific health facilities like lab facilities, snake bite treatment centre, emergency referral, 24 hour service birth centres etc need to be in functional position round the year and emphasis has been given accordingly.

3.3.3 Shelter

Ownership of housing units

Amongst 10288 HHs, 97.38% stay in their own private housing units while 1.58% stay in rental houses while mere 0.03% of the total housing units fall under institutional category. Ward no. 3, 2 and 5 retain maximum no. of housing units under rental status i.e. 77, 36 and 18 respectively.

Table No. 12 : Table Division of HHs in terms of ownership

Wards	Private	Rented	Institutional	Others	Non stated	Total
1	744	7	1	4	0	756
2	1927	36	0	40	0	2,003
3	1411	77	1	10	0	1,499
4	1317	13	0	11	0	1,341
5	894	18	0	10	0	922
6	1223	2	0	2	0	1,227
7	1389	8	0	15	0	1,412
8	1113	2	1	12	0	1,128
Total	10,018	163	3	104	0	10,288
Percentage	97.38	1.58	0.03	1.01	0.00	100

Source: CBS 2011

Housing units by type of construction technology

According to Census 2011, in the totality of 10288 housing units, 38.47% are composed of mud mortar; and remaining 16.01% as cement mortar; 1.99% as concrete pillar, 13.9% as wooden pillar used constructions and remaining 29.05% constitute other construction methodologies whereas 0.62% have not reported about the construction technologies. Similarly, for roofing purpose, 41.35% have used slates/tiles, RCC slab (27.25%), Hay/straw (15.71%), CGI sheet (14.52%), and the rest have used other sources.

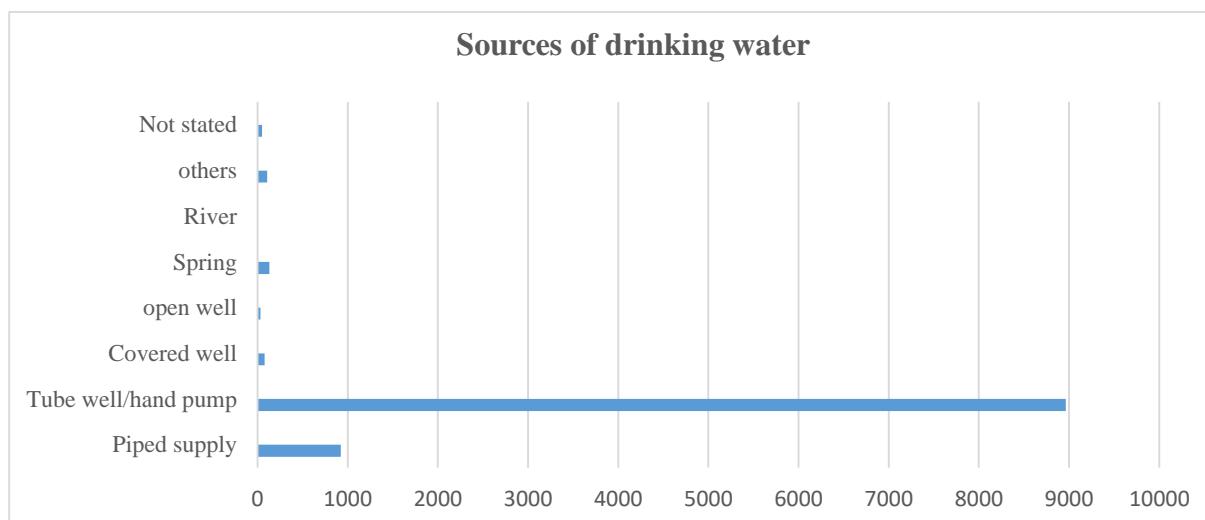
Focus should be laid on integrated housing development potential zones and the prospective wards for such cluster basis development are ward no. 2 and 7. Similarly ward no. 3 and 8 could also be referred in terms of integrative development approach.

3.3.4 Drinking water

Sources of drinking water

The majority (87.15%) of the population of Khajura Rural Municipality rely on tube wells or hand pumps for drinking water. Only some few households i.e. 8.97% have access to piped water supply. Other sources of water supply include spring water, covered and uncovered tube well. A couple of households also rely on river water too.

Table Sources of drinking water among the populace of Khajura RM



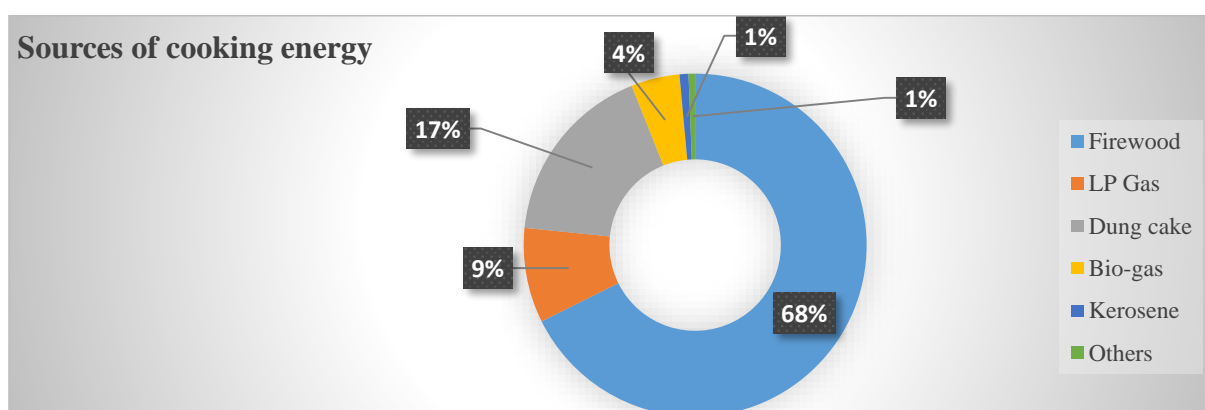
Source: CBS 2011

3.3.5 Energy

Sources of cooking energy

Out of the universe of 10288 households, more than two third of the total households i.e. 68% rely on firewood for cooking purpose. Likewise dried dung cakes (17%), LP-gas (9%), Bio-gas (4%), kerosene (1%) and others (nearly 1%) are some of the major sources of cooking energy practiced in Khajura RM.

Figure Households by the type of cooking energy

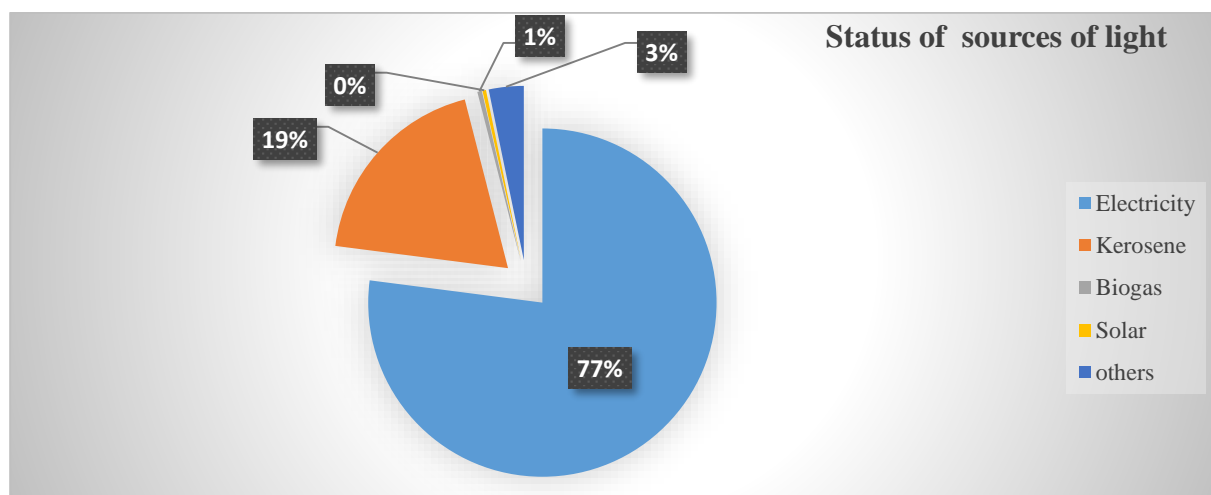


Source: CBS 2011

Sources of light

Electricity has been recorded as the primary source of energy to light bulbs in this Rural Municipality which is calculated as 77%. Among other sources, 19% use kerosene, 1% use biogas and remaining 3% rely on other sources to light bulbs.

Figure Sources of energy to light bulb in Khajura Rural Municipality



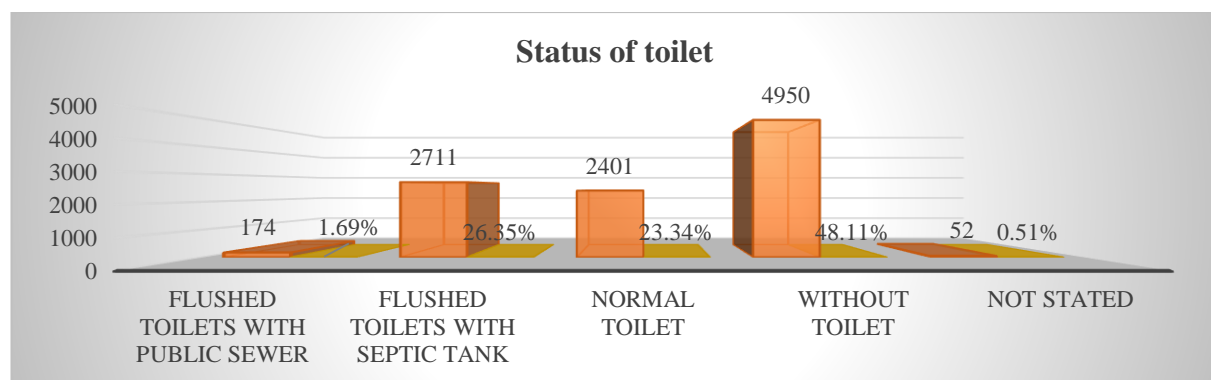
Source: CBS 2011

3.3.6 Sanitation

Status of toilet/sanitation

As per census 2011, still some 48% of the households lack toilet facilities in their dwelling units. A total of 26.35% of the households retain flushed toilets with septic tank connection whereas very few i.e. 1.69% retain the flushed toilets with public sewer lines. Another 23.34% of the households have access over normal toilets only—no flushing facilities in their respective dwelling unit. Despite above facts and figures, the situation have changed significantly (according to the recent field visit). The table below shows the status of sanitation in detail.

Table Status of toilets in Khajura Rural Municipality



Source: CBS 2011

3.4 Rivers, water bodies and touristic destinations

Although no major rivers flow through this RM, some small streams and rivulets pass by facilitating the natural drainage of water. Streams like Kiran Khola, Man Khola and Imili Nala pass through Ward No. 1 while Pedari Nala and Kirani Nala flows through Ward No. 4. Likewise Gadghaiya Nala passes through Ward No. 5 whereas Jethi Nala, Man Khola and Jhatniya Nala flows through Ward no. 6. Finally, Ward No. 8 witnesses Garjori Nala flowing through its territory. In the same way different ponds and closed water bodies could be find in these wards. Alawan, Chalani Lake, Tedi Lake, Chamaran Pond are some of the important water bodies retaining potential to get developed as tourism destinations in future. Following are the streams and brooks in the RM.

Table No. 13 : *Table Streams flowing through Khajura Rural Municipality*

S. N.	Ward No.	Name of the Streams
1.	1	Kiran Khola, Man Khola, Imili Nala
2.	4	Pidari Nala, Kirani Nala
3.	5	Gadghaiya Nala
4.	6	Jethi Nala, Man Khola, Jhatniya Nala
5.	8	Garjori Nala Khola,

Source: Field Study 2018/2019

3.5 Potential Touristic Destination

Potential touristic destinations include: Baba Sthan, Tedi Tal, different temples, Masjid, Madarsa are all important from religious and cultural aspects and can be linked through the development of a link road viz. Tourism Ring Road. Since the RM is a mixed populace comprising Hindu, Muslim, Buddhist, Christian and Prakriti followers the values and beauty of their respective culture and festivals add flavors somehow. Hindu festivals like Dashain, Tihar, Teej, Holi, Ram Nawami, Chaite Dashain, Nag Panchami, Mata Tirtha Ausi, Kushe Ausi, New Year, Maghe Sangranti etc. are celebrated in this RM whereas Muslim mark feasts and festivals like Muharam, Mohammad Day, Baqar Id, Ramjan, Saiyad Shah Baba Mela, Mushbekhra Baba Mela, Baragdiwas and all. Similarly Buddha Purnima and Lhosar is observed and marked by Buddhist populace while Christmas is the core festival of Christians. The scope of traditional institutions like Guthi and modern youth clubs remain significant not only in terms of protecting and documenting their intangible religious and cultural heritages but also in terms of maintaining religious harmony by mutually exploring and marking different feasts and festivals in order to promote tourism holistically. The local clubs from

different wards will also promote homestay in their respective areas keeping their unique identity in their food, lifestyle, costumes/attires etc. The formation of cultural committees in their respective areas along with advertisement and promotion of major touristic destinations of this particular Rural Municipality are some of the fundamental activities to be undertaken immediately. Conservation and promotion of temples like Bageswari Temple, Maikha Temple, Jalpokhari, Man Mohan Park, Gol Park (underconstruction) requires proper attention from tourism point of view. The scope of religious and health tourism cannot be ignored in this RM at least in the near future.

3.5 Traffic Volume Study

Generally, traffic volume study is done to establish a relative importance of any road. This will help to decide the priority of improvement and expansion of road and to allocate fund accordingly. This will also guide to make analysis of traffic pattern. Inventory of road traffic physical features was done with the use of GPS. Also, manual vehicle counting method was carried out as a part of traffic volume survey. By this method traffic volume as well as vehicle classification was held properly.

Walking constitutes an important mode of transport in rural areas. Besides walking, most of the people use cycle as another best options mainly due to less availability and costly public vehicle but bicycles have not been taken into consideration for counting.

3.5.1 Traffic Vehicle Count

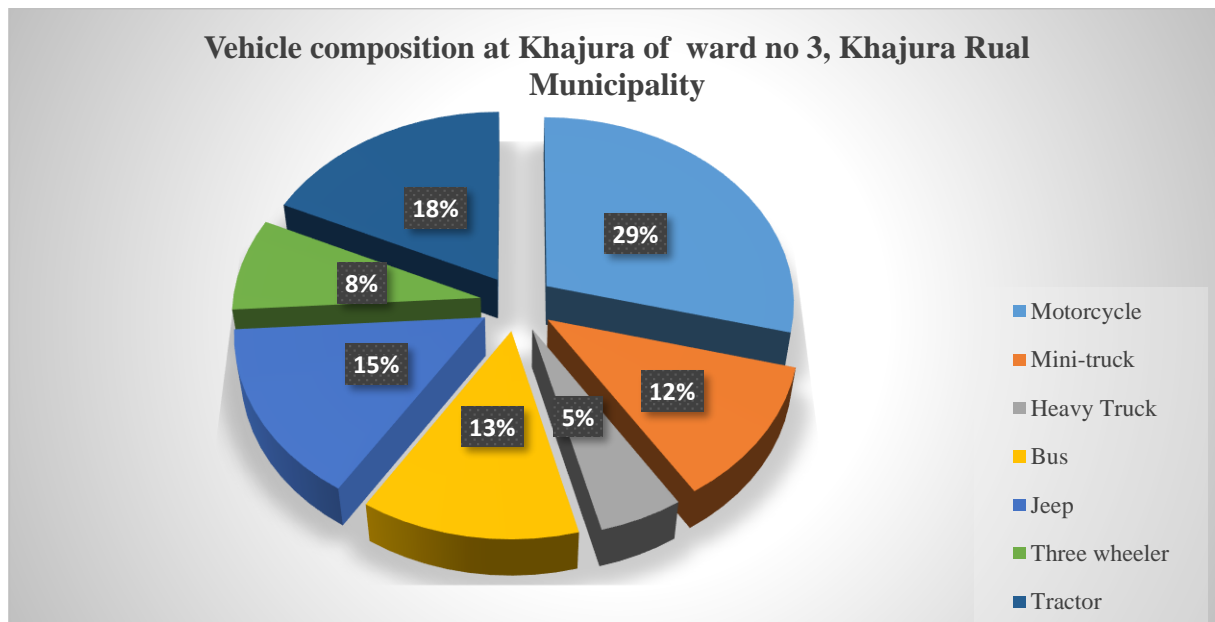
The traffic vehicle count was done at the following stations which are listed in Table below. In all of these three vehicle counting points, motorcycles dominates the other vehicles followed by tractor. The summary of the survey is given through the figures as mentioned below.

Table No. 14 : Table Vehicle Count Stations

SN	Count Station Name	Location	Name of road Linkage
1	Khajura	Ward no. 3 of Khajura RM	Underconstruction park (Gal Park) – Tea Mill- Barha Kothe House
2	Dhanauri Chowk	Ward no 5 of Kajura RM	Dhanauri Chowk-Rajanwa-Sitapur (ward no 2) border
3	Khan Chowk	Ward no 8 of Khajura RM	Khanchowk-Bahauwa-Sonpur 7 (Connection Road to Gulariya Hulaki Road)

The composition of vehicle shows that the major vehicles that ply through Khajura of Ward no. 3 of Khajura Rural Municipality is as following – Motorcycle (29%), Mini-truck (12%) Heavy Truck (5%), Jeep/car (15%), Bus (13%), Three wheeler (8%) and Tractor (18%).

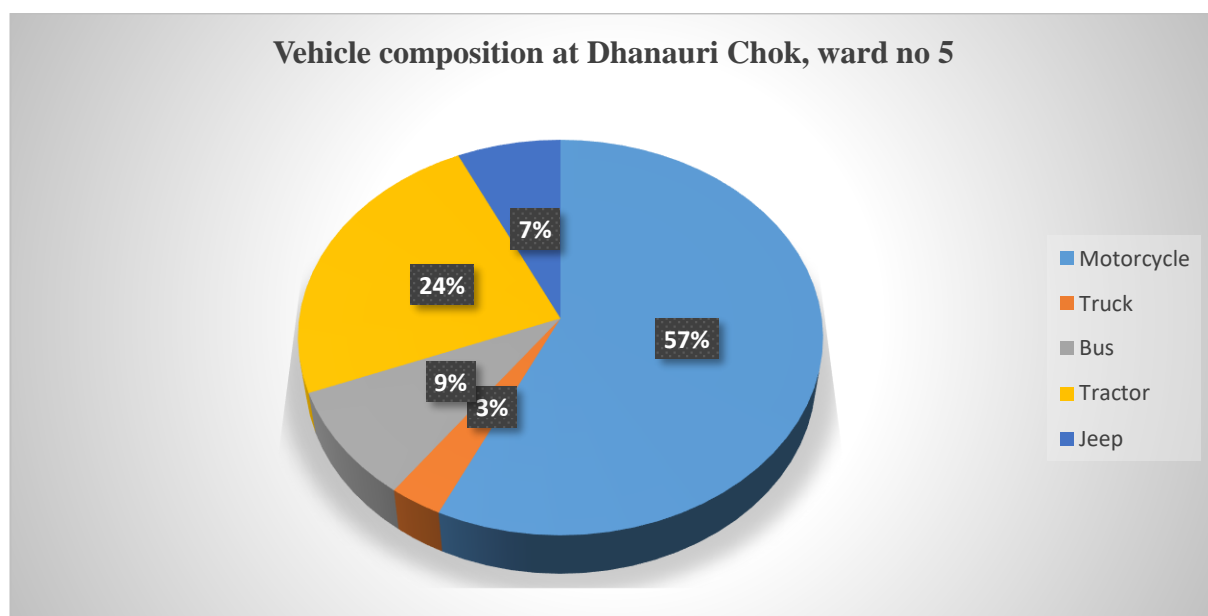
Figure Vehicle composition observed in Khajura of ward no. 3



Source: Field Survey 2018

Similarly, the vehicle count survey held in Dhanauri Chowk of ward no. 5 shows that the major vehicles that ply through this particular point of Khajura Rural Municipality is as following – Motorcycle (57%), Truck (3%), Bus (9%), Tractor (24%), and Jeep/car (7%). Here also motorbikes prove to be dominant and easy mode of vehicle.

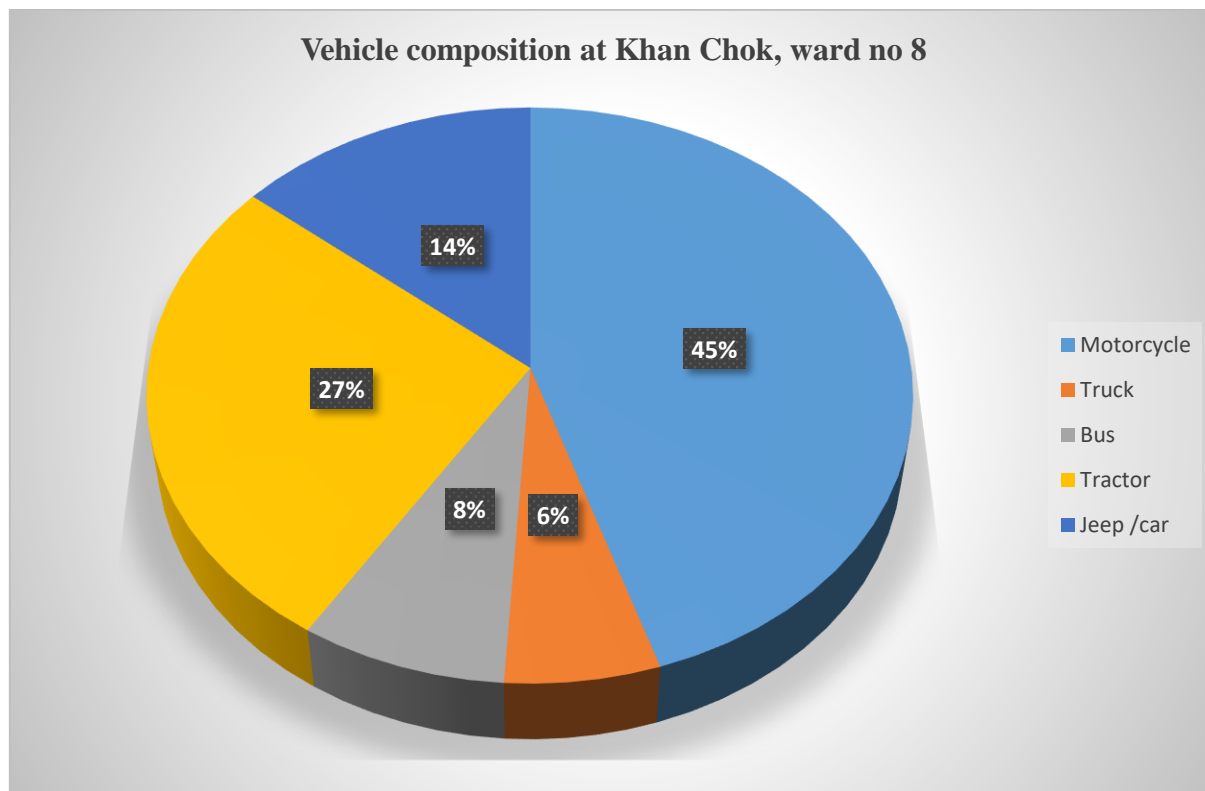
Figure Vehicle composition observed in Dhanauri Chowk of ward no. 5



Source: Field Survey

Similarly, the vehicle count survey held in Khan Chok of ward no. 8 shows that the major vehicles that ply through this particular point of Khajura Rural Municipality is as following – Motorcycle (45%), Tractor (27%), Jeep/car (14%), Bus (8%), and Truck (6%). Here also, motorbikes are the dominant and easy mode of vehicle

Figure Vehicle composition observed in Khan Chok of ward no. 8



Source: Field Survey

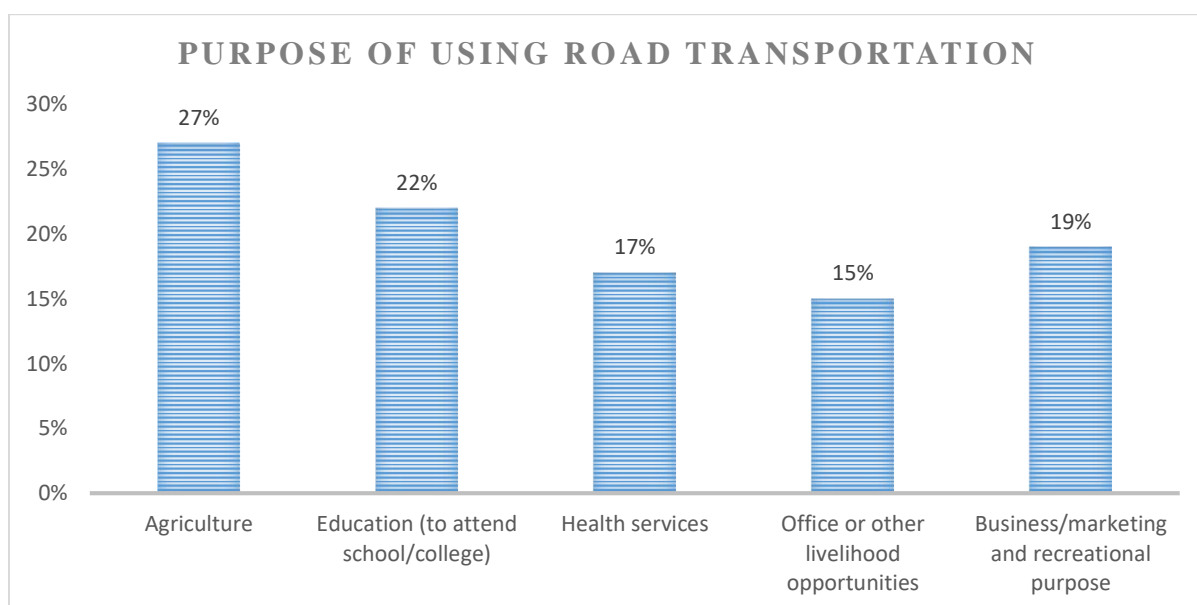
3.5.2 Vehicle Types

The main Vehicle types are motorbikes, bus, jeep (Bolero/TATA), trucks/mini trucks and tractors for passenger and goods transportation. The main transportation routes from the observations are given in Table below.

3.6 Origin and Destination Survey

The main purpose of transportation is to connect farm land, market centers and other service centers. Among the respondents of Origin and Destination Survey, almost 27 % were found to have used road for agricultural purpose followed by the school/college going students (22%). Similarly, 17% reported to have used roads to acquire health related services. Likewise, (15%) reported that they regularly travel to go to office or to seek other livelihood opportunities and remaining 19% happened to use road for marketing, business and other recreational purposes.

Figure Purpose of using road transportations



Source: Field Survey

3.7 Mode choice

People choose the mode of transportation as per their convenience and their requirement. Different factors affect the mode choice. Being one of Rural Municipalities of Terai region, this RM has been somehow affected by rapid urbanization resulting into relatively high number of traffic mostly private vehicles. In most of cases, people preferred walking for reaching market center and within wards. Use of modes of public transport like bus is used for travelling purpose. Motorbikes are the dominant form of transportation. Comparatively maximum number of trucks were found to be used for the purpose of transportation of goods, agricultural products etc. to and from the production area and market center.

People choose the mode of transportation as per their convenience and their requirement. Different factors affect the mode choice. Some of them are:

- ❖ Household characteristics
- ❖ Zone characteristics
- ❖ Residential density, rate of urbanization
- ❖ Accessibility
- ❖ Vehicle ownership
- ❖ Quality of local public transit
- ❖ Purpose of travel, nature of work
- ❖ Travel time, cost and distance

3.8 Active and Passive Transport User

Active transport (also called Non-motorized transport, NMT and human powered transport) refers to walking, cycling, and variants such as wheelchair, scooter and handcart use. It includes both utilitarian and recreational travel activity, plus stationary uses of pedestrian environments such as standing on sidewalks and sitting at bus stops. The sample household survey shows that nearly 90% of the daily trips are done via active mode of transport. Active mode of transport is beneficial in many aspects: this mode can be used by people of any age group irrespective of gender and economic status, it consumes human energy and does not depend on fossil fuel, and it is environment friendly and provides many health benefits to the user. Thus, several bicycle lanes have been proposed in the prospective roads linking the major health and educational facilities so that the youth could have access over it.

Motorcycle is used in nearly 60% of the trips and public vehicles in nearly 8% of the trips. 1 motorcycle is owned by every 75 people. This leaves the remaining 25 people (in every 100 people) remain without any vehicle. Without proper access to public vehicles, they are left out with no option but to walk or opt for public facilities. Thus, nearly 75% of the trips are made either on foot or via public transportation if available within the Rural Municipality.

3.9 Alternative transportation feasibility

There are many ways to measure transportation system feasibility, each reflecting particular perspectives concerning who, what, where, how, when and why. Different methods favor different types of transport users and modes, different land use patterns, and different solutions to transport problems in Rural Municipality. Some transportation system may be economic and some may be non-economic and non-beneficial to the users and authorities. We do not see any transportation system feasible other than roadway transportation for the present situation until next five years. However, the possibility of mono rail and metro rails could not be avoided in the near future as this RM lies along the strategic position i.e. in between two district headquarters.

3.10 Parking Space

Parking space is one of the major components of transport management. Unlike in urban areas human activities and traffic intensity is not that congested in this Rural Municipality. Therefore, parking space has yet not been a serious problem so far. However systematic parking spaces and bus bays will be necessary for future expansion zones mentioned before.

3.11 Bus parks and Bus terminals

As in the case of parking space there are no systematically planned bus terminal as well as bus parks in the Rural Municipality but necessity of both has been felt strongly. Likewise, where there is possibility of road transport services some stop over, rest shed, and public toilets need to be constructed. At least one Helipad in each ward is required for the emergency cases. The main roads should be accompanied by at least a cycle lane and foot path.

Table No. 15 : Proposed area for bus parks and bus terminals are:

Ward No.	Proposed Place
1	Beldanda vaccination centre
2	Babasthan Rimjhim Drinking Water Compound
3	Back side of Nari Utthan Kendra
4	Garihaar
5	BP station, Basanta Chok
6	Bhadri Chok, Simalbari Chok
7	Simalbari
8	Khan Chok, Hadawa Mod

Source: Field Survey

3.12 Bridges and Culverts

Bridges, and culverts are most essential components of road and trail transport. Normally road is not complete without bridges in the country like Nepal where we encounter rivers and brooks in every few kilometers. This RM does not have sufficient number of bridges and cross drainages in terms of access to convenience. The existing bridges and culverts are shown in the table as below: In totality 19 bridges were recorded in this RM and one of them has been recorded as damaged one. Ward No. 8 consists of maximum number of bridges i.e. 8 while lowest number was recorded in Ward No. 1. Similarly there are altogether 220 culverts among which 114 are slab culverts and remaining 106 as pipe culverts. In terms of slab culverts, ward, 2, 3 and 6 together comprise almost two third of the total number of pipe culverts. Likewise, Ward No. 8 retains the largest number of pipe culverts with total of 28 and ward no. 6 and 7 accommodate just 5 pipe culverts in totality. Kiran Nala Bridge, Imli Nala Bridge, Manakamana Bridge, Thara Nala Bridge, Kedari Nala Bridge are some of the major bridges of this Rural Municipality.

Table No. 16 : Table: Number and Type of Cross Drainages

SN	Type of cross drainage	1	2	3	4	5	6	7	8	Grand Total
1	Bridge	2	2	8	3	1	2		1	19
2	Damaged Bridge			1						1
4	Slab Culvert	14	31	21	14	5	21	1	7	114
5	Pipe Culvert	13		20	22	18	2	3	28	106

Source: Field Survey

3.13 Drainage System

Good drainage system is an internal part of road management. Often Terai plain areas of this Rural Municipality lack natural drainage of water. Thus proper drainage needs to be installed according to the standard specifications. Similarly, lack of drainage triggers damages in the roads increasing the cost of maintenance. Such unsustainable development leads to environmental destruction and regular obstacles during vehicular movement. Most of the roads in the RM do not have proper drainage. Therefore, construction and maintenance of drainage is equally important as the construction and maintenance of roads.

3.14 Irrigation Canal

A couple of irrigation canals pass through ward no.1 and ward no. 3. The major Irrigation canals are Kiran Nala Lift Irrigation, Dhaulagiri Lift Kulo are some of the important irrigation canals in this RM.

3.15 Road Furniture

Different sorts of objects which are installed in several places of a road to improve smoothness of travel and ensure safety are collectively called road furniture. They include objects like street light, lane signs, zebra crossing, all kinds of traffic signals, milestones, traffic barriers, bus stands, and passenger's lot etc. These objects enhance the aesthetic dimension of the roads in one hand and improve the safety of travel on the other. They equally provide comfort to pedestrian and control and regulate the traffic. Even very basic road furniture is seem to be missing in most of the roads in this Rural Municipality. Therefore, installing road furniture after the completion of major construction is essential.



Indicative Development Potential Map (IDPM)

Developing IDPM is a process of mapping potential developing zones where future growth of services and human activities are likely to increase. According to the nature of the zones and their growth trends, future forecast of transport mechanism can be judged or estimated. This chapter has provided sufficient clues of the zones which are potential from future development prospect and strategically located. Basically, those zones include market centers, agriculture areas, historical and religious areas and so.

Chapter - 4: Rural Municipality Inventory Map of Road Network

4.1 Existing Road Inventory

Existing road inventory has been prepared on the basis of ward wise road survey for the verification of existing roads on GIS for the preparation of maps. Rural Municipality road inventory forms were used to collect the information. The survey was conducted from one nodal point to another in each road section collecting information on surface condition, cross structures road condition, road type, linkages established by the road. On the basis of these information Rural Municipal Road Inventory Map (RMRIM) has been prepared.

4.2 Municipal Roads

Rural /Urban Road Classification

Roads under jurisdiction of Municipal authority are referred as urban roads while those under Rural Municipal authorities as rural roads. The classification practices of rural/urban roads are basically guided by the functional hierarchy of roads. In the context of Nepal, Department of Roads (DoR) has classified urban roads as Arterial, Sub-arterial, Collector and Local/Residential Street in its Urban Road Standard 2068 (draft). The ToR provided for the preparation of RMTMP has formulated the class of roads into A, B, C and D.

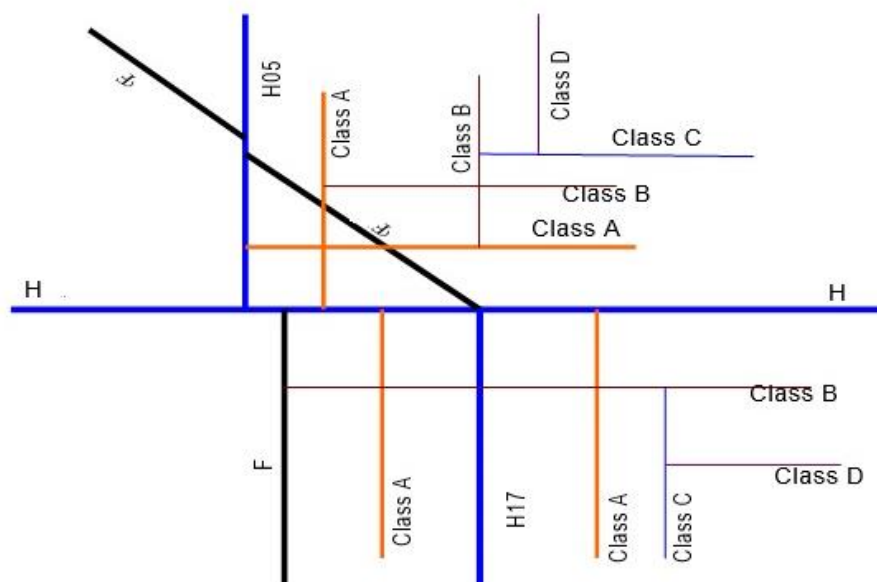


Figure Detail description of Road class

The fundamental parameters of the urban/rural roads are shown in Figure 24. In the figure above, a complete road network hierarchy consisting of National Highways, Feeder Roads, District Roads and Rural/Urban Roads of all four classes are shown for conceptual clarity.

Summary of Class “A” roads

These roads are major transport corridors within the municipal territory. These roads are assumed to have higher traffic and they connect major settlements or market areas within the municipality. Functionally these roads carry the traffic from major settlements, tourist areas to the SRN linkages. It is highly recommended to have separate segment for pedestrian and cycle track. At the same time, these roads need to have adequate median strip to segregate vehicles coming from different directions.

These roads link the Feeder road with the strategic roads of the Rural Municipality with relatively significant traffic flow. The RoW for Class “A” road has been stipulated minimum of 14 m but at least 15m is recommended for plain Terai conditions. A minimum of 2 m set back is required on either side of the road. The typical cross section of such road has been shown in figure 6 mentioned above. These roads have been categorized based on public demand as well as keeping in view the future need of the Rural Municipality. These roads will be served by relatively bigger and medium public transport modes. In this RM, there are 7 Class “A” road which passes through four wards viz. 1, 2, 3 and 5. In class A, the total length of black topped road is calculated as 19.68 km whereas gravel road is calculated as 38.59 km recommended for upgrading. No earthen road and new construction has been recorded in this category.

Table No. 17 : Table Ward wide Road Classification

Ward No.	A	B	C	D	FR	Grand Total
1	5.81	3.68	9.21	4.00		22.70
2	12.07	13.95	13.85	13.72		53.59
3	8.42	11.26	16.00	16.69	2.49	54.87
4	5.48		19.20	8.34		33.03
5	1.84	6.37	8.12	1.21	1.46	19.00
6	7.10	2.74	5.80	7.03	0.58	23.24
7	2.51	9.97	8.28	5.14	4.34	30.25
8	15.07	0.66	15.23	5.73		36.68
Grand Total	58.29	48.63	95.69	61.86	8.88	273.36

Source: Field Survey

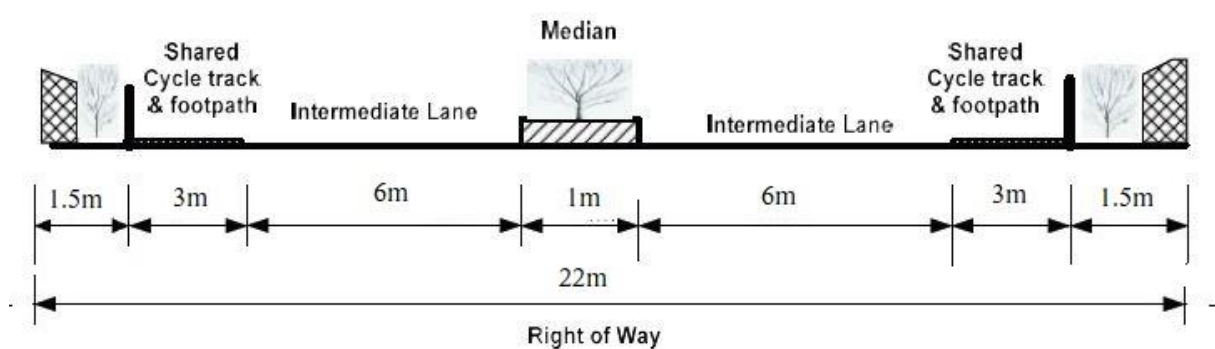


Figure Typical Cross Section of Road class "A"

Table No. 18 : Table List of Road class "A"

Road Code	Road name	Ward pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06A001	A001_Maitahawa Mandir-Chandra Nagar-Chandra Nagar Chow-Bhupu Sainik EM School Chowk-10 No Chowk-Gaunpharke -Gauri Nagar-Bagmati Nagar-Khajura Baja-Highway-Khajura Bajar-Manakamana-Poudel Chowk-Manakamana Chowk-Thakurpur-Budhanipur-Soltipur-Krantipur-Ward Simana	1	9.207963		8.716		8.716	0.000
657RM06A002	A002_Neuledanda Chowk-Chandra Nagar Chowk-Jalpokharigaun	1			3.726		3.726	0.000
657RM06A003	A003_Gaughat Bus Stand-1no Chowk-Baba Chowk-Baise Pa Nala-Nayan Gauri Nagar-Nalla Chowk-Gautam Basti-Ward Simana	3	5.516605		0.929		0.929	0.000
657RM06A004	A004_Guranspur-Basantpur-Mardanpurwa-Highway-	1,2,3	2.915854		9.757		9.757	0.000

Road Code	Road name	Ward pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
	Kalhansgaun-Chamakdarpur-Namdarpur-Ward Simana							
657RM06A005	A005_Udharapur-Mangalpur-Gijara-Highway	2			4.441		4.441	0.000
657RM06A006	A006_Dahawa-Thakur Gaire Pokhari-Chamakdarpur-Mankamana-Manakamana Pul	2	2.049457		4.917		4.917	0.000
657RM06A007	A007_Highway-Digaun-Parvatipur-Igaun-Ward Simana	2,5			6.110		6.110	0.000

Source: Field Survey

Summary of road Class “B”

These roads serve for the purpose of collectors from relatively small settlements with less traffic flow. The RoW for such class of road is minimum of 10m and at least 2m set back is required on either side of the road. The typical cross section of such road is shown in figure 7 below. These roads serve as linkage to Class “A” roads. These roads have been categorized based on public demand as well as keeping in view the future need of the Rural Municipality. These roads will be served by smaller public transport modes. There are in total 10 roads under Class “B”. The total length of earthen road is calculated as 10.87 km and 36.64 km as gravel under Class “B” as shown in the Table below. These roads pass through 7 wards viz. 1, 2, 3, 5, 6, 7 and 8 among which six roads pass through ward no 5, five roads pass through ward no.6 and three roads pass through ward no.7. The total length of the new construction is 1.119 km and upgrade work is 36.94 km.

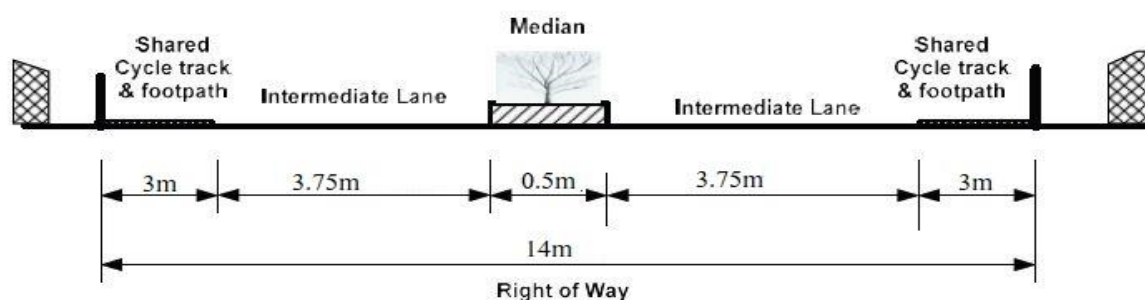


Figure Typical Cross Section of Road class "B"

Table No. 19 : Table List of Road class “B”

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06B001	B001_Nyawuli Danda Chowk-Neuledanda-Birpur-Chandra Nagar 20 No Chowk-Pani Tanki Bageswori Mandir	5,6,7			3.200		3.200	0.000
657RM06B002	B002_Lakhan Thapa Chowk-Samudaaayek Bikas Chowk-Bolaipur Pratikshya Chowk-Rupsing Chowk-Chapain Chowk-Subedi Chowk-1 No Chowk-54 No Chowk-Kurana Chowk-Karwala	3		0.970	10.568		####	0.000
657RM06B003	B003_Basantapur Chowk-Dalaipur-52 No Chowk	8		2.766			2.766	0.000
657RM06B004	B004_Dalaipur-Rajanawa-Highway	1,2,5		4.049			4.049	0.000
657RM06B005	B005_Udharpur-Kalkapur Chowk-Bee Boring Border-Biboring-Dhaulagiri Chowk-Highway	5,6,7			4.731	1.119	4.731	1.119
657RM06B006	B006_Gautam Basti-Dhaulagiri-Bastola Chowk-Dahulagiri Ukalo Chowk-Highway	6			2.305		2.305	0.000
657RM06B007	B007_Nera Adharbhut Bidhyalaya-Highway	5,6			1.376		1.376	0.000
657RM06B008	B008_Mangalpur Chowk-Godahana-Highway-Sabina Rice Mill-Ramjanaki Mandir-Ward Simana	5		2.122	3.704		5.825	0.000
657RM06B009	B009_Ward 7 Simana-Jml Itta Bhatta-Janata Ma Vi-Poultry Farm	6,7		0.966	4.940		5.906	0.000

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06B010	B010_Shree Shukra Mavi Chok-Gaun-Shree Amar Ma.Bi-84 No Chowk-Bageswori-6 No Chowk-Bastola Chowk	5			5.819		5.819	0.000

Source: Field Survey

Summary of road class “C”

These types of roads are for the purpose of residential access. Residential streets are designed for lower traffic volumes for especially private transport. Therefore, RoW for this class is designed for single lane pavement. Minimum RoW for such class of roads is allocated as 6m.as per the MTMP guideline but 8m is recommended for roads with future prospects. Another 2 m setback is recommended after the right of way for the construction of permanent structures along the road of this category. These roads pass through 7wards viz.1,2,3,5,6,7 and 8 among which 19 roads pass through ward no. 2, 18 roads pass through ward no. 6, 12 roads pass through ward no.3, 6 roads pass through ward no.5, 5 roads pass through ward no.7 and so. Altogether 50 number of Class “C” road pass through all of the wards of this Rural Municipality. Altogether 21.89 km of earthen road, 73.801 km of gravel road falls under the category where 80.982 km is recommended for upgrade in total. No new construction has been recommended under this road class. Typical cross section of such road is shown below. Only earthen roads and new trails fall under Class “C” type.

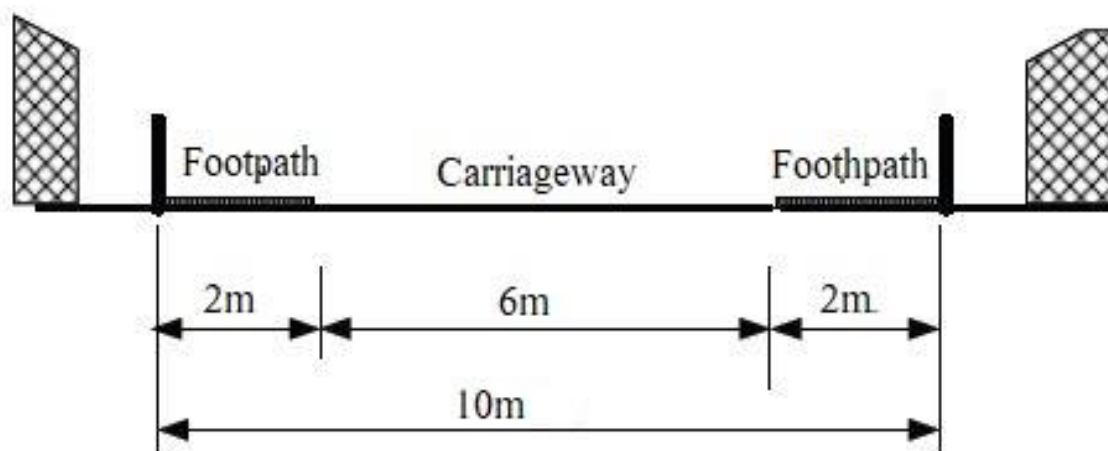


Figure Typical Cross Section of Road class "C"

Table No. 20 : Table List of Road Class "C"

Road Code	Road name	Ward pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06C001	C001_Tin Kune Chowk-Bar Peepal Chowk-Maitahawa Mandir	1			2.471		2.471	0.000
657RM06C002	C002_Chooti Line Chowk-Bhupu Sainik School	1			1.678		1.678	0.000
657RM06C003	C003_Shamsar Chowk-Birpur Border Chock	2			0.814		0.814	0.000
657RM06C004	C004_Sarswoti Mandir-Bipur Chowk-Ncell Tower-Rupsing Chowk-Ward Karyalaya	2			2.175		2.175	0.000
657RM06C005	C005_Lakhan Thapa Chowck-Khelmaidan	2			1.992		1.992	0.000
657RM06C006	C006_2 No Woda Karyalaya-82 No Chock-N Cell Tower Chock	2			1.499		1.499	0.000
657RM06C007	C007_Ward Karyalaya-Subedi Chowk-Simle Chowk-Guranspur	1,2			3.319		3.319	0.000
657RM06C008	C008_Bolaipur Chowk-Pratikxyalaya Chowk-K- Gaun-Ward Simana	2			1.315		1.315	0.000
657RM06C009	C009_Pulchowck Road-Nepal Red Cross Society Road	2		1.206			1.206	0.000
657RM06C010	C010_Dalaipu Chowk-Gaurinagar Chowk-Covered Hall - Gaurinagar Road	2			2.263		2.263	0.000
657RM06C011	C011_10 No Chowk L Gaun-Babas Than Chowk-Valsi Faman Chowk-Mank Khola	2		1.535	1.205		2.739	0.000
657RM06C012	C012_Gauri Nagar-Buddha Bihar-Bi Boring	2			2.419		2.419	0.000
657RM06C013	C013_Boudha Bihar-6 No Chowk-Bastola Chowk	2		1.691			1.691	0.000
657RM06C014	C014_28no Chowk-Rai Tole Chowk	2			1.368		1.368	0.000
657RM06C015	C015_Udharapur-	6		1.021	3.553		4.574	0.000

Road Code	Road name	Ward pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
	Puraina-Purina Chautara-Khanipani Tank-Oli Chowk-Janakalyan Chowk Samma							
657RM06C016	C016_Oli Chowk-Salyan Tole - Highway	6			1.222		1.222	0.000
657RM06C017	C017_Madarsha Islamiya Chowk-Tsano Janta Nagar	6		1.707			1.707	0.000
657RM06C018	C018_Highway - Devi Mandir	6		1.582			1.582	0.000
657RM06C019	C019_Mardanpurwa-Shiva Mandir-Rajanawa-Bellapur Chowk	6		1.259	1.303		2.562	0.000
657RM06C020	C020_Biboring-Kagaun-Highway	7,6			2.645		2.645	0.000
657RM06C021	C021_Ka Gaun 31 No Chowk-Bella Pur Chowk-Dhanauli Chowk	2,5			1.910		1.910	0.000
657RM06C022	C022_2 No Ka Gaun-Khajura Bazar Chowk	2,3,5,7			1.026		1.026	0.000
657RM06C023	C023_Kapas Bikas Jodne Chowk-Bagmati Nagar Chowk	5,6		0.467	1.236		1.703	0.000
657RM06C024	C024_97 Chowk-20 No Chowk-Dhaulagiri Ukallo Chowk	6		0.722	0.976		1.698	0.000
657RM06C025	C025_Dhanauli Chowk-Gyan Uddaye Ma Vi-Sirjana Tole	2,3,5		0.252	0.562		0.814	0.000
657RM06C026	C026_Dhanauli Chowk-Gyan Uddaye Ma Vi-Sirjana Tole	2,3			0.812		0.812	0.000
657RM06C027	C027_Jenith School Chowk-Highway	2,3			0.383		0.383	0.000
657RM06C028	C028_B Gaun - Adhikari Gaun-Highway	3			0.864		0.864	0.000
657RM06C029	C029_Adharsha Ma Vi-Green Cottage - Highway	3			0.851		0.851	0.000
657RM06C030	C030_Dhaulagiri Ukalo Chowck-Green Cottage	3		0.398			0.398	0.000
657RM06C031	C031_Reggmi	3			0.641		0.641	0.000

Road Code	Road name	Ward pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
	Chowk-Manmohan Park							
657RM06C032	C032_Highway-Sumitra Khatriko - Samgaun-Rice Mill	3			3.527		3.527	0.000
657RM06C033	C033_Highway-Sirjana Tole-Belaniypur	5			1.912		1.912	0.000
657RM06C034	C034_Tirtha Raj Chowk-Durga Mandir-Shree Krishna Tole	5,3			2.779		2.779	0.000
657RM06C035	C035_Bhairab Chowck-Nala Najik	6		1.235	0.302		1.537	0.000
657RM06C036	C036_Manakamana Chowk-Rahamanul Uloom Madarsha Masjid-Highway	6		0.382	2.160		2.542	0.000
657RM06C037	C037_Tallo Manakama Chowk-Nera Pra Vi	2,6		2.556			2.556	0.000
657RM06C038	C038_Udharapur Pratikxyalaya-Fatima Rice Mill	6			2.620		2.620	0.000
657RM06C039	C039_Shai Fulbari-Ward Simana-Dahawa Gaun	6			1.849		1.849	0.000
657RM06C040	C040_Dahawa Chowk-Ward Simana Samma	6		3.215			3.215	0.000
657RM06C041	C041_Ward Simana - Chhagaurepur Gaun Samma	6		2.666			2.666	0.000
657RM06C042	C042_Kathahawa Chowk-Solti Pur	6			2.090		2.090	0.000
657RM06C043	C043_Khan Petrol Pump-Chalani Taal-Kalikakhane Pani	2,6			2.530		2.530	0.000
657RM06C044	C044_Padam Chowk Pachim-Kalikakhane Pani	6			1.479		1.479	0.000
657RM06C045	C045_Sher Bahadur BC Chowk-Ward Simana Samma-Palautipur-Sher Bahadur BC Chowk	1			1.958		1.958	0.000
657RM06C047	C047_Palautipur-Himal Remit-Madarasha-Kadariyan Faizal Kurum-Prem	8,3			2.738		2.738	0.000

Road Code	Road name	Ward pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
	Chowk							
657RM06C048	C048_Igaun-Bhandariya-Badripur-Ward Simana	7,3			4.933		4.933	0.000
657RM06C049	C049_Highway-Pedari Nala-Highway	7,8			0.889		0.889	0.000
657RM06C050	C050_Hulaki Sadak-Gaghawa Khola	7,8			1.533		1.533	0.000

Source: Field Survey

Summary of road Class “D”

These types of roads are for the purpose of residential access. Residential streets are designed for lower traffic volumes for especially private transport. Therefore, RoW for this class is designed for single lane pavement. Minimum RoW for such class of road as per MTMP guideline is 4m but 6m recommended considering the case of plain area of Terai. At least another 2 m setback is recommended after the right of way for the construction of permanent structures along the road of this category. Altogether 102 number of Class “D” road pass through all of the wards of this Khajura Rural Municipality. Most of the Class “D” roads are earthen ones followed by trails and nominal gravel road. The total length of the earthen road under this class of road has been calculated as 23.515 km, gravel road as 37.317 km and black topped road as 1.02 km. Similarly a total of 60.833 km is recommended for upgrade under Class “D” road whereas new construction under this category remains nil.

Table No. 21 : Table List of Road Class "D"

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06D001	D001_Khel Maidan-Rampur Dada Kiran Nala	8		1.165			1.165	0.000
657RM06D002	D002_Chowki Jodne Chowck-Radhapur Prahari Chowki	7			0.839		0.839	0.000
657RM06D003	D003_Nyawuli Dada Chowck-16 No Chowck	7,6		0.741			0.741	0.000
657RM06D004	D004_Lagan Thapa Chowck-K Gaun Bich	7		1.126			1.126	0.000
657RM06D005	D005_Bahunni Chock- Simana	8		0.382			0.382	0.000
657RM06D006	D006_School Chock-Simana	8			0.363		0.363	0.000

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06D007	D007_Pratikshyalaya Chowk-K Gaun-84 No Chowk	8			0.496		0.496	0.000
657RM06D008	D008_62 No Chowk-Sukra Madhyamik Bidyalaya Chowk	8			0.279		0.279	0.000
657RM06D009	D009_10 No Chowk-Shree Sukra Mavi Chowk	8			0.802		0.802	0.000
657RM06D010	D010_Gaunparkha Road	8		0.371			0.371	0.000
657RM06D011	D011_10 NO Chowk-Gaunparkha	8		0.386			0.386	0.000
657RM06D012	D012_48 No Chock-Shree Amar Ma.Bi	8			0.388		0.388	0.000
657RM06D013	D013_84 No Chowck-Gauhgat Nepaljung Road	4,3,8			0.751		0.751	0.000
657RM06D014	D014_Ghimire Chowk - Subedi Chowk	3			1.096		1.096	0.000
657RM06D015	D015_Rimjim Chowk-Gaurinagar Chowk	4	1.027573				0.000	0.000
657RM06D016	D016_Rimjhim Road 2	3,4		0.478			0.478	0.000
657RM06D017	D017_Rimjhim Road 1	3,4		0.325			0.325	0.000
657RM06D018	D018_Orali Chowk-Boudha Bihar	3,4		1.240			1.240	0.000
657RM06D019	D019_15 No Chowk-Malla Chowk	4			0.530		0.530	0.000
657RM06D020	D020_52-92 Chowk	4			0.852		0.852	0.000
657RM06D021	D021_Neera Pasupati Vidyalaya-Junction Of 92&52 Chock No.	4		0.242			0.242	0.000
657RM06D022	D022_10 No Chowk L Gaun-Babas Than Chowk	4			0.375		0.375	0.000
657RM06D023	D023_Kopila Baal Bikas Kendra-Neera Pravi	4			1.030		1.030	0.000
657RM06D024	D024_1 No Chowk-Rai Tole Chowk	4			0.272		0.272	0.000
657RM06D025	D025_Bageshwori Mandir-2,3 Ward Simana	7			1.036		1.036	0.000
657RM06D026	D026_10 No Chock-Bee Boring	4			0.864		0.864	0.000

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06D027	D027_B Gau-Jana Madyamik Vidyalaya	2,5		0.728			0.728	0.000
657RM06D028	D028_Janata Madyamik Namuna Vidyalaya Forest Road	8,3		0.400			0.400	0.000
657RM06D029	D029_B Gaun Road	3			0.516		0.516	0.000
657RM06D030	D030_54 No Chowk-Gaughat	2		1.299			1.299	0.000
657RM06D031	D031_31no Chowk-Purna Parsad Chowk	5			0.426		0.426	0.000
657RM06D032	D032_Ka Gau Pokhari-Kapas Bikas Jodne Chock	6			0.443		0.443	0.000
657RM06D033	D033_31no Chowk-Purna Parsad Chowk	3,4			1.006		1.006	0.000
657RM06D034	D034_School Chock-Sri Shanti Niketan	3			0.275		0.275	0.000
657RM06D035	D035_20 No Chowck-5,12 No Chock Junction	1			0.710		0.710	0.000
657RM06D036	D036_12 No Chowck-5 No Chock	1			0.474		0.474	0.000
657RM06D037	D037_2 No Chowk-Bellapur Chowck	1			0.217		0.217	0.000
657RM06D038	D038_Ek No Bazar-1 Road	1			0.304		0.304	0.000
657RM06D039	D039_Ek No Bazar-2 Road	1			0.301		0.301	0.000
657RM06D040	D040_Ek No Bazar-3 Road	2,1			0.300		0.300	0.000
657RM06D041	D041_Ek No Bazar-4 Road	1			0.298		0.298	0.000
657RM06D042	D042_Ek No Bazar-5 Road	1			0.298		0.298	0.000
657RM06D043	D043_Ek No Bazar-6 Road	2			0.298		0.298	0.000
657RM06D044	D044_Sarbajanik Chowk - Green House Cottage	2,1			0.236		0.236	0.000
657RM06D045	D045_Ek No Bazar-7 Road	2,1			0.295		0.295	0.000
657RM06D046	D046_Ek No Bazzar-8 Road	2			0.297		0.297	0.000
657RM06D047	D047_Srijana Tole 1 Road	3			0.236		0.236	0.000
657RM06D048	D048_Sirjana Tole-20 No Chowk Road	2			0.146		0.146	0.000

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06D049	D049_Srijana Tole 2	2			0.430		0.430	0.000
657RM06D050	D050_Srijana Tole-Jenith School	2			0.468		0.468	0.000
657RM06D051	D051_Club House-NTC Office-Highway	2		0.116	0.203		0.319	0.000
657RM06D052	D052_Khajura Bazaar-8	2			0.368		0.368	0.000
657RM06D053	D053_Jenith School-1	2			0.248		0.248	0.000
657RM06D054	D054_Khajura Bazar-6	2			0.173		0.173	0.000
657RM06D055	D055_Khajura Bazar-4	2			0.150		0.150	0.000
657RM06D056	D056_Khajura Bazar-3	2			0.151		0.151	0.000
657RM06D057	D057_Adhikari Chowk Sadak	2			0.125		0.125	0.000
657RM06D058	D058_Khajura Bazar-1	3			0.152		0.152	0.000
657RM06D059	D059_Khajura Planning Bich-Highway_3 Road	3		0.218			0.218	0.000
657RM06D060	D060_Khajura Planning Bich-Highway_2 Road	3		0.205			0.205	0.000
657RM06D061	D061_ODA No 4 Simana-Bhatti Chowk	5,3			0.898		0.898	0.000
657RM06D062	D062_Ram Janaki-Madanpurwa Gaun-Bhatti Chowk	3			0.696		0.696	0.000
657RM06D063	D063_Mahendrapurwa Chowk-Nuri Masjid	5,3		0.341			0.341	0.000
657RM06D064	D064_Purana Chautara-Mank Khola	3			1.204		1.204	0.000
657RM06D065	D065_Janasewa-Olichowk	5,3			1.012		1.012	0.000
657RM06D066	D066_Janewa School-Aath Bigha Chock	5			0.528		0.528	0.000
657RM06D067	D067_Gijara-Saano Janata Nagar	5		0.614			0.614	0.000
657RM06D068	D068_Gijara-Janasewa	6		0.442			0.442	0.000
657RM06D069	D069_Oli Gau-Mank Khola	6			0.277		0.277	0.000
657RM06D070	D070_Gyan Bahadur Ko Ghar-River	6		0.342			0.342	0.000
657RM06D071	D071_Nayabasti-Mank Khola	7,6			0.272		0.272	0.000

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
657RM06D072	D072_Janakalyan Chowk-Hariyali Chowk	7,6			0.277		0.277	0.000
657RM06D073	D073_Rakesh Tamang origin-Simalko Rukh Bato	6			0.301		0.301	0.000
657RM06D074	D074_Madarsha Islamiya Chowk-Twostar Itta Udyog	7		0.400			0.400	0.000
657RM06D075	D075_Mahna Church Road	7			0.584		0.584	0.000
657RM06D076	D076_Mank Khola-Hunumannagar	7		0.550			0.550	0.000
657RM06D077	D077_Hanuman Mandir -Mank Khola	7,6		0.287			0.287	0.000
657RM06D078	D078_NTC Tower-Sinduri Mai Mandir Road	3			0.699		0.699	0.000
657RM06D079	D079_Gaghawa Khola-Mank Khola	7		0.764			0.764	0.000
657RM06D080	D080_Uttar Gaun Pokhari Chowk-Sinduri Mai Mandir	7		0.628			0.628	0.000
657RM06D081	D081_Malik Itta Udyog-Ram Janaki Mandir	7,6			1.231		1.231	0.000
657RM06D082	D082_Mohammadi Madarsha-Chalani Taal	7			1.414		1.414	0.000
657RM06D083	D083_Beldamara-Ghiya Chowk	3		1.418			1.418	0.000
657RM06D084	D084_Dahawa Chowk-Chalani Jagga	3		0.987			0.987	0.000
657RM06D085	D085_Manakamana Gaun-Brick Factory Jane Bato Jodne	3		1.233			1.233	0.000
657RM06D086	D086_Manakamana Gau-Manakamana Chowk Agadi	3			0.674		0.674	0.000
657RM06D087	D087_Ne Ra Ma Bi-Manakamana Gau Jane Bato	3		0.184	0.206		0.390	0.000
657RM06D088	D088_Manakamana Ma Vi-Ward Simana Samma	5,3			0.395		0.395	0.000
657RM06D089	D089_Milan Chowk-Baijanath Simana	5,3			0.775		0.775	0.000
657RM06D090	D090_Badripur-Janakalyan Madyamik	5,3			0.821		0.821	0.000

Road Code	Road Name	Ward Pass	Surface type				Intervention	
			Blacktop	Earth	Gravel	New Construct	Upgrade	New Construct
	Vidyalaya							
657RM06D091	D091_Saja Fulbari-Ward Simana	4			1.159		1.159	0.000
657RM06D092	D092_Kiran Bhawani Madir-Ward Simana	4			1.706		1.706	0.000
657RM06D093	D093_Milijuli Sahakari Sanstha Limited Ward Simana	4		0.990			0.990	0.000
657RM06D094	D094_Desi Bhandari Chowk-Parwatipur Chowk	4			0.382		0.382	0.000
657RM06D095	D095_SHREE Krishna Tole-Himal Remit-Shree Krishna Mandir	4		1.134	0.104		1.238	0.000
657RM06D096	D096_Beldadi Bato	3,4			0.648		0.648	0.000
657RM06D097	D097_Bhairab Chowk-Nala Najik	3,4		0.954	0.410		1.364	0.000
657RM06D098	D098_Chyama Sadak-Sushil Koirala Cancer Hospital Jane Bato	3,4		0.332			0.332	0.000
657RM06D099	D099_Damodar Chowk-Khajura Mini Park Resort-Sushil Cancer Hospital Chowk	8		0.737	0.911		1.648	0.000
657RM06D100	D100_Karnali Feed Industries-Samjana Tole	7,3		0.502			0.502	0.000
657RM06D101	D101_Durga Mandir-Janaki Gaupalikako Simana	8		1.254	0.042		1.296	0.000
657RM06D102	D102_Khajura Bazar - 7	8			0.174		0.174	0.000

Source: Field Survey

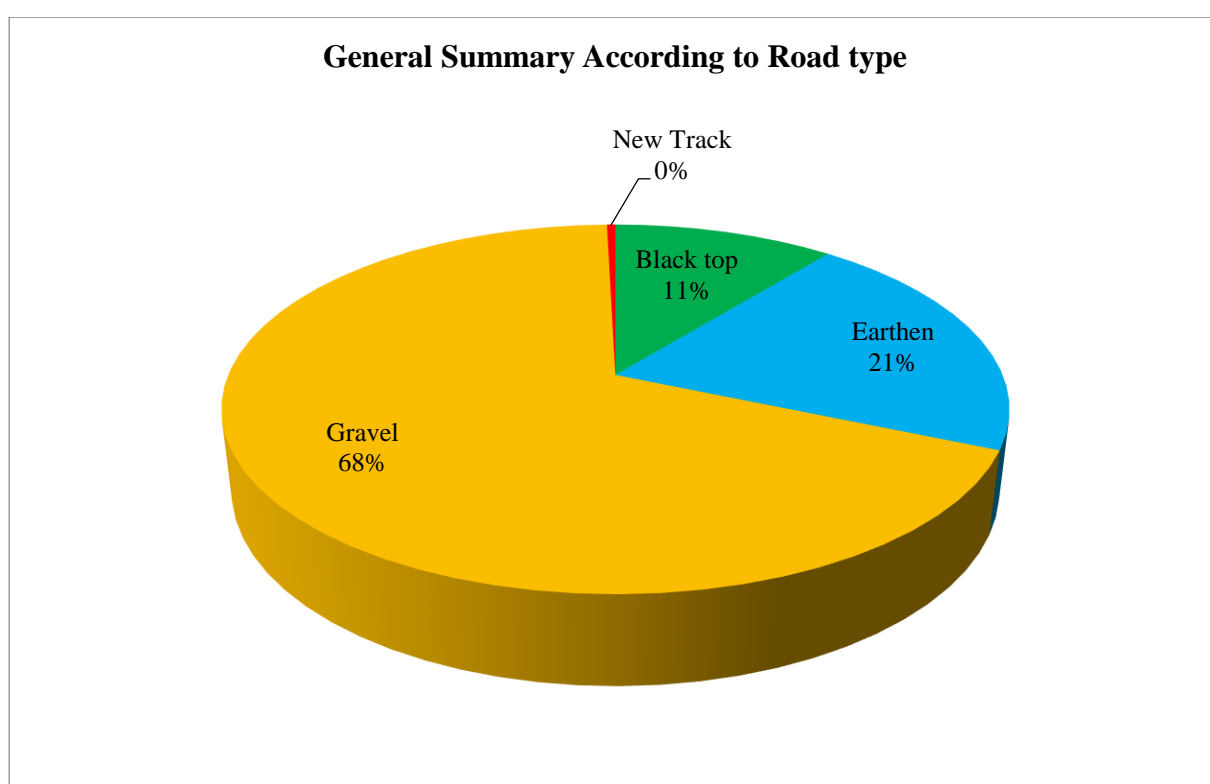
RMTMP survey reveals that RM has altogether 273.358 KM roads including new track opening of 1.118 km. Out of the total road length, 29.6 km -blacktopped, 186.35 km - gravel where rest of the road comes under earthen category and accounts for 56.28 km. Except the nominal level of the gravel part of the roads other roads are only fair weather roads. The major challenge in transportation sector seems to be the upgradation of fair weather roads and budgetary management. Other relevant figures on road class and ward wide distribution have been shown in the table.

Table No. 22 : Table General Road Types and their respective length (in km).

Road Types	Km.
Bituminous	29.6
Earthen	56.28
New Track	1.118
Gravel	186.35
Grand Total	273.358

Source: Field Survey

Figure Division of road according to road type in Khajura Rural Municipality



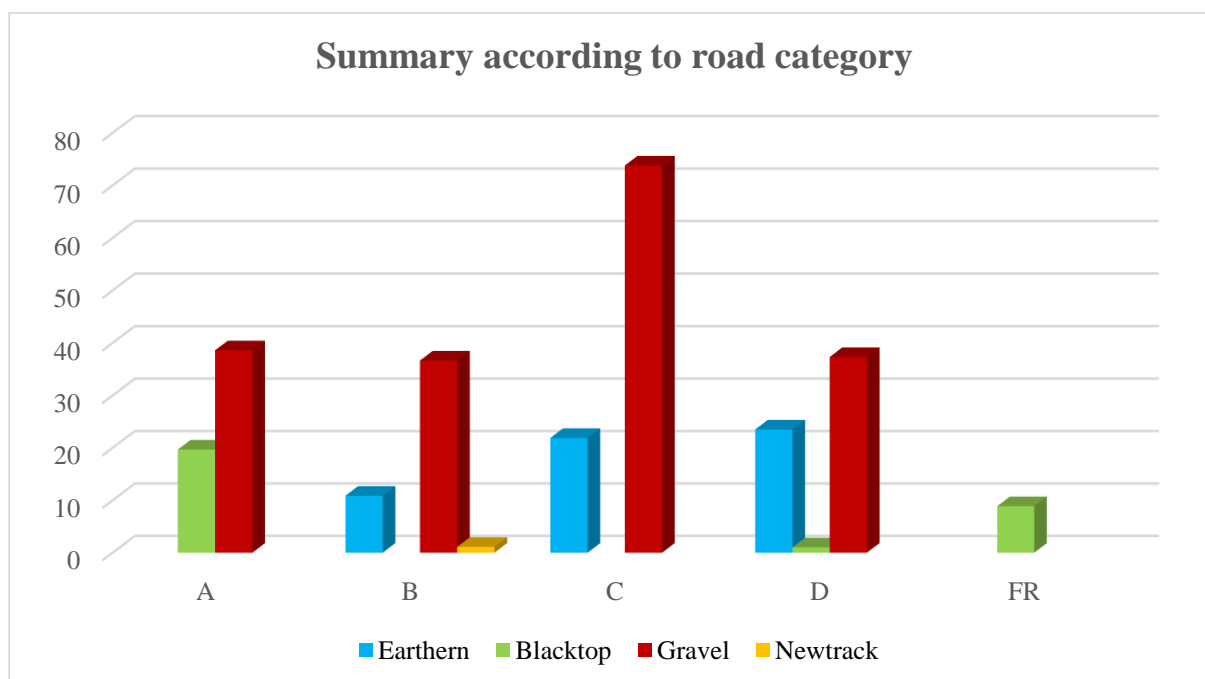
Source: Field Study Survey

In Road Class “A” type, the total length of the road has been recorded as 58.28 km out of which 19.68 km falls under earthen road category whereas 38.59 km under gravel category. Similarly, out of total of 48.63km of Class “B” category 10.87km falls under blacktop, 36.64km under gravel and 1.11 km as new track construction. Likewise, in total of 95.69 km stretch under Class “C” type 21.89 km falls under blacktop and 73.79 km falls under gravel one. Finally under the Class “D” type out of 61.86 km of the total stretch, 23.51km has been calculated as blacktop road, 1.02km earthen road and 37.31km as gravel category. The total length of Feeder Road passing through this RM is recorded as 8.88 km.

Table No. 23 : Summary according to road category (in km)

Road Category	Blacktop	Earthen	Gravel	New Track	Grand Total
A		19.68	38.59		58.28
B	10.87		36.64	1.11	48.63
C	21.89		73.79		95.69
D	23.51	1.02	37.31		61.86
FR		8.88			8.88
Grand Total	56.28	29.60	186.35	1.11	273.35

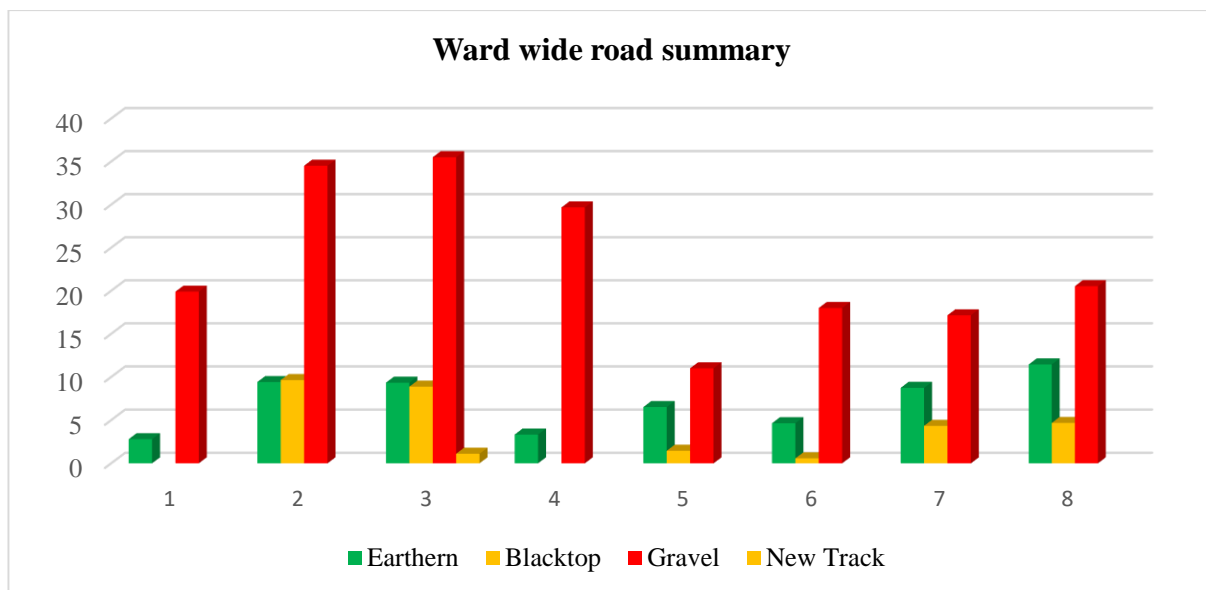
Source: Field Survey



Source: Field Survey

Table No. 24 : Table Ward wide road summary (in km)

Ward No.	Black top	Earthen	Gravel	New Track	Grand Total
1		2.80	19.90		22.70
2	9.64	9.42	34.53		53.59
3	8.89	9.35	35.52	1.12	54.87
4		3.34	29.69		33.03
5	1.46	6.53	11.01		19.00
6	0.58	4.65	18.01		23.24
7	4.34	8.74	17.16		30.25
8	4.68	11.46	20.54		36.68
Grand Total	29.60	56.28	186.36	1.12	273.36



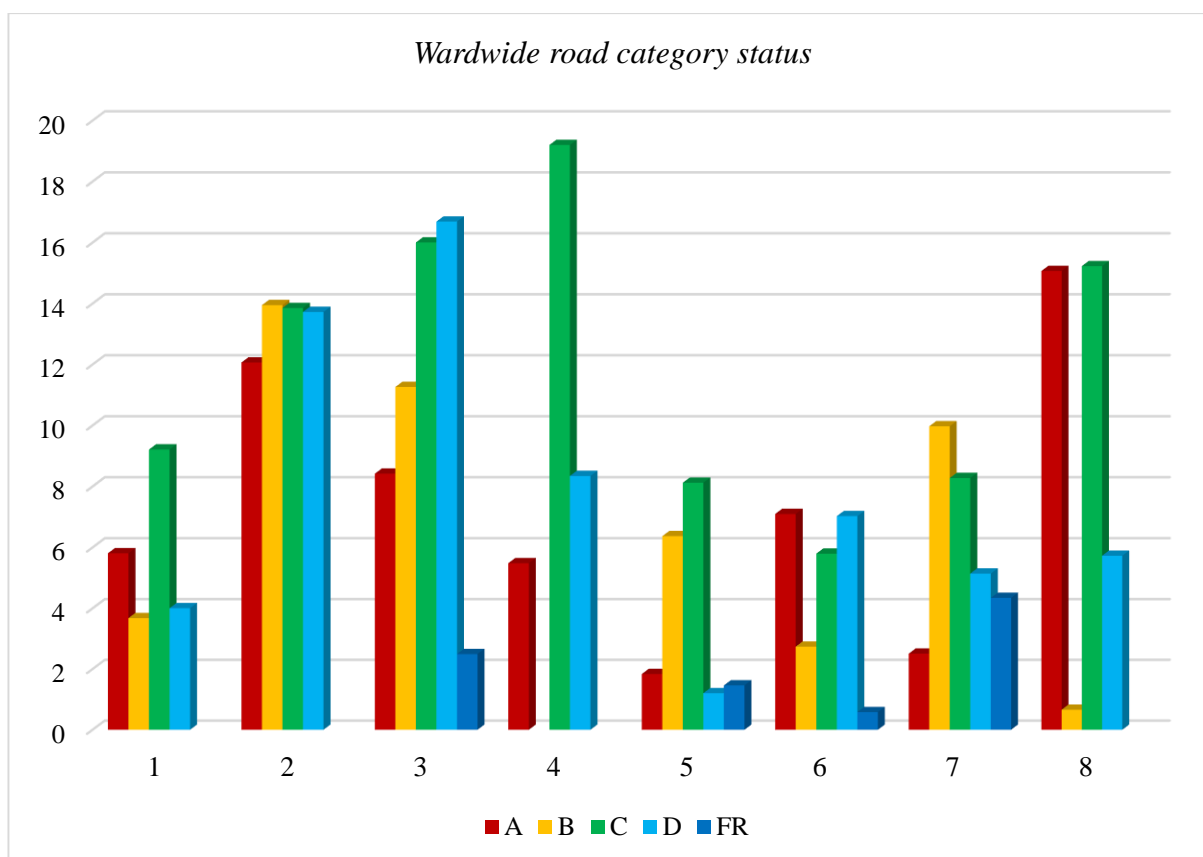
Source: Field Survey

After segregating the ward wide length of the road in terms of Class A, B, C, D and the Feeder Road, it was found that in totality of 273.36 km of the road, the maximum stretch of the road i.e. 54.87 pass through ward no.3 in which the share of roads under different class are as follows: Class A- 8.42 km, Class B-11.26 km, Class C-16.00 km, Class D-16.69 km. Similarly, the shortest span of the road passes through ward no. 5 which is calculated as 19 km in total. The share of different classes of Road within ward no.5 is as follows: Class A- 1.84 km, Class B-6.37km, Class C-8.12 km, Class D-1.21 km and Feeder Road -1.46 km. Likewise, the total length of roads in the respective wards and their respective shares under different classes have been mentioned in the table below:

Table No. 25 : Table Ward wide road category status

Ward No.	A	B	C	D	FR	Grand Total
1	5.81	3.68	9.21	4.00		22.70
2	12.07	13.95	13.85	13.72		53.59
3	8.42	11.26	16.00	16.69	2.49	54.87
4	5.48		19.20	8.34		33.03
5	1.84	6.37	8.12	1.21	1.46	19.00
6	7.10	2.74	5.80	7.03	0.58	23.24
7	2.51	9.97	8.28	5.14	4.34	30.25
8	15.07	0.66	15.23	5.73		36.68
Grand Total	58.29	48.63	95.69	61.86	8.88	273.36

Source: Field Study Survey



Source: Field Study Survey

4.3 Digital Naming or coding (Road Nomenclature)

Once the roads are finalized, each municipal roads are assigned a road code. Coding of road is done based on the guidelines of DTMP and MTMP. Few provisions of those guidelines have been slightly modified so as to fit with the new federal set up of the country retaining the essence the guideline to the fullest. The sample code may be as following:

- First digit 1 to 7 represents the Province Number. For example, code No. 1 represents Province Number 1 and code No. 5 represents Province Number 5.
- Second and third digits represent particular district for example, 56 represents Dang district
- Fourth letters codes 'RM' represent Rural Municipality and coding of the same RM to be entered for e.g. Khajura Rural Municipality of Banke has been coded as 06.
- Seventh code letter from A to D represent road class
- Next three digits from 000 to 999 represent the particular road or linkage.

5	56	RM	06	A	001
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4.4 Methods of road classifications

Table No. 26 : Table Various methods of road classification are as follows:

Criteria	Class A	Class B	Class C	Class D
Purpose	Mobility	Mobility and control access	Access and mobility	Access
Function	Through and long distance movement	Connection between Class A and C roads; and also provide alternative connection routes between Class A and Class C	Connects higher order mobility to local trips	Connect local trips higher level roads
	High network coverage	Support through traffic movement of	Access to property	Direct access to property
	Segregated NMT facilities and Bus lay bys	Segregated NMT facilities and Bus lay bys	Segregated NMT facilities	Local NMT movement
	Complete access to public transport	High access public transport	Access limited to public transport	
Maintenance Responsibility	Municipality	Municipality	Municipality and local people	Local people
Speed (kmph)	80-100	60-80	50-60	40-50
Capacity(PCU/hr)	4000-4800	2400-3600	1500-2400	Less than 1500
Access Control	Full control	Partial control	No	No
Public transport services	Mass transit facilities	Mass transit, Local public transport	Access to public transport	No public transportation
Right of way	Minimum 14 m	Minimum 10m	Minimum 6m	Minimum 4m

4.5 Right of Way for Roads of different Classes

The MTMP guideline has expected roads under category of National Highway (NH), Feeder Roads (FR) and District Roads (DRCN) within the municipality area to comply with their respective guidelines. The RoW of these roads are considered as per respective Guidelines. i.e. the RoW of National Highways, Feeder Roads and District Roads are 50.0 m, 30.0 m and 20.0 m. The guideline has clearly stated about the setback distance for these roads (having RoW ≥ 20.0) as 6.0 m on either side. All of these standards shall be applied to the Municipality accordingly.

Table No. 27 : Table Urban Road Class and Features

Road Class	Descriptions	Minimum RoW (m)	Minimum Set-back Distance (m)
NH	National Highways	As prescribed	As Prescribed
FR	Feeder Roads		
DRCN	District Roads		
A	Main Collector	14	2.0
B	Other Collector	10	2.0 & 1.5
C	Main Tole Road	6	2.0 & 1.5
D	Other Tole Road	4	2.0 & 1.5

Source: MTMP Guideline

Based on MTMP guideline, the building line or setback shall be maintained 6.0 m for roads having RoW equal to or more than 20.0 m and 2.0 m for other roads. However, Nepal Road Standards-2070 has considered the setback distance at curved section only and that should be sufficient to provide the adequate sight distance. It is silent about the building line.

१४.३१ अब निर्माण हुने सडकको कुनै पनि बाटोको न्यूनतम चौडाई ६ मी. हुनु पर्नेछ र नापी तथा मालपोत कार्यालयहरूलाई सोही बमिजिमले सेस्ता, नक्सा तथा अभिलेखहरूमा बाटो कायम गरी यस व्यवस्थाको कार्यन्वयन गर्न लेखि पठाउनु पर्नेछ। । यस्ता बाटोमा भवन निर्माण स्वीकृत दिँदा केन्द्रबाट कम्तिमा ३ मीटर सडकको क्षेत्राधिकार (RoW) र सडक क्षेत्राधिकार सिमाबाट १.५ मीटर सेट ब्याक छाडेर मात्र निर्माण स्वीकृति दिनु पर्नेछ। तर हिमाली/पहाडी जिल्लाका उपत्यका (valley) एवं समथल भू-भाग देखि बाहेकका भिरालो क्षेत्रमा प्राविधिकरूपमा उक्त ६ मिटर चौडाई कायम गर्न सम्भव नभएमा प्राविधिकको प्रतिवेदनको आधारमा सम्बन्धित स्थानीय निकायको परिषद्को निर्णयबाट ४ मिटरमा नघट्ने गरी निर्धारण गर्न सक्नेछ।

१४.३६ नगरपालिका क्षेत्रमा सडक सम्बन्धी ऐन लगायत प्रचलित कानूनले तोकेमा सोही अनुसार र सो नभएमा नगर यातायात गुरुयोजनाले निर्धारण गरे अनुरूप सेटब्याक कायम हुनेछ। तर नगरपालिकाले यस्तो सेटब्याक सडक किनारबाट १.५ मिटर भन्दा कम हुने गरी निर्धारण गर्ने छैन।

१४.३८ नयाँ बाटोको घुम्ति वा मोडको न्यूनतम अर्धव्यास बाटोको चौडाई भन्दा २०% ले बढी चौडा भएको हुनु पर्नेछ।

(Source: - Fundamental Guidelines for Settlement Development, Urban Planning and Building Construction - 2072 (2015 AD))

However, according to Fundamental Guidelines for Settlement Development, Urban Planning and Building Construction-2072 (2015 AD), the minimum setback distance for urban roads as 1.5 m on either side. Again, the minimum of Row of roads has set as 6.0 m. i.e. 3.0 m on either side from the centreline. A portion of this guideline has presented herewith.

□ **National Highways**

Arterial roads in Municipality are taken as the links of National Highways. The technical standards of these roads are taken from the DoR directives for Right of Way (RoW) and other features.

□ **Feeder Roads**

Feeder roads are taken as the sub-arterial road in Municipality. The technical standards for this category are taken as mentioned by the DoR road Standard. These roads have relatively higher traffic with through movement of local vehicles.

□ **Class “A” Roads**

Class A roads serve as the major collector roads. These roads start either from the Arterial or Sub-Arterial road. These roads are of relatively long distance which connect big market or settlement areas or two or more wards centres within the Municipality.

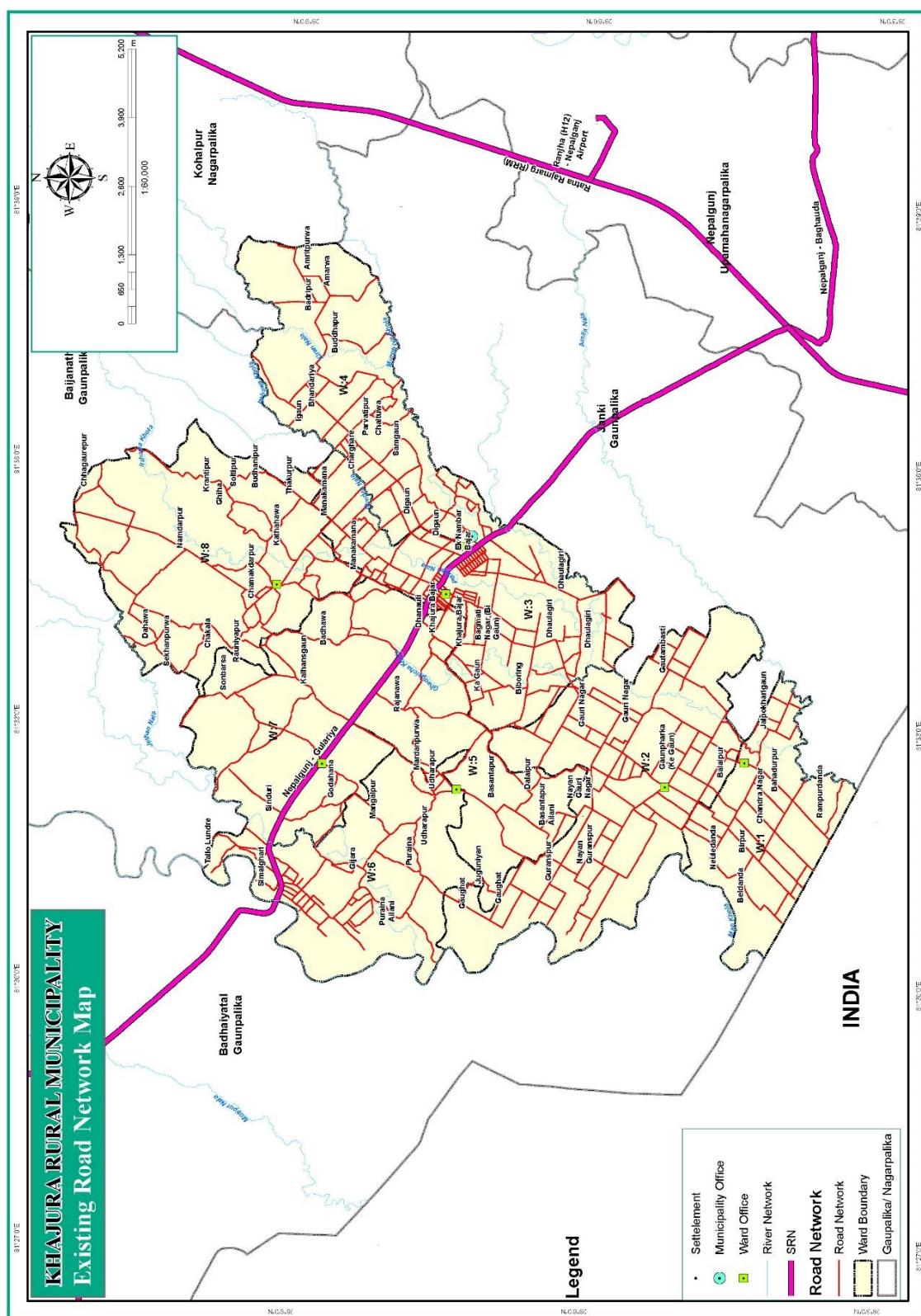
□ **Class B Roads**

Class B roads are of secondary type of collector roads. These may serve as the collector to the Class A roads with the relatively lower geometric standard. Intersection and other parameters may be taken as similar as Class A roads.

□ **Class C and Class D Roads**

Class C roads are residential street and they provide access to the private property and small industrial or public place. These roads serve mainly for small/light vehicular movement for

low volume intensity. If these roads connect one or more residential blocks then they are taken as Class C. If they collect from or end to the single residential block then they are referred as Class D roads. These serve for internal traffic movement without thorough traffic movement.



Chapter - 5: Perspective Plan of Municipality Transport Network

Rural Municipality Transport Perspective Plan is a visionary plan which aims to improve transport linkages and accessibility to goods and services via different types of trip patterns. Feasibility of air service is almost no except emergency services through helicopters. If we could find the insurance of fruitful investment return ropeways are viable in the RM since hills and hillocks are favorable for ropeways in the future. Water-transportation or navigations are impossible since there are no navigable rivers or waterways. Feasibility of railways cannot be denied.

This means, road transportation is the most primary medium of travel in the RM. Therefore, RM does not have any alternative beyond the improvement of road network in a sustainable way. This chapter deals with the prioritization of RM roads for the necessary interventions to be made in the succeeding years to improve the road network and enhance the accessibility condition of people's mobility. According to Litman Todd 2003 the following factors determine the patterns of mobility of people from one place to other.

1. *Density* (number of people or jobs per unit of land area) increases the proximity of common destinations, and the number of people who use each mode, increasing demand for walking, cycling and transit.
2. *Land use mix* (locating different types of activities close together, such as shops and schools within or adjacent to residential neighborhoods) reduces the amount of travel required to reach common activities.
3. *Non-motorized conditions*. The existence and quality of walking and cycling facilities can have a major effect on accessibility, particularly for non-drivers.
4. *Network connectivity* (more roads or paths that connect one geographic area with another) allows more direct travel.

There are many ways to measure transportation system performance, each reflecting particular perspectives concerning who, what, where, how, when and why. Different methods favor different types of transport users and modes, different land use patterns, and different solutions to transport problems. Vehicle traffic is easiest to measure, but this approach only considers a narrow range of transportation problems and solutions. Mobility is more difficult to measure, since it requires tracking people's travel behavior. It still considers physical movement an end in itself, rather than a means to an end, but expands the range of problems and solutions considered to include alternative modes such as transit, ridesharing, cycling and

walking. Accessibility is most difficult to measure, because it requires much effort for taking into account of land use, mobility and mobility substitutes, but most accurately reflects the ultimate goal of transportation, and allows widest range of transport problems and solutions to be considered. For example, an accessibility perspective may identify low-cost solutions to transportation problems, such as improving local walkability; encouraging land use mix so common destinations such as stores, schools and parks are located near residential areas; and improving communications services for isolated people and communities (Litman Todd, 2003).

5.1 Procedure for collecting demands from wards

Ward level meeting in every ward or ward cluster were done where information on RMTMP were collected. Demand form for each ward had been provided which were later on collected after the form were duly filled in given time. After collecting road demand from the respective settlements, bottom up approach of planning was applied.

5.1.1 Data Analysis and Field Verification of the Roads from Demand Form

Analysis of data regarding the accessibility situation in each settlement, population forecasting for each sector, major road linkages were all completed. Similarly, all the roads demanded in demand form were verified in field by the survey team.

5.2 Scoring System for Screening

Development of the scoring criteria and prioritization criteria based on the provided guidelines were prepared and its approval from the municipality and RMRCC was done.

Transport linkage in an urban area has greater importance for its overall development. The development of road transport linkages to each plot of land or each residential unit is ideal approach for transport planner. Various types of land use pattern require different category of road transport linkage. The development of road linkage requires tremendous amount of public fund. However, the public authorities doesn't have adequate amount of funding. Therefore, a prioritization approach should be adopted for the rational allocation of limited funds for the construction, maintenance and rehabilitation of various categories of road linkage. Conventionally, each construction or maintenance projects are justified on the basis of cost-benefit ratio. This conventional approach disregards the benefit due to non-monetary aspects of the transport projects. Therefore, a multi-criteria approach for the selection of transport linkage is adopted as justified approach for the project selection.

Transportation services are highly demanded infrastructure for urban as well as rural areas. The objective of the transport linkage is to provide accessibility for the given degree of mobility. Accessibility and mobility requirements are guided by the people's demand for better living standard and economic opportunities. The objectives and importance of individual roads should guide the development of scoring criteria for the project selection for implementation. A Term of Reference (ToR) for the preparation of RMTMP has formulated the criteria along with their respective weights for the evaluation. The consultant has worked out the following weights for the criteria for the prioritization of road links. These scores for the particular criteria were discussed and approved by MRCC.

Table No. 28 : Table Criteria for Prioritization

S. No.	Criteria	Scoring Unit	Method of Measurement	Score (ToR)	Score
1.	Link providing service to large settlement areas/ population.	Population served/km (continuously Scored)	Measurement of served HH from map and multiplying with HH occupancy of respective wards	15-20	15
2.	Link providing service to areas with high potential for agriculture, horticulture, livestock production.	Annual production equivalent to NRs...../km (continuously Scored)	Measurement of Agriculture land area from map, livestock from inventory and multiplying with unit rate of production	5 -10	10
3.	Link providing service to existing market centers: commerce and business centers or market sites (local haat) tourism attraction centers Areas having agro-based and cottage industries Other obligatory centers as decided by the municipality.	Estimated annual transaction in these centres equivalent to NRs...../km (continuously Scored)	Inventory survey along with consultation with people (MRCC) and land cover map are used to identify their location and transactions.	20 - 25	20
4.	Link Providing Service To The Existing Service Centres: Health Centres, Education Centres (School/Campus, Office (Municipality/ Government) Communication Centre (Post Office, Communication)	Population served by these service centres expressed as persons per km per year. (continuously Scored)	Inventory survey, Map along with consultation with people (MRCC) identifies their location and served population.	15-20	15

S. No.	Criteria	Scoring Unit	Method of Measurement	Score (ToR)	Score
5.	Link providing service to the potential growth or service centres identified by municipality (IDPM) such as Waste management site.	Anticipated number of people to be directly benefited expressed as persons per km per. (scored continuously)	Consultation with MRCC and IDPM shall also be used	5-15	5
6.	Link providing service to the potential future development sites such as: Potential town growth Land pooling Potential industrial area Forming ring road to municipality	It is technically sound to score these service discretely based on existence. For each service centres, a score of 2.5 is allocated.	Consultation with MRCC and IDPM shall also be used	10-20	10
7.	Link providing service to the areas recognized by the municipality as areas for special consideration, such as areas inhabited by backward and poor ethnic groups/ communities, isolated remote areas, historic sites, religious sites etc.	Very important =5 Important =2.5 less important =0 (Scored discretely)	Inventory survey along with consultation with local people identifies their location and Importance.	10 -15	15
8.	Direct link with another linkage	National Highway=10 Feeder Roads=8 District Roads=6 Neighbouring Municipality/ district= 4 Otherwise= 0	Road Network Map and attribute table.	5 - 10	10

These basic criteria are described in brief as below:

1. Population Served

Population served by the road link is one of the important indicators of prioritization. Higher the population served by the road, higher will be its necessity or importance. Thus, such road needs to be upgraded/maintained/constructed first. Scoring is done relatively. Highest score is assigned for the road link serving highest population and vice versa. Thus, the score for road based on population served lies within zero to full score.

2. Access to services and facilities

It is one of the major governing indicators as it outlines the specific services provided to the locals. The road link may provide access to Recreation (picnic spot, historical place, park, cinema hall, and playground), Agricultural land, Market center and Service center (School, Health Centers, government offices etc.). A single road link can serve just a single function or more function. The proposed road interventions which serves all four facilities has higher importance and given the highest score. Each facility is given 25% weightage. Thus, a road link serving all four facilities will get full score and the road link serving three facilities will get 75 % and so on.

3. Demand Priority of wards

It is one of the important criteria of prioritization. Demand with priority order was collected from each ward during field survey. These priorities are based on present need as perceived by the locals. Higher the priority of intervention, higher is the score share. Thus, if a road intervention received first priority in any ward, then it will get full marks. Road with corresponding priority are scored accordingly, score is reduced by 20% for each lower level priority, i.e. second priority will receive 80% score and so on. In the same way 5th prioritized road will receive 20% score. Other remaining roads will receive score equivalent to 10% of total.

3. Linkages with other transport linkages

It is also one of the criteria for prioritization. Road linkages reflect the importance of the road in the RM. Road linking with higher class road will be more important requiring immediate intervention. Road linking with National highways will receive full score. Road linking with feeder road will receive 80% score and road linking with district road will receive 60% score. Similarly, road linking with neighboring district or municipal will receive 40% score and remaining others road will be score zero.

5.3 Perspective Plan Framework for the RM roads

Perspective plan of the Municipality is the development plan that includes the plan of development of all roads' hierarchy within the Rural Municipality. RMTMP is short term for Rural Municipality Transportation Master Plan generally of 5 years which includes the prioritized road demands whereas perspective plan is a long-term plan which includes the overall road demand of the Rural Municipality.

Perspective plan identifies the infrastructure demands of the Municipality. The proposed road networks and road infrastructure will help to enhance the overall transportation network of the

RM which will eventually result in increased accessibility and mobility. The visionary development plan i.e. the municipal development plan will help to develop other sectors of the RM along with the development of transportation sector. The well facilitated and well-connected road will facilitate safe, comfortable and efficient trips to the road user. Moreover, increase in transportation facility will help to boost the economic development of that particular RM which will eventually contribute to overall economic development of the nation.

The first five-year financial plan has been prepared on the basis of the assumption that each year budget will increase by 10% from previous year budget. All the roads included in perspective plan along with their score, rank and class are given below:

Table No. 29 : Table List of road for rural municipality Perspective Plan

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
	Score			100.00	
A	657RM06A001	A001_Maitahawa Mandir-Chandra Nagar-Chandra Nagar Chow-Bhupu Sainik EM School Chowk-10 No Chowk- Gaunpharke -Gauri Nagar-Bagmati Nagar-Khajura Baja-Highway-Khajura Bajar-Manakamana-Poudel Chowk-Manakamana Chowk-Thakurpur-Budhanipur-Soltipur-Krantipur-Ward Simana	1.00	44.04	9
A	657RM06A002	A002_Neuledanda Chowk-Chandra Nagar Chowk-Jalpokharigaun	1.00	9.44	75
A	657RM06A003	A003_Gaughat Bus Stand-1no Chowk-Baba Chowk-Baise Pa Nala-Nayan Gauri Nagar-Nalla Chowk-Gautam Basti-Ward Simana	3.00	48.54	5
A	657RM06A004	A004_Guranspur-Basantpur-Mardanpurwa-Highway-Kalhansgaun-Chamakdarpur-Namdarpur-Ward Simana	1,2,3	57.06	1
A	657RM06A005	A005_Udharapur-Mangalpur-Gijara-Highway	2.00	53.95	2
A	657RM06A006	A006_Dahawa-Thakur Gaire Pokhari-Chamakdarpur-Mankamana-Manakamana Pul	2.00	48.61	4
A	657RM06A007	A007_Highway-Digaun-Parvatipur-Igaun-Ward Simana	2,5	45.54	7

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
B	657RM06B001	B001_Nyawuli Danda Chowk-Neuledanda-Birpur-Chandra Nagar 20 No Chowk-Pani Tanki Bageswori Mandir	5,6,7	16.23694	50
B	657RM06B002	B002_Lakhan Thapa Chowk-Samudaaayek Bikas Chowk-Bolaipur Pratikshya Chowk-Rupsing Chowk-Chapain Chowk-Subedi Chowk-1 No Chowk-54 No Chowk-Kurana Chowk-Karwala	3.00	18.71075	34
B	657RM06B003	B003_Basantapur Chowk-Dalaipur-52 No Chowk	8.00	10.86845	69
B	657RM06B004	B004_Dalaipur-Rajanawa-Highway	1,2,5	48.72756	3
B	657RM06B005	B005_Udharpur-Kalkapur Chowk-Bee Boring Border-Biboring-Dhaulagiri Chowk-Highway	5,6,7	36.79882	12
B	657RM06B006	B006_Gautam Basti-Dhaulagiri-Bastola Chowk-Dahulagiri Ukalo Chowk-Highway	6.00	44.67264	8
B	657RM06B007	B007_Nera Adharbhut Bidhyalaya-Highway	5,6	40.92244	10
B	657RM06B008	B008_Mangalpur Chowk-Godahana-Highway-Sabina Rice Mill-Ramjanaki Mandir-Ward Simana	5.00	46.23632	6
B	657RM06B009	B009_Ward 7 Simana-Jml Itta Bhatta-Janata Ma Vi-Poultry Farm	6,7	17.04069	48
B	657RM06B010	B010_Shree Shukra Mavi Chokw-K Gaun-Shree Amar Ma.Bi-84 No Chowk-Bageswori-6 No Chowk-Bastola Chowk	5.00	27.83319	14
C	657RM06C001	C001_Tin Kune Chowk-Bar Peepal Chowk-Maitahawa Mandir	1.00	7.433978	84
C	657RM06C002	C002_Chooti Line Chowk-Bhupu Sainik School	1.00	38.98388	11
C	657RM06C003	C003_Shamsar Chowk-Birpur Border Chowk	2.00	10.1154	72
C	657RM06C004	C004_Sarswoti Mandir-Bipur Chowk-Ncell Tower-Rupsing Chowk-Ward Karyalaya	2.00	5.256857	97
C	657RM06C005	C005_Lakhan Thapa Chowk-Khelmaidan	2.00	21.61143	22
C	657RM06C006	C006_2 No Woda Karyalaya-82 No Chowk-N Cell Tower Chowk	2.00	1.101338	135

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
C	657RM06C007	C007_Ward Karyalaya-Subedi Chowk-Simle Chowk-Guranspur	1,2	20.56193	25
C	657RM06C008	C008_Bolaipur Chowk-Pratikxyalaya Chowk-K- Gaun-Ward Simana	2.00	2.227131	118
C	657RM06C009	C009_Pulchowck Road-Nepal Red Cross Society Road	2.00	0.706632	149
C	657RM06C010	C010_Dalaipu Chowck-Gaurinagar Chowck-Covered Hall - Gaurinagar Road	2.00	5.796342	92
C	657RM06C011	C011_10 No Chowk L Gaun-Babas Than Chowk-Valsi Faman Chowck-Mank Khola	2.00	19.84244	28
C	657RM06C012	C012_Gauri Nagar-Boudha Bihar-Bi Boring	2.00	1.482628	128
C	657RM06C013	C013_Boudha Bihar-6 No Chowk-Bastola Chowk	2.00	0.840021	143
C	657RM06C014	C014_28no Chowk-Rai Tole Chowk	2.00	17.69866	42
C	657RM06C015	C015_Udharapur-Puraina-Purina Chautara-Khanipani Tank-Oli Chowk-Janakalyan Chowk Samma	6.00	35.09963	13
C	657RM06C016	C016_Oli Chowk-Salyan Tole - Highway	6.00	11.71655	67
C	657RM06C017	C017_Madarsha Islamiya Chowck-Tsano Janta Nagar	6.00	6.402665	86
C	657RM06C018	C018_Highway - Devi Mandir	6.00	15.00195	58
C	657RM06C019	C019_Mardanpurwa-Shiva Mandir-Rajanawa-Bellapur Chowk	6.00	15.33327	54
C	657RM06C020	C020_Biboring-Kagaun-Highway	7,6	11.36206	68
C	657RM06C021	C021_Ka Gaun 31 No Chowk-Bella Pur Chowk-Dhanauli Chowk	2,5	4.576102	100
C	657RM06C022	C022_2 No Ka Gaun-Khajura Bazar Chowk	2,3,5,7	3.26906	108
C	657RM06C023	C023_Kapas Bikas Jodne Chowk-Bagmati Nagar Chowk	5,6	2.168009	119
C	657RM06C024	C024_97 Chowk-20 No Chowk-Dhaulagiri Ukallo Chowk	6.00	6.258768	88
C	657RM06C025	C025_Dhanauli Chowk-Gyan Uddaye Ma Vi-Sirjana Tole	2,3,5	5.889479	90
C	657RM06C026	C026_Dhanauli Chowk-Gyan Uddaye Ma Vi-Sirjana Tole	2,3	4.56797	101
C	657RM06C027	C027_Jenith School Chowk-Highway	2,3	17.7613	40

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
C	657RM06C028	C028_B Gaun -Adhaikari Gaun-Highway	3.00	17.62928	43
C	657RM06C029	C029_Adharsha Ma Vi-Green Cottage - Highway	3.00	17.587	44
C	657RM06C030	C030_Dhaulagiri Ukalo Chowck-Green Cottage	3.00	8.791469	79
C	657RM06C031	C031_Reggmi Chowk-Manmohan Park	3.00	13.00382	63
C	657RM06C032	C032_Highway-Sumitra Khatriko - Samgaun-Rice Mill	3.00	10.16259	71
C	657RM06C033	C033_Highway-Sirjana Tole-Belaniypur	5.00	10.09541	74
C	657RM06C034	C034_Tirtha Raj Chowk-Durga Mandir-Shree Krishna Tole	5,3	14.48209	60
C	657RM06C035	C035_Bhairab Chowck-Nala Najik	6.00	0.912548	142
C	657RM06C036	C036_Manakamana Chowk-Rahamanul Uloom Madarsha Masjid-Highway	6.00	10.09654	73
C	657RM06C037	C037_Tallo Manakama Chowk-Nera Pra Vi	2,6	0.680672	150
C	657RM06C038	C038_Udharapur Pratikxyalaya-Fatima Rice Mill	6.00	8.238886	81
C	657RM06C039	C039_Shahi Fulbari-Ward Simana-Dahawa Gaun	6.00	8.200837	82
C	657RM06C040	C040_Dahawa Chowk-Ward Simana Samma	6.00	0.259486	162
C	657RM06C041	C041_Ward Simana -Chhagaurepur Gaun Samma	6.00	0.399437	158
C	657RM06C042	C042_Kathahawa Chowk-Solti Pur	6.00	25.20786	18
C	657RM06C043	C043_Khan Petrol Pump-Chalani Taal-Kalikakhane Pani	2,6	11.88596	66
C	657RM06C044	C044_Padam Chowk Pachim-Kalikakhane Pani	6.00	0.480026	156
C	657RM06C045	C045_Sher Bahadur Bc Chowk-Ward Simana Samma-Palautipur-Sher Bahadur Bc Chowk	1.00	12.14381	65
C	657RM06C047	C047_Palautipur-Himal Remit-Madarasha-Kadariyan Faizal Kurum-Prem Chowk	8,3	27.73833	15
C	657RM06C048	C048_Igaun-Bhandariya-Badripur-Ward Simana	7,3	19.72685	30
C	657RM06C049	C049_Highway-Pedari Nala-Highway	7,8	15.1483	57

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
C	657RM06C050	C050_Hulaki Sadak-Gaghawa Khola	7,8	22.16762	21
D	657RM06D001	D001_Khel Maidan-Rampur Dada Kiran Nala	8.00	0.807413	144
D	657RM06D002	D002_Chowki Jodne Chowck-Radhapur Prahari Chowki	7.00	0.402146	157
D	657RM06D003	D003_Nyawuli Dada Chowck-16 No Chowck	7,6	1.053759	138
D	657RM06D004	D004_Lagan Thapa Chowck-K Gaun Bich	7.00	0	167
D	657RM06D005	D005_Bahunni Chowck- Simana	8.00	0.97518	141
D	657RM06D006	D006_School Chowck- Simana	8.00	6.494944	85
D	657RM06D007	D007_Pratikshyalaya Chowk-K Gaun-84 No Chowk	8.00	1.253734	130
D	657RM06D008	D008_62 No Chowck-Sukra Madhamik Bidyalaya Chowck	8.00	2.672333	114
D	657RM06D009	D009_10 No Chowck-Shree Sukra Mavi Chowk	8.00	1.836022	121
D	657RM06D010	D010_Gaunparkha Road	8.00	0.717019	147
D	657RM06D011	D011_10 N0 Chowk-Gaunparkha	8.00	1.057238	137
D	657RM06D012	D012_48 No Chowck-Shree Amar Ma.Bi	8.00	2.70059	113
D	657RM06D013	D013_84 No Chowck-Gauhgat Nepaljung Road	4,3,8	1.181441	134
D	657RM06D014	D014_Ghimire Chowk - Subedi Chowk	3.00	18.94084	33
D	657RM06D015	D015_Rimjim Chowk-Gaurinagar Chowk	4.00	2.608548	115
D	657RM06D016	D016_Rimjhim Road 2	3,4	1.635297	124
D	657RM06D017	D017_Rimjhim Road 1	3,4	1.094079	136
D	657RM06D018	D018_Orali Chowck-Boudha Bihar	3,4	0.71551	148
D	657RM06D019	D019_15 No Chowck-Malla Chowck	4.00	1.641401	123
D	657RM06D020	D020_52-92 Chowck	4.00	2.436456	116
D	657RM06D021	D021_Neera Pasupati Vidyalaya-Junction Of 92&52 Chowck No.	4.00	3.233675	109
D	657RM06D022	D022_10 No Chowk L Gaun-Babas Than Chowk	4.00	3.689238	105
D	657RM06D023	D023_Kopila Baal Bikas Kendra-Neera Pravi	4.00	4.792989	99
D	657RM06D024	D024_1 No Chowk-Rai Tole Chowk	4.00	6.260188	87

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
D	657RM06D025	D025_Bageshwori Mandir-2,3 Ward Simana	7.00	0.102782	164
D	657RM06D026	D026_10 No Chowck-Bee Boring	4.00	0.390285	159
D	657RM06D027	D027_B Gau-Jana Madyamik Vidyalaya	2,5	1.487158	127
D	657RM06D028	D028_Janata Madyamik Namuna Vidyalaya Forest Road	8,3	1.86343	120
D	657RM06D029	D029_B Gaun Road	3.00	3.737873	104
D	657RM06D030	D030_54 No Chowck-Gaughat	2.00	1.776413	122
D	657RM06D031	D031_31no Chowk-Purna Parsad Chowk	5.00	5.708548	93
D	657RM06D032	D032_Ka Gau Pokhari-Kapas Bikas Jodne Chowck	6.00	1.443917	129
D	657RM06D033	D033_31no Chowk-Purna Parsad Chowk	3,4	5.588599	94
D	657RM06D034	D034_School Chowck-Sri Shanti Niketan	3.00	3.028702	111
D	657RM06D035	D035_20 No Chowck-5,12 No Chowck Junction	1.00	1.20047	133
D	657RM06D036	D036_12 No Chowck-5 No Chowck	1.00	0.599413	154
D	657RM06D037	D037_2 No Chowck-Bellapur Chowck	1.00	3.187083	110
D	657RM06D038	D038_Ek No Bazar-1 Road	1.00	18.40877	37
D	657RM06D039	D039_Ek No Bazar-2 Road	1.00	17.85493	39
D	657RM06D040	D040_Ek No Bazar-3 Road	2,1	17.27702	46
D	657RM06D041	D041_Ek No Bazar-4 Road	1.00	19.43785	32
D	657RM06D042	D042_Ek No Bazar-5 Road	1.00	18.42691	36
D	657RM06D043	D043_Ek No Bazar-6 Road	2.00	18.35644	38
D	657RM06D044	D044_Sarbajanik Chowk - Green House Cottage	2,1	16.14348	51
D	657RM06D045	D045_Ek No Bazar-7 Road	2,1	15.30992	55
D	657RM06D046	D046_Ek No Bazzar-8 Road	2.00	15.16437	56
D	657RM06D047	D047_Srijana Tole 1 Road	3.00	8.109504	83
D	657RM06D048	D048_Sirjana Tole-20 No Chowk Road	2.00	12.84741	64
D	657RM06D049	D049_Srijana Tole 2	2.00	8.510748	80
D	657RM06D050	D050_Srijana Tole-Jenith School	2.00	5.082591	98
D	657RM06D051	D051_Club House-NTC Office-Highway	2.00	19.80563	29
D	657RM06D052	D052_Khajura Bazaar-8	2.00	18.68596	35

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
D	657RM06D053	D053_Jenith School-1	2.00	15.65785	53
D	657RM06D054	D054_Khajura Bazar-6	2.00	20.51879	26
D	657RM06D055	D055_Khajura Bazar-4	2.00	20.50214	27
D	657RM06D056	D056_Khajura Bazar-3	2.00	20.7498	24
D	657RM06D057	D057_Adhikari Chowk Sadak	2.00	22.9185	20
D	657RM06D058	D058_Khajura Bazar-1	3.00	19.65824	31
D	657RM06D059	D059_Khajura Planning Bich-Highway_3 Road	3.00	16.50267	49
D	657RM06D060	D060_Khajura Planning Bich-Highway_2 Road	3.00	13.75485	62
D	657RM06D061	D061_ODA No 4 Simana-Bhatti Chowck	5,3	9.090736	76
D	657RM06D062	D062_Ram Janaki-Madanpurwa Gaun-Bhatti Chowk	3.00	14.97923	59
D	657RM06D063	D063_Mahendrapurwa Chowck-Nuri Masjid	5,3	14.32327	61
D	657RM06D064	D064_Purana Chautara-Mank Khola	3.00	5.282434	96
D	657RM06D065	D065_Janasewa-Olichowk	5,3	21.01729	23
D	657RM06D066	D066_Janewa School-Aath Bigha Chowck	5.00	2.284518	117
D	657RM06D067	D067_Gijara-Saano Janata Nagar	5.00	1.531558	126
D	657RM06D068	D068_Gijara-Janasewa	6.00	5.865668	91
D	657RM06D069	D069_Oli Gau-Mank Khola	6.00	4.106421	102
D	657RM06D070	D070_Gyan Bahadur Ko Ghar-River	6.00	2.958684	112
D	657RM06D071	D071_Nayabasti-Mank Khola	7,6	3.650851	106
D	657RM06D072	D072_Janakalyan Chowck-Hariyali Chowck	7,6	3.978109	103
D	657RM06D073	D073_Rakesh Tamangorigin-Simalko Rukh Bato	6.00	10.60313	70
D	657RM06D074	D074_Madarsha Islamiya Chowck-Twostar Itta Udyog	7.00	0.354924	160
D	657RM06D075	D075_Mahna Church Road	7.00	25.80658	17
D	657RM06D076	D076_Mank Khola-Hunumannagar	7.00	24.06492	19
D	657RM06D077	D077_Hanuman Mandir -Mank Khola	7,6	8.96508	77
D	657RM06D078	D078_NTC Tower-Sinduri Mai Mandir Road	3.00	27.19867	16
D	657RM06D079	D079_Gaghawa Khola-Mank Khola	7.00	8.906456	78
D	657RM06D080	D080_Uttar Gaun Pokhari Chowck-Sinduri Mai Mandir	7.00	0	167

Road Code	Municipal Code	Road Name	Ward Passes	Total score	Rank
D	657RM06D081	D081_Malik Itta Udyog-Ram Janaki Mandir	7,6	17.75475	41
D	657RM06D082	D082_Mohammadi Madarsha-Chalani Taal	7.00	17.19644	47
D	657RM06D083	D083_Beldamara-Ghiya Chowck	3.00	16.01381	52
D	657RM06D084	D084_Dahawa Chowck-Chalani Jagga	3.00	0.77326	146
D	657RM06D085	D085_Manakamana Gaun-Brick Factory Jane Bato Jodne	3.00	0.028799	166
D	657RM06D086	D086_Manakamana Gau-Manakamana Chowck Agadi	3.00	0.263286	161
D	657RM06D087	D087_Ne Ra Ma Bi-Manakamana Gau Jane Bato	3.00	1.046917	139
D	657RM06D088	D088_Manakamana Ma Vi-Ward Simana Samma	5,3	1.213623	132
D	657RM06D089	D089_Milan Chowck-Baijanath Simana	5,3	5.993325	89
D	657RM06D090	D090_Badripur-Janakalyan Madyamik Vidyalaya	5,3	0	167
D	657RM06D091	D091_Saja Fulbari-Ward Simana	4.00	0.091864	165
D	657RM06D092	D092_Kiran Bhawani Madir-Ward Simana	4.00	0.61381	153
D	657RM06D093	D093_Milijuli Sahakari Sanstha Limited Ward Simana	4.00	0.645305	151
D	657RM06D094	D094_Desi Bhandari Chowk-Parwatipur Chowk	4.00	1.579408	125
D	657RM06D095	D095_SHREE Krishna Tole-Himal Remit-Shree Krishna Mandir	4.00	0.258017	163
D	657RM06D096	D096_Beldadi Bato	3,4	0.62994	152
D	657RM06D097	D097_Bhairab Chowck-Nala Najik	3,4	0.780781	145
D	657RM06D098	D098_Chyama Sadak-Sushil Koirala Cancer Hospital Jane Bato	3,4	1.017031	140
D	657RM06D099	D099_Damodar Chowck-Khajura Mini Park Resort-Sushil Cancer Hospital Chowck	8.00	1.249424	131
D	657RM06D100	D100_Karnali Feed Industries-Samjana Tole	7,3	5.308368	95
D	657RM06D101	D101_Durga Mandir-Janaki Gaupalikako Simana	8.00	0.493141	155
D	657RM06D102	D102_Khajura Bazar -7	8.00	17.47302	45

Source: Field survey and Analysis

5.4 Intervention Categories

After the finalization of perspective plan through the categorization of rural municipal road, required interventions should be decided according to the priority and necessity of the roads. Only 40-50 km road is gravelled with required width and drainage in this Rural Municipality. Therefore almost all roads need improvement or upgrading in the first phase and conservation category comes the second. Few remote areas without road linkages may require new construction as well. For the reference of the rural municipality the categories of the interventions are defined below

5.4.1 Conservation

Conservation refers to the actions required to repair a road and keep it in good and passable condition. For planning purposes standard costs per kilometre for each maintenance type are applied to the entire district road core network, whereby for certain maintenance type distinction is made according to the surface type of the road. Identification of the actual maintenance requirements of each road is made annually in the ARMP. Conservation activities include:

1. **Emergency maintenance** - Basic repairs aimed at removing landslides and repairing damage to the road that inhibit the proper use of the road and make it impassable. This mainly takes place during and after the rainy season. A provisional lumpsum is reserved for the entire district road core network based on the network length. Allocation to specific road sections is based on the actual need for clearing landslides or repairing washouts and cuts in the road.
2. **Routine maintenance** - General maintenance of the road aimed at preventing damage by ensuring the proper working of the different road elements (retaining walls, drainage system, carriageway, etc.) and cutting vegetation. This is carried out each year on a more or less continuous basis. Routine maintenance is required for the entire district road core network. The specific requirements for routine maintenance are determined on an annual basis through the road condition survey and defined in the ARMP.
3. **Recurrent maintenance** - Repairs of minor damage to the road surface and road structures to bring them back to good condition. This is generally carried out once or twice a year. Recurrent maintenance is required for the entire district road core network, whereby distinction is made according to the surface type. The specific requirements for recurrent maintenance are determined on an annual basis through the road condition survey and defined in the ARMP.

4. **Periodic maintenance** - Larger repairs to the road largely aimed at renewing the road surface through re-gravelling, resealing or overlays. It is generally carried out with several years interval. Although periodic maintenance is only required for specific sections of the district road core network, a lump sum allocation is made for the entire district road core network based on average annual requirements, distinguishing between different surface types. The specific periodic maintenance requirements are determined on an annual basis through the annual road condition survey and defined in the ARMP. The length of roads to be included under each conservation type for the first year is indicated below. This is basically the entire district road core network as far as it does not require rehabilitation.

5.4.2 Improvement

Improvement refers to actions required to improve a road to bring it to a maintainable all-weather standard.

1. **Rehabilitation** - Significant repairs required to bring a very poor road back to a maintainable standard. This does not include any changes to the original surface type.
2. **Gravelling** - Placement of a gravel layer to make it all-weather and ensure that the road remains passable during the rainy season.
3. **Cross drainage** - Placement of suitable cross-drainage structures with the aim of making the road all-weather and ensuring that the road remains passable even during the rainy season
4. **Protective structures** - Placement of retaining walls and lined side drains to avoid excessive damage to the road during the rainy season and bring it to a maintainable standard.
5. **Blacktopping** - Placement of a blacktop layer in roads with traffic volumes exceeding 50 passenger car units (PCU) to reduce damage to the road surface.
6. **Widening** - Increase of the road width in roads with traffic volumes exceeding 500 passenger car units (PCU) to ensure the proper flow of traffic.

5.4.3 New Construction

New construction refers to construction of new road linkage according to the necessity of the rural municipality especially in those places where roads have not reached. This includes opening of new track and upgrading it.

Chapter - 6: First Five Year Municipal Transport Master Plan

The previous year budget of the municipality shall be collected and the growth rate shall be then determined. Then short term and long term financial plan shall be forecasted. The Projected financial plan for five year shall be prepared.

6.1 Five year Projected Financial Plan

The current budget plan of the municipality has presented in Table 25. Based on the growth pattern, the growth factor is determined and the budget for coming year has forecasted as shown in below. The composition of source of budget in municipality shows heterogeneous in nature. The very high amount of budget is granted by the Government of Nepal. So, if there is any changes occurred in granted amount by government, there result will be significant change in the municipality budget. The government of Nepal has intended to increase the total budget of each local bodies by 15-20% each year to meet the physical development of these bodies. Hence, In case of this Rural Municipality the growth rate of 15% has been used in all the calculations.

Table No. 30 : Table Budget Amount of Khajura Municipality

Fiscal Year	Amount (NRs.)	Rate of Increment (%)	Remarks
2018/19	39,900,000	15%	Estimated Budget by Municipality

Source: Office of the Khajura Rural Municipality

6.2 Sharing of Fund

The financial plan and the finalization of the RMTMP shall be done based on terms of reference as given by ministry. During preparation of RMTMP, the investment from total available resources under road sector for different classes of the road can be distributed as Apportion 30% for maintenance at first and remaining 70% shall be distributed. The MoFALD guidelines has set different views for budget distribution in different class of road:

- Class A road, $\geq 50\%$
- Class B road, $\leq 30\%$
- Class C road, $\leq 20\%$
- Class D road, $\leq 10\%$

Although, MoFALD has set guidelines for the distribution of budget, it was adjusted by making discussion with local authorities based on local condition and requirement of Rural Municipality.

The estimate of budget required for the five years is prepared based on the assumption that the Class A road is to be made two lane, Class B road is to be made intermediate lane and Class C and Class D road is to be made single lane and lane considered are assumed to be gravelled. Due to limitation of budget, the roads are assumed to have simple cross drainage structures within this period whereas cross drainage structures such as Bridges are not included in this budget and expected to be completed within this time period by external sources. For approximate costing, the construction rate of road appurtenances is assumed to be equal to that of gravelling cost and for short term the minimum width of 3m is assumed if existing road width doesn't exists. Similarly longitudinal drainage on both side of roadway is considered in this plan.

RMTMP mainly deals with Class A, B and C roads, and Class D roads but private owned Roads are not given any consideration. Interventions on those roads need to be incorporated in annual budget plan. As compared to the present budget of Municipality, the estimated budget is more and the deficit amount should be managed from outer sources.

Intervention that needs can't be completed in predetermined year should be the next priority in coming year. If a certain road, which was targeted to complete in first year could not be finished in first year, need to be given first priority in next year expenditure plan. If there is deficit in annual expenditure, municipality need to incorporate that particular heading in next year at any cost. They can look for grant, assistance from district or even central level or they can incorporate them by shifting budget from less importance item/heading.

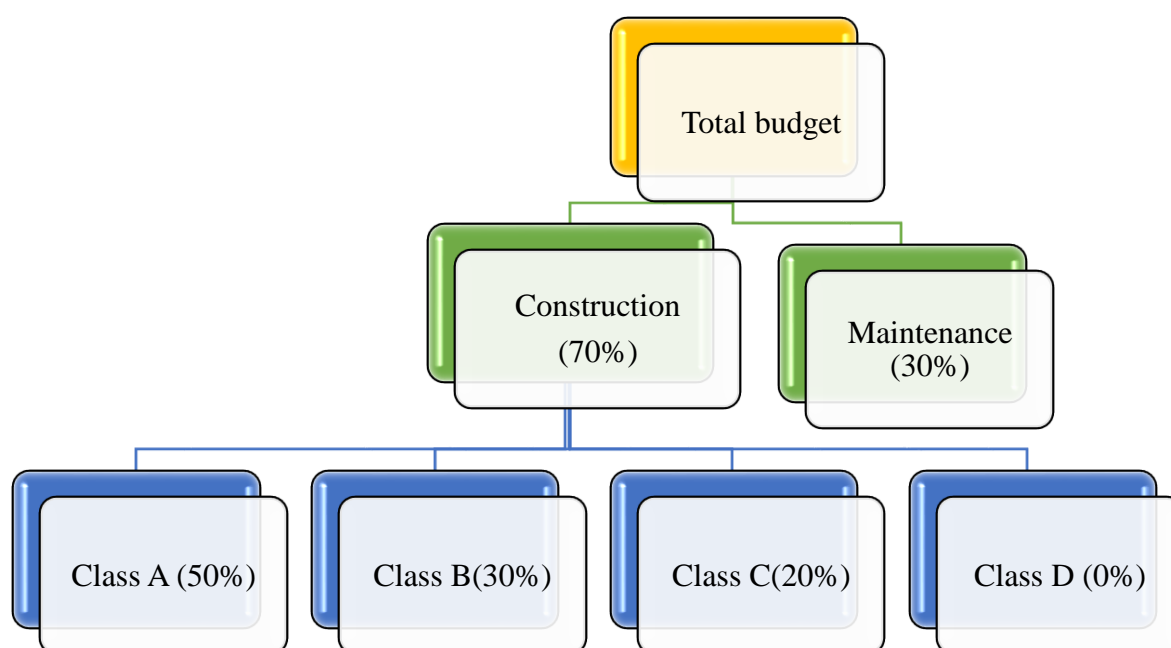


Figure: Budget Allocation as Per Interest of Local Authorities over Planning of Municipal Road (Source: MoFALD MTMP preparation Guidelines)

The figure above presents municipal revenue composition of Nepal as found by MoLD and GIZ in 2008.

For research they have considered various municipalities from different districts since 1991/92 to 2005/6.

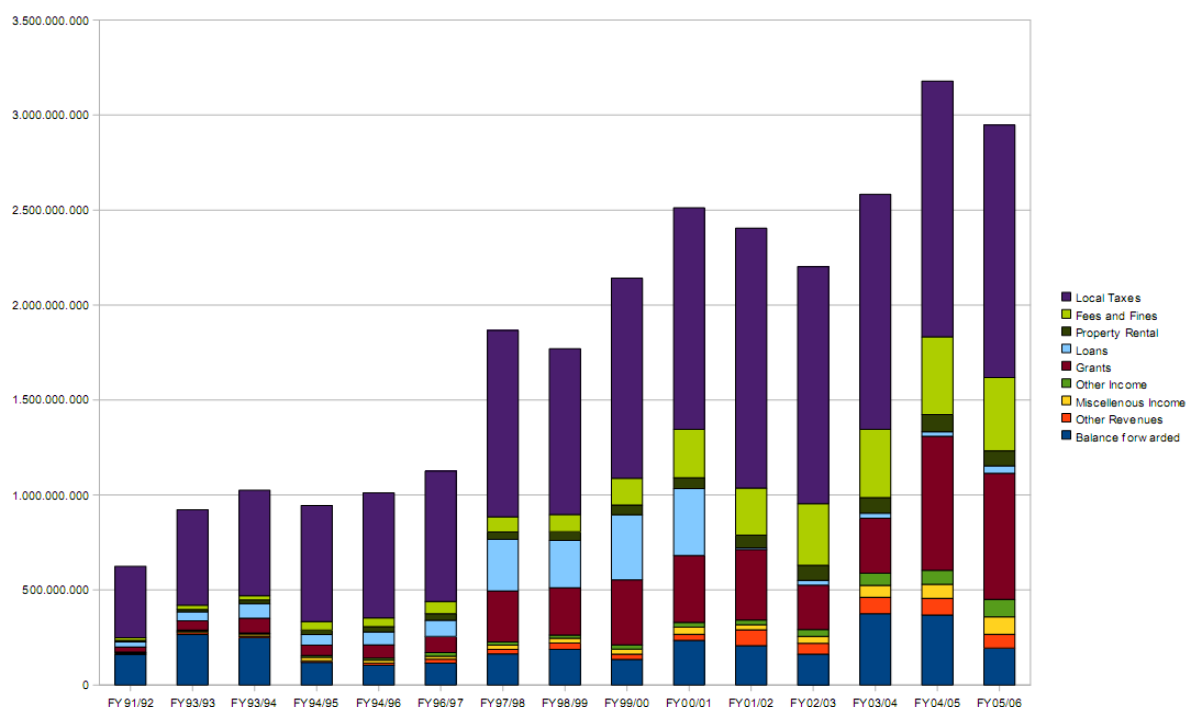


Figure: Municipal Revenue Composition in Nepal

The details of the budget sharing of interventions and maintenance and also for class A, B, C and D has been presented in table 27.

Table No. 31 : Table Forecasted Budget for Kauri Rural Municipality

Forecasted Budget for Khajura Municipality							
BUDGET	Probable Budget	Construction (70%)	Maintenance (30%)	Class A (50%)	Class B (30%)	Class C (20%)	Total Cost for Construction
Base Year	39,900,000	27,930,000	11,970,000	13,965,000	8,379,000	5,586,000	27,930,000
first Year	45,885,000	32,119,500	13,765,500	16,059,750	9,635,850	6,423,900	32,119,500
Second Year	52,767,750	36,937,425	15,830,325	18,468,713	11,081,228	7,387,485	36,937,425
Third Year	60,682,913	42,478,039	18,204,874	21,239,019	12,743,412	8,495,608	42,478,039
Fourth Year	69,785,349	48,849,745	20,935,605	24,424,872	14,654,923	9,769,949	48,849,745
Fifth Year	80,253,152	56,177,206	24,075,946	28,088,603	16,853,162	11,235,441	56,177,206
Total				122,245,957	73,347,574	48,898,383	244,491,915

Table No. 32 : Table Forecasted Budget in Road Sector

Forecasted Financial Plan of the Municipality in Road Sector							
Base Year		Forecasted Year (Amount in NRs.)					
Year		-	1.00	2.00	3.00	4.00	5.00
f/y		2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Amount		39,900,000	45,885,000	52,767,750	60,682,913	69,785,349	80,253,152
Intervention Type	Construction	27,930,000	32,119,500	36,937,425	42,478,039	48,849,745	56,177,206
	Maintenance	11,970,000	13,765,500	15,830,325	18,204,874	20,935,605	24,075,946

Forecasted Financial Plan of the Municipality in Road Sector								
Base Year	Forecasted Year (Amount in NRs.)							
	Base Year	1 year	2 year	3 year	4 year	5 year	10 year	20 year
2018/19	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2028/29	2038/39
Amount	39,900,000	45,885,000	52,767,750	60,682,913	69,785,349	80,253,152	461,455,623	5,306,739,662
Cumulative Budget	39,900,000	85,785,000	138,552,750	199,235,663	269,021,012	349,274,164		

Year-wide Targets

Year wise target shall be developed based on available budgets.

Forecasted Financial Plan of the Municipality in Road Construction						
	Forecasted Year (Amount in NRs.)					
Road Type for the Construction Work	Base Year	1 year	2 year	3 year	4 year	5 year
	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
For Class "A" Roads	13,965,000	16,059,750	18,468,713	21,239,019	24,424,872	28,088,603
For Class "B" Roads	8,379,000	9,635,850	11,081,228	12,743,412	14,654,923	16,853,162
For Class "C" Roads	5,586,000	6,423,900	7,387,485	8,495,608	9,769,949	11,235,441
For Class "D" Roads	0	0	0	0	0	0
Total for Construction	27,930,000	32,119,500	36,937,425	42,478,039	48,849,745	56,177,206

Forecasted Financial Plan of the Municipality in Road Maintenance						
	Forecasted Year (Amount in NRs)					
Road Type for the Construction Work	Base Year	1 year	2 year	3 year	4 year	5 year
	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
For Class "A" Roads	4,788,000	5,506,200	6,332,130	7,281,950	8,374,242	9,630,378
For Class "B" Roads	3,591,000	4,129,650	4,749,098	5,461,462	6,280,681	7,222,784
For Class "C" Roads	2,394,000	2,753,100	3,166,065	3,640,975	4,187,121	4,815,189
For Class "D" Roads	1,197,000	1,376,550	1,583,033	1,820,487	2,093,560	2,407,595
Total for Construction	11,970,000	13,765,500	15,830,325	18,204,874	20,935,605	24,075,946

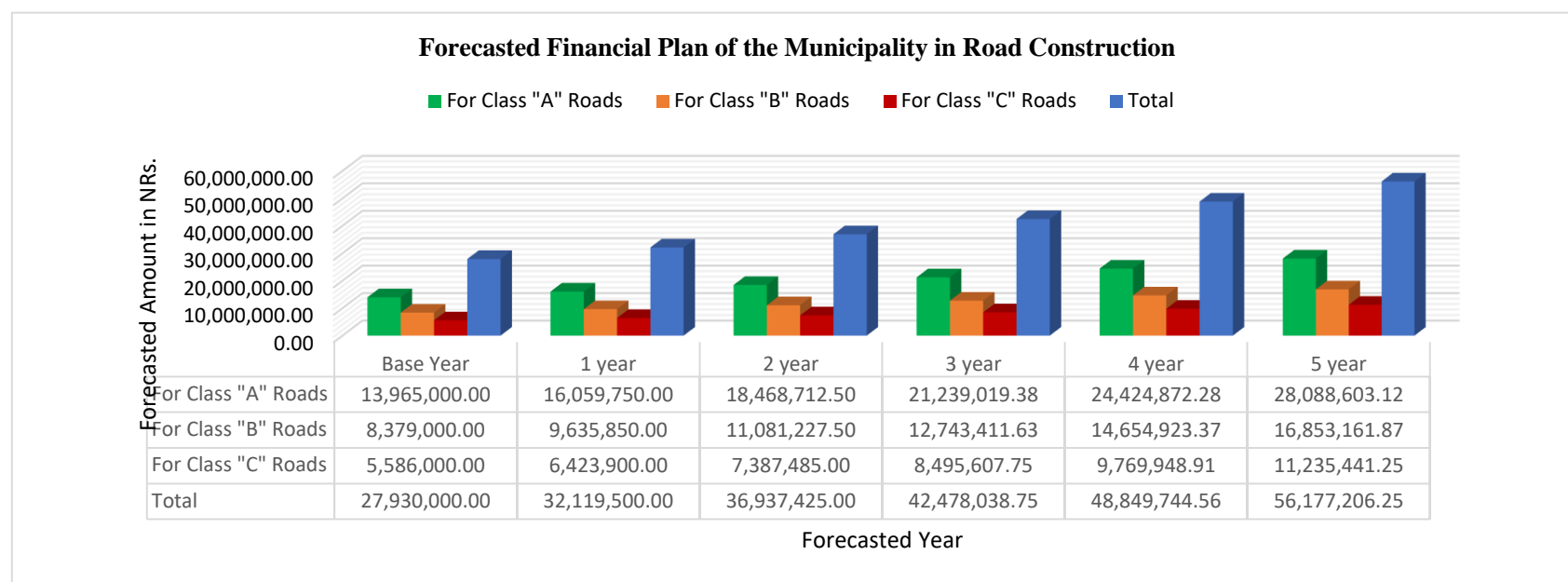


Figure Forecasted Financial Plan of the Municipality for construction of road

6.3 Implementation Plan

The detailed of five year and abstract of twenty year implementation plan has been developed. The implementation plan has prepared based on the priority/rank obtained from the prioritization criteria. Total expected length of road for Blacktopping within MTMP period is 64.70 km, and remaining graveled road with complete structure will be 39.23 km which can be graveled in next fiscal year after end of existing MTMP. During the planning of MTMP Class D roads were not planned individually because most of them are short and toll roads which does not make great impact on total economy of the Municipality. The other roads shall be constructed in upcoming years. The details of 5 years planning is shown in below.

Table No. 33 : Table Forecasted Plan of the Municipal Road Construction

Road Type for the Construction Work	Base year(2017/2018)					RMTMP Period									
						1 year		2 year		3 year		4 year		5 year	
						2019/20	2020/21	2021/22	2022/23	2023/24					
	ER	GT	BT	Total	NEW TRACK DEMAND	GR	BT	GR	BT	GR	BT	GR	BT	GR	BT
Class "A" Roads	0.00	38.60	19.69	58.29	0.000			-	-		3.25		3.93		4.00
Class "B" Roads	10.87	36.64	0.00	47.52	1.119	3.00	-	3.17	-				2.55		2.95
Class "C" Roads	21.89	73.80	0.00	95.69	0.000	1.02	-		-		1.19		1.71		1.97
Class "D" Roads	23.51	37.32	1.03	61.86	0.000										
SRN	0.00	0.00	8.88	8.88	0.000										
Total for Construction	56.28	186.36	29.60	272.24	1.12	4.02	-	3.17	-	-	4.44	-	8.19	-	8.92

Forecasted Plan of the Municipality in Road Construction

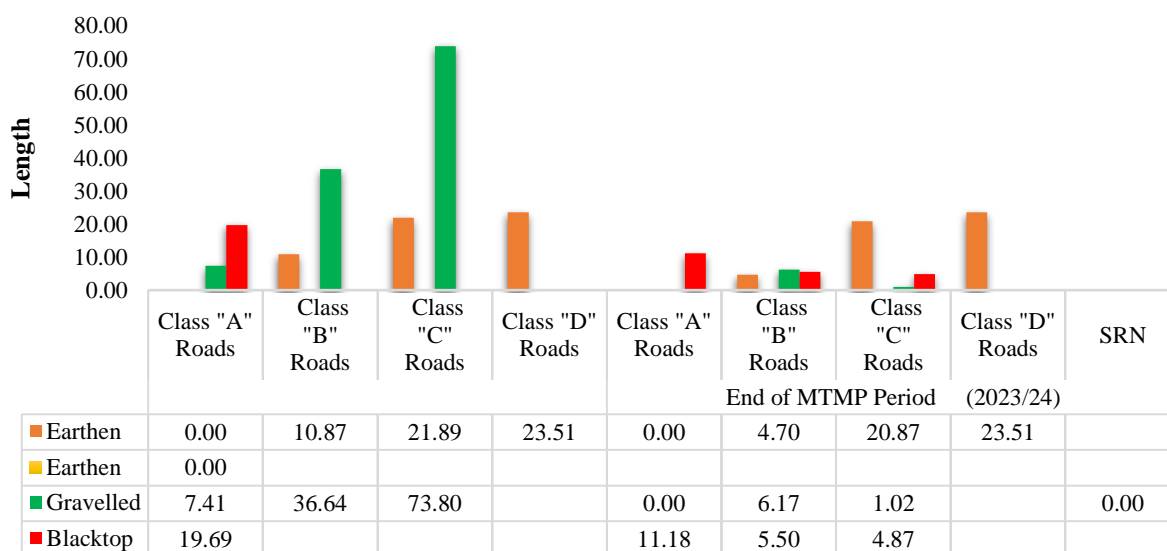


Figure 1 Planning Of Road Construction within MTMP Period

Table No. 34 : Table Forecasted Plan of the Municipality in Road Construction

Forecasted Plan of the Municipality in Road Construction							
Road Type for the Construction Work	Base year (2017/2018)					End of MTMP Period (2023/24)	
	ER	GR	BT	Total	NT Demand	GR with Drain	BT
Class "A" Roads	0.00	7.41	19.69	27.10	0.00	0.00	11.18
Class "B" Roads	10.87	36.64	-	47.52	1.12	6.17	5.50
Class "C" Roads	21.89	73.80	-	95.69	0.00	1.02	4.87
Class "D" Roads	23.51	37.32	-	60.83	0.00	0.00	0.00
SRN	0.00	0.00	-	0.00	0.00	0.00	0.00
Total for Construction	56.28	155.17		211.45	1.12	7.19	21.55

6.3.1 Implementation Plan for Class 'A' Roads

In MTMP period, about 15.50 km road under class 'A' shall be Blacktopped and 42.45 Km will be graveled with Drain structure which are either of Graveled and Earthen at present. The details of Implementation plan are presented in Table Below

General				Year 1			Year 2			Year 3			Year 4			Year 5		
Road Code	Road Name	rank in class	Wards passes	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention
				16.71	16,059,750.00		17.42	18,468,712.50		5.82	21,239,019.38		5.83	24,424,872.28		4.90	28,088,603.12	
657RM06A004	A004_Guranspur-Basantpur-Mardanpurwa-Highway-Kalhansgaun-Chamakdarpur-Namdarpur-Ward Simana	1.00	1,2,3	6.00	6,600,000.00	Widening and Drain	3.76	4,132,990.40	Widening and Drain	2.25	12,825,000.00	Blacktop	2.93	16,701,000.00	Blacktop	2.00	11,400,000.00	Blacktop
657RM06A005	A005_Udharapur-Mangalpur-Gijara-Highway	2.00	2.00	2.00	2,100,000.00	Widening and Drain	2.44	2,563,447.95	Widening and Drain	1.00	5,700,000.00	Blacktop	1.00	5,700,000.00	Blacktop	1.00	5,700,000.00	Blacktop
657RM06A006	A006_Dahawa-Thakur Gaire Pokhari-Chamakdarpur-Mankamana-Manakamana Pul	3.00	2.00	2.00	2,200,000.00	Widening and Drain	2.92	3,208,521.80	Widening and Drain	-	-		-			1.00	5,700,000.00	Blacktop
657RM06A003	A003_Gaughat Bus Stand-1no Chowk-Baba Chowk-Baise Pa Nala-Nayan Gauri Nagar-Nalla Chowk-Gautam Basti-Ward Simana	4.00	3.00	0.93	976,500.00	Widening and Drain				-	-		-	-		0.90	5,130,000.00	Blacktop
657RM06A007	A007_Highway-Digaun-Parvatipur-Igaun-Ward Simana	5.00	2,5	2.00	2,000,000.00	Drain	4.11	4,109,611.00	Drain	-	-		-				-	-

General				Year 1			Year 2			Year 3			Year 4			Year 5		
Road Code	Road Name	rank in class	Wards passes	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention
657RM06A001	A001_Maitahawa Mandir-Chandra Nagar-Chandra Nagar Chow-Bhupu Sainik EM School Chowk-10 No Chowk-Gaunpharke -Gauri Nagar-Bagmati Nagar-Khajura Baja-Highway-Khajura Bajar-Manakamana-Poudel Chowk-Manakamana Chowk-Thakurpur-Budhanipur-Soltipur-Krantipur-Ward Simana	6.00	1.00	2.00	300,000.00	Widening and Drain	2.25	2,362,500.00	Widening and Drain	2.57	2,698,500.00	Widening and Drain	1.90	1,991,306.10	Widening and Drain		-	
657RM06A002	A002_Neuledanda Chowk-Chandra Nagar Chowk-Jalpokharigaun	7.00	1.00	1.78	1,869,000.00	Widening and Drain	1.95	2,043,387.15	Widening and Drain									

6.3.2 Implementation Plan for Class 'B' Roads

In MTMP period, about 4.30 km of the road under class ‘B’ will be Blacktop while 38.44 km of road will be graveled with other complete structure which are either Gravel or Earthen at present. The details of Implementation plan are presented in Table Below.

General				Year 1			Year 2			Year 3			Year 4			Year 5		
Road Code	Road Name	rank in class	Ward passes	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention
				3.00	9635850.00		4.06	11081227.50		8.56	12743411.63		2.55	14654923.37		2.95	16853161.87	
				3.00	9600000.00		4.06	11078733.6		8.56	12705166.6		2.55	14535000.00		2.95	16815000.00	
657RM06B004	B004_Dalaipur-Rajanawa-Highway	1.00	1.00	2.00	6400000.00	Gravelling and drain	2.05	6555308.80	Gravelling and drain				2.00	11400000.00	Blacktop	2.05	11685000.00	Blacktop
657RM06B008	B008_Mangalpur Chowk-Godahana-Highway-Sabina Rice Mill-Ramjanaki Mandir-Ward Simana	2.00	6.00	1.00	3200000.00	Gravelling and drain	1.12	3588924.80	Gravelling and drain				0.55	3135000.00	Blacktop	0.45	2565000.00	Blacktop
657RM06B006	B006_Gautam Basti-Dhaulagiri-Bastola Chowk-Dahulagiri Ukalo Chowk-Highway	3.00	8,3	-	-		0.89	934500.00	Widening and Drain	1.41	1485487.50	Widening and Drain				0.45	2565000.00	Blacktop
657RM06B007	B007_Nera Adharbhut Bidhyalaya-Highway	4.00	6.00	-	-		-	-		1.38	1513425.10	Widening and Drain						
657RM06B005	B005_Udharpur-Kalkapur Chowk-Bee Boring Border-Biboring-Dhaulagiri Chowk-Highway	5.00	7,8	-			-	-		1.12	4475004.00	Track Opening						
657RM06B010	B010_Shree Shukra Mavi Chokw-K Gaun-Shree Amar Ma.Bi-84 No Chowk-Bageswori-6 No Chowk-Bastola Chowk	6.00	2.00	-				-		4.65	5231250.00	Widening and Drain						

6.3.3 Implementation Plan for Class 'C' Roads

In MTMP period, none of the road under class ‘C’ shall be Blacktop while 29.22 km of road shall be graveled with drain structure which are either in graveled or earthen status in are poor at present. The details of Implementation plan are presented in Table Below.

General Information				Year 1			Year 2			Year 3			Year 4			Year 5		
Road Code	Road Name	rank in class	Ward passes	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention	Length Of Construction	Budget Allocated	intervention
				35.77	6423900.00		8.95	7387485.00			8495607.75		1.71	9769948.91		1.97	11235441.25	
657RM06C002	C002_Chooti Line Chowk-Bhupu Sainik School	1.00	1.00	1.68	1,694,707.28	Widening and drain	1.68			1.19	6783000.00	Blacktop	0.49	2,781,189.60	Blacktop			
657RM06C015	C015_Udharapur-Puraina-Purina Chautara-Khanipani Tank-Oli Chowk-Janakalyan Chowk Samma	2.00	6.00	4.57	2,933,154.50	Gravelling and Widening	4.57	4,573,918.00	Drain				1.22	6,954,000.00	Blacktop	1.00	5,700,000.00	Blacktop
657RM06C047	C047_Palautipur-Himal Remit-Madarasha-Kadariyan Faizal Kurum-Prem Chowk	3.00	8,3	1.63	1,793,000.00	Widening and drain	1.11	1,218,787.90	Widening and drain							0.97	5,529,000.00	Blacktop
657RM06C042	C042_Kathahawa Chowk-Solti Pur	4.00	6.00	2.09			1.59	1,590,000.00	Drain									
657RM06C050	C050_Hulaki Sadak-Gaghawa Khola	5.00	7,8	1.53						1.53	1686133.90	Widening and Drain						

Chapter - 7: Conclusion

Road transportation is the lifeline of socio-economic development of any Rural Municipality. Thus the Rural Municipality should give more emphasis on resource collection and its proper allocation and efficient mobilization. This Rural Municipality Master Transport Plan (RMTMP) will guide for this purpose. The RMTMP is the result of studies considering socio-economic aspects, environmental analysis and potentiality of multiple sectors. Furthermore, it is based on the accessibility to transport facilities within the Municipality that will somehow reflect the future of the Municipality particularly in terms of rural road development. RMTMP focuses on existing transportation situation, expected future road network accessibility and socio-economic benefits. It provides directives on utilization of the local resources by local institutions as well as other development agencies in line with the spirit of decentralization and Local Government Operation Act 2074. Above all, it will provide Government and other donor agencies a rational basis to decide on future investments efficiently both in Rural Municipality level transport sector as well as other avenues of development.

The proposed interventions are reflection of the requirement of Khajura Rural Municipality to improve accessibility of people on goods and services and planned as per current trend of financial resource availability.

It is strongly recommended that the Rural Municipality shall strictly follow the RMTMP particularly the Perspective Plan of Municipality Road Network in deciding the sub-projects to be undertaken for development in future even beyond the five-year period. Strong commitment from all stakeholders is necessary for its implementation. It is also suggested that the RMTMP shall be revised at the end of every fifth year evaluating the previous planning and implementation level shortcomings. It is also advisable that respective Rural Municipality should go ahead with necessary revisions if the development potentials have changed tremendously in its Rural Municipality.

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Annex-1

Photographs from the field survey



Office of one of the wards of Khajura Rural Municipality



Khajura stop over along the Nepalgunj-Guleriya Road



Popular local means of transportation i.e. bullock (buffalo) cart



Sushil Koirala Memorial Cancer Hospital Underconstruction



One of the typical dwelling units from Ward no.1 of Khajura RM



Water Supply tank, Telephone Tower and open premises in Khajura RM



Display of inundation in Khajura RM



Main entrance of Khajura Rural Municipality



Ward level meeting held in Ward No. 1 for MTMP consultations



Ward Level meeting held in ward no. 2 during MTMP Field Study



Ward level meeting held in Ward no. 3 of Khajura RM



MTMP ward level meeting on progress in ward no. 4



Ward meeting held in ward no. 5 of
Khajura RM



Ward level meeting held in ward no. 6 of
Khajura RM



Meeting held at ward no.7 of Khajura RM



Meeting held at ward no. 8 of Khajura RM

Annex - 2

Minuting

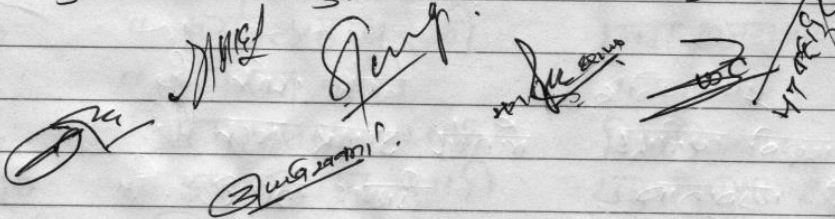
	Page No. _____ Date _____	Page No. _____ Date _____
<p>आज मिति २०७५/०८/ गते यल खजुरा गाउँपालिका, काभ्रेको गाउँपालिका लड्डु यातायात गड्डियोस, निर्माणको लागि लागी वडा नं. १ का का. वा. वडा अध्यक्ष श्री देव प्रसाद पुडासूरीको अध्यक्षतामा, लड्डु वडियान, पाथरीपिठो तथा लम्जु पडाडोको यातायात गड्डियोस, सम्बन्धी छलफल तथा राम बुझाव लिन गरी निम्न विषयमा गरीयो।</p>		
<p><u>प्रमुखीतिष्ठ</u></p>		
क्र.सं.	लड्डुगाउँको नाम/आर	पद/ललभता, हस्तक्षर
१	श्री देव प्रसाद पुडासूरी	का.वा. वडा अध्यक्ष ७२११५५५
२.	श्री राम वडाडुङ्ग खत्री	वडा सचिव श्री ७२१६५
३.	श्री फोले कुमारी ज्ञेनी	" "
४	श्री दिपा कुमारी विश्वकर्मा	" "
५	श्री सुन्दर गुरुङ्ग	प्र.अ. श्री ७२१६५
६	श्री प्रमन सिंह थापा	समाजसेवी श्री ७२१६५
७	श्री मन वडाडुङ्ग गुरुङ्ग	" श्री ७२१६५
८	श्री वन वडाडुङ्ग थापा	" श्री ७२१६५
९.	श्री रामेश श्रेष्ठ	इन्जिनियर श्री
१०.	श्री राम प्रसाद जोशी	ग्रामिण विकास विज्ञ श्री
११.	श्री अनिल भण्डारी	वातावरण विज्ञ श्री
१२.	आम्बेश श्रेष्ठ	इन्जिनियर श्री

आवक निर्वयहड

१. सडके गुरुयोजना निर्माण के लीजिए तपशील क्रमोन्मीनड, सडके के प्राथमिकता पेइ छतोर गने निर्माण गरीये।

तपशील

१. तपोरती नदी देवी पश्चीम मेरहका मा. नि. हुये पिपलाडा का इतर मरान खोला जाने कारो लम्मा।
२. जलपोरती सुफुल गुरुडके धर देवी कठिण शान्तादेवी के धर हुये पश्चीम की कडाके वरे के धर लम्मा।
३. हरे थापा के धर देवी कठिण करे धर हुये पश्चीम राम के गुरुड के धर देवी उत्तर खोप केरु लम्मा।
४. मरेका नदी देवी पश्चीम छोरी लडा खोप हुये उत्तर स्वास्थ खोप के कारो हुये धन नडा गुरुड के धर लम्मा।
५. जल पोखरी निष्ठा थापा के धर हुये देवी उत्तर मराने गुरुड के धर हुये पश्चीम हुये उत्तर चरकला गुडाथो के धर लम्मा।



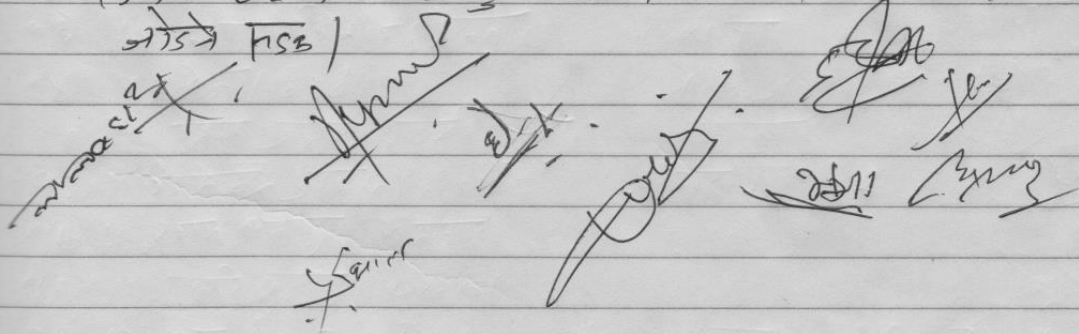
आज मिति २०७५/०८। गते यस रविवार गाउँपालिकाको कार्यालयमा गाउँपालिका सदस्य मातायात गुरुङको निर्वाचन लागी वडा नं. २ का वडा अध्यक्ष श्री देवीलाल शर्मा र्को अध्यक्षतामा सदस्य बन्धुमान, प्राध्यापकको, तथा लक्ष्मण शर्माको मातायात गुरुङको, सम्बन्धी फैसला तथा राम कुँडाको निर्वाचन गरी निम्न निर्णय गरियो।

उपस्थितहरू

क्र.सं.	लक्ष्मणशर्माको नाम/थर	पद/संलग्नता	हस्ताक्षर
१	श्री देवीलाल शर्मा	वडा अध्यक्ष-२	
२	श्री सुभाष शर्मा	वडा सदस्य	
३	५ गुरुङको निर्वाचन	"	
४	५ गुरुङको निर्वाचन	"	
५	५ गुरुङको निर्वाचन	"	
६	५ गुरुङको निर्वाचन	"	
७	५ गुरुङको निर्वाचन	"	
८	५ गुरुङको निर्वाचन	"	
९	५ गुरुङको निर्वाचन	"	
१०	५ गुरुङको निर्वाचन	"	
११	५ गुरुङको निर्वाचन	"	
१२	५ गुरुङको निर्वाचन	"	
१३	५ गुरुङको निर्वाचन	"	
१४	५ गुरुङको निर्वाचन	"	
१५	५ गुरुङको निर्वाचन	"	
१६	५ गुरुङको निर्वाचन	"	
१७	५ गुरुङको निर्वाचन	"	
१८	५ गुरुङको निर्वाचन	"	
१९	५ गुरुङको निर्वाचन	"	
२०	५ गुरुङको निर्वाचन	"	
२१	५ गुरुङको निर्वाचन	"	
२२	५ गुरुङको निर्वाचन	"	
२३	५ गुरुङको निर्वाचन	"	

आजका निर्णय

१. सड़क के मुख्य योजना, लघु गरीबों लघु तपशील व मोतीपडा सड़क कार्य प्राथमिकता दिई वनोद गैर निर्णय गरियो।
- (१) बलेश्वर डाडा देवी ८ गाँउ ८१-चोक हुँदै पञ्चीप गुराण्डा १६ नं-चोक हुँदै उत्तर-पडा रोड हुँदै पञ्चीप ८ गाँउ धानी-चोक जोडने सड।
- (२) सिद्धनगर वडा नं. ३ को सिमाना देवी पञ्चीप गुम्बा हुँदै २६ धुरी देवी ओराही-चोक सम्म।
- (३) ८ गाँउ ७५ नं-चोक देवी पञ्चीप डाडा भा. की हुँदै चोथीपडा वडा नं. १ को सिमाना सम्म जोडने सड।
- (४) जोधार १ नं-चोक देवी उत्तर १६ नं-चोक हुँदै पञ्चीप कोठिनी भा. की देवी वसन्ती रोड हुँदै उत्तर शाही रोड वडा नं. ६ को सिमाना सम्म जोडने सड।
- (५) A गाँउ १० नं-चोक देवी पञ्चीप ५२ नं-चोक देवी पञ्चीप ७२ नं-चोक हुँदै पञ्चीप गोरीगढ-चोक सम्म जोडने सड।



आज शिबि २०७५/०८/ गते यस लक्ष्मी गाउँपालिका वडाको गाउँपालिका सडक आवागमन गुरुभोजन। तपारी गरिको लागी वडा नं ३ का वडा अध्यक्ष र्ही कान्छुलाम गौतम र्हीको अध्यक्षतामा सडक परिचालन, प्राथमिकीकरण तथा समग्र पक्षहरूको आवागमन गुरुभोजन। सम्बन्धी छलफल तथा राय सुझाव लैनेत्र गरी निम्न निर्णय गरियो।

उपस्थितिकाहरू

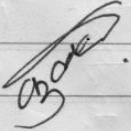
क्र.सं.	सदस्यको नाम/था	पद/सम्बन्धिता	हस्ताक्षर
१	श्री कान्छुलाम गौतम	वडा-अध्यक्ष-३	
२.	" प्रेमराज व्योपान		
३.	" हरि उपाध्याय		
४.	श्री हरि पदुपुलाम	विश्व विद्यालय	
५.	श्री. लेखनाथ सापकाँडा	समाजसेवी	
६.	श्री. चित्र बहादुर विक	उपसभामन्त्री	
७.	श्री. सुन्दर बहादुर पौडेल	समाजसेवी	
८.	श्री. कै. वि. सु	वडा नं. ३ निर्वाही	
९.	श्री. देवमाया थापाभागा	वडा सदस्य	
१०)	श्री. सुमित्रा वि. सु.	वडा सदस्य	
११)	श्री. दिलीप प्रसाद दाचार्य	- वडा सदस्य	
१२)	श्री. कुल बहादुर खत्री	- वडा सदस्य	
१३)	श्री. चानेश्वर व्योपान	- वडा सदस्य	
१४)	" रणबहादुर उपाध्याय	गा.पा. विकास	
१५)	" भक्त बहादुर उ. सु.	वडा नं. ३	
१६)	श्री. रमेश श्रेष्ठ	सिद्धि रत्न निर्माण	
१७)	श्री. राम प्रसाद गौतम	ग्रामिण विकास वि.	
१८)	श्री. अमिल भण्डारी	वातावरण वि.	
१९)	श्री. आकाश श्रेष्ठ	इन्जिनियर	

आजक निर्णय

१. सुडके गुरुमार्ग निर्माण के लगे तपशील नमोजीमक, सुडकेहलई प्राथमीकतादि हतैरे गेरे निर्णय गरीये ।

तपशील

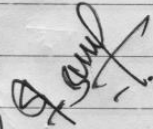
१. इ-प्र-का धनौरी पेकी मारीद हेतु वि-क. मारी क हजॉं हूँ वि-गाँउ २० तं. चोड लम ।
२. खत्रा नगाके निर्माणधीन गोलपडि पेकी पिशा मिल हूँ ब्राह्मकोठेके धातम मने लड्ड ।
३. जामोहपार्क देनी पश्चीम हूँ वेदमिथी के प्याकुलको प्रालम ।
४. भवकायन-चोड देनी पूर्व नगाक-४ के सीमा लम मने लड्ड ।
५. प्राथमीकता स्वाच्य केन्द्र २ वगुण देनी अपात विकास हूँ आपातत विद्यालय धौलपीरी स्तम ।

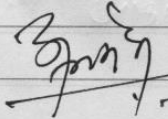


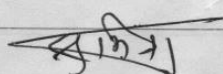


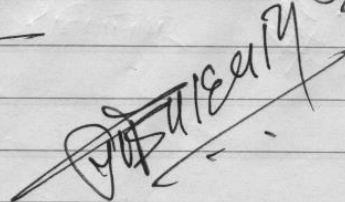












अजिती २००५/०८। जोत रक्खुरा गाउँपालिका बाँकेको
गाउँपालिका सङ्घ गुडमोहन। तयारी गरेको लागी वडा नं. ४ को
वडाध्यक्ष श्री तिलकवीर पुगा। ज्यूको आणखितामा सङ्घ
परिचालन, प्राथमीकोषण तथा तपत्र यातायात गुडमोहन।
शम्भवी फैलडल तथा राध पुझाक संकलन गरी निम्न निम्न
गरीछे।

उपलब्धीतिष्ठ

क्र.सं.	स्वभागीको नाम तथा	पद। श्रेयता। हस्ताक्षर
१.	श्री तिलकवीर पुगा	वडा अध्यक्ष ४
२-	श्री योश्याम रक्खुरा - रक्खुरा गाउँपालिका - गाउँपालिका	
३-	श्री कलकल रक्खुरा - रक्खुरा गाउँपालिका - वडा अध्यक्ष	
४-	श्री कलकल रक्खुरा - ४ वडा अध्यक्ष	
५-	श्री विरमा देवी सुनार - रक्खुरा गाउँपालिका - वडा अध्यक्ष	
६-	श्री कलकल रक्खुरा - रक्खुरा - वडा अध्यक्ष	
७-	श्री निर्मल रक्खुरा - रक्खुरा - वडा अध्यक्ष	
८-	श्री देवकल रक्खुरा - ११ - वडा अध्यक्ष	
९-	श्री नारायण शर्मा - ११ - ४	
१०-	११ वडा सुनार - ११ - ४	
११-	११ वडा सुनार - ११ - ४	
१२-	११ वडा सुनार - ११ - ४	
१३-	११ वडा सुनार - ११ - ४	
१४-	११ वडा सुनार - ११ - ४	

१४- श्री अंकर रावल-अकुराजी की ४ मकानों की

१५- श्री निराल कछहर कारकी अकुराजी की ४ मकानों की

१६- श्री नारायण कछहर कारकी अकुराजी की ४ मकानों की

१७- श्री अजिनाथ सिंह कारकी ११ मकानों की

१८- श्री रामेंद्र कारकी ११ मकानों की

१९- श्री चन्द कछहर कारकी २९ मकानों की

२०- बेलनी युगा (हस्ता कुलना) सोमानी उद्योगी कारकी ११ मकानों की

२१- श्री फल वहाडु कारकी ११ मकानों की

२२- श्री गोविन्द शर्मा कारकी ११ मकानों की

२३- श्री उदय वि. सी. कारकी ११ मकानों की

२४- राम प्रसाद कारकी ११ मकानों की

२५- अजिनाथ कारकी ११ मकानों की

२६- अजिनाथ कारकी ११ मकानों की

२७- अजिनाथ कारकी ११ मकानों की

२८- अजिनाथ कारकी ११ मकानों की

२९- अजिनाथ कारकी ११ मकानों की

३०- अजिनाथ कारकी ११ मकानों की

३१- अजिनाथ कारकी ११ मकानों की

३२- अजिनाथ कारकी ११ मकानों की

आम मिती २०७४/०८। गते यल रक्ता। गाउपालिका
को गाउँपालिका सम सदस्य यातायात गुरुकोशमा तामारी गम्भीर
लागो वडा नं. ५ को वडा अध्यक्ष श्री देवेन्द्र मान शिल्प ज्ञेको
अध्यक्षतामा सदस्य पदविान प्राथमिकीकरण तथा (नगरी यातायात
गुरुकोशमा सम्बन्धी कलकल तथा राश पुमान लगेन
गरी निम्न निर्णयहरू जारीमा।

उपस्थितिहरू

क्र.सं.	लक्षणीहरूको नाम थल	पद/लक्षणता	हस्ताक्षर
१	श्री देवेन्द्र मान शिल्प	वडा अध्यक्ष-५	
२.	श्री सुरेज देवकोटा	वडा सदस्य-५	
३.	श्री सावित्री देवीदारिजन	वडा सदस्य-५	
४.	श्री किसमल फालि साई	वडा सदस्य-५	
५.	श्री मोहन लाल थापा	-११-	
६.	श्री विसुनु कुमार (कुमारी)	वडा नं. ५	
७.	श्री धुरे वडा	-११-	
८.	श्री चारु (जीकी) रेग्मी	-११-	
९.	श्री सोमनाथ रेग्मी	-११-	
१०.	श्री रंगी लाल थापा	-११-	
११.	श्री दिल्ली कमल शर्मा	प्र.अ.ने.रा.प्र.वि. के.के.	
१२	श्री सिधा राम पाथिक	वि.अ.स.पा. के.के.	
१३.	श्री सिधादी लाल थापा	वडा नं. ५ लिजरी	
१४.	श्री कल कदादुर कुडा श्रेष्ठ	-११-	
१५.	श्री सुन्दर राय गौलम	-११-	
१६.	श्री अरावन्द राय गौलम	वडा नं. ५, अगौल	
१७.	श्री अनिल रेग्मी	वडा नं. ५	
१८.	श्री शेखर निरौला	श्री ने.रा.प्र.वि. के.के.माथुर	
१९.	श्री सुशिला रेग्मी	वडा नं. ५	
२०	श्री काकोरा थापा	अ.स.पा. के.के.	
२१	श्री सिधादी थापा	वडा नं. ५	
२२	श्री प्रहमान दर्लामी	वडा सचिव-५	
२३	रमेश शिल्प	इन्जिनियर	
२४.	राम प्रसाद गौलम	ग्रामिण विद्युत वि.वि.	
२५	अनिल थापा	वडा नं. ५	

आज मिति २०७५/०८/०७ गते यस खजुरा गाउँपालिका को केको गाउँपालिका सङ्ग यातायात गुरुयोजना तयारी गर्नेको लागी वडा नं. ६ को वडाअध्यक्ष श्री साके जोशीलाई अध्यक्षतामा सङ्ग परिचय प्राथमिकीकरण तथा समग्र यातायात गुरुयोजना सम्बन्धी छलफल तथा हाथ खुलान सङ्केत गरी मिति निर्णय गरियो ।

अध्यक्षीयता

क्र.सं.	सदस्य/को नाम/थर	पद/सिर्जना	हस्ताक्षर
१.	साके जोशी	वडा अध्यक्ष - ६	
२.	कुमार भदम	वडा सदस्य	
३.	जंग बहादुर थापा	"	
४.	कुल्लो भाया नेम्बाङ	"	
५.	रामनाथ राउत	वडा सदस्य	
६.	डेम लाल श्रेष्ठ	समाजसेवी	
७.	शान वः शाही	अ.स.	
८.	दिपा के.सी	अ.स.स.प.	
९.	इन्द्रा सुनार	हेल्प डेस्क	
१०.	नसिरुद्दीन खाँ	समाजसेवी	
११.	गगन सिंह कामि	समाजसेवी	
१२.	वासि खाँ	समाजसेवी	
१३.	राजाराम थापा	वडा सदस्य	
१४.	हजुरा वम	वडा सदस्य	
१५.	रमेश श्रेष्ठ	वडा सदस्य	
१६.	राम प्रसाद जोशी	ग्रामिण विकास विज्ञ	
१७.	अमिल भण्डारी	वातावरण विज्ञ	
१८.	आकाश श्रेष्ठ	वडा सदस्य	

आजक निर्माण

- (१) सड़के, गुरुकुल, योशुवा, लगे लवरील कौन्सिल, लडकडक, प्राथमिक, फेड, कौन्सिल, जेन्ना निर्माण गलीको ।

लेवारील

- (१) गरीबको देखी कृषि, खान हुँदै कुरनाल, लम् ।
(२) जनकलगाव स्कूल देखी जमनागा हुँदै गिरा पुल लम् ।
(३) पुरेना-पौता देखी तल्लो पुरेना हुँदै मान खोल लम् ।
(४) शालीमा सिमलीको घा देखी शक्तिमाको घा हुँदै पुष्पल गाउँ हुँदै डुलाडी लम् ।
(५) भगतपुर देखी वडा नं-६ को सिमल लम् जोडे लम् ।

बिचि रवा

बमले

मिपल

मिपल

HCD

कामाली

मिपल

मिपल

આંખે મિત્રિ ૨૦૭૨/૦૮। ગતે મસ રવજુરા
ગાઉં બાલિકા સંકુલ માતાપાત ગુણોજના ભારી ગતિકા
ભાગી વડા નં ૭ કા વડા અદ્યક્ષ શ્રી. અતિ ૩
ઉત્તમ સ્વામી પૂર્વે અદ્યક્ષતામાં સંકુલ પદિયાન, પ્રધાનિકા
કુરુણ ભાગી સમગ્ર માતાપાત ગુણોજના સ્વચ્છતા દેલકલ
ભાગી રામ સુભાષ સંકુલન ગાયે મિત્ર મિત્રિય ગાળિયે।

ઉપસ્થિતિદક

ક્ર.સં.	સદસ્યગીડા નામ/થર	પદ/સંભાળતા	દેલકલ
૧.	અતિ ઉત્તમ સ્વામી	વડા અદ્યક્ષ - ૭	
૨.	પુર્ણિમા સુનાર	વડા સદસ્ય - ૭	પુર્ણિમા
૩.	બાલકર હસેન	વડા સદસ્ય - ૭	બાલકર હસેન
૪.	શિતા ગુપ્ત	વડા સદસ્ય - ૭	શિતા
૫.	મનભરમ રાદ	વડા સદસ્ય - ૭	
૬.	દર્શિરામ માદવ	વડા સચિવ	દર્શિરામ
૭.	નરેન્દ્રલાલ માદવ	સંપ્રોજક (નામુદગીડ મેલમિત્રાપ સંકુલ)	નામુદગીડ
૮.	અલભામ ગોર	સચિવ (દુરીપપ)	ગોર
૯.	સો. બમિલ જા		
૧૦.	જે. લલા રામ રાદ	સદસ્ય	સો. જા
૧૧.	જે. ગોરાધન માદવ	પ્ર. જા. સમગ્ર મારાનેલકલ	જે. ગોરાધન
૧૨.	મિતલ વિજાલ	સેલકલકલ નાં સહજકલકલ સંકુલ - ૭	મિતલ
૧૩.	બાલકર અપ્પર રા	પ્ર. જા. વિ. દ. વાપત્ર	બાલકર
૧૪.	રમ ગોપાલ માદવ	વિદાલકલ વાપત્રાપ અદ્યક્ષ	રમ
૧૫.	મોરદે ગોર	સચિવ સંકુલકલ	મોરદે
૧૬.	રમેશ શેઠ	મિતલ સંકુલકલ	રમેશ
૧૭.	રામ પ્રસાદ ગોત્રા	ગામિત, વિદ્યા વિજા. વાતાવરણ વિજા	રામ
૧૮.	અમિલ ગોત્રા	વાતાવરણ વિજા	અમિલ
૧૯.	અવધા શેઠ	મિતલ સંકુલકલ	અવધા

आजका निर्णय -

१. वडा नं ५ के हिमाना भंगलपुर देखी जवाहरना गाउँ हुदै हुन -
वडा देखी वैजनाथ गा.पा.के हिमाना पिपिरी सम्म ।
२. हुलादी सडक देखी वडा हुदै वडा नं ८ चमकदार जोडै
सडक ।
३. विपि प्रतिशालम देखी उत्तर कुलहस गाउँ ~~वडा~~ हुदै
वडा नं ८ रनिगापुर जोडै सडक
४. गाजीपुरका देखी पूर्व उत्तर चमकदार पुर सम्म
५. हुलादी सडक देखी हिलहारी हुदै वैजनाथ गा.पा.के हिमाना
सम्म ।

(Signatures and stamps)








क्षेत्र मिति २०७५/०८/१० गते यस खजुरा गाउँपालिका बाँकेको गाउँपालिका सङ्घ मातायात गुरुमोजना तथा जलको लागि वडा नं ८ का वडाध्यक्ष श्री किरोज खात जसु डो अध्यक्षतामा सङ्घ पहिचान प्राथमिकिकरण तथा समग्र मातायात गुरुमोजना सम्बन्धी इलाकन तथा यस मुद्दाको संकलन गरी निम्न निर्णय गरियो।

उपस्थितहरू

क्र.सं.	सङ्गठन/व्यक्ति	पदा/सम्मान	हस्ताक्षर
१.	किरोज खात	वडाध्यक्ष/खजुरा गा.पा.	
२.	गुहा साई	वडा सदस्य	
३.	मोहन थापा	वडा सदस्य	
४.	रामबहादुर पौडेल	उपनिर्वाहक वडा सदस्य	
५.	प्रमोद घिमिरे	द.म वडा सदस्य	
६.	अमरनाथ थापा		

अवस्थित उपस्थिति

७.	आशाधाम थापा	पञ्चपती प्रि.म.नी.म.स.स.स.स.	
८.	भोगीराम थापा		
९.	हरिहर थापा		
१०.	इन्दु देवी अधिकारी	- हर्ष उपाध्यक्ष (रिनिमाध)	
११.	मोहनराम अधिकारी	- हर्ष वडा अध्यक्ष	
१२.	प्रसादी सुनु		
१३.	नरकमल साई		
१४.	मदन बहादुर खत्री		
१५.	रमेश श्रेष्ठ	इन्जिनियर	
१६.	परस बहादुर खत्री	वडा सदस्य	
१७.	रामप्रसाद गौतम	वातावरण विज्ञ	
१८.	अमिताभ खत्री	सामाजिक परिचालक	
१९.	इन्दु देवी खत्री		
२०.	अमृतल कर्णाम साई	समाज सेवक	
२१.	रमेश श्रेष्ठ	इन्जिनियर	
२२.	राम प्रसाद गौतम	वातावरण विज्ञ	
२३.	अमिताभ खत्री	सामाजिक परिचालक	
२४.	इन्दु देवी खत्री		

आवक निष्पत्ति

(१) सदस्य के उपयोजनाओं लागू तथ्यांक व को जी के सदस्य
लाई प्राथमिकता देई धनो २ को निर्धारित गारियो।

तथ्यांक

प्रथम प्राथमिकता क्रम

(१) जनकामना चोक देरनी बुधनाष्टर हैं वैजनाथ ५ भा जोडे सदस्य

(२) जिलास्तरीय सदस्य देरनी दिया, कालीपूर हैं वैजनाथ ५
भा जोडे सदस्य —

(३) खान-चोक देरनी वैजनाथ ८ विदेशीया जोडे सदस्य

(४) खान-चोक देरनी वठोवा हैं सोनहर - ७ गुलरीया, हलादी
सदस्य जोडे सदस्य

(५) कंगालीपूर देरनी कालीपूर हैं वैजनाथ ६ जोडे सदस्य

मानवी
सदस्य
जोडे

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