



Government of Nepal



District Transport Master Plan (DTMP)

Ministry of Federal Affairs
and Local Development

Department of Local Infrastructure
Development and Agricultural
Roads (DOLIDAR)

District Development Committee,
Bara

March, 2016

FINAL REPORT

VOLUME-I MAIN REPORT

Prepared by the North Star Engineering Consultant (P) Ltd for the District Development Committee (DDC) and District Technical Office (DTO), Bara with Technical Assistance from the Department of Local Infrastructure and Agricultural Roads (DOLIDAR), Ministry of Federal Affairs and Local Development and grant supported by DFID

FOREWORD



Government of Nepal
Ministry of Federal Affairs and Local Development
Office of District Development Committee
Kalaiya, Bara

Date: 3rd March, 2016

FOREWORD

It is my great pleasure to introduce this revised District Transport Master Plan (DTMP) of Bara, district which was concurred by the joint meeting of different stakeholders, DTICC and DDC held on 2nd March 2016. Prior to this, DRCN was selected by the joint meeting of different stakeholders, DTICC and DDC board held on 24 July 2015. Based on the DTMP Guideline 2012, all together 33 District Road Core Network (DRCN) aiming to connect all Village Development Committee (VDC) headquarters with the district headquarter, either directly or through strategic road network (SRN) have been selected. By bringing the DRCN to a maintainable and all-weather standard, year-round access to all VDCs headquarters can be ensured.

I believe this document will be helpful to materialize Rural Transport Infrastructure Sector Wide Approach (RTI SWAp) through sustainable planning, resources mobilization, implementation and monitoring of the road development. The document is anticipated to generate substantial employment opportunities for rural people through conservation and improvement activities of the existing road network. DRCN plays an important role to strengthen and promote overall economic growth of the district through established and improved year round transport services reinforcing intra and inter-district linkages. It is most crucial to expand DRCN in a planned way as per the DTMP recommendations by considering the framework of available resources in DDC. This document is very essential in lobbying the donor agencies through central government to attract fund gap. Furthermore, this document will be supportive in avoiding prevailing duplication in resources allocation in road network development by considering basket fund approach.

I would, firstly like to express my gratitude to Rural Access Program (RAP3) for financial and technical support. Secondly, my thanks go to, DTO Chief, Mr. Rajesh Lal Karna and other DDC/ DTO staff for their valuable efforts in the process of producing this document. Equally, I would like to thank Mr. Shrawan Kumar Thapa, Team Leader and other team members from North Star Engineering Consultant (P) Ltd. for their continuous dedication and hard-work in bringing this DTMP document to this stage. My special thank goes to all representatives of political parties, who played crucial role in providing constructive feedbacks and valuable support in preparing this document successfully.

Last but not least, I would like to express my heartfelt gratitude to Department of Local Infrastructure Development and Agriculture Road (DoLIDAR), Local Transport Infrastructure Sector Program for providing valuable suggestions and cooperation to produce this report. Any pioneering and constructive suggestions regarding this document will be highly appreciated.

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The District Transport Master Plan of Bara District has been prepared for the District Development Committee/District Technical Office, Bara, DoLIDAR and Rural Access Program (Phase 3), under the Contract Agreement between Rural Access Program (Phase 3) and North Star Engineering Consultant (P) Ltd. (Contract No: RAP3/2014/014, DTMP02) to carry out the task of preparing of DTMP of Bara District of Nepal. We would like to convey our indebtedness to Rural Access program (Phase-3) for entrusting us the responsibility to carry out the task of preparing of DTMP of Bara District.

We would like to express our sincere gratitude to the Project Coordinator Mr. Maheshwor Ghimire (SDE) of DoLIDAR and Program Manager Mr. Michael Green, Deputy Program Manager Mr. Dilli Prakash Sitaula, Engineering TL Mr. Bill Seal, Er. Manoj Krishna Shrestha and Er. Laxman Bahadur Dahi Shrestha of (RAP 3) whose valuable co-operation and suggestions guided us to accomplish this stage of work. We would also like to express our sincere thanks to LDO of Bara DDC Mr. Narayan Prasad Pandey, DTO Chief Mr. Rajesh Lal Karna (SDE), Planning Officer, Program Officer, Information Officer, Engineers, Sub-engineers and other staffs of DDC and DTO offices, Bara for their extended help and regular support.

The local leaders and local people from Bara district are also thankful for their help and suggestion for the selection and identification of the DRCN. We hope, this prepared DTMP of Bara District will be very helpful and a valuable guideline for the planning and development of effective and systematic transport network in Bara District.

Finally, we would like to thank our DTMP team members for their valuable efforts to bring the study report in this stage.

Dhruba Raj Tripathi
Managing Director
North Star Engineering Consultant P. Ltd.

EXECUTIVE SUMMARY

Bara District is located in Narayani Zone of the Central Development Region of Nepal. It borders with Rautahat district to the East, Parsa district to the West, Makawanpur district to the North and Bihar state of India to the South. Topographically, Bara district entails 26°51' - 27°02' latitude and 84°51' - 85°16' longitudes. Geopolitically, the district is administratively divided into six electoral constituencies 15 Illakas which consist of 68VDCs and 6 municipalities. Whereas new 5 municipalities are declared merging 22 VDCs by Nepal Government and 8 surrounding VDCs are merged to Kalaiya municipality.

The total area of the district is 1190 sq. km. View on land use pattern, 36.41% of area is covered by forest, 53.65% area covered by agricultural land, 1.05% pasture land and remaining 8.89% area covered by others. Total population of the district is 687,708 comprising 336,464 female (51.7%) and 351,244 male (48.3%) residing in 108,635 households. Elevation of District Headquarters of Bara, Kalaiya is 103 m from mean sea level. Aruwa, Bangari, Dudhura, Jamuni, Pasaha, Lalbakaiya, Sirsiya and Tiyar are main rivers flowing in district. Almost all rivers are seasonal.

Subsistence agriculture farming, mainly cash crop production is the main source of occupation and livelihood of the majority of the population, with 49% of the population active in this sector. Paddy, Wheat, Maize, oil seed, sugarcane, pulses and fruits are the main agricultural production in this district for the domestic use and export to nearby districts. Due to the fertility of the plain land, mostly southern part, Bara is suitable for production of paddy, wheat and maize.

The district inventory identified just over 1063.34 km of roads, including 232.24 km of strategic roads and 831.10km of rural roads. In coordination with the DTICC and DDC, 34 rural roads with a length of 298.87km were identified as making up the district road core network (DRCN), and the remaining 532.23 km were classified as village roads. The existing DRCN roads link up 66 of the 99 VDCs/municipality headquarters other VDCs/ Municipality headquarters are already accessed by SRN. Part of nineteen DRCN roads (72.424 km) proposed to links various VDC centres are lie within existing and newly formed municipality areas. At later stage, when Municipal Transport Master Plan prepares by concerned municipalities, part of these roads will become urban roads which results in decreased DRCN roads length to 226.446 km only. Most of DRCN roads are currently gravelled roads and are considered all-weather.

Road Class	Total length	Black Top	Gravel	Earthen
Strategic road network	232.24	81.62	83.26	67.36
Urban roads	-	-	-	-
District road core network	298.87	7.29	230.21	61.38
Village roads	532.23	-	182.65	349.59
Total	1,063.34	88.91	496.11	478.32

Annual conservation costs are estimated at NPR85.20million based on the first year, and will be updated in the Annual Road Asset Management Plan (ARAMP) based on actual annual

maintenance needs as determined in the annual road condition survey. For the full five-year period the conservation costs will come to NPR 425.998million. An analysis of road network identified need for improvement of all the DRCN roads in order to bring them to a maintainable all-weather standard and provide them with a proper road surface for existing traffic volumes. The required improvements and their estimated costs are listed below.

Improvement type	Requirement	Cost (NPR)
Bridges	165 m	132,000,000
Slab culverts	36 m	5,400,000
Causeways	19 m	1,900,000
Hume pipes	93 units	9,300,000
Masonry retaining walls	- m ³	-
Gabion retaining walls	- m ³	-
Lined drains	- m	-
Widening	- m	-
Rehabilitation	3.58 km	2,864,000
Gravelling	61.38 km	135,025,000
Blacktopping	151.29 km	862,358,700
New construction	- km	-
Total		1,148,847,700

The available budget for the road sector for coming five years (fiscal year 2072/73 to 2076/77) is estimated to be NPR 1233.083million. Allocation to the district road core network was set at 95% of the total road sector budget, which was subsequently allocated firstly to the annual maintenance needs, secondly to the improvement needs. This budget is insufficient to cover all the estimated costs of conservation and improvement. However, it allows all conservation requirements to be covered throughout the DTMP period and 65% improvement works to be completed before the end of the DTMP period. The remaining improvement works will be carried out in the next DTMP.

Within the DTMP period 19.69km of roads will be gravelled and 122.11 km roads will be blacktopped (41%) resulting that length being brought to a maintainable all-weather standard. VDC headquarters with access to all-weather DRCN roads and the SRN will increase from 81 to 83, while the percentage of the district population with such access will increase from 84% to 86%. After this, the resulting road status in the district will be 129.40km blacktopped, 127.80 km, gravelled and earthen surface remains to 41.68 km.

ABBREVIATIONS

ARAMP	Annual Road Asset Management Plan
ARMP	Annual Road Maintenance Plan
BT	Black Top
DDC	District Development Committee
DOLIDAR	Department of Local Infrastructure Development and Agriculture Road
DOR	Department of Road
DTICC	District Transport Infrastructure Coordination Committee
DTMP	District Transport Master Plan
DTPP	District Transport Perspective Plan
GIS	Geographical Information system
GPS	Global Positioning System
GON	Government of Nepal
GR	Gravel
Km	Kilometre
LGCDP	Local Governance and Community Development Programme
LRBP	Local Road Bridge Program
MoFALD	Ministry of Federal Affairs and Local Development
MTMP	Municipal Transport Master Plan
NPR	Nepali Rupees
PCU	Passenger Car Unit
RAP	Rural Access Programme
RCIW	Rural Community Infrastructure Work
RTI	Rural Transport Infrastructure
SWAp	Sector Wide Approach
VDC	Village Development Committee
VPD	Vehicle Per Day

CONTENTS

FOREWORD	i
ACKNOWLEDGEMENTS	ii
EXECUTIVE SUMMARY	iii
ABBREVIATIONS	v
CONTENTS	vi
1. Introduction	1
2. District road core network (DRCN)	3
2.1 Total road network	3
2.2 National Highways and Feeder Roads	3
2.3 District Road Core Network	4
2.4 Village roads.....	6
3. District Transport Perspective Plan (DTPP)	10
3.1 Conservation	10
3.2 Improvement	11
3.3 New construction	15
3.4 District Transport Perspective Plan	16
4. Cost estimation	20
4.1 Conservation	20
4.2 Improvement	23
4.3 New construction	26
4.4 DTPP costs	26
5. Ranking	28
5.1 Conservation	28
5.2 Improvement	29
5.3 New construction	30
6. District Transport Master Plan (DTMP)	31
6.1 Five Year Projected Financial resources	31
6.2 Budget allocation	31
6.3 DTMP outputs	34
6.4 DTMP outcome	34
Annex 1 GIS FILE PROJECTION AND COORDINATE SYSTEM	37
Annex 2 TRAFFIC DATA	38
Annex 3 POPULATION SERVED	39
Annex 4 LOCATION OF PROPOSED INTERVENTIONS	45
Annex 5 OVERALL ROAD INVENTORY	47
Annex 6 PHOTOGRAPHS	55
Annex 7 MINUTES	60
Annex 8 UNTRACKED ROADS IN BARA	69
Annex 9 LIST OF COMMENTS/SUGGESTIONS RECEIVED FROM FINAL WORKSHOP AND ITS ANSWER	70

TABLES

Table 2.1.1	Road length in Bara district (km)	3
Table 2.2.1	National Highways and Feeder Roads in Bara district (km).....	3
Table 2.3.1	Road length in Bara District (km).....	4
Table 2.3.2	District Road Core Network in Bara District (km).....	4
Table 3.1.1	Conservation requirements	11
Table 3.2.1	Sections of the district road core network requiring rehabilitation	12
Table 3.2.2	Sections of the district road core network requiring gravelling.....	12
Table 3.2.3	Required cross drainage structures.....	13
Table 3.2.4	Required protective structures	14
Table 3.2.5	Sections of the District Road Core Network requiring widening	15
Table 3.2.6	Sections of the district road core network requiring blacktopping.....	15
Table 3.3.1	Sections of the district road core network requiring new construction	16
Table 3.4.1	District Transport Perspective Plan	17
Table 4.1.1	Standard unit costs for conservation	20
Table 4.1.2	Estimated conservation costs for the first year (NPR '000).....	21
Table 4.2.1	Standard unit costs for improvement activities	23
Table 4.2.2	Cost estimate for improvement measures (NPR '000)	24
Table 4.3.1	Standard unit costs for new construction	26
Table 4.3.2	Cost Estimate for new construction (NPR '000).....	26
Table 4.4.1	DTPP Costs (NPR '000).....	26
Table 5.1.1	Ranking of Conservation works (NPR '000).....	28
Table 5.2.1	Ranking of improvement works (NPR '000).....	29
Table 5.3.1	Ranking of construction works (NPR '000).....	30
Table 6.1.1	Estimated funding levels (roads) for next five years (in NPR '000)	31
Table 6.2.1	Investment Plan.....	32
Table 6.3.1	DTMP output	34
Table 6.4.1	Standard of DRCN roads.....	34
Table 6.4.2	Population with access to road network.....	35

FIGURES

Figure 1 :	Map of Nepal indicating Bara district.....	1
Figure 2 :	Total Road Inventory Map for Bara District.....	8
Figure 3 :	District Road Core Network (DRCN) Map.....	9
Figure 4 :	District Transport Perspective Plan (DTPP).....	19
Figure 5 :	District Road Sector Budget Allocation	32
Figure 6 :	District Transport Master Plan (DTMP)	36

1. INTRODUCTION

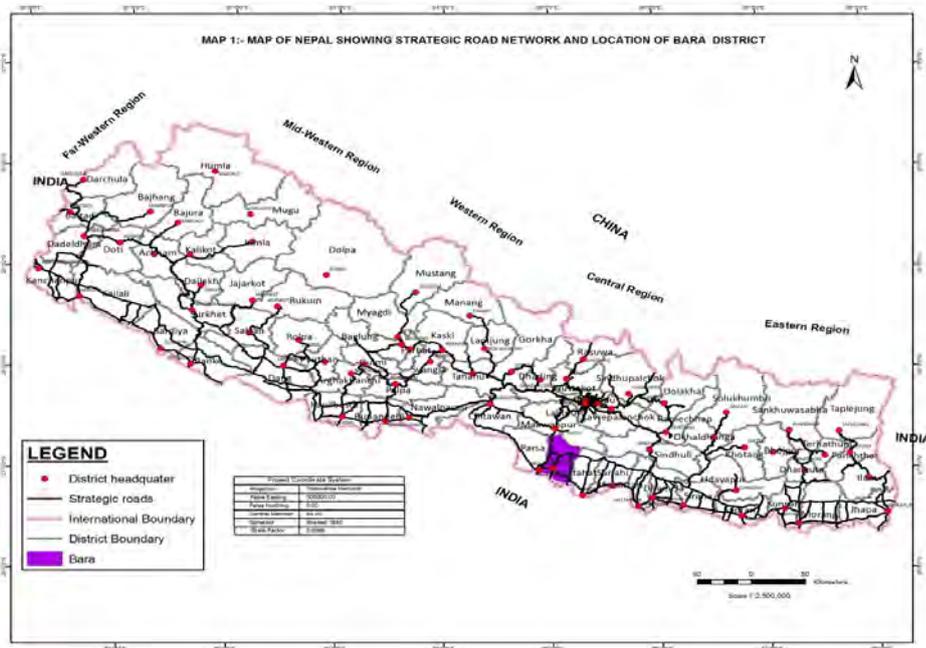
Bara District is located in Narayani Zone of the Central Development Region of Nepal. It borders with Rautahat district to the East, Parsa district to the West, Makawanpur district to the North and Bihar state of India to the South. Topographically, Bara district entails 26°51' - 27°02' latitude and 84°51' - 85°16' longitudes. Geopolitically, the district is administratively divided into six electoral constituencies 15 Illakas which consist of 76 VDCs and 6 municipalities. Whereas new 5 municipalities are declared merging 22 VDCs by Nepal Government and 8 surrounding VDCs are merged to Kalaiya municipality

The total area of the district is 1190 sq. km. View on land use pattern, 36.41% of area is covered by forest, 53.65% area covered by agricultural land, 1.05% pasture land and remaining 8.89% area covered by others. Elevation of District Headquarters of Bara, Kalaiya is 103 m from mean sea level. Aruwa, Bangari, Dudhura, Jamuni, Pasaha, Lalbakaiya, Sirsiya and Tiyar are main rivers flowing in district. Almost all rivers are seasonal.

The topography of the district, it can be divided into two regions, namely, Chure hill or Siwalik region and Terai region. The Chure hills situated in the northern part of the district and covers 13.48% and almost southern part is Terai plain land and covers 86.52%.

The annual rainfall is about 1760.6 mm and average temperatures vary from 18°C to 31.3°C. Subsistence agriculture farming, mainly cash crop production is the main source of occupation and livelihood of the majority of the population, with 49% of the population active in this sector. Paddy, Wheat, Maize, oil seed, sugarcane, pulses and fruits are the main agricultural production in this district for the domestic use and export to nearby districts. Due to the fertility of the plain land, mostly southern part, Bara is suitable for production of paddy, wheat and maize.

Figure 1 : Map of Nepal indicating Bara district



According to the National Census 2011, the total population of the district is 687,708 comprising 336,464 female (48.3%) and 351,244 male (51.7%) residing in 108,635 households. Bara district has an average population density of around 578 people per square km. The average family size is 6.33. The average literacy rate is about 51.96% (40.67% female and 62.75% male are literate). Annual population growth rate is 2.07% as a result the present population of the district might be increased. Bara district has a multi ethnic composition of Muslim, Yadav, Tharu, Koiri, Chamar and others. The common language used for communication is Bhojपुरi and other languages are Nepali, Tharu and Maithili.

There are numerous district and village roads. From the field study, it has been observed that most of them are in all-weather and only 61 km DRCN is fair weather condition but 425 km of rural road including DRCN and village road is in fair weather condition. Most of these roads have been constructed using machine.

The study team has found that Bara district has relatively better transport facility. Simara airport is providing air transport facility. This district has an easy surface transport connection with major market, commercial city and main trade and transition point of Nepal, Birganj of Parsa district which is connected by all-weather blacktop road with Bara. However, most of the rural roads are in poor condition and need to be improved /upgraded for safe and reliable journey.

This district is served by surface transport facility linking the district with the national strategic road network through Birgunj to Kalaiya feeder road which has crossed district west to east having total length of 9.82 km in Bara. Furthermore, part of east west highway (Mahendra Rajmarg; MRM) from Dhansar to Pathalaya (27.71 km) and Pathalaya to Chure (19.34 Km) lies in this district. Part of Tribhuban Rajpath Pathalaya Birganj sector (19.41 km) also lies in Bara, which are constructed by DoR and providing all weather service.

2. DISTRICT ROAD CORE NETWORK (DRCN)

This chapter gives an overview of the existing roads in Bara district, distinguishing between strategic roads and rural roads. It goes on to identify those rural roads that make up the district road core network (DRCN) that will form the basis for this DTMP. The remaining rural roads are classified as village roads.

2.1 TOTAL ROAD NETWORK

Bara district has an estimated road network of 1,063.34 kilometres, including 232.24km of strategic roads managed by DoR and 831.10 km of rural roads managed by Bara DDC and the VDCs. Three strategic roads, part of east west highway (Dhansar-Chure), Part of Tribhuvan Rajpath (Pathalैया Jitpur Gandak Nahar), Part of Birgunj-Kalैया Road, and part of Manwat-Kalैया-Matiarwa (feeder) and part of Kalैया –Kocharwa (Postal) roads have blacktop surface. District roads have gravel and earthen surface. A map of the total road network in Bara district is shown in figure 2 at the end of this chapter.

Table 2.1.1 Road length in Bara district (km)

Road Class	Total length	Black Top	Gravel	Earthen
Strategic roads	232.24	81.62	83.26	67.36
Urban roads	-	-	-	-
Rural roads	831.10	7.29	412.854	410.960
Total	1,063.34	88.91	496.11	478.32

2.2 NATIONAL HIGHWAYS AND FEEDER ROADS

Bara district has four National Highways and six feeder roads totalling just over 232.24 km whereas 81.62 km Blacktopped, 83.26 km gravel and 67.36km earthen road surface. Tribhuban Rajpath, Mahendra Highway and other feeder roads are managed by the Department of Roads (DoR).

Table 2.2.1 National Highways and Feeder Roads in Bara district (km)

Code	Name of Road	Total length	Black Top	Gravel	Earthen
H01	Mahendra Highway (Dhansar-Chure)	47.15	47.15		
H02	Tribhuvan Rajpath (Pathalैया-Gandak canal)	18.80	18.80		
H17	Kachorwa-Kalैया (Postal)	24.80	2.05	18.64	4.11
H20	Jaspal – Nijgadh (Kathmandu -Terai Fast Track)	8.67			8.67
F018	Bara district border-Kalैया	8.62	8.62		
F118	Tamagadhi (MRM)-Simraungadh (IB)	38.59		38.59	
F119	Manmat (MRM)-Kalैया-Matiarwa (IB)	29.03	5.00	24.03	

Code	Name of Road	Total length	Black Top	Gravel	Earthen
F189	Gadhimai - Kawahigoth (IB)	13.54			13.54
F205	Nijgadh-Hanumanganj-Khaira	7.97		2.00	5.97
F207	Bara Border-Bahuari-Gamhariya-Rautahat Border	35.07			35.07
Total		232.24	81.62	83.26	67.36

2.3 DISTRICT ROAD CORE NETWORK

As part of the preparation of this DTMP, the District Road Core Network (DRCN) was identified together with the DTICC/DDC and other stakeholders. This DRCN is the minimum network that allows all VDC headquarters to be connected with the strategic road network and the district headquarters, either directly or through other VDCs. In the selection of the DRCN roads, account was taken of the road conditions and the existing traffic levels. The identified DRCN roads were subsequently provided with road codes according to national standards. Road code has been assigned to village roads (road data as available in old DTMP and provided by DDC/DTO).

The resulting District Road Core Network in Bara district is shown in Figure 3 at the end of this chapter. The DRCN consists of 34 district roads with a total length of 298.87 km. The remaining 532.23 km of existing rural roads are not considered to be DRCN roads and are classified as village roads under the responsibility of the VDCs. Most of DRCN roads are currently gravelled roads and are considered all-weather. A complete list of the DRCN roads and their characteristics is provided in Table 2.3.1.

Table 2.3.1 Road length in Bara District (km)

Road Class	Total length	Black Top	Gravel	Earthen
Strategic road network	232.24	81.62	83.26	67.36
Highways	99.42	68.00	18.64	12.78
Feeder roads	132.82	13.62	64.62	54.58
Urban roads	-	-	-	-
District road core network	298.87	7.29	230.21	61.38
Village roads	532.23	-	182.64	349.59
Total	1,063.34	88.91	496.11	478.32

Table 2.3.2 District Road Core Network in Bara District (km)

Code	Name of Road	Total length	Black Top	Gravel	Earthen	All weather	Fair weather
Total		298.87	7.29	230.21	61.38	237.49	61.38
Percentage			2%	77%	21%	79%	21%
33DR001	Parwanipur (TRP)-Rampur Tokani	3.45	-	2.90	0.55	2.90	0.55
33DR002	Parsauni-Nitanpur (Rajmarga)	8.38	2.22	4.20	1.96	6.42	1.96
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	0.92	2.35	5.35	3.27	5.35

Code	Name of Road	Total length	Black Top	Gravel	Earth en	All weather	Fair weather
33DR004	Khekhariya–Pheta–Motisar (Kalaiya Road)	8.81	-	8.81		8.81	-
33DR005	Motisar-Raghunathpur-Pheta	4.77	-	2.42	2.35	2.42	2.35
33DR006	Bhaluhi–Inarwasira–Rajghatta–MRM	22.60	0.40	22.20	-	22.60	-
33DR007	Kalaiya-Belahiya	4.78	1.33	3.45		4.78	-
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khaptatta	12.32	0.99	9.33	2.00	10.32	2.00
33DR009	Basatpur-Sitalpur	5.73	-	5.23	0.50	5.23	0.50
33DR010	Mukhalal Marg (Kalaiya –Jaitapur)	11.34	-	9.10	2.24	9.10	2.24
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.94	-	12.94		12.94	-
33DR012	Piparpati-Dewapur-Sanphuluwa	6.60	-	3.47	3.13	3.47	3.13
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	10.71	-	8.37	2.33	8.37	2.33
33DR014	Kabahigoth-Bagahi	1.76	-	-	1.76	-	1.76
33DR015	Bariyarpur-Nayabasti	23.48	-	22.48	1.00	22.48	1.00
33DR016	Kalaiya–Gunjbhawanipur–Malahi	18.29	0.46	17.83	-	18.29	-
33DR017	Dharmapur-Bagadampur	5.68	-	5.68	-	5.68	-
33DR018	Majhariya-Musharna-Charmohana	3.45	-	2.45	1.00	2.45	1.00
33DR019	Kolhbi-Baragadhi-Lautan	12.61	-	11.61	1.00	11.61	1.00
33DR020	Narahi-Tetariya-Ramban	9.13	-	8.05	1.08	8.05	1.08
33DR021	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	7.69	-	5.50	2.19	5.50	2.19
33DR022	Gulariya-Pakadiya-Benauli	7.40	-	1.82	5.58	1.82	5.58
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.31	-	12.05	1.26	12.05	1.26
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.05	0.39	5.45	2.21	5.84	2.21
33DR025	Piparpati-Bishanpur–Benauli-Bairiya–Kotwali	8.76	-	8.76	-	8.76	-
33DR026	Ramnagar-Kisunpur-Ranibas	3.70	-	0.88	2.82	0.88	2.82
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7.04	-	2.80	4.24	2.80	4.24
33DR028	Tamagadhi gate-Ratanpuri	9.78	-	-	9.78	-	9.78
33DR029	Ganganagar-Hariharpur- Simraungadh	3.33	-	1.56	1.76	1.56	1.76
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	6.36	0.59	5.28	0.50	5.86	0.50
33DR031	Harniya Chowk-Bishnupurwa	6.84	-	5.20	1.65	5.20	1.65
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	6.09	-	3.21	2.88	3.21	2.88
33DR033	Kachowra-Paterwa-Bhagawanpur	5.39	-	5.14	0.25	5.14	0.25
33DR034	Naya Basti-Prasauna-Kolhabi	9.71		9.71		9.71	

Note: 1. DRCN, 334DR011 and 33DR034 are divided into two roads from proposed DRCN due to it overlaps with 33DR015, and as suggested in final workshop.
2. DRCN, 33DR015 is tracked up to MRM (total length 23.48), The road beyond Nayabasti is passes through proposed second international Airport, NIJGADH and jungle area. So, better to end the road at Nayabasti having total length of 14 km from Bariyarpur.

Similarly part of following nineteen DRCN roads (72.424 km) proposed to links various VDC centres which are lie within areas of existing and newly formed municipalities. Of the 298.87

km of identified DRCN roads, eight roads having 25.138 km lies within Kalaiya Municipality, two roads 12.762 km lies within Gadhimai Municipality, three roads 8.094 km lies within Mahagadhimai Municipality, one road 1.364 km lies within Kolhabi Municipality, three roads 8.921 km lies within Simraungadh Municipality and two roads 16.147 km lies within Nijgadh Municipality. At later stage, part of these roads will become urban roads which results in decreased DRCN roads length to 226.446 km only. In future, during preparation of Municipal Transport Master Plan (MTMP) by concern municipality, part of these DRCN automatically will change to Urban Road.

Kalaiya Municipality(DRCN road length lies within is 25.138km)

- i. 33DR004 Khekhariya-Pheta-Motisar (1.197 km)
- ii. 33DR005 Motisar-Raghunathpur-Pheta (0.60 km)
- iii. 33DR007 Kalaiya- Belahiya (3.258 km)
- iv. 33DR008 Chhatawa-Ghodashahan-Gamhariya-Khapartatta (4.354 km)
- v. 33DR009 Basatpur-Shitalpur (2.694 km)
- vi. 33DR010 Mukhlal Marga (Kalaiya-Jaitapur) (6.506 km)
- vii. 33 DR011 Kalaiya-Maheshpur –Khamuwa-Madhuban (4.643km)
- viii. 33DR016 Kalaiya-Ganjabhawannipur_Malahi (1.886km)

Gadhimai Municipality(DRCN road length lies within is 12.762 km)

- i. 33DR002 Prasauni-Nitanpur (Rajmarga) (2.662 Km)
- ii. 33DR006 Bhalih-Inarwasira-Rajghatta-Pheta (10.10 km)

Mahagadhimai Municipality(DRCN road length lies within is 8.094 km)

- i. 33DR013 Hulakisadak Patharhatti-Rauwahi-Pipradhi - Kabahigoth (3.156 km)
- ii. 33 DR015 Bariyarpur-Nayabasti (2.474 km)
- iii. 33DR017 Dharampur-Bagadhampur (2.464 km)

Kolhabi Municipality(DRCN road length lies within is 1.364 km)

- i. 33DR019 Kolhabi-Baragadhi-Lautan (1.364 km)

Simraungadh Municipality(DRCN road length lies within is 8.921 km)

- i. 33DR026 Ramnagar-Kisunpur-Ranibas (1.714 km)
- ii. 33DR027 Golagunj-Amritgunj-Bairiya-Bishunpur (3.882 km)
- iii. 33DR029 Ganganagar-hariharpur-Simraungadh (3.325 km)

Nijgadh Municipality(DRCN road length lies within is 16.147 km)

- i. 33DR028 Tamagadhi gate-Ratanpuri (9.761 km)
- ii. 33DR030 MRM(Nijgadh)-Bharatgunj Sigaul (6.386 km)

2.4 VILLAGE ROADS

The 532.23 km of remaining (147 nos.) roads that do not form part of the identified District Road Core Network (DRCN) are classified as village roads and are under the responsibility of the 76VDCs and 6 municipalities in Bara district. These are roads of a lower importance that do not form the main link between the VDC headquarters and the district headquarters or strategic road network. Instead they provide additional access to other parts of the VDCs.

On average each VDC will thus be responsible for 7.0 km of village roads. It is recommended that the VDCs organise maintenance workers to carry out the emergency and routine/recurrent maintenance of these roads to ensure they remain accessible. A ny

upgrading or new construction of village roads falls outside the scope of this DTMP and is the responsibility of the VDCs.

Funding for these roads will mainly come from the VDC/municipalities grants. Some district funding will also be allocated to the village roads. However, this district funding will be mainly for maintenance, especially emergency maintenance and routine/recurrent maintenance to keep the village roads open.

In Bara district, there are some district roads (DRCN) which can be inter-district link roads and some roads link to India. After upgrading these roads, there will be good transport facilities for the people of two districts (Bara and Rautahat) and will also provide access to Indian market. District should give priority for upgrading these roads. List of existing inter-district link roads and links to Indian border are as follows:

Table 2.3.3 List of Inter-District and India border Linkage Roads

SN	Name of Road	Total Length (Km)	New Construction (Km)	Links to
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	0	India
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	8.81	0	India
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	12.66	0	India
33DR012	Piparpati-Dewapur-Sanphuluwa	7.85	0	India
33DR016	Kalaiya-Gunjbhawanipur-Malahi	17.98	0	Rautahat
33DR022	Gulariya-Pakadiya-Benauli	7.40	0	India
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushahama	8.05	0	Rautahat
33DR025	Piparpati-Bishanpur-Benauli-Bairiya – Kotwali	8.76	0	India
33DR033	Kachowra-Paterwa-Bhagawanpur	5.39	0	India

Figure 2 : Total Road Inventory Map for Bara District

Comment [L1]: Make sure all data in map should be compatible with main report.

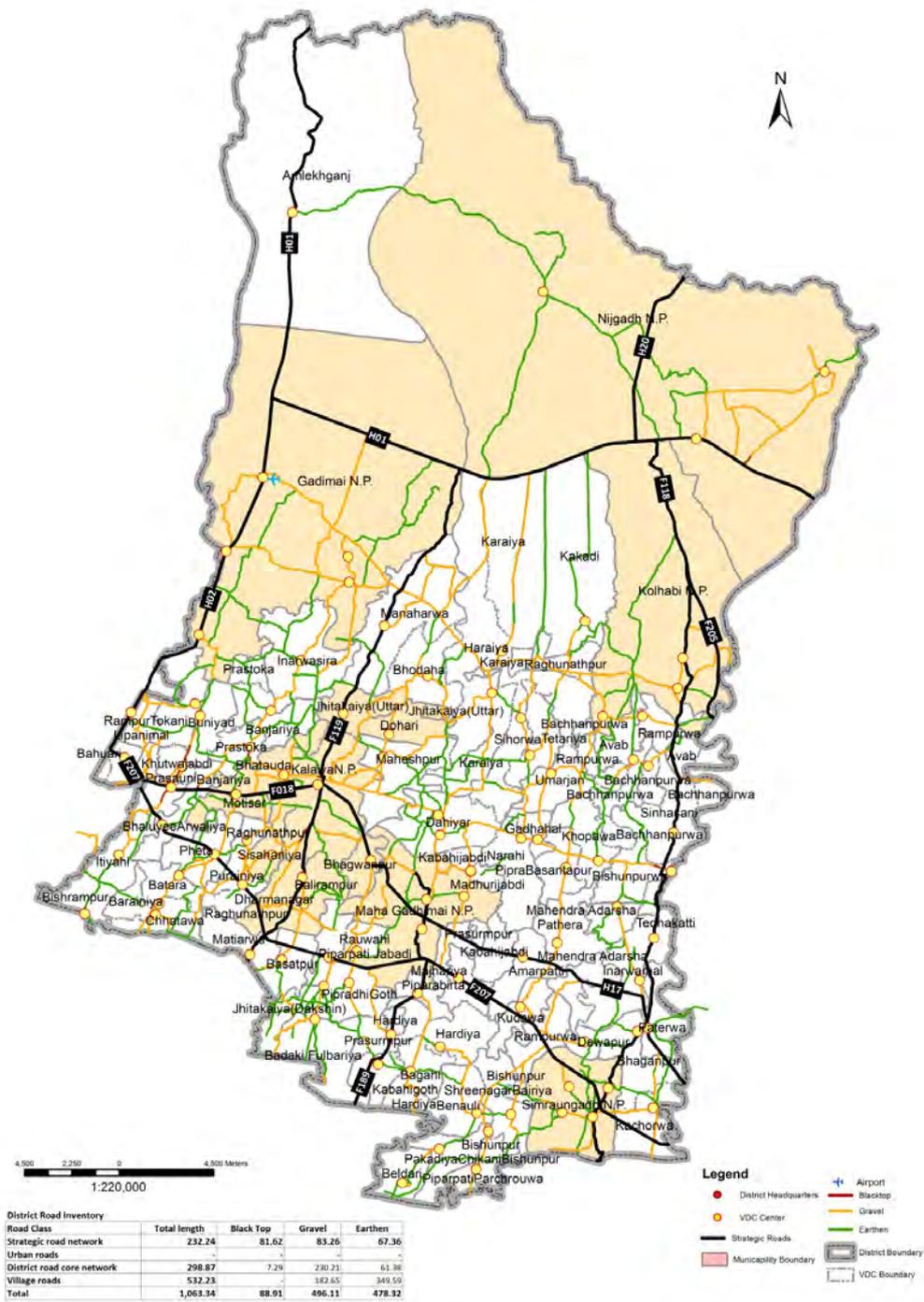
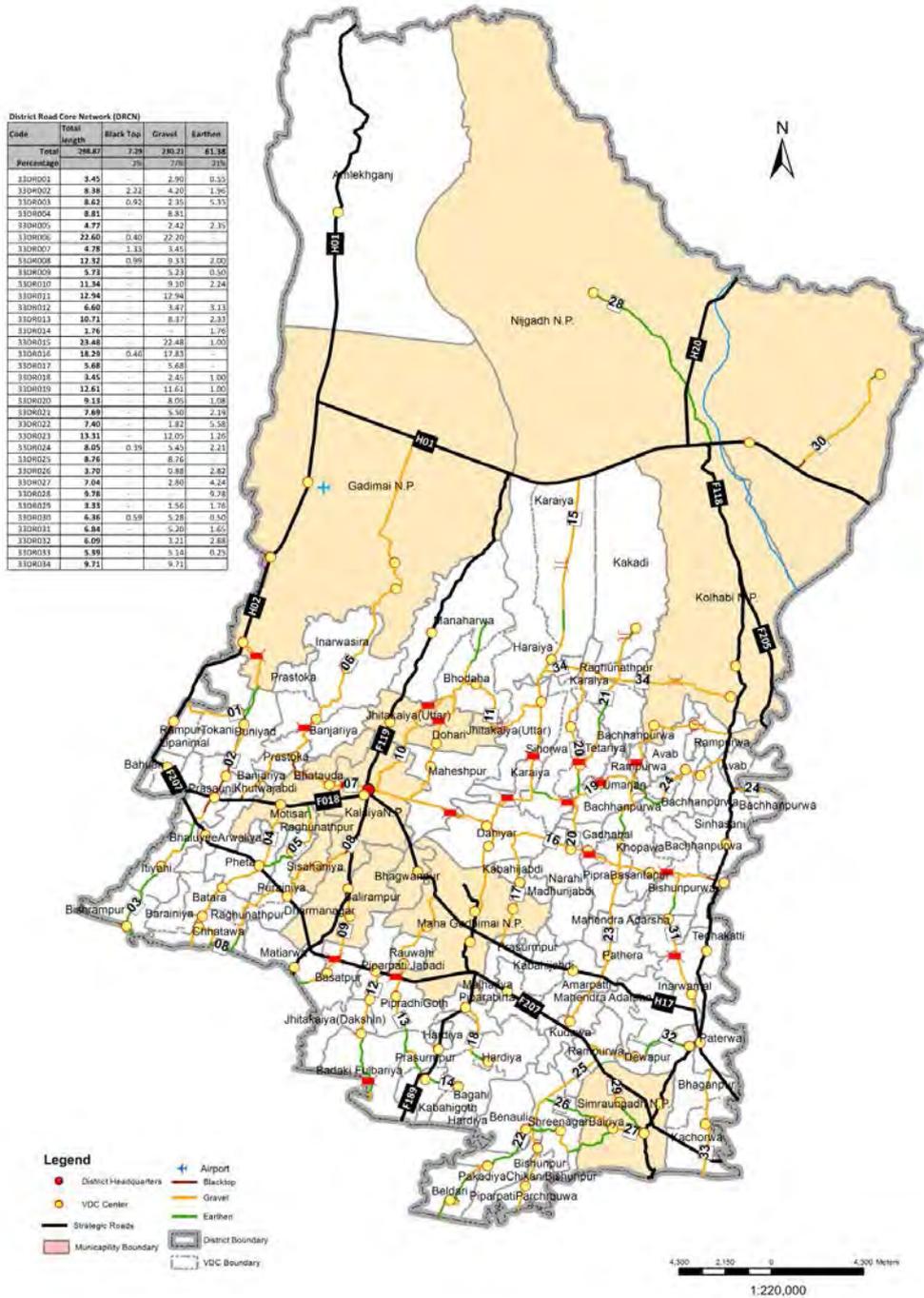


Figure 3 : District Road Core Network (DRCN) Map



3. DISTRICT TRANSPORT PERSPECTIVE PLAN (DTPP)

This chapter looks at the required interventions regarding conservation, improvement and new construction of the district road core network. It provides a complete list of all works required in the DRCN, which together form the District Transport Perspective Plan (DTPP). For the works forming part of the DTPP, chapter 4 will subsequently provide cost estimation, while chapter 5 will rank the works according to priority and chapter 6 will select those priority works that can be carried out in the next 5 years and thus form part of the District Transport Master Plan (DTMP).

3.1 CONSERVATION

Conservation refers to the actions required to repair a road and keep it in good and passable condition. For DTMP 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 lump sum 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 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.

Table 3.1.1 Conservation requirements

Code	Emergency maintenance (km)	Routine maintenance (km)	Recurrent maintenance blacktop (km)	Recurrent maintenance gravel (km)	Recurrent maintenance earthen (km)	Periodic maintenance blacktop (km)	Periodic maintenance gravel (km)
Total	298.87	298.87	7.29	230.21	61.38	7.29	230.21
33DR001	3.45	3.45	-	2.90	0.55	-	2.90
33DR002	8.38	8.38	2.22	4.20	1.96	2.22	4.20
33DR003	8.62	8.62	0.92	2.35	5.35	0.92	2.35
33DR004	8.81	8.81	-	8.81	-	-	8.81
33DR005	4.77	4.77	-	2.42	2.35	-	2.42
33DR006	22.60	22.60	0.40	22.20	-	0.40	22.20
33DR007	4.78	4.78	1.33	3.45	-	1.33	3.45
33DR008	12.32	12.32	0.99	9.33	2.00	0.99	9.33
33DR009	5.73	5.73	-	5.23	0.50	-	5.23
33DR010	11.34	11.34	-	9.10	2.24	-	9.10
33DR011	12.94	12.94	-	12.94	-	-	12.94
33DR012	6.60	6.60	-	3.47	3.13	-	3.47
33DR013	10.71	10.71	-	8.37	2.33	-	8.37
33DR014	1.76	1.76	-	-	1.76	-	-
33DR015	23.48	23.48	-	22.48	1.00	-	22.48
33DR016	18.29	18.29	0.46	17.83	-	0.46	17.83
33DR017	5.68	5.68	-	5.68	-	-	5.68
33DR018	3.45	3.45	-	2.45	1.00	-	2.45
33DR019	12.61	12.61	-	11.61	1.00	-	11.61
33DR020	9.13	9.13	-	8.05	1.08	-	8.05
33DR021	7.69	7.69	-	5.50	2.19	-	5.50
33DR022	7.40	7.40	-	1.82	5.58	-	1.82
33DR023	13.31	13.31	-	12.05	1.26	-	12.05
33DR024	8.05	8.05	0.39	5.45	2.21	0.39	5.45
33DR025	8.76	8.76	-	8.76	-	-	8.76
33DR026	3.70	3.70	-	0.88	2.82	-	0.88
33DR027	7.04	7.04	-	2.80	4.24	-	2.80
33DR028	9.78	9.78	-	-	9.78	-	-
33DR029	3.33	3.33	-	1.56	1.76	-	1.56
33DR030	6.36	6.36	0.59	5.28	0.50	0.59	5.28
33DR031	6.84	6.84	-	5.20	1.65	-	5.20
33DR032	6.09	6.09	-	3.21	2.88	-	3.21
33DR033	5.39	5.39	-	5.14	0.25	-	5.14
33DR034	9.71	9.71	-	9.71	-	-	9.71

3.2 IMPROVEMENT

Improvement refers to actions required to improve a road to bring it to a maintainable all-weather standard. It includes the following actions, which for Bara are described in more detail in the subsequent sections.

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.

3.2.1 REHABILITATION

Six roads are identified for rehabilitation in the district road core network. Most of the DRCN roads are gravelled (77 %) and in good condition, so the limited section of few roads needs to be rehabilitated.

Table 3.2.1 Sections of the district road core network requiring rehabilitation

Code	Name of Road	Total length (km)	Rehabilitation (km)
Total		69.31	3.58
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	0.20
33DR004	Khekhariya –Pheta –Motisar (Kalaiya Road)	8.81	0.41
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.94	1.10
33DR015	Bariyarpur-Nayabasti	23.48	0.12
33DR017	Dharmapur-Bagadampur	5.70	0.25
33DR028	Tamagadhi gate-Ratanpuri	9.76	1.50

3.2.2 GRAVELLING

As the entire district road core network needs to be brought to an all-weather status, gravelling of the road surface is required for all the earthen sections in the DRCN. Total 61.38 km DRCN need to be gravelled in Bara district which is given in table 3.2.2 below.

Table 3.2.2 Sections of the district road core network requiring gravelling

Code	Name of Road	Total length (km)	Gravelling (km)
Total		298.87	61.38
33DR001	Parwanipur (TRP)-Rampur Tokani	3.45	0.55
33DR002	Parsauni-Nitanpur (Rajmarga)	8.38	1.96
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	5.35
33DR004	Khekhariya–Pheta–Motisar (Kalaiya Road)	8.81	-
33DR005	Motisar-Raghunathpur-Pheta	4.77	2.35
33DR006	Bhaluhi–Inarwasira–Rajghatta–MRM	22.60	-
33DR007	Kalaiya-Belahiya	4.78	-
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	12.32	2.00
33DR009	Basatpur-Sitalpur	5.73	0.50
33DR010	Mukhalal Marg (Kalaiya –Jaitapur)	11.34	2.24
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.94	-
33DR012	Piparpati-Dewapur-Sanphuluwa	6.60	3.13

Code	Name of Road	Total length (km)	Gravelling (km)
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	10.71	2.33
33DR014	Kabahigoth-Bagahi	1.76	1.76
33DR015	Bariyarpur-Nayabasti	23.48	1.00
33DR016	Kalaiya-Gunjbhawanipur-Malahi	18.29	-
33DR017	Dharmapur-Bagadampur	5.68	-
33DR018	Majhariya-Musharna-Charmohana	3.45	1.00
33DR019	Kolhbi-Baragadhi-Lautan	12.61	1.00
33DR020	Narahi-Tetariya-Ramban	9.13	1.08
33DR021	Tetariya-Pipra-Dharohiya-Prasauna-Kakadi	7.69	2.19
33DR022	Gulariya-Pakadiya-Benauli	7.40	5.58
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.31	1.26
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.05	2.21
33DR025	Piparpati-Bishanpur-Benauli-Bairiya-Kotwali	8.76	-
33DR026	Ramnagar-Kisunpur-Ranibas	3.70	2.82
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7.04	4.24
33DR028	Tamagadhi gate-Ratanpuri	9.78	9.78
33DR029	Ganganagar-Hariharpur-Simraungadh	3.33	1.76
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	6.36	0.50
33DR031	Harniya Chowk-Bishnupurwa	6.84	1.65
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	6.09	2.88
33DR033	Kachowra-Paterwa-Bhagawanpur	5.39	0.25
33DR034	Naya Basti-Prasauna-Kolhabi	9.71	-

3.2.3 CROSS DRAINAGE

The need for cross drainage has identified for different DRCN roads. Total of 7bridges with length of 165 m, 7 slab culverts with total length of 36 m, two concrete causeway with total length of 19 m, and 93 pipe culverts were identified as cross drainage structure.

Table 3.2.3 Required cross drainage structures

Code	Name of Road	Total length (km)	Bridge (m)	Slab culvert (m)	CC Causeway (m)	Stone Causeway (m)	Pipe culvert (units)
Total		298.87	165	36	19	-	93
33DR001	Parwanipur (TRP)-Rampur Tokani	3.45					
33DR002	Parsauni-Nitanpur (Rajmarga)	8.38					1
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62					4
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	8.81		5			
33DR005	Motisar-Raghunathpur-Pheta	4.77		3			
33DR006	Bhaluhi-Inarwasira-Rajghatta-MRM	22.60					16
33DR007	Kalaiya-Belahiya	4.78	30				
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	12.32					1
33DR009	Basatpur-Sitalpur	5.73					2

Code	Name of Road	Total length (km)	Bridge (m)	Slab culvert (m)	CC Causeway (m)	Stone Causeway (m)	Pipe culvert (units)
33DR010	Mukhalal Marg (Kalaiya –Jaitapur)	11.34					
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.94	30				5
33DR012	Piparpati-Dewapur-Sanphuluwa	6.60					3
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	10.71					9
33DR014	Kabahigoth-Bagahi	1.76					4
33DR015	Bariyarpur-Nayabasti	23.48					
33DR016	Kalaiya–Gunjbhawanipur–Malahi	18.29		5			8
33DR017	Dharmapur-Bagadampur	5.68	25	4			
33DR018	Majhariya-Musharna-Charmohana	3.45					1
33DR019	Kolhbi-Baragadhi-Lautan	12.61		5			2
33DR020	Narahi-Tetariya-Ramban	9.13	25				5
33DR021	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	7.69					6
33DR022	Gulariya-Pakadiya-Benauli	7.40	15				2
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.31					1
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.05					1
33DR025	Piparpati-Bishanpur–Benauli-Bairiya–Kotwali	8.76	20		7		4
33DR026	Ramnagar-Kisunpur-Ranibas	3.70					
33DR027	Golagung-Amritung-Bairiya Bishnupur	7.04					1
33DR028	Tamagadhi gate-Ratanpuri	9.78		8			1
33DR029	Ganganagar-Hariharpur-Simraungadh	3.33					1
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	6.36					3
33DR031	Harniya Chowk-Bishnupurwa	6.84					4
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	6.09					1
33DR033	Kachowra-Paterwa-Bhagawanpur	5.39					3
33DR034	Naya Basti-Prasauna-Kolhabi	9.71	20	6	12		4

3.2.4 PROTECTIVE STRUCTURES

Based on the road survey carried out in Bara, no protective structure identified of the district road core network.

Table 3.2.4 Required protective structures

Code	Description	Masonry walls (m3)	Gabion walls (m3)	Lined drain (m)
	Total			

3.2.5 WIDENING

Widening of the district road core network in Bara is not required because most of the existing road width is sufficient.

Table 3.2.5 Sections of the District Road Core Network requiring widening

Code	Description	Total length (km)	Widening (m)
	Total		

3.2.6 BLACKTOPPING

An analysis of the traffic data for the different roads making up the district road core network (see **Annex 1**) shows that there is thirteen roads that are eligible for blacktopping (traffic volume exceeds 150 PCU). A total 7.29km length of eight DRCN roads are already been blacktopped.

Table 3.2.6 Sections of the district road core network requiring blacktopping

Code	Description	Total length (km)	Traffic (PCU)	Blacktopping (km)
33DR002	Parsauni-Nitanpur (Rajmarga)	8.38	795	6.16
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	360	7.70
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	8.81	319	8.81
33DR006	Bhaluhi-Inarwasira-Rajghatta-MRM	22.60	458	22.20
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khaptatta	12.32	217	11.33
33DR010	Mukhalal Marg (Kalaiya -Jaitapur)	11.34	196	11.34
33DR015	Bariyarpur-Nayabasti	23.48	559	23.48
33DR016	Kalaiya-Gunjbhawanipur-Malahi	18.29	432	17.83
33DR017	Dharmapur-Bagadampur	5.68	206	5.68
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.31	322	13.31
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.05	205	7.66
33DR025	Piparpati-Bishanpur-Benauli-Bairiya-Kotwali	8.76	183	8.76
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7.04	544	7.04
	Total	156.66		151.29

3.3 NEW CONSTRUCTION

All VDCs headquarters of Bara district have road access, hence no new construction of DRCN roads is required.

Table 3.3.1 Sections of the district road core network requiring new construction

Code	Description	New VDCs	Existing length	New length	Bridge (m)
	Total				

3.4 DISTRICT TRANSPORT PERSPECTIVE PLAN

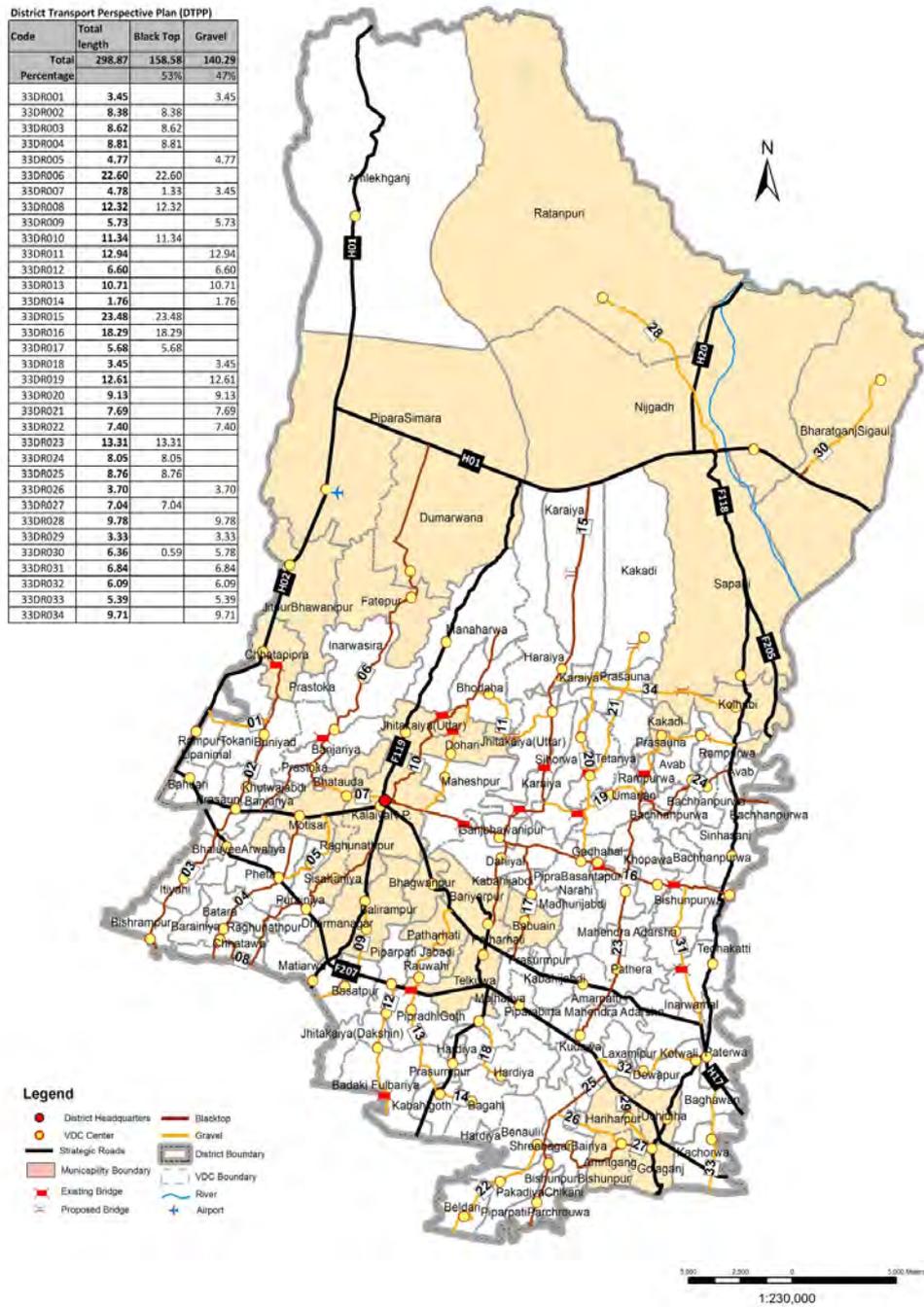
The DTPP foresees bringing the entire existing district road core network to maintainable all-weather status. For this purpose, 151.29 km will be blacktopped, 61.38 km will be gravelled and number of different cross drainages and protective structures will be constructed. The district road core network will subsequently consist of 298.87 km of maintainable all-weather roads. The following table lists the required interventions, while the proposed network is shown in the DTPP map in figure 4.

Table 3.4.1 District Transport Perspective Plan

Code	Emergency maintenance (km)	Routine maintenance (km)	Blacktop Recurrent maintenance(km)	Gravel; Recurrent maintenance (km)	Earthen; Recurrent maintenance (km)	Blacktop; Periodic maintenance (km)	Gravel; Periodic maintenance (km)	Rehabilitation (km)	Gravelling (km)	Blacktopping (km)	Widening (m)	Bridge (m)	Slab culvert (m)	CC Causeway (m)	Stone Causeway (m)	Pipe culvert (units)	Masonry walls (m3)	Gabion walls (m3)	Lined drain (m)	New construction (km)
Total	298.87	298.87	7.29	230.21	61.38	7.29	230.21	3.58	61.38	151.29	-	165.0	36	1	-	93	-	-	-	-
33DR001	3.45	3.45	-	2.90	0.55	-	2.90	-	0.55	-	-	-	-	-	-	-	-	-	-	-
33DR002	8.38	8.38	2.22	4.20	1.96	2.22	4.20	-	1.96	6.16	-	-	-	-	-	1	-	-	-	-
33DR003	8.62	8.62	0.92	2.35	5.35	0.92	2.35	0.20	5.35	7.70	-	-	-	-	-	4	-	-	-	-
33DR004	8.81	8.81	-	8.81	-	-	8.81	0.41	-	8.81	-	-	5	-	-	-	-	-	-	-
33DR005	4.77	4.77	-	2.42	2.35	-	2.42	-	2.35	-	-	-	3	-	-	-	-	-	-	-
33DR006	22.60	22.60	0.40	22.20	-	0.40	22.20	-	-	22.20	-	-	-	-	-	16	-	-	-	-
33DR007	4.78	4.78	1.33	3.45	-	1.33	3.45	-	-	-	-	30	-	-	-	-	-	-	-	-
33DR008	12.32	12.32	0.99	9.33	2.00	0.99	9.33	-	2.00	11.33	-	-	-	-	-	1	-	-	-	-
33DR009	5.73	5.73	-	5.23	0.50	-	5.23	-	0.50	-	-	-	-	-	-	2	-	-	-	-
33DR010	11.34	11.34	-	9.10	2.24	-	9.10	-	2.24	11.34	-	-	-	-	-	-	-	-	-	-
33DR011	12.94	12.94	-	12.94	-	-	12.94	1.10	-	-	-	30	-	-	-	5	-	-	-	-
33DR012	6.60	6.60	-	3.47	3.13	-	3.47	-	3.13	-	-	-	-	-	-	3	-	-	-	-
33DR013	10.71	10.71	-	8.37	2.33	-	8.37	-	2.33	-	-	-	-	-	-	9	-	-	-	-
33DR014	1.76	1.76	-	-	1.76	-	-	-	1.76	-	-	-	-	-	-	4	-	-	-	-
33DR015	23.48	23.48	-	22.48	1.00	-	22.48	0.12	1.00	23.48	-	-	-	-	-	-	-	-	-	-
33DR016	18.29	18.29	0.46	17.83	-	0.46	17.83	-	-	17.83	-	-	5	-	-	8	-	-	-	-
33DR017	5.68	5.68	-	5.68	-	-	5.68	0.25	-	5.68	-	25	4	-	-	-	-	-	-	-
33DR018	3.45	3.45	-	2.45	1.00	-	2.45	-	1.00	-	-	-	-	-	-	1	-	-	-	-
33DR019	12.61	12.61	-	11.61	1.00	-	11.61	-	1.00	-	-	-	5	-	-	2	-	-	-	-
33DR020	9.13	9.13	-	8.05	1.08	-	8.05	-	1.08	-	-	25	-	-	-	5	-	-	-	-
33DR021	7.69	7.69	-	5.50	2.19	-	5.50	-	2.19	-	-	-	-	-	-	6	-	-	-	-
33DR022	7.40	7.40	-	1.82	5.58	-	1.82	-	5.58	-	-	15	-	-	-	2	-	-	-	-
33DR023	13.31	13.31	-	12.05	1.26	-	12.05	-	1.26	13.31	-	-	-	-	-	1	-	-	-	-
33DR024	8.05	8.05	0.39	5.45	2.21	0.39	5.45	-	2.21	7.66	-	-	-	-	-	1	-	-	-	-

Code	Emergency maintenance (km)	Routine maintenance (km)	Blacktop Recurrent maintenance(km)	Gravel; Recurrent maintenance (km)	Earthen; Recurrent maintenance (km)	Blacktop; Periodic maintenance (km)	Gravel; Periodic maintenance (km)	Rehabilitation (km)	Gravelling (km)	Blacktopping (km)	Widening (m)	Bridge (m)	Slab culvert (m)	CC Causeway (m)	Stone Causeway (m)	Pipe culvert (units)	Masonry walls (m3)	Gabion walls (m3)	Lined drain (m)	new construction (km)
33DR025	8.76	8.76	-	8.76	-	-	8.76	-	-	8.76	-	20	-	7	-	4	-	-	-	-
33DR026	3.70	3.70	-	0.88	2.82	-	0.88	-	2.82	-	-	-	-	-	-	-	-	-	-	-
33DR027	7.04	7.04	-	2.80	4.24	-	2.80	-	4.24	7.04	-	-	-	-	-	1	-	-	-	-
33DR028	9.78	9.78	-	-	9.78	-	-	1.50	9.78	-	-	8	-	-	-	1	-	-	-	-
33DR029	3.33	3.33	-	1.56	1.76	-	1.56	-	1.76	-	-	-	-	-	-	1	-	-	-	-
33DR030	6.36	6.36	0.59	5.28	0.50	0.59	5.28	-	0.50	-	-	-	-	-	-	3	-	-	-	-
33DR031	6.84	6.84	-	5.20	1.65	-	5.20	-	1.65	-	-	-	-	-	-	4	-	-	-	-
33DR032	6.09	6.09	-	3.21	2.88	-	3.21	-	2.88	-	-	-	-	-	-	1	-	-	-	-
33DR033	5.39	5.39	-	5.14	0.25	-	5.14	-	0.25	-	-	-	-	-	-	3	-	-	-	-
33DR034	9.71	9.71	-	9.71	-	-	9.71	-	-	-	-	20	6	12	-	4	-	-	-	-

Figure 4 : District Transport Perspective Plan (DTPP)



4. COST ESTIMATION

Standard costs for the different activities required have been referred from guideline during cost estimation. Estimation of conservation activities are calculated for a year and then it is multiplied by five to determine total conservation cost for the DTMP period. But estimation of improvement and new construction activities are calculated by summation of estimation of the total cost required for each activities.

4.1 CONSERVATION

The costs of the required conservation measures have been calculated using the following standard costs. These standard costs have been applied to the entire district road core network, whereby distinction is made based on the surface type in the case of recurrent and periodic maintenance. The standard cost for recurrent maintenance in guidelines seems very high so it is reduced and makes realistic by studying reports/estimates of recurrent maintenance carried out by DoR. Standard cost of emergency maintenance is adjusted by slightly reducing in the DTMP guideline's rate as suggested by DTO office. Periodic maintenance of blacktop road is practically done in every 5 years interval, so the budget is allocated in first and last year only. The estimated costs for the first year are presented below, while the costs for subsequent years will vary slightly as road surface types change as a result of improvements. Detailed cost estimations for the actual maintenance needs in any given year will be presented in the ARAMP.

Table 4.1.1 Standard unit costs for conservation

Activity	Unit	Unit cost (NPR/km)
Emergency maintenance	km	15,000
Routine maintenance	km	20,000
Recurrent maintenance (blacktop)	km	200,000
Recurrent maintenance (gravel)	km	130,000
Recurrent maintenance (earthen)	km	120,000
Periodic maintenance (blacktop)	km	200,000
Periodic maintenance (gravel)	km	150,000

Source: DTMP Guideline, DoLIDAR, 2012 and field study plus analysis, 2015

First year the estimated costs for conservation of the DRCN come to NPR 85.20million. Based on cost for first year, costs for conservation of the DRCN for the next 5 years are estimated at NPR 425.998 million. These costs will change slightly as roads are improved and the standard conservation costs change. This will be updated in the ARAMP on an annual basis.

Table 4.1.2 Estimated conservation costs for the first year (NPR '000)

Code	Total length (km)	Blacktop (km)	Gravel (km)	Earthen (km)	Emergency maintenance	Routine maintenance	Recurrent maintenance (blacktop)	Recurrent maintenance (gravel)	Recurrent maintenance (earthen)	Periodic maintenance (blacktop)	Periodic maintenance (gravel)	Total first year cost	Total 5-year cost
Total	298.87	7.29	230.21	61.38	4,483	5,977	1,458	29,927	7,365	1,458	34,531	85,200	425,998
33DR001	3.45	-	2.90	0.55	52	69	-	377	66	-	435	999	4,997
33DR002	8.38	2.22	4.20	1.96	126	168	444	546	235	444	630	2,591	12,956
33DR003	8.62	0.92	2.35	5.35	129	172	184	305	642	184	352	1,969	9,845
33DR004	8.81	-	8.81	-	132	176	-	1,145	-	-	1,321	2,774	13,869
33DR005	4.77	-	2.42	2.35	72	95	-	315	282	-	363	1,127	5,637
33DR006	22.60	0.40	22.20	-	339	452	80	2,886	-	80	3,330	7,167	35,836
33DR007	4.78	1.33	3.45	-	72	96	265	449	-	265	518	1,664	8,319
33DR008	12.32	0.99	9.33	2.00	185	246	198	1,212	240	198	1,399	3,678	18,392
33DR009	5.73	-	5.23	0.50	86	115	-	680	60	-	784	1,725	8,623
33DR010	11.34	-	9.10	2.24	170	227	-	1,183	269	-	1,365	3,214	16,071
33DR011	12.94	-	12.94	-	194	259	-	1,682	-	-	1,941	4,075	20,377
33DR012	6.60	-	3.47	3.13	99	132	-	451	376	-	520	1,578	7,888
33DR013	10.71	-	8.37	2.33	161	214	-	1,089	280	-	1,256	2,999	14,997
33DR014	1.76	-	-	1.76	26	35	-	-	211	-	-	272	1,360
33DR015	23.48	-	22.48	1.00	352	470	-	2,923	120	-	3,372	7,237	36,183
33DR016	18.29	0.46	17.83	-	274	366	92	2,317	-	92	2,674	5,815	29,076
33DR017	5.68	-	5.68	-	85	114	-	739	-	-	852	1,790	8,948
33DR018	3.45	-	2.45	1.00	52	69	-	318	120	-	367	926	4,631
33DR019	12.61	-	11.61	1.00	189	252	-	1,510	120	-	1,742	3,813	19,067
33DR020	9.13	-	8.05	1.08	137	183	-	1,046	130	-	1,207	2,703	13,514
33DR021	7.69	-	5.50	2.19	115	154	-	714	263	-	824	2,071	10,353
33DR022	7.40	-	1.82	5.58	111	148	-	236	670	-	273	1,438	7,190

Code	Total length (km)	Blacktop (km)	Gravel (km)	Earthen (km)	Emergency maintenance	Routine maintenance	Recurrent maintenance (blacktop)	Recurrent maintenance (gravel)	Recurrent maintenance (earthen)	Periodic maintenance (blacktop)	Periodic maintenance (gravel)	Total first year cost	Total 5-year cost
33DR023	13.31	-	12.05	1.26	200	266	-	1,567	151	-	1,808	3,991	19,954
33DR024	8.05	0.39	5.45	2.21	121	161	78	709	265	78	818	2,228	11,141
33DR025	8.76	-	8.76	-	131	175	-	1,139	-	-	1,314	2,759	13,797
33DR026	3.70	-	0.88	2.82	56	74	-	115	338	-	132	715	3,574
33DR027	7.04	-	2.80	4.24	106	141	-	364	509	-	420	1,539	7,697
33DR028	9.78	-	-	9.78	147	196	-	-	1,173	-	-	1,516	7,579
33DR029	3.33	-	1.56	1.76	50	67	-	203	212	-	234	765	3,826
33DR030	6.36	0.59	5.28	0.50	95	127	118	686	60	118	791	1,995	9,975
33DR031	6.84	-	5.20	1.65	103	137	-	675	197	-	779	1,891	9,457
33DR032	6.09	-	3.21	2.88	91	122	-	417	346	-	481	1,457	7,285
33DR033	5.39	-	5.14	0.25	81	108	-	668	30	-	771	1,658	8,292
33DR034	9.71	-	9.71	-	146	194	-	1,262	-	-	1,457	3,059	15,293

4.2 IMPROVEMENT

Costs of required improvement measures have been calculated using the following standard rates. These standard rates have been applied in identified improvement requirements presented in the previous chapter.

Table 4.2.1 Standard unit costs for improvement activities

Activity	Unit	Unit cost (NPR)
Rehabilitation	km	800,000
Widening	m	2,500
Gravelling	km	2,200,000
Blacktopping	km	5,700,000
Bridge construction	m	800,000
Slab culvert construction	m	150,000
CC Causeway construction	m	100,000
Stone Causeway construction	m	10,000
Pipe culvert placement	unit	100,000
Masonry wall construction	m ³	10,000
Gabion wall construction	m ³	2,500
Lined drain construction	m	1,000

The resulting estimated costs come to NPR 1148.819 million as indicated in the table below.

Table 4.2.2 Cost estimate for improvement measures (NPR '000)

Code	Total length (km)	Rehabilitation	Widening	Gravelling	Blacktopping	Bridges	Slab culverts	CC causeways	Stone causeways	Pipe culvert	Masonry walls	Gabion walls	Lined drains	Total cost
Total	298.87	2,864	-	135,025	862,359	132,000	5,400	1,900	-	9,300	-	-	-	1,148,848
33DR001	3.45	-	-	1,210	-	-	-	-	-	-	-	-	-	1,210
33DR002	8.38	-	-	4,310	35,101	-	-	-	-	100	-	-	-	39,510
33DR003	8.62	160	-	11,779	43,890	-	-	-	-	400	-	-	-	56,229
33DR004	8.81	328	-	-	50,194	-	750	-	-	-	-	-	-	51,272
33DR005	4.77	-	-	5,177	-	-	450	-	-	-	-	-	-	5,627
33DR006	22.60	-	-	-	126,551	-	-	-	-	1,600	-	-	-	128,151
33DR007	4.78	-	-	-	-	24,000	-	-	-	-	-	-	-	24,000
33DR008	12.32	-	-	4,400	64,558	-	-	-	-	100	-	-	-	69,058
33DR009	5.73	-	-	1,100	-	-	-	-	-	200	-	-	-	1,300
33DR010	11.34	-	-	4,935	64,655	-	-	-	-	-	-	-	-	69,590
33DR011	12.94	880	-	-	-	24,000	-	-	-	500	-	-	-	25,380
33DR012	6.60	-	-	6,890	-	-	-	-	-	300	-	-	-	7,190
33DR013	10.71	-	-	5,133	-	-	-	-	-	900	-	-	-	6,033
33DR014	1.76	-	-	3,861	-	-	-	-	-	400	-	-	-	4,261
33DR015	23.48	96	-	2,200	133,842	-	-	-	-	-	-	-	-	136,138
33DR016	18.29	-	-	-	101,608	-	750	-	-	800	-	-	-	103,158
33DR017	5.68	200	-	-	32,382	20,000	600	-	-	-	-	-	-	53,182
33DR018	3.45	-	-	2,200	-	-	-	-	-	100	-	-	-	2,300
33DR019	12.61	-	-	2,200	-	-	750	-	-	200	-	-	-	3,150
33DR020	9.13	-	-	2,385	-	20,000	-	-	-	500	-	-	-	22,885
33DR021	7.69	-	-	4,816	-	-	-	-	-	600	-	-	-	5,416
33DR022	7.40	-	-	12,278	-	12,000	-	-	-	200	-	-	-	24,478
33DR023	13.31	-	-	2,770	75,861	-	-	-	-	100	-	-	-	78,731
33DR024	8.05	-	-	4,853	43,645	-	-	-	-	100	-	-	-	48,598

Code	Total length (km)	Rehabilitation	Widening	Gravelling	Blacktopping	Bridges	Slab culverts	CC causeways	Stone causeways	Pipe culvert	Masonry walls	Gabion walls	Lined drains	Total cost
33DR025	8.76	-	-	-	49,932	16,000	-	700	-	400	-	-	-	67,032
33DR026	3.70	-	-	6,197	-	-	-	-	-	-	-	-	-	6,197
33DR027	7.04	-	-	9,335	40,139	-	-	-	-	100	-	-	-	49,574
33DR028	9.78	1,200	-	21,514	-	-	1,200	-	-	100	-	-	-	24,014
33DR029	3.33	-	-	3,879	-	-	-	-	-	100	-	-	-	3,979
33DR030	6.36	-	-	1,100	-	-	-	-	-	300	-	-	-	1,400
33DR031	6.84	-	-	3,619	-	-	-	-	-	400	-	-	-	4,019
33DR032	6.09	-	-	6,336	-	-	-	-	-	100	-	-	-	6,436
33DR033	5.39	-	-	550	-	-	-	-	-	300	-	-	-	850
33DR034	9.71	-	-	-	-	16,000	900	1,200	-	400	-	-	-	18,500

4.3 NEW CONSTRUCTION

For new construction, the following standard costs have been applied to estimate the costs involved.

Table 4.3.1 Standard unit costs for new construction

Activity	Unit	Unit cost (NPR)
Opening up	Km	4,000,000
Gravelling	Km	2,200,000
Bridge construction	M	800,000

Since no new road construction is required in Bara district so the DTPP cost for new road construction is nil.

Table 4.3.2 Cost Estimate for new construction (NPR '000)

Code	Description	New length (km)	Opening up (NPR)	Gravelling (NPR)	Bridges (NPR)	Total cost (NPR)
Total						

4.4 DTPP COSTS

Total costs for the District Transport Perspective Plan come to NPR 1574.846 million as indicated in the table below.

Table 4.4.1 DTPP Costs (NPR '000)

Code	Name of Road	Conservation	Improvement	New construction	Total
Total		425,998	1,148,848	-	1,574,846
33DR001	Parwanipur (TRP)-Rampur Tokani	4,997	1,210	-	6,207
33DR002	Parsauni-Nitanpur (Rajmarga)	12,956	39,510	-	52,466
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	9,845	56,229	-	66,074
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	13,869	51,272	-	65,142
33DR005	Motisar-Raghunathpur-Pheta	5,637	5,627	-	11,263
33DR006	Bhaluhi-Inarwasira-Rajghatta-MRM	35,836	128,151	-	163,987
33DR007	Kalaiya-Belahiya	8,319	24,000	-	32,319
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	18,392	69,058	-	87,450
33DR009	Basatpur-Sitalpur	8,623	1,300	-	9,923
33DR010	Mukhalal Marg (Kalaiya -Jaitapur)	16,071	69,590	-	85,661
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	20,377	25,380	-	45,757
33DR012	Piparpati-Dewapur-Sanphuluwa	7,888	7,190	-	15,078
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	14,997	6,033	-	21,030
33DR014	Kabahigoth-Bagahi	1,360	4,261	-	5,621
33DR015	Bariyarpur-Nayabasti	36,183	136,138	-	172,320

Code	Name of Road	Conservation	Improvement	New construction	Total
33DR016	Kalaiya–Gunjbhawanipur–Malahi	29,076	103,158	-	132,235
33DR017	Dharmapur-Bagadampur	8,948	53,182	-	62,129
33DR018	Majhariya-Musharna-Charmohana	4,631	2,300	-	6,931
33DR019	Kolhbi-Baragadhi-Lautan	19,067	3,150	-	22,217
33DR020	Narahi-Tetariya-Ramban	13,514	22,885	-	36,399
33DR021	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	10,353	5,416	-	15,768
33DR022	Gulariya-Pakadiya-Benauli	7,190	24,478	-	31,668
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Baragadhi)	19,954	78,731	-	98,686
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	11,141	48,598	-	59,739
33DR025	Piparpati-Bishanpur–Benauli-Bairiya–Kotwali	13,797	67,032	-	80,829
33DR026	Ramnagar-Kisunpur-Ranibas	3,574	6,197	-	9,771
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7,697	49,574	-	57,271
33DR028	Tamagadhi gate-Ratanpuri	7,579	24,014	-	31,593
33DR029	Ganganagar-Hariharpur- Simraungadh	3,826	3,979	-	7,805
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	9,975	1,400	-	11,375
33DR031	Harniya Chowk-Bishnupurwa	9,457	4,019	-	13,476
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	7,285	6,436	-	13,721
33DR033	Kachowra-Paterwa-Bhagawanpur	8,292	850	-	9,142
33DR034	Naya Basti-Prasauna-Kolhabi	15,293	18,500	-	33,793

5. RANKING

Ranking of required interventions determine the priority for implementation. The ranking is done separately for conservation, improvement and new construction. Ranking is done according to cost per person served, whereby the costs are estimated costs of the previous chapter. Population served is calculated using population data for VDCs linked by particular road given in **Annex 3**.

5.1 CONSERVATION

Ranking of roads for conservation is done on the basis of total conservation costs per person served by the road. This ranking of roads will be updated each year in the ARAMP based on the actual cost estimates for the year concerned. An example ranking is provided in the table below based on standard costs for the first year.

Table 5.1.1 Ranking of Conservation works (NPR '000)

Code	Total length (km)	1. Emergency	2. Routine	3. Recurrent (paved)	4. Recurrent (gravel)	5. Recurrent (earth)	6. Periodic (blacktop)	7. Periodic (gravel)	Total cost (NPR '000)	Population served	Cost/person (NPR)
33DR014	1.76	26	35	-	-	211	-	-	272	10,071	27
33DR007	4.78	72	96	265	449	-	265	518	1,664	59,479	28
33DR010	11.34	170	227	-	1,183	269	-	1,365	3,214	66,485	48
33DR028	9.78	147	196	-	-	1,173	-	-	1,516	30,032	50
33DR026	3.70	56	74	-	115	338	-	132	715	13,865	52
33DR011	12.94	194	259	-	1,682	-	-	1,941	4,075	74,695	55
33DR008	12.32	185	246	198	1,212	240	198	1,399	3,678	62,283	59
33DR027	7.04	106	141	-	364	509	-	420	1,539	24,431	63
33DR005	4.77	72	95	-	315	282	-	363	1,127	17,312	65
33DR001	3.45	52	69	-	377	66	-	435	999	15,074	66
33DR015	23.48	352	470	-	2,923	120	-	3,372	7,237	107,237	67
33DR029	3.33	50	67	-	203	212	-	234	765	10,528	73
33DR016	18.29	274	366	92	2,317	-	92	2,674	5,815	78,967	74
33DR017	5.68	85	114	-	739	-	-	852	1,790	22,821	78
33DR033	5.39	81	108	-	668	30	-	771	1,658	20,307	82
33DR012	6.60	99	132	-	451	376	-	520	1,578	19,033	83
33DR006	22.60	339	452	80	2,886	-	80	3,330	7,167	81,011	88
33DR032	6.09	91	122	-	417	346	-	481	1,457	16,041	91
33DR003	8.62	129	172	184	305	642	184	352	1,969	21,394	92
33DR013	10.71	161	214	-	1,089	280	-	1,256	2,999	32,297	93
33DR018	3.45	52	69	-	318	120	-	367	926	9,834	94
33DR022	7.40	111	148	-	236	670	-	273	1,438	15,118	95
33DR002	8.38	126	168	444	546	235	444	630	2,591	25,977	100
33DR004	8.81	132	176	-	1,145	-	-	1,321	2,774	26,732	104
33DR031	6.84	103	137	-	675	197	-	779	1,891	18,042	105
33DR024	8.05	121	161	78	709	265	78	818	2,228	21,010	106
33DR025	8.76	131	175	-	1,139	-	-	1,314	2,759	25,073	110
33DR034	9.71	146	194	-	1,262	-	-	1,457	3,059	26,751	114
33DR020	9.13	137	183	-	1,046	130	-	1,207	2,703	22,575	120
33DR021	7.69	115	154	-	714	263	-	824	2,071	17,155	121
33DR009	5.73	86	115	-	680	60	-	784	1,725	13,958	124
33DR019	12.61	189	252	-	1,510	120	-	1,742	3,813	24,863	153
33DR023	13.31	200	266	-	1,567	151	-	1,808	3,991	24,259	165
33DR030	6.36	95	127	118	686	60	118	791	1,995	5,303	376

Allocation of maintenance funding will follow a specific sequence indicated below, and will be applied to the road ranking as defined in the ARAMP. This is important and be followed accordingly where fund is insufficient to cover all conservation costs.

1. Emergency maintenance
2. Routine maintenance
3. Recurrent maintenance paved roads
4. Recurrent maintenance gravel roads
5. Recurrent maintenance earthen roads
6. Periodic maintenance blacktop roads
7. Periodic maintenance gravel roads

5.2 IMPROVEMENT

In the case of improvement activities, ranking is again done in the basis of the total cost per person served. The resulting order of the roads is shown in the table below. In the case of roads requiring blacktopping, the improvement of the road has been split into two phases. The first phase includes all improvements to bring the road to a maintainable all-weather standard (gravelling, widening, cross drainage and protective structures), while the second phase only includes the blacktopping. This has been done to avoid unnecessarily delaying the improvement of such roads to all-weather gravel standard due to the additional cost of blacktopping (increasing the cost per person served).

Table 5.2.1 Ranking of improvement works (NPR '000)

Code	Total length (km)	Gravelling (km)	Blacktopping (km)	Total cost (NPR '000)	Total Cost for Gravelling	Population served	Cost/person (NPR)
33DR016	18.29	-	17.83	103,158	1,550	78,967	20
33DR006	22.60	-	22.20	128,151	1,600	81,011	20
33DR015	23.48	1.00	23.48	136,138	2,296	107,237	21
33DR004	8.81	-	8.81	51,272	1,078	26,732	40
33DR033	5.39	0.25	-	850	850	20,307	42
33DR008	12.32	2.00	11.33	69,058	4,500	62,283	72
33DR010	11.34	2.24	11.34	69,590	4,935	66,485	74
33DR001	3.45	0.55	-	1,210	1,210	15,074	80
33DR009	5.73	0.50	-	1,300	1,300	13,958	93
33DR023	13.31	1.26	13.31	78,731	2,870	24,259	118
33DR019	12.61	1.00	-	3,150	3,150	24,863	127
33DR002	8.38	1.96	6.16	39,510	4,410	25,977	170
33DR013	10.71	2.33	-	6,033	6,033	32,297	187
33DR031	6.84	1.65	-	4,019	4,019	18,042	223
33DR018	3.45	1.00	-	2,300	2,300	9,834	234
33DR024	8.05	2.21	7.66	48,598	4,953	21,010	236
33DR030	6.36	0.50	-	1,400	1,400	5,303	264
33DR021	7.69	2.19	-	5,416	5,416	17,155	316
33DR005	4.77	2.35	-	5,627	5,627	17,312	325
33DR011	12.94	-	-	25,380	25,380	74,695	340
33DR012	6.60	3.13	-	7,190	7,190	19,033	378
33DR029	3.33	1.76	-	3,979	3,979	10,528	378

Code	Total length (km)	Gravelling (km)	Blacktopping (km)	Total cost (NPR '000)	Total Cost for Gravelling	Population served	Cost/person (NPR)
33DR027	7.04	4.24	7.04	49,574	9,435	24,431	386
33DR032	6.09	2.88	-	6,436	6,436	16,041	401
33DR007	4.78	-	-	24,000	24,000	59,479	404
33DR014	1.76	1.76	-	4,261	4,261	10,071	423
33DR026	3.70	2.82	-	6,197	6,197	13,865	447
33DR003	8.62	5.35	7.70	56,229	12,339	21,394	577
33DR025	8.76	-	8.76	67,032	17,100	25,073	682
33DR034	9.71	-	-	18,500	18,500	26,751	692
33DR028	9.78	9.78	-	24,014	24,014	30,032	800
33DR017	5.68	-	5.68	53,182	20,800	22,821	911
33DR020	9.13	1.08	-	22,885	22,885	22,575	1,014
33DR022	7.40	5.58	-	24,478	24,478	15,118	1,619

5.3 NEW CONSTRUCTION

Ranking for new construction is not applicable due to none of new roads in the district.

Table 5.3.1 Ranking of construction works (NPR '000)

Code	Length (km)	Total cost (NPR '000)	Population served	Cost/person (NPR)

6. DISTRICT TRANSPORT MASTER PLAN (DTMP)

Based upon the prioritized transport linkages and the projected financial plan, first five year District Transport Master Plan (DTMP) indicating the year-wise target has been prepared. Various categories of interventions such as Conservation, Improvement and New construction for roads have been prepared and presented in this report.

6.1 FIVE YEAR PROJECTED FINANCIAL RESOURCES

Major sources of funding to rural road network development are mainly the DDC development grant, DDC's own resources, DoLIDAR support, GoN's grant and support from other donor agencies. While preparing the financial plan, current available financial resources from various agencies and assuming 10% annual growth on this was considered and this is then projected for the next five years to prepare the First Five-year Financial Plan as presented in table 6.1.1.

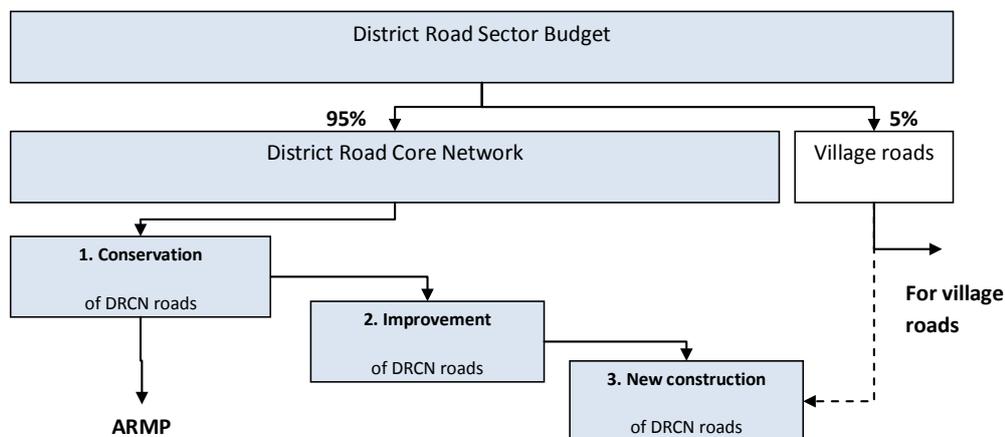
Table 6.1.1 Estimated funding levels (roads) for next five years (in NPR '000)

Funding source	2072/73	2073/74	2074/75	2075/76	2076/77
Rural Transport Infrastructure Sector Program	17,300	19,030	20,933	23,026	25,329
Roads Board Nepal	4,000	4,400	4,840	5,324	5,856
Local level Road, bridge and Community Access Improvement Project	18,000	19,800	21,780	23,958	26,354
Strengthen National Rural Transport project (SNRTP)	150,000	160,000	160,000	170,000	170,000
DDC Fund	10,000	11,000	12,100	13,310	14,641
Local Road Bridge Program (LRBP)	20,000	22,000	24,200	26,620	29,282
Total	219,300	236,230	243,853	262,238	271,462
Grand Total	1,233,083				

6.2 BUDGET ALLOCATION

Distribution of available district road sector budget is indicated in the figure below. 95% of total budget is allocated for the District Road Core Network. Remaining 5% budget can be used by the DDC for village roads, giving priority to emergency maintenance then routine/recurrent maintenance. The DRCN budget is primarily allocated to conservation and surplus of this is then allocated to improvement. There is not sufficient budget for improvement of all DRCN of Bara.

Figure 5 : District Road Sector Budget Allocation



Based on distribution of the estimated budget, the available annual budget for each intervention type and the resulting district road core network length by surface type can be calculated. The results are shown in the following table. Budget allocation to some roads for improvement is not possible due to the various reasons however, they are ranked on top.

Table 6.2.1 Investment Plan

Item	Year					
	2072/73	2073/74	2074/75	2075/76	2076/77	
Fiscal year	2072/73	2073/74	2074/75	2075/76	2076/77	
Total budget	219,300	236,230	243,853	262,238	271,462	
Village roads	10,965	11,812	12,193	13,112	13,573	5%
Core road network budget (DTMP)	208,335	224,419	231,660	249,126	257,889	95%
Core network length (km)	298.87	298.87	298.87	298.87	298.87	298.87
Blacktop (km)	7.29	28.57	53.17	79.30	106.87	129.40
Gravel (km)	230.21	209.24	184.95	159.20	137.60	127.80
Earthen (km)	61.38	61.06	60.75	60.38	54.40	41.68
Conservation (NRs)	85,200	82,090	80,171	78,141	98,266	423,868
Emergency	4,483	4,483	4,483	4,483	4,483	
Routine	5,977	5,977	5,977	5,977	5,977	
Recurrent (blacktop)	1,458	5,714	10,635	15,860	21,375	
Recurrent (gravel)	29,927	27,202	24,044	20,696	17,888	
Recurrent (earthen)	7,365	7,327	7,290	7,245	6,528	
Periodic (blacktop)	1,458	-	-	-	21,375	
Periodic (gravel)	34,531	31,387	27,743	23,880	20,640	

Improvement	Cost	BT	GR	123,135	BT	GR	142,328	BT	GR	151,489	BT	GR	170,985	BT	GR	159,623	BT	GR
33DR016	103,158	17.83	-	40,000	6.91	-	50,000	8.64	-	13,158	2.27	-	-	-	-	-	-	-
33DR006	128,151	22.20	-	40,000	6.93	-	50,000	8.66	-	38,151	6.61	-	-	-	-	-	-	-
33DR015	136,138	23.48	1.00	43,135	7.44	0.32	42,328	7.30	0.31	50,674	8.74	0.37	-	-	-	-	-	-
33DR004	51,272	8.81	-	-	-	-	-	-	-	49,505	8.50	-	1,767	0.30	-	-	-	-
33DR033	850	-	0.25	-	-	-	-	-	-	-	-	-	850	-	0.25	-	-	-
33DR008	69,058	11.33	2.00	-	-	-	-	-	-	-	-	-	69,058	11.33	2.00	-	-	-
33DR010	69,590	11.34	2.24	-	-	-	-	-	-	-	-	-	69,590	11.34	2.24	-	-	-
33DR001	1,210	-	0.55	-	-	-	-	-	-	-	-	-	1,210	-	0.55	-	-	-
33DR009	1,300	-	0.50	-	-	-	-	-	-	-	-	-	1,300	-	0.50	-	-	-
33DR023	78,731	13.31	1.26	-	-	-	-	-	-	-	-	-	27,211	4.60	0.44	51,520	8.71	0.82
33DR019	3,150	-	1.00	-	-	-	-	-	-	-	-	-	-	-	-	3,150	-	1.00
33DR002	39,510	6.16	1.96	-	-	-	-	-	-	-	-	-	-	-	-	39,510	6.16	1.96
33DR013	6,033	-	2.33	-	-	-	-	-	-	-	-	-	-	-	-	6,033	-	2.33
33DR031	4,019	-	1.65	-	-	-	-	-	-	-	-	-	-	-	-	4,019	-	1.65
33DR018	2,300	-	1.00	-	-	-	-	-	-	-	-	-	-	-	-	2,300	-	1.00
33DR024	48,598	7.66	2.21	-	-	-	-	-	-	-	-	-	-	-	-	48,598	7.66	2.21
33DR030	1,400	-	0.50	-	-	-	-	-	-	-	-	-	-	-	-	1,400	-	0.50
33DR021	5,416	-	2.19	-	-	-	-	-	-	-	-	-	-	-	-	3,092	-	1.25
33DR005	5,627	-	2.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR011	25,380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR012	7,190	-	3.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR029	3,979	-	1.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR027	49,574	7.04	4.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR032	6,436	-	2.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR007	24,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR014	4,261	-	1.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR026	6,197	-	2.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR003	56,229	7.70	5.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR025	67,032	8.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR034	18,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR028	24,014	-	9.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR017	53,182	5.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR020	22,885	-	1.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33DR022	24,478	-	5.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total improvement				123,135	21.28	0.32	142,328	24.60	0.31	151,489	26.13	0.37	170,985	27.57	5.98	159,623	22.52	12.72

6.3 DTMP OUTPUTS

Based on the investment plan presented above, all DRCN roads will be conserved for the duration of DTMP implementation. Further 19.69 km will be improved to gravel standard and 122.11 km will be improved as blacktop standard of top ranked 18DRCN roads. All of these roads will also receive the cross drainage and protective structures required to make them maintainable all-weather roads. Remaining 41.68km of earthen roads at the end of the DTMP period will be improved in the next DTMP. After this DTMP, the resulting road status in the district will be 129.40km blacktopped, 127.80 km gravelled and earthen surface remains to 41.68 km.

Table 6.3.1 DTMP output

Conservation	Improvement gravel	Improvement blacktop	New construction
298.87	19.69	122.11	-

Out of the total DTMP budget, NPR423.868 million will be spent on conservation and NPR747.561 million on improvement. The DTMP budget will spend in entire period of five-year.

6.4 DTMP OUTCOME

As a result of the activities planned in the DTMP, the percentage of all-weather maintainable DRCN roads increases by 86% (from 237.49km to 257.19) and 14% (41.68km) leftovers as fair weather.

Table 6.4.1 Standard of DRCN roads

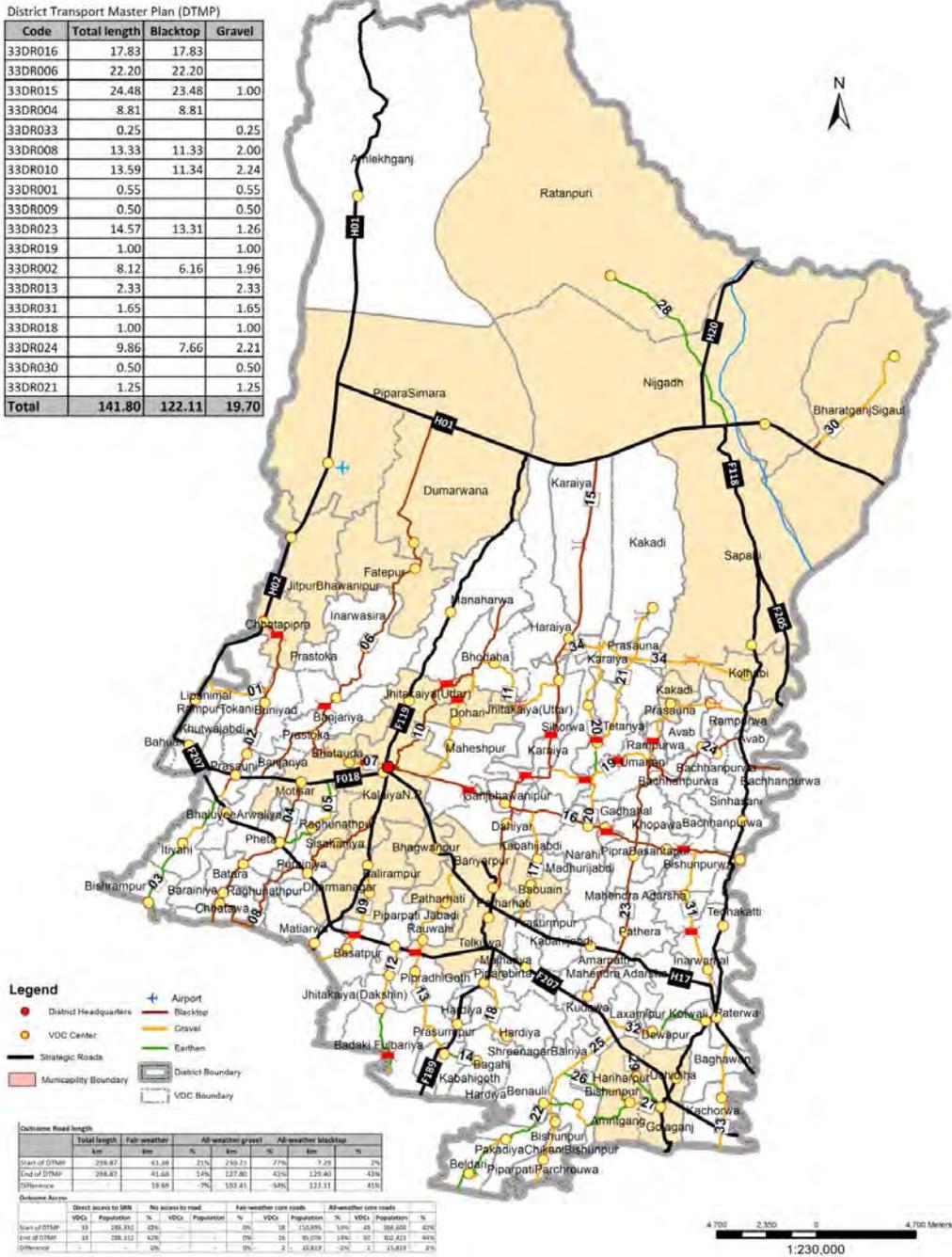
	Total length	Fair-weather		All-weather gravel		All-weather blacktop	
	km	Km	%	km	%	km	%
Start of DTMP	298.87	61.38	21%	230.21	77%	7.29	2%
End of DTMP	298.87	41.68	14%	127.80	43%	129.40	43%
Difference	-	- 19.69	-7%	- 102.41	-34%	122.11	41%

The number of VDC headquarters with access to the SRN and all-weather DRCN roads will increase from 81 to 83 and the district population with access to the SRN or all-weather DRCN roads will increase from 84% to 86%. No VDC headquarters without access to DRCN roads remains in Bara district.

Table 6.4.2 Population with access to road network

	Direct access to SRN			No access to road			Fair-weather core roads			All-weather core roads		
	VDCs	Population	%	VDCs	Pop	%	VDCs	Population	%	VDCs	Population	%
Start of DTMP	33	288,332	42%	-	-	0%	18	110,895	16%	48	286,604	42%
End of DTMP	33	288,332	42%	-	-	0%	16	95,076	14%	50	302,423	44%
Difference	-	-	0%	-	-	0%	- 2	- 15,819	-2%	2	15,819	2%

Figure 6 : District Transport Master Plan (DTMP)



ANNEX 1 GIS FILE PROJECTION AND COORDINATE SYSTEM

GPS Setting

Grid: **Lat/Long hdd.ddd** and Datum **Indian Bangladesh** and Unit in **metric** system has been considered in GPS during field survey. Garmin 62S GPS receiver was used in GPS field survey.

Defining the coordinate systems and reprojecting data in ArcGIS

We can define a coordinate system for data using the following options in ArcGIS using the [Define Projection tool](#) in the Data Management toolbox. If the data has a coordinate system definition, but it does not match the typical coordinate system used by an organization, we can reproject the data using the [Project tool](#) in the Data Management toolbox. We need to use the corresponding projection parameters while defining the coordinate system or reprojecting the data.

Projection and coordinate System used in GIS Shape file

- Projection type: Conformal (preserving shape)
- Projected coordinate system: Modified Universal Transverse Mercator
- Parameters of the coordinate system:
 - *False_Easting: 500000*
 - *False_Northing: 0*
 - *Central_Meridian: 84 for Central of Nepal*
 - *Scale_Factor: 0.9999*
 - *Latitude_Of_Origin: 0*
 - *Spheroid: Everest 1830*
- Associated Geographic Coordinate System: *Everest-India and Nepal.prj* under Asia

ANNEX 2 TRAFFIC DATA

Code	Description	Total length (km)	Motor-cycle	Car-Jeep-Minibus	Tractor	Truck-Bus	PCU	VPD
33DR001	Parwanipur (TRP)-Rampur Tokani	3.45	100	15	30	5	145	50
33DR002	Parsauni-Nitanpur (Rajmarga)	8.38	800	55	110	30	795	195
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	300	6	102		360	108
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	8.81	250	76	47	6	319	129
33DR005	Motisar-Raghunathpur-Pheta	4.77	150	27	18	2	146	47
33DR006	Bhaluhi-Inarwasira-Rajghatta-MRM	22.60	433	9	86	15	458	110
33DR007	Kalaiya-Belahiya	4.78	125	8	18		107	26
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	12.32	150	10	60	3	217	73
33DR009	Basatpur-Sitalpur	5.73	110	12	35		137	47
33DR010	Mukhalal Marg (Kalaiya -Jaitapur)	11.34	175	14	35	6	196	55
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.94	150	4	30	2	147	36
33DR012	Piparpati-Dewapur-Sanphuluwa	6.60	80	2	25		92	27
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	10.71	150	5	18		116	23
33DR014	Kabahigoth-Bagahi	1.76	10		20		45	20
33DR015	Bariyarpur-Nayabasti	23.48	750	38	55	9	559	102
33DR016	Kalaiya-Gunjbhawanipur-Malahi	18.29	483	48	43	14	432	105
33DR017	Dharmapur-Bagadampur	5.68	120	10	60	4	206	74
33DR018	Majhariya-Musharna-Charmohana	3.45	20		14		38	14
33DR019	Kolhbi-Baragadhi-Lautan	12.61	75	2	35	6	134	43
33DR020	Narahi-Tetariya-Ramban	9.13	150	5	33	0	146	38
33DR021	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	7.69	65	8	26	2	101	36
33DR022	Gulariya-Pakadiya-Benauli	7.40	150	15	18		126	33
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.31	450	13	38	2	322	53
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.05	300	3	26		205	29
33DR025	Piparpati-Bishanpur-Benauli-Bairiya-Kotwali	8.76	145	8	45	3	183	56
33DR026	Ramnagar-Kisunpur-Ranibas	3.70	92	21	32		131	53
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7.04	400	84	90	20	544	194
33DR028	Tamagadhi gate-Ratanpuri	9.78	120	12	29		130	41
33DR029	Ganganagar-Hariharpur- Simraungadh	3.33	90	16	34		129	50
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	6.36	50	8	26	4	101	38
33DR031	Harniya Chowk-Bishnupurwa	6.84	130	6	30		131	36
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	6.09	130	6	31		133	37
33DR033	Kachowra-Paterwa-Bhagawanpur	5.39	95	26	20	6	138	52
33DR034	Naya Basti-Prasauna-Kolhabi	9.71	88	12	14	3	96	29

ANNEX 3 POPULATION SERVED

#	VDC/municipality	Population	Connections	SRN																																						
				288,332	33DR001	33DR002	33DR003	33DR004	33DR005	33DR006	33DR007	33DR008	33DR009	33DR010	33DR011	33DR012	33DR013	33DR014	33DR015	33DR016	33DR017	33DR018	33DR019	33DR020	33DR021	33DR022	33DR023	33DR024	33DR025	33DR026	33DR027	33DR028	33DR029	33DR030	33DR031	33DR032	33DR033	33DR034				
	Total population	685,831		288,332	15,074	25,977	21,394	26,732	17,312	81,011	59,479	62,283	13,958	66,485	74,695	19,033	32,297	10,071	107,237	78,967	22,821	9,834	24,863	22,575	17,155	15,118	24,259	21,010	25,073	13,865	24,431	30,032	10,528	5,303	18,042	16,041	20,307	26,751				
	Total VDCs/municipalities	99	33	2	4	3	5	3	6	3	5	2	4	6	3	6	2	8	8	5	2	5	5	4	3	5	4	5	2	4	2	2	1	3	3	3	4					
1	Amarpatti	3,738	1	X																																						
2	Amlekhganj	6,709	1	X																																						
3	Amritganj	9,133	2																																							
4	Amav	5,258	2																																							
5	Babuain	3,459	1																	X			X																			
6	Bachhanpurwa	4,860	1																																							
7	Badaki Fulbariya	7,107	1													X																										
8	Bagahi	3,491	1															X																								
9	Bahuari	4,965	1	X																																						
10	Balirampur	7,126	1									X																														
11	Baghawan	4,678	1	X																																						
12	Banjariya	5,999	1							X																																
13	Barainiya	5,145	1					X																																		
14	Bariyarpur	11,637	2	X															X																							
15	Basatpur	6,832	1									X																														
16	Batara	3,776	2					X			X																															
17	Beldari	4,997	1																							X																
18	Benauli	5,108	2																							X																
19	Bhagwanpur	5,350	2																																				X	X		

#	VDC/municipality	Population	Connections	SRN	33DR001	33DR002	33DR003	33DR004	33DR005	33DR006	33DR007	33DR008	33DR009	33DR010	33DR011	33DR012	33DR013	33DR014	33DR015	33DR016	33DR017	33DR018	33DR019	33DR020	33DR021	33DR022	33DR023	33DR024	33DR025	33DR026	33DR027	33DR028	33DR029	33DR030	33DR031	33DR032	33DR033	33DR034	
20	Bhaluhi Bharbaliya	6,724	1	X																																			
21	Bharatganj	5,303	1																																X				
22	Bhatauda	6,448	1								X																												
23	Bhodaha	6,824	2											X	X																								
24	Bishrampur	6,321	1				X																																
25	Bishunpur	4,320	1																																				
26	Bishunpurwa	5,221	2																	X																	X		
27	Buniyad	5,651	1		X																																		
28	Chhata Pipra	7,175	2	X	X																																		
29	Chhatawa	5,660	2				X					X																											
30	Dahiyar	7,161	3																X	X	X																		
31	Dewapur	4,716	1																																		X		
32	Dharma Nagar	5,357	1	X																																			
33	Dohari	4,822	1												X																								
34	Dumarwana	21,470	1							X																													
35	Fattepur	8,890	1							X																													
36	Gadhahal	3,193	1																	X																			
37	Ganj Bhawanipur	6,355	2																X	X																			
38	Golaganj	5,070	2	X																															X				
39	Haraiya	9,710	2																X																				
40	Hardiya	5,158	1																		X																		
41	Hariharpur	5,458	2																																				
42	Inarwamal	7,668	1																																				
43	Inarwasira	10,612	1							X																													
44	Itiyahi	6,659	1				X																																
45	Jhitakaiya(Dak	8,836	1													X																							

#	VDC/municipality	Population	Connections	SRN	33DR001	33DR002	33DR003	33DR004	33DR005	33DR006	33DR007	33DR008	33DR009	33DR010	33DR011	33DR012	33DR013	33DR014	33DR015	33DR016	33DR017	33DR018	33DR019	33DR020	33DR021	33DR022	33DR023	33DR024	33DR025	33DR026	33DR027	33DR028	33DR029	33DR030	33DR031	33DR032	33DR033	33DR034	
	shin)																																						
46	Jhitakaiya(Uttar)	6,467	3	X										X	X																								
47	Jitpur Bhawanipur	21,997	1	X																																			
48	Kabahigoth	6,580	3	X												X	X																						
49	Kabahijabdi	4,267	1																	X																			
50	Kachorwa	10,958	1																																			X	
51	Kakadi	3,991	1																					X															
52	Kalaiya Municipality	42,826	7	X						X	X			X	X				X	X																			
53	Karaiya	5,313	2															X																				X	
54	Khopawa	5,056	2																X																				
55	Khutwajabdi	4,737	1			X																																	
56	Kolhabi	6,567	2	X																																		X	
57	Kudawa	4,163	1																							X													
58	Laxmipur Kotwali	5,975	2																									X									X		
59	Lipanimal	7,881	2	X	X																																		
60	Madhurijabdi	3,258	1																	X																			
61	Mahendra Adarsha	5,153	1																																			X	
62	Maheshpur	8,966	1												X																								
63	Majhariya	4,676	3	X																	X	X																	
64	Manaharwa	10,368	2	X										X																									
65	Matiarwa	6,347	1	X																																			
66	Motisar	5,199	3	X				X	X																														
67	Narahi	4,790	3												X					X				X															

#	VDC/municipality	Population	Connections	SRN	33DR001	33DR002	33DR003	33DR004	33DR005	33DR006	33DR007	33DR008	33DR009	33DR010	33DR011	33DR012	33DR013	33DR014	33DR015	33DR016	33DR017	33DR018	33DR019	33DR020	33DR021	33DR022	33DR023	33DR024	33DR025	33DR026	33DR027	33DR028	33DR029	33DR030	33DR031	33DR032	33DR033	33DR034		
68	Nijgadh	19,614	3	X														X												X										
69	Pakadiya Chikani	5,013	2																						X			X												
70	Paparpati Jabdi	3,090	2	X												X																								
71	Paterwa	3,999	2	X																																		X		
72	Patharhati	4,621	1														X																							
73	Pathera	5,006	1																							X														
74	Pheta	6,952	3	X				X	X																															
75	Pipara Simara	23,835	2	X						X																														
76	Piparabirta	4,081	1	X																																				
77	Piparpati Parchrouwa	5,033	1																										X											
78	Pipra Basantapur	4,365	2																X							X														
79	Pipradhi Goth	5,207	1														X																							
80	Prasauni	8,414	3	X		X	X																																	
81	Prasauna	4,092	3																				X	X	X															
82	Prastoka	10,205	2							X	X																													
83	Prasurampur	6,953	2	X												X																								
84	Purainiya	6,626	2	X								X																												
85	Raghunathpur	5,161	2						X																														X	
86	Rampur Tokani	7,193	1		X																																			
87	Rampurwa	5,223	2																				X				X													
88	Ratanpuri	10,418	1																												X									
89	Rauwahi	3,418	1														X																							
90	Sapahi	9,115	1	X																																				

Level of Access

#	VDC/municipality	No access DRCN start DTMP	No access DRCN end DTMP	Fair-weather DRCN start DTMP	Fair-weather DRCN end DTMP	All-weather DRCN start DTMP	All-weather DRCN end DTMP	Direct access to SRN
	Total population			110,895	95,076	286,604	302,423	288,332
	Total VDCs	0	0	18	16	48	50	33
1	Amarpatti							X
2	Amlekhganj							X
3	Amrigganj			X	X			
4	Amav					X	X	
5	Babuain					X	X	
6	Bachhanpurwa					X	X	
7	Badaki Fulbariya			X	X			
8	Bagahi			X	X			
9	Bahuari							X
10	Balirampur					X	X	
11	Baghawan							X
12	Banariya					X	X	
13	Barainiya					X	X	
14	Bariyarpur							X
15	Basatpur					X	X	
16	Batara					X	X	
17	Beldari			X	X			
18	Benauli			X	X			
19	Bhagwanpur					X	X	
20	Bhaluhi Bharbaliya							X
21	Bharatganj					X	X	
22	Bhatauda					X	X	
23	Bhodaha					X	X	
24	Bishrampur			X	X			
25	Bishunpur					X	X	
26	Bishunpurwa					X	X	
27	Buniyad					X	X	
28	Chhata Pipra							X
29	Chhatawa					X	X	
30	Dahiyar					X	X	
31	Dewapur			X	X			
32	Dharma Nagar							X
33	Dohari					X	X	
34	Dumarwana					X	X	
35	Fattepur					X	X	
36	Gadhahal					X	X	
37	Ganj Bhawanipur					X	X	
38	Golaganj							X
39	Haraiya					X	X	
40	Hardiya					X	X	
41	Hariharpur					X	X	
42	Inarwamal					X	X	
43	Inarwasira			X				
44	Jitahi			X	X			
45	Jhitakaiya(Dakshin)					X	X	
46	Jhitakaiya(Uttar)							X
47	Jitpur Bhawanipur							X
48	Kabahigoth							X
49	Kabahijabdi					X	X	

#	VDC/municipality	No access DRCN start DTMP	No access DRCN end DTMP	Fair-weather DRCN start DTMP	Fair-weather DRCN end DTMP	All-weather DRCN start DTMP	All-weather DRCN end DTMP	Direct access to SRN
	Total population			110,895	95,076	286,604	302,423	288,332
50	Kachorwa						X	
51	Kakadi			X	X			
52	Kalaiya Municipality							X
53	Karaiya					X	X	
54	Khopawa					X	X	
55	Khutwajabdi					X	X	
56	Kolhabi							X
57	Kudawa					X	X	
58	Laxmipur Kotwali					X	X	
59	Lipanimal							X
60	Madhurijabdi					X	X	
61	Mahendra Adarsha					X	X	
62	Maheshpur					X	X	
63	Majhariya							X
64	Manaharwa							X
65	Matiarwa							X
66	Motisar							X
67	Narahi					X	X	
68	Nigadh							X
69	Pakadiya Chikani			X	X			
70	Paparpati Jabdi							X
71	Paterwa							X
72	Patharhati					X	X	
73	Pathera					X	X	
74	Pheta							X
75	Pipara Simara							X
76	Piparabirta							X
77	Piparpati Parchrouwa					X	X	
78	Pipra Basantapur					X	X	
79	Pipradhi Goth			X				X
80	Prasauni							X
81	Prasauna					X	X	
82	Prastoka			X	X			
83	Prasurampur							X
84	Purainiya							X
85	Raghunathpur			X	X			
86	Rampur Tokani					X	X	
87	Rampurwa					X	X	
88	Ratanpuri			X	X			
89	Rauwahi					X	X	
90	Sapahi							X
91	Shreenagar Bairiya			X	X			
92	Sihorwa			X	X			
93	Sinhasani							X
94	Sisahaniya					X	X	
95	Tedhakatti							X
96	Telkuwa							X
97	Tetariya			X	X			
98	Uchidiha							X
99	Umajan					X	X	

ANNEX 4 LOCATION OF PROPOSED INTERVENTIONS

Road code	Road Name	Length (km)	Start chainage (km) or X-coordinate	End chainage (km) or Y-coordinate	Rehabilitation (km)	Gravelling (km)	Blacktopping (km)	Widening (m)	Bridge (m)	Slab culvert (m)	CC Causeway (m)	Stone Causeway (m)	Pipe culvert (units)	Masonry walls (m3)	Gabion walls (m3)	Lined drain (m)
33DR001	Parwanipur (TRP)-Rampur Tokani	3.452			-	0.55	-	-	-	-	-	-	-	-	-	-
33DR002	Parsauni-Nitanpur (Rajmarga)	8.376			-	1.96	6.16	-	-	-	-	-	1.00	-	-	-
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62			0.20	5.35	7.70	-	-	-	-	-	4.00	-	-	-
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	8.806			0.41	-	8.81	-	-	5.00	-	-	-	-	-	-
33DR005	Motisar-Raghunathpur-Pheta	4.774			-	2.35	-	-	-	3.00	-	-	-	-	-	-
33DR006	Bhaluhi-Inarwasira-Rajghatta-MRM	22.601			-	-	22.20	-	-	-	-	-	16.00	-	-	-
33DR007	Kalaiya-Belahiya	4.777			-	-	-	-	30.00	-	-	-	-	-	-	-
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khaptatta	12.316			-	2.00	11.33	-	-	-	-	-	1.00	-	-	-
33DR009	Basatpur-Sitalpur	5.729			-	0.50	-	-	-	-	-	-	2.00	-	-	-
33DR010	Mukhalal Marg (Kalaiya -Jaitapur)	11.343			-	2.24	11.34	-	-	-	-	-	-	-	-	-
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.938			1.10	-	-	-	30.00	-	-	-	5.00	-	-	-
33DR012	Piparpati-Dewapur-Sanphuluwa	6.599			-	3.13	-	-	-	-	-	-	3.00	-	-	-
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	10.707			-	2.33	-	-	-	-	-	-	9.00	-	-	-
33DR014	Kabahigoth-Bagahi	1.755			-	1.76	-	-	-	-	-	-	4.00	-	-	-
33DR015	Bariyarpur-Nayabasti	23.477			0.12	1.00	23.48	-	-	-	-	-	-	-	-	-
33DR016	Kalaiya-Gunjbhawanipur-Malahi	18.285			-	-	17.83	-	-	5.00	-	-	8.00	-	-	-
33DR017	Dharmapur-Bagadampur	5.681			0.25	-	5.68	-	25.00	4.00	-	-	-	-	-	-
33DR018	Majhariya-Musharna-Charmohana	3.448			-	1.00	-	-	-	-	-	-	1.00	-	-	-

Road	Road Name	Length (km)	Area (km ²)	Cost (Rs. Lakhs)	Benefit (Rs. Lakhs)	Benefit (Rs. Crores)										
33DR019	Kolhbi-Baragadhi-Lautan	12.614			-	1.00	-	-	-	5.00	-	-	2.00	-	-	-
33DR020	Narahi-Tetariya-Ramban	9.131			-	1.08	-	-	25.00	-	-	-	5.00	-	-	-
33DR021	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	7.686			-	2.19	-	-	-	-	-	-	6.00	-	-	-
33DR022	Gulariya-Pakadiya-Benauli	7.4			-	5.58	-	-	15.00	-	-	-	2.00	-	-	-
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.309			-	1.26	13.31	-	-	-	-	-	1.00	-	-	-
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.046			-	2.21	7.66	-	-	-	-	-	1.00	-	-	-
33DR025	Piparpati-Bishanpur-Benauli-Bairiya-Kotwali	8.76			-	-	8.76	-	20.00	-	7.00	-	4.00	-	-	-
33DR026	Ramnagar-Kisunpur-Ranibas	3.7			-	2.82	-	-	-	-	-	-	-	-	-	-
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7.042			-	4.24	7.04	-	-	-	-	-	1.00	-	-	-
33DR028	Tamagadhi gate-Ratanpuri	9.779			1.50	9.78	-	-	-	8.00	-	-	1.00	-	-	-
33DR029	Ganganagar-Hariharpur- Simraungadh	3.325			-	1.76	-	-	-	-	-	-	1.00	-	-	-
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	6.363			-	0.50	-	-	-	-	-	-	3.00	-	-	-
33DR031	Harniya Chowk-Bishnupurwa	6.84			-	1.65	-	-	-	-	-	-	4.00	-	-	-
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	6.088			-	2.88	-	-	-	-	-	-	1.00	-	-	-
33DR033	Kachowra-Paterwa-Bhagawanpur	5.392			-	0.25	-	-	-	-	-	-	3.00	-	-	-
33DR034	Naya Basti-Prasauna-Kolhabi	9.71			-	-	-	-	20.00	6.00	12.0	-	4.00	-	-	-
	Total	298.87			3.58	61.38	151.29	-	165	36	19	-	93	-	-	-

ANNEX 5 OVERALL ROAD INVENTORY

Road code	Road Name	Length (km) (km) or XY- code (km) or XY- coordinate	Surface Type: Black Top	Surface Type: Gravel	Surface Type: Earth	All Weather	Fair Weather	Condition - Good/ Fair	Condition - Poor	Condition - Temporarily Impassable	Condition - Permanently Impassable
Total		831.10	7.29	412.85	410.96	432.29	414.75	-	-	-	-
33DR001	Parwanipur (TRP)-Rampur Tokani	3.45	-	2.90	0.55	2.90	0.55	√			
33DR002	Parsauni-Nitanpur (Rajmarga)	8.38	2.22	4.20	1.96	6.42	1.96	√			
33DR003	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	8.62	0.92	2.35	5.35	3.27	5.35	√			
33DR004	Khekhariya-Pheta-Motisar (Kalaiya Road)	8.81	-	8.81	-	8.81	-	√			
33DR005	Motisar-Raghnathpur-Pheta	4.77	-	2.42	2.35	2.42	2.35		√		
33DR006	Bhaluhi-Inarwasira-Rajghatta-MRM	22.60	0.40	22.20	-	22.60	-	√			
33DR007	Kalaiya-Belahiya	4.78	1.33	3.45	-	4.78	-		√		
33DR008	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	12.32	0.99	9.33	2.00	10.32	2.00	√			
33DR009	Basatpur-Sitalpur	5.73	-	5.23	0.50	5.23	0.50	√			
33DR010	Mukhalal Marg (Kalaiya -Jaitapur)	11.34	-	9.10	2.24	9.10	2.24	√			
33DR011	Kalaiya-Mahespur-Khamuwa-Madhuban	12.94	-	12.94	-	12.94	-	√			
33DR012	Piparpati-Dewapur-Sanphuluwa	6.60	-	3.47	3.13	3.47	3.13		√		
33DR013	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	10.71	-	8.37	2.33	8.37	2.33	√			
33DR014	Kabahigoth-Bagahi	1.76	-	-	1.76	-	1.76			√	
33DR015	Bariyarpur-Nayabasti	23.48	-	22.48	1.00	22.48	1.00	√			
33DR016	Kalaiya-Gunjbhawanipur-Malahi	18.29	0.46	17.83	-	18.29	-	√			
33DR017	Dharmapur-Bagadampur	5.68	-	5.68	-	5.68	-	√			
33DR018	Majhariya-Musharna-Charmohana	3.45	-	2.45	1.00	2.45	1.00	√			
33DR019	Kolhbi-Baragadhi-Lautan	12.61	-	11.61	1.00	11.61	1.00	√			
33DR020	Narahi-Tetariya-Ramban	9.13	-	8.05	1.08	8.05	1.08	√			

Road code	Road Name	Length (km)	(km) or XY-coo	(km) or XY-coordinate	Surface Type: Black Top	Surface Type : Gravel	Surface Type : Earth	All Weather	Fair Weather	Condition - Good / Fair	Condition - Poor	Condition - Temporarily Impassable	Condition - Permanently Impassable
33DR021	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	7.69			-	5.50	2.19	5.50	2.19		√		
33DR022	Gulariya-Pakadiya-Benauli	7.40			-	1.82	5.58	1.82	5.58		√		
33DR023	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	13.31			-	12.05	1.26	12.05	1.26	√			
33DR024	Bara bazar-Amav Mahadev-Shreepur-Mushaharna	8.05			0.39	5.45	2.21	5.84	2.21	√			
33DR025	Piparpati-Bishanpur-Benauli-Bairiya-Kotwali	8.76			-	8.76	-	8.76	-	√			
33DR026	Ramnagar-Kisunpur-Ranibas	3.70			-	0.88	2.82	0.88	2.82		√		
33DR027	Golagung-Amritgung-Bairiya Bishnupur	7.04			-	2.80	4.24	2.80	4.24		√		
33DR028	Tamagadhi gate-Ratanpuri	9.78			-	-	9.78	-	9.78		√		
33DR029	Ganganagar-Hariharpur- Simraungadh	3.33			-	1.56	1.76	1.56	1.76	√			
33DR030	MRM(Nijgadh)-Bharatgunj Singaul	6.36			0.59	5.28	0.50	5.86	0.50	√			
33DR031	Harniya Chowk-Bishnupurwa	6.84			-	5.20	1.65	5.20	1.65	√			
33DR032	Laxmipur Kotwali (Gandak Nahar)-Dewapur (Tenta)-Bhagawanpur	6.09			-	3.21	2.88	3.21	2.88		√		
33DR033	Kachowra-Paterwa-Bhagawanpur	5.39			-	5.14	0.25	5.14	0.25	√			
33DR034	Naya Basti-Prasauna-Kolhabi	9.71			-	9.71	-	9.71	-	√			
	VRCN												
33VR001	Bachchanpurwa-Pathara-Daurawa	5.84					5.84		5.84		√		
33VR002	Khaira-Kolbi	1.44					1.44		1.81		√		
33VR003	Baghban-Bhowra-Pipradi	4.17				4.17		4.16		√			
33VR004	Bairiya-Panchrukhi (Naikatoliya)	2.56				2.56		2.56		√			
33VR005	Bariyarpur-Kabahijabdi	2.05				2.05		2.05		√			
33VR006	Banjariya-Kalaiya	3.09					3.09		3.07		√		
33VR007	Bijulpur-Mahespur-Khamuwa-Madhuban	5.28					5.28		5.28		√		
33VR008	Baijanathpur-Kalaiya/Birgunj Sadak	1.09					1.09		1.08		√		
33VR009	Belahiya-Rahariyadiha	3.39					3.39		3.39		√		
33VR010	Chainpur-Buniyad	3.70					3.70		3.70		√		

Road code	Road Name	Length (km)	(km) or XY- code	(km) or XY- coordinate	Surface Type: Black Top	Surface Type : Gravel	Surface Type : Earth	All Weather	Fair Weather	Condition - Good / Fair	Condition - Poor	Condition - Temporarily Impassable	Condition - Permanently Impassable
33VR011	Dharmapur Tole (Gandak Nahar) - Dharpur Chowk	1.87				1.87		1.85		√			
33VR012	Dewapur - Badki Phulbariya - Amuwa	3.54				3.54		3.53		√			
33VR013	Devigunj-Dharmanagar	3.60				3.60		3.59		√			
33VR014	Basdilwa-Phattepur	4.71					4.71		4.71		√		
33VR015	Madilwa-Mahespur-Rampur	4.83				4.83		4.83		√			
33VR016	Lakshminiya-Ghusukpur	2.79					2.79		4.58		√		
33VR017	Madhuban-Sihorwa	1.81					1.81		1.81		√		
33VR018	Charmohana -Benauli	5.10				5.10		5.10		√			
33VR019	Sirsiya-Hegauliya	1.45					1.45		1.45		√		
33VR020	Khagade-Adembabirta	0.40					0.40		2.77		√		
33VR021	Prasauni -Nakatuwa-Itiyahi	2.59				2.59		2.70		√			
33VR022	Pipra-Narahi-Tetariya	3.21				3.21		9.85		√			
33VR023	Nijgadh-Sadaktol -Ratanpuri	12.80					12.80		12.79		√		
33VR024	Mahendra Highway-Tallo Yojanatol-Bhamara Tole	3.65				3.65		3.59		√			
33VR025	Pasaha Bridge-Gadhimai-Bariyarpur	2.10				2.10		2.10		√			
33VR026	Phattepur-Sukhalaiya-Badaphar-Mahendranganar-Sukhuwaghat-Piluhawa	7.11					7.11		7.12		√		
33VR027	Piparpati Pulchowk - Jhitkaiya - Amaw	3.30					3.30		3.31		√		
33VR028	Amaw - Kalyanpur - Pipradhi	5.16					5.16		5.06		√		
33VR029	Prastoka-Banjariya	3.30					3.30		3.31		√		
33VR030	Inarwa-Inarwari - Gamhariya	1.94				1.94		2.23		√			
33VR031	Raghunathpur-Bhodaha	2.66					2.66		2.66		√		
33VR032	Dakaha-Kumari-Sakhui	4.36				4.36		4.36		√			
33VR033	Mahendra Highway(13 km)-Ratanpuri	10.00					10.00		10.18		√		
33VR034	Rampur-Tajpur	3.56					3.56		3.56		√		
33VR035	Simraungadh- Kachorwa	2.99				2.99		2.99		√			

Road code	Road Name	Length (km)	(km) or XY-cooe	(km) or XY-coordinate	Surface Type: Black Top	Surface Type : Gravel	Surface Type : Earth	All Weather	Fair Weather	Condition - Good/ Fair	Condition - Poor	Condition - Temporarily Impassable	Condition - Permanently Impassable
33VR036	Balirampur-Ghogardiya-Barewa	7.01					7.01		7.03		√		
33VR037	Ratanpuri - Ramthaligau - Kolgau	4.12					4.12		4.11		√		
33VR038	Ratanpuri-Amlekhganj	15.29					15.29		15.29		√		
33VR039	Sapahi-Amaw	3.90					3.90		3.90		√		
33VR040	Sapahi-Juguwa-Sakhuwa-Kakadi	4.35					4.35		4.35		√		
33VR041	Sapahi-Adhanawa	2.33					2.33		2.33		√		
33VR042	Singaul-Nijgadh	7.71				7.71		7.70		√			
33VR043	Mathilo Simalchaur-Singaul-Bharatganj	3.99				3.99		4.01		√			
33VR044	Sisahaniya-Gangapur-Banjariya	2.28				2.28		2.59		√			
33VR045	Shripur-Mathurapur	2.30					2.30		2.28		√		
33VR046	Bhaisahi-Pipariya-Kolbi	3.53				3.53		3.54		√			
33VR047	Bhaluhi-Ekakauniys-Tribeni-Gandak Nahar	3.26					3.26		3.26		√		
33VR048	Kumargadi-Bhimsakhuwa	10.06					10.06		10.06		√		
33VR049	Karaiya-Sihorwa-Dhodiya-Dhodharpa	9.03					9.03		9.04		√		
33VR050	Badharwa-Phattepur-Jitpur	8.49				8.49		8.49		√			
33VR051	Ganjbhawanipur-Malhani-Padam Road	4.06					4.06		4.06		√		
33VR052	Ganjbhawanipur-Bajani-Galopatti-Barwa	2.54					2.54		2.54		√		
33VR053	Hanumannagar (India Border) - Musaharna	4.60				4.60		4.60		√			
33VR054	Haripur-Baluwa-Banjariya	3.30					3.30		3.30		√		
33VR055	Materiya-Banjariya	4.42					4.42		4.42		√		
33VR056	Nitanpur-Harpur-Inarwasira	4.76					4.76		4.77		√		
33VR057	Halkhoriyai-Mahendra Highway-Katghat	7.71				7.71		7.71		√			
33VR058	Jaitapur-Kusmari-Bankul	3.33				3.33		3.33		√			
33VR059	Jitpur-Ramauli-Basdilwa	4.78					4.78		4.78		√		
33VR060	Matiarwa-Jotpur- Gamhariya	1.07					1.07		5.47		√		
33VR061	Jotpur Tole - Uchidih	3.14					3.14		3.14		√		

Road code	Road Name	Length (km)	(km) or XY-cooe	(km) or XY-coordinate	Surface Type: Black Top	Surface Type : Gravel	Surface Type : Earth	All Weather	Fair Weather	Condition - Good/ Fair	Condition - Poor	Condition - Temporarily Impassable	Condition - Permanently Impassable
33VR062	Basbariya-Kachorwa -Lakshminiya	5.09					5.09		5.09		√		
33VR063	Kotwali-Chyutaha-Inarwamal	3.52				3.52		7.61		√			
33VR064	Tedakatti-Bishnupurwa	1.82					1.82		1.82		√		
33VR065	Lakshminiya-Rampur	2.69				2.69		2.67		√			
33VR066	Parsauna-Kakadi-Sakhuwa	2.09					2.09		2.09		√		
33VR067	Mathilo yojana - Singaul	2.86				2.86		2.67		√			
33VR068	Paterwa-Sonarniya (To Rautahat)	3.20					3.20		3.20		√		
33VR069	Kachorwa-Uchidih-Nahar	3.64					3.64		3.61		√		
33VR070	Barainiya-Birgunj	3.64					3.64		3.64		√		
33VR071	Phulbariya-Tribeni	2.17					2.17		2.20		√		
33VR072	Tribeni-Baharuliya-Kalaiya Road	3.18					3.18		3.18		√		
33VR073	Pheta-Benauliya	1.60					1.60		1.60		√		
33VR074	Mangadwa-Motisar-Bairiya(Barewa)	5.04					5.04		5.17		√		
33VR075	Dakshin Jhitkaiya-India Border	2.04					2.04		2.04		√		
33VR076	Beldari-Amritgunj	6.59					6.59		6.59		√		
33VR077	Bodhban-14KM Highway	9.15					9.15		9.14		√		
33VR078	Phattepur-Pipariya-Bidhyanagar	5.62				5.62		5.62		√			
33VR079	Auraha-Bakuliya-Behara	5.66					5.66		5.66		√		
33VR080	Jitpur-Ramban Tadi-Simara	5.47				5.47		6.07		√			
33VR081	Hattisar-Sakhuwaghat	4.16					4.16		4.14		√		
33VR082	Malhani-Dahiyar	1.23					1.23		1.24		√		
33VR083	Auniya-Madhurijabdi (South)	1.82					1.82		1.82		√		
33VR084	Karaiya-Galopatti	2.21					2.21		2.21		√		
33VR085	Ganjbhawanipur-Malhani-Gadhimai-Benauli-Pipradhi	15.50					15.50		9.09		√		
33VR086	Kanakpur-Simraungadh-Golganj-India Border	2.18					2.18		2.32		√		

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33VR087	Prastoka-Motisar	3.09					3.09		3.08		√		
33VR088	Prastoka-Belahiya-Bhatauda-Sisahaniya	4.19				4.19		4.19		√			
33VR089	Prastoka-Baluwa	3.65					3.65		3.64		√		
33VR090	Babuain-Bariyarpur	2.95					2.95		2.94		√		
33VR091	Gamhariya-Kukurbhuka	2.66					2.66		2.73		√		
33VR092	Bagdampur-Dahiyar	1.32					1.32		1.40		√		
33VR093	Katahariya-Amawa	1.26					1.26		1.26		√		
33VR094	Bariyarpur-Bijulpur	1.54					1.54		1.54		√		
33VR095	Bajahi-Sakhuat	2.72					2.72		2.67		√		
33VR096	Simraungadh-Kawalpur Border	2.21					2.21		2.21		√		
33VR097	Birgunj Kalaiya Road-Nautan-Buniyad	4.04				4.04		4.04		√			
33VR098	Inarwa Bazar-Matiyariya	1.26					1.26		1.26		√		
33VR099	Bhawanipur-Surahi	2.42					2.42		2.42		√		
33VR100	Kalaiya-Bhawanipur-Gangapur	0.76					0.76		0.83		√		
33VR101	Bidhyanagar-Majhaliya	4.91					4.91		4.91		√		
33VR102	Phulbariya-Gamhariya	1.92					1.92		1.90		√		
33VR103	Rampurwa-Balirampur	3.24					3.24		3.24		√		
33VR104	Gamhariya-Bahuwarwa	3.08					3.08		3.09		√		
33VR105	Auraiya-Benauli Chowk	3.93				3.93		4.14		√			
33VR106	Khajuriya-Batara	4.24					4.24		4.24		√		
33VR107	Karaiya-Tetariya	2.58					2.58		2.58		√		
33VR108	Adhanwa Bazaar-Barewa-Khopwa	9.73					9.73		9.47		√		
33VR109	Ganjbhawanipur-Maheshpur	3.84					3.84		3.84		√		
33VR110	Parsauni-Parwanipur	5.90				5.90		5.90		√			
33VR111	Simraungadh-Teja	4.10					4.10		4.57		√		
33VR112	Gamahariya-Katahariya-Amuwa	2.28					2.28		2.42		√		

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33VR113	Audhapur-Pakaditola-Mahespur	1.65					1.65		1.65		√		
33VR114	Bajani-Karaiya	2.69					2.69		2.69		√		
33VR115	Parsauni-Khutawajabdi	2.13				2.13		2.13		√			
33VR116	Satbhaiya-Simraungadh	3.50				3.50		3.50		√			
33VR117	Sapahi -Kolhabibazar	2.29				2.29		2.35		√			
33VR118	Bhaluwahikhor-Khaira-Lakshminiya	1.28				1.28		1.28		√			
33VR119	Belahiya-Rahariyadiha	0.43					0.43		0.43		√		
33VR120	Piparpati-Rauwahi	1.76				1.76		1.77		√			
33VR121	Auraha-Bakuliya-Behara	3.65					3.65		3.65		√		
33VR122	Basatpur-Jhitkaiya	1.61				1.61		1.62		√			
33VR123	Beldari-Gulariya	2.24					2.24		2.24		√		
33VR124	Laxmipur Bhajaha - Batara	4.70					4.70		4.68		√		
33VR125	Dewapur-Bhagwanpur	1.57					1.57		1.53		√		
33VR126	Benauli - Bairiya	1.35				1.35		1.35		√			
33VR127	Solakpur-Ghususkpur	1.15					1.15		1.15		√		
33VR128	PhulbariyaVDC Road	0.63					0.63		0.63		√		
33VR129	Dharmanagar - Phulbariya-Rampurua	6.46				6.46		6.44		√			
33VR130	Kalaiya-Mahespur	2.59				2.59		2.59					
33VR131	Amaw-Thaskaul-Padari-Khagade	1.16					1.16		1.16		√		
33VR132	Banthakatti-Rampurwa-Mathawa	1.78					1.78		1.73		√		
33VR133	Adhanwa-Kumargadhi-Sunabhar	2.79				2.79		2.79		√			
33VR134	Pipra-Narahi-Tetariya	2.05				2.05		2.05		√			
33VR135	Rajghatta - Khairawa	2.88				2.88		2.88		√			
33VR136	Simara-Harnahiya (Rajaiya Sadak)	4.58				4.58		4.58		√			
33VR137	Simara-Harnahiya (Rajaiya Sadak)	9.87				9.87		9.87		√			
33VR138	Hattisar-Sakhuwaghat	1.29					1.29		1.29		√		

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33VR139	Koiriya tole - Bhautada	1.73				1.73		1.73		√			
33VR140	Kharpatta-Panchayanpur	1.03				1.03		1.03		√			
33VR141	Batara - Chatawa	2.28				2.28		2.28		√			
33VR142	Pheta Village Road	1.99				1.99		1.99		√			
33VR143	Gamahariya -Purainiya	0.88				0.88		1.08		√			
33VR144	Gandak Nahar - Kuwuda	1.17				1.17		1.12		√			
33VR145	Nakatuwa-Chiljhapati	1.13					1.13		1.13		√		
33VR146	Bharatganj Singaul Village Road	2.36					2.36		2.36		√		
33VR147	Basatpur-Jhitakaiya (Dakshin)	2.79					2.79		3.36		√		

ANNEX 6 PHOTOGRAPH



Displaying Introduction Workshop Banner



Consultancy TL Presenting on Launch Workshop held on 1stJuly, 2015 at DDC hall



DTO of Bara delivering concluding remarks in Introduction Workshop



Consultant's TL Presenting on DRCN Workshop held on 24th July, 2015 at DDC hall



DTO of Bara delivering his view in DRCN Finalization Workshop



LDO of Bara expressing concluding remarks in DRCN Identification Workshop



Road section of Piparpatti-Dewanpur-Sanphuluwa road



Banner of Final DTMP workshop



Consultant TL presentation in Final DTMP workshop at Bara



LDO of Bara DDC delivering Concluding Remarks in Final DTMP workshop

ANNEX 7 MINUTES

आज दिनांक 21/3/19, बुधवार दिन श्रीमान् स्वामीय विकास अधिकारी ज्युको अध्यक्षतामा यस बारा जिल्लाको जिल्ला माताकात मुख्य योजना (DIP) तैयार गर्ने शिक्षितामा विज्ञान राजनीतिक दलका प्रतिनिधिहरू जिनकि. वि. प्रा. का. कर्मचारीहरू लगायत अन्य हस्तकारवालाहरूको उपस्थितिमा परिचामात्मक गोष्ठी संचालन गरियो।

उपस्थिति

क्र.सं.	नाम पद	पद	कार्यालय वा स्थल	दस्तावेज
1	कृष्ण प्र. चौपला	स्वामीय विकास अधिकारी	जि. वि. स. बारा	दस्तावेज
2	श्रीमती रानी कुमारी	प. वि. शिक्षक	जि. वि. स. बारा	
3	महेश्वर प्रसाद	अध्यक्ष	स्वयंसेवा समिति	
4	राम बहादुर यादव	अध्यक्ष	सं. सं. प्रेम बारा	
5	राजेश कुमार पाण्डे	प्रतिनिधि	एन. व. पा. बारा	
6	श्रीमती रानी कुमारी	अध्यक्ष	श्रीमती रानी कुमारी	
7	अनिल कुमार	अध्यक्ष	ने. म. क. पा. बारा	
8	राजेश कुमार पाण्डे	अध्यक्ष	सं. सं. प्रेम बारा	
9	सुनील यादव	अध्यक्ष	ने. म. क. पा. बारा	
10	बहादुर यादव	अध्यक्ष	ने. म. क. पा. बारा	
11	राम प्रसाद यादव	अध्यक्ष	जि. प्र. का. बारा	
12	रानी कुमारी यादव	PSE-I	SNRTP, Bारा	
13	रानी कुमारी यादव	Eng.	SNRTP, Bारा	
14	रानी कुमारी यादव	Eng.	PTO, Bारा	
15	रानी कुमारी यादव	PSE-II	SNRTP, Bारा	
16	अनिल कुमार यादव	TL	North star	
17	समान यादव	Eng.	North star	

भारत मिनि 2001/02/02 गते मुकदमा नं. 10/2001
 स्थायी विकास अधिकारीस्युचे भव्यत्वाना यम वार निल्लवे
 जिल्ला घालाघात मुकु योजना (DTM) तयार गर्ने विषयमा विभिन्न
 राजनैतिक दलका प्रतिनिधीहरू, जि.वि.स./जि.प्र.वा. वा कुर्मचारी-
 हर लगायत अन्य सदोकार कालाहरुको निम्न उपस्थितिमा जिल्ला
 मुख्य सडक संजाल (DRCM) हनौत गोठडी संचालन शारी निम्न
 अनुसार निर्णय गरियो।

उपस्थिति:

क्र. सं.	नाम थर	पद	कार्यालय वा संघ संस्था	दस्तावेज
१.	कुलग पु. थापागाई	स्था. वि. भ.	जि.वि.स. वारा	
२.	बिनाकेस शर्मा चौधरी	जिल्ला अध्यक्ष	नेकपा(सिंहडात)	
३.	लालबहादुर पौडेल	-	नेकपा(वाम)	
४.	रामचन्द्र चौधरी	अध्यक्ष वार	नेपाल परिवार (क)	
५.	विष्णु पौडेल	कमि.को.सभा	वाराकम.संघ	
६.	भीरु चन नायाली	सो.न.स.स.	-	भीरु चन
७.	राज नारायण चौधरी	रा.प्र.सं.स.	आ.सं.सं.	
८.	मोहन शर्मा चौधरी	जि.प्र.स.	कौ.प्र.स. (सो.सं.सं.)	
९.	बलराम राम चौधरी	उप-सचिव	ने.प्र.स.सं.	
१०.	राजेश कुमार थापा	जि.वि.स.स.	ए.ने.सं.स. (सो.सं.सं.)	
११.	लालबहादुर पौडेल	क्र.सं.स.	क्र.सं.सं.	
१२.	राजेशमान शर्मा	सं.प्र.स.	जि.सं.सं.सं.	
१३.	लिकु लामो शर्मा	स.स.सं.स.	स.स.सं.सं.सं.	
१४.	उमेश शर्मा	सो.सं.सं.	सो.सं.सं.सं.	
१५.	रामचन्द्र शर्मा	भा.सं.सं.	भा.सं.सं.सं.	
१६.	राजेश शर्मा	सं.सं.सं.	वारा, जि.प्र.सं.	
१७.	सुभाष शर्मा	अध्यक्ष	सं.सं.सं.सं.	
१८.	सुभाष शर्मा	सं.सं.सं.	सं.सं.सं.सं.	
१९.	सुभाष शर्मा	सं.सं.सं.	सं.सं.सं.सं.	
२०.	राम शर्मा थापा	अध्यक्ष	सं.सं.सं.सं.	
२१.	शिवराज शर्मा थापा	TL	North Star	
२२.	रमेश नारायण मण्डल	Engineer (Nsec)	North Star	

निर्णय न-१, गोष्ठीमा प्रस्तावित सडकहरु मध्ये निम्नलिखित सडकहरुलाई मुख्य जिल्ला सडक सन्जाल (DRCN) को रूपमा छनौट गर्ने निर्णय गरियो /		
SN	Name of Road	Service To VDC Center
1	Bariyarpur-Nayabasti	Dahiyar, Ganjbhawanipur, Karaiya
2	Kalaiya –Gunjbhawanipur –Malahi	Ganjbhawanipur, Narahi, Piprabastipur, Khopwa, Gadahal, Bishnupurwa
3	Mukhalal Marg (Kalaiya –Jaitapur)	Uttar Jhitkaiya, Bhodaha
4	Bhaluhi –Inarwasira –Rajghatta –MRM	Banjariya, Prastoka, Inarwasira, Fattepur
5	Khekhariya –Pheta –Motisar (Kalaiya Road)	Batara, Barainiya, Chhatawa
6	Piparpati- Bishanpur–Benauli-Bairiya –Kotwali	Piparpati, Bishunpur, Srinagar Bairiya, Benauli
7	Kachowra-Paterwa-Bhagawanpur	Kachorwa, Bhagawanpur, Paterwa
8	Narahi-Tetariya-Ramban	Narahi, Gadahal, Umarjan, Tetariya, Sishorwa
9	Tetariya-Pipra -Dharohiya-Prasauna-Kakadi	Kakadi, Prasauna
10	Parsauni-Nitanpur (Rajmarga)	Khutuwa Jabdi, Buniyad, Chhatapipra
11	Basatpur-Sitalpur	Basatpur, Balirampur,
12	Majhariya-Musharna-Charmohana	Hardia
13	MRM(Nijgadh)-Bharatgunj Singaul	Bharatgunj Sigaul
14	Mushaharwa-Itiyai-Nakatuwa (Prasauni)	Bishrampur, Itiyahi
15	Kuduwa-Langada Chowk-Bara Bazar (Bara gadhi)	Khowpawa, Umarjan, Kuduwa, Pathara, Pipra
16	Kalaiya-Belahiya	Bhatauda, Prastoka
17	Dharmapur-Bagadampur	Babuain, Madhurjabdi, Kabahijabdi
18	Ganganagar-Hariharpur- Simraungadh	Hariharpur
19	Hulakisadak Patharhatti-Rauwahi-Pipradhi-Kabahigoth	Pipradhigoth
20	Piparpati-Dewapur-Sanphuluwa	Pipar patti Jabdi, Badki Phulbariya, Jhitkiya Dakshin
21	Gulariya-Pakudiya-Benauli	Beldari, Pakadiya Chikani, Benauli
22	Golgung-Amritgung-Bairiya Bishnupur	Amritjung, shreenagar bairiya
23	Kalaiya-Mahespur-Khamuwa-Madhuban-Prasauna-Kolhabi	Mahespur, Dohari
24	Tamagadhi gate-Ratanpuri VDC	Ratanpuri
25	Ramnagar-Kisunpur-Ranibas	Amritgunj
26	Chhatawa-Ghodashahan-Gamhariya-Khapartatta	Sisahaniya
27	Kolhbi-Baragadhi-Lautan	Umarjan, Rampurwa, Shiharwa
28	Parwanipur (TRP)-Rampur Tokani	Rampur Tokani
29	Laxmipur Kootwali (Gandak Nahar) -Dewapur (Tenta)-Bhagawanpur	Dewapur
30	Harniya Chowk-Bishnupurwa	Inarwamal, Mahendra Adarsa, Bishnupurwa
31	Bara baza-Amav Mahadev-Shreepur-Mushaharna	Bachanpurwa, Amav
32	Motisar-Raghunathpur-Pheta	Raghunathpur
33	Kabahigoth-Bagahi	Bagahi



नेपाल सरकार
संघीय मामिला तथा स्थानीय विकास मन्त्रालय
जिल्ला विकास समितिको कार्यालय
जिल्ला प्राविधिक कार्यालय
बारा, कलैया

पत्र संख्या:- २०७२/०७३
चलानी नं.:- २८

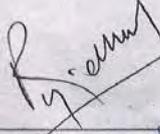
मिति.....

२०७२/४/१०

श्री स्थानीय पूर्वाधार विकास तथा कृषि सडक विभाग (DoLIDAR)
स्थानीय यातायात पूर्वाधार क्षेत्रगत कार्यक्रम
श्रीमहल पुलचोक, ललितपुर

विषय: मुख्य सडक सन्जाल (DRCN) छनौट सम्बन्धमा /

मिति २०७२/३/१६ व. न. ८८६९ को तर्कोको पत्रानुसार यस बारा जिल्लाको जिल्ला यातायात गुरु योजना (DTMP) तयार गर्ने सिलसिलामा तहाँ बाट छनौट भइ आएको North Star Engineering Consultant (P.) Ltd. को पहलमा मिति २०७२/३/१६ का दिन परिचयात्मक गोष्ठी र मिति २०७२/४/८ का दिन मुख्य सडक सन्जाल (DRCN) छनौट गोष्ठी संचालन गरिएको व्यहोरा जानकारीको लागि अनुरोध छ /


प्रमुख जिल्ला इन्जिनियर
जि. प्रा. का. बारा

आज मिति २०७२ साल फाल्गुन २० गते विधिवरका दिन श्रीमान स्थानीय विकास अधिकारी श्री नारायण प्रसाद पाण्डे ज्यूको अध्यक्षतामा ग्रामीण पट्टा कार्यक्रम (RAP-3)को मध्ययोजना यस वारा जिल्लाको जिल्ला यातायात गुरुयोजना (DTMP) तथा जिल्ला प्रशासनको अन्तिम चरणको जोषिठ जिल्ला स्थित माननीय सांसदज्यू, राजमैतिक दलका प्रमुख एवं प्रतिनिधि, जि.वि.स.का पदाधिकारीहरु, जिल्ला यातायात पूर्वाहार समन्वय समिति (DTICC/DRCC) का पदाधिकारीहरु विभिन्न सरकारी कार्यालय एवं अन्य संघ संस्थाका प्रमुख एवं प्रतिनिधिहरु तथा पत्रकार एवं अन्य तपत्रालका मदानुभवहरुको उपस्थितिमा वसी देहाय वमोजिम निर्णय गरियो।

उपस्थिति

क्र.सं.	नाम थर	कार्यालय/ संघ संस्था	पद	हस्ताक्षर
१.	नारायण प्रसाद पाण्डे	जि.वि.स.को कार्यालय	स्था.वि.अ.	
२.	श्रीधर शर्मा	जि.वि.स.को कार्यालय	C.D.E.	
३.	राज गुरुप्रसाद	राज गुरुप्रसाद नेपाल	अध्यक्ष	
४.	सुमन शर्मा	जनमुक्ति पार्टी	स्था.वि.स.	
५.	मोहन प्रसाद यादव	राष्ट्रिय प्रजातन्त्र पार्टी	अध्यक्ष	
६.	वसुधा यादव	नेपाली कांग्रेस	स्था.वि.स.	
७.	मोहन शर्मा	जन.सं.पा. (माओवादी)	स्था.वि.स.	
८.	श्रीमान नारायण शर्मा	नेपाली जनता सत	अध्यक्ष	
९.	मुक्ति शर्मा	नेपाल समाजवादी किसान पार्टी	स्था.वि.स.	
१०.	रामचन्द्र चौधरी	नेपाल परिवार दल	स्था.वि.स.	
११.	दिलीप शर्मा	जिल्ला पत्रकार संघ	स्था.वि.स.	
१२.	श्रीमान नन्द शर्मा	जि.प्र.स.को कार्यालय	स्था.वि.स.	
१३.	पुष्पा शर्मा	राष्ट्रिय मोरतान्त्रिक समाजवादी पार्टी	स्था.वि.स.	
१४.	श्रीमान नारायण शर्मा	नेपाली जनता सत	स्था.वि.स.	
१५.	भुवन शर्मा	नेपाली जनता सत	स्था.वि.स.	

क्र.सं.	नाम शर	कार्यलय/संघ संस्था	पद	हस्ताक्षर
१६	डॉ. वि. लाल चौधरी	गो. सकारणी संस्था महासंघ	उपअध्यक्ष	
१७	रवींद्र चव्हाण	SNRTP	PSB-1	
१८	राम प्रकाश साठव	इंजि. प्रक. पवार	शा. ज. नि. य.	
१९	शम कानुसंग पांडव	खिलवा प्रावि. वि. सं.	एन. इ. ज. मि. य.	
२०	मंगवती गजुरेल	म. न. म. व. म. क. उ. अ. न. र.	म. न. न. व. व.	
२१	तेजव प्रभात	र. क. म. र. क.	म. न. उ.	
२२	ब्रह्मराज झालम	वि. प्र. वी. का.	का. प्र.	
२३	न. प. सी. प्रसाद चौरीजी	नि. वि. सं. व. र. स.	कार्यकारी सचिव	
२४	वीरेंद्र वाडेवा	"	का. प्र.	
२५	सुकल देव पस्वान	दलित जनजाती पक्ष	मि. अ. व.	
२६	दिपू प्रताप चौधरी	व. वि. प्र. ज. न. म. य.	मि. व. स. ल. ला. का.	
२७	बाराज प्रसाद	वि. स. का. व. र. स.	इ. म. वि. य.	

निर्णय

निर्णय सं. 9 यह बैठक में DRCN का परीक्षा एवं सड़क के लंबे प्रत्येक वर्ष प्रसन्न होता है र प्राथमिकता क्रम अनुसार DRCN में समावेश करवा सड़क के लंबे स्तरों नती एवं सुधार का कार्य गढ़े जाते निर्णय गरियो।

निर्णय सं. 10 यह जिल्लाको प्रहचपूर्ण सड़क गडक गहर र हलाके राजमार्ग (पट्टा मार्ग) यथाशक्ति निर्माण स्तरों नती गर्न लंबा-द्वित निकायलाई तर्कित गर्ने निर्णय गरियो।

निर्णय सं. 11 जि. मा. गु. योजना प्रस्तावित इल वजेटको 5% एक DRCN सड़क के लंबे र कंदि 5% एक village Road को लंबे इल वजेट निर्णय गरियो।

निर्णय सं. 12 जि. मा. गु. योजनाको 5 वर्षको अनुमानित वजेट अन्तर्गत आधिक वजेट जिल्लाको प्राप्त हुन आरम्भ प्राथमिकता क्रम अनुसार DRCN को अन्य सड़क पनि अग्रता सुधार एवं स्तरों नती गढ़े जाते निर्णय गरियो।

निर्णय सं. 13 यह जोषीने पारमेशिता नदी स्या ई. क. स्या जोषीने पुलन DRCN रिपोर्टलाई जोषीने पुल सुधार हुलाके लंबे समावेश गर्ने गरि पारित गर्ने निर्णय गरियो।

(Handwritten signatures and stamps)

आज मिति २०७२ साल फाल्गुण २९ गते आइतवारका दिन नि. स्थानीय विकास अधिकारीको अध्यक्षतामा यस वारा जिल्लाको जिल्ला यातायात गुरु योजना तयार गर्ने सिलसिलामा जिल्ला मिश्रित तपोशाल बमोजिमका बाज्जेतिक क्लक प्रमुख स्व प्रतिनिधिहरुको सहभागितामा निम्न बमोजिमको उपस्थितिमा निम्न अनुसार निर्णय गरियो।

उपस्थित

क्र. सं.	नाम थर	कार्यालय संघ संस्था	पद :	हस्ताक्षर
१	राजेश्वर शर्मा	जि. वि. प.	नि. द्या. फ. अ.	(सं.)
२	राजेश्वर शर्मा	स. ल. व. न. त. प. न.	उप. प्र. म.	शिव शर्मा
३	शिव शर्मा	व. व. म. व. व. व. व. व.	अध्यक्ष	शिव शर्मा
४	श्याम प्रसाद शर्मा	त. व. म. लो. प. व.	उप. प्र. म.	शिव शर्मा
५	शिव शर्मा	जि. वि. प.	का. सा.	शिव शर्मा
६	शिव शर्मा	स. ल. व. न. त. प. न.	का. सा.	शिव शर्मा
७	महम्मद सफिकु हसन	स. ल. व. न. त. प. न.	अध्यक्ष	शिव शर्मा
८	महम्मद सफिकु हसन	स. ल. व. न. त. प. न.	अध्यक्ष	शिव शर्मा
९	महम्मद सफिकु हसन	स. ल. व. न. त. प. न.	अध्यक्ष	शिव शर्मा
१०	महम्मद सफिकु हसन	स. ल. व. न. त. प. न.	अध्यक्ष	शिव शर्मा

निर्णयहरू

निर्णय नं. १. वारको प्राथमिकरण जसो जिल्लाको महत्वपूर्ण वारो पदाजी पुनः गस्कोले सोलाई पुनः अध्ययन गरी प्राथमिकरण गर्ने।

निर्णय नं. २. यस DTMP मा हुन गस्कोले सज्जका / अक्ष.



नेपाल सरकार
संघीय मामिला तथा स्थानीय विकास मन्त्रालय
जिल्ला विकास समितिको कार्यालय
कलैया, बारा

पत्र संख्या: २०७२/०७३

च.नं. ०४२८

मिति : २०७२/११/२०

विषय:- जिल्ला यातायात गुरुयोजना (DTMP) अन्तिम चरणको गोष्ठी सम्पन्न गरिएको बारे ।

श्री स्थानीय पूर्वाधार विकास तथा कृषि सडक विभाग (DoLIDAR)

स्थानीय यातायात पूर्वाधार क्षेत्रगत कार्यक्रम

श्रीमहल, पुल्बोक, ललितपुर

उपरोक्त संबन्धमा, Rural Access Program (RAP3)/DoLIDAR को सहयोगमा जिल्ला यातायात गुरुयोजना तैयार गर्ने सिलसिलामा पहिलो र दोश्रो चरणको गोष्ठी माफत जिल्लामा भएका मौजुदा सडकहरुबाट District Road Core Network (DRCN) पहिचान भई ती सडकहरुको Data collection गरी परामर्शदातबाट प्राप्त हुन आएको Draft Final Report माथि गरिएको सुझाव, सल्लाह समावेस गरी मिति २०७२/११/२० मा सम्पन्न अन्तिम चरणको गोष्ठीले उक्त रिपोर्ट जिल्ला परिषदबाट पारित गर्न सहमति जनाएको जानकारी गरिन्छ ।


२०७२/११/२०
नारायण प्रसाद पाण्डे
स्थानीय विकास अधिकारी

बोधार्थ:

१. ग्रामीण पहुँच कार्यक्रम (RAP 3), जावलाखेल, ललितपुर
- २। नर्थ स्टार ईन्जिनियरिङ कन्सल्टेन्ट प्रा. लि., बखुण्डोल, ललितपुर

ANNEX 8 UNTRACKED ROADS IN BARA

Table A5.1 Untracked Village Roads Inventory
Data from Previous DTMP and Data Collected during the DTMP Process

SN	Name of Road	Length (Km)	Service To VDC Center
1	Kalaiya2-Sisahaniya-Pataura-Hainpur-Purainiya-Pheta-Phulbariya (Batarg)-Chiljhapti-Itiyahi-Birgunj	12.50	Sisahaniya, Motisar, Raghunathpur, Purainiya, Pheta, Batara, Itiyahi
2	Hanuman Mandir (Brahmpuri)-Brahmpuri	1.50	Brahmpuri
3	Benauli Pachrauta-Airiya-Simraungadh	3.50	Benauli, Bairiya, Simraungadh
4	Pipradhi Nahar Chowk-Dhuraha-Kalyanpur-Jhitkahiya-Devapur	4.50	Pipradhi, Phulwariya
5	Pipradhi-Telgai-Hardiya-PAC-Parsurampur-Charmohana	4.70	Parsurampur
6	Amav-Pathara-Daurwa	3.00	Amav, Sihashani, Bishnupurwa
7	Narahi Chowk, Arnawa Chowk, Hulakimarg	2.00	Narahi, Kawahi, Parshurampur
8	Kachorwa-Aruwa Khola-Bhagwanpur-Tamagadhi	18.00	Kotawali, Mahendra Adarsh
9	Nahar Chowk (Cold Store)-Tenta-Inarwamal	4.50	Dewapur, Tenta, Inarwamal
10	Charmohana-Parshurampur-Hardiya-Telgai-Pipradhi	6.00	Hardiya, Pipradhi
11	Khaptatta-Dharamnagar-Lilkanthawa	2.50	Matiarwa
12	Rangapur-Baghawan	2.50	Baghawan
13	Kalaiya 9-Baghawan	1.50	Baghawan
14	Rangapur-Pipradhi-Balirampur-Ghogharariya	2.00	Balirampur
15	Kalaiya-Bhawanipur-Brahmpuri-Manmat Sadan	2.70	Bhataura, Brahmpuri
16	Kalaiya (Parsa)-Sishwa-Bakulahar-Kawalpur	2.00	Kmaheshpur, Dohari, Bhedaha
17	Narahi Chowk-Itahar-Belahi-Betabana-Bariyarpur	3.00	
18	Buniyad-Chainpur (Parwanipur)-Tribhuvan Rajpath	4.50	Buniyad, Parwanipur
	Total of Untracked Village Roads =	80.90	

ANNEX 9 LIST OF COMMENTS/SUGGESTIONS RECEIVED FROM FINAL WORKSHOP AND ITS ANSWER

अन्तिम जिल्ला यातायात गुरुयोजना तैयारी गोष्ठी २०७२/११/२० मा छलफलमा उठेका प्रश्न ,सुझाव र ति प्रश्न हरुको जबाफको विवरण यस प्रकार छ/

प्रश्न एवं सुझाव	प्रस्टीकरण
गण्डक नहर सडक जिल्लाको दक्षिणी भेगका धैरै गा बि स लाई जोड्ने र त्यहाका जनता लाई प्रत्यक्ष यातायातको सेवा पुर्याउने भएता पनि राज्यले (सडक) बिभागको उदासिनताले बसो देखि कच्ची अवस्थामै रहेकोले एस सडकलाई SRN बाट हटाएर DTMP मा राख्नु पर्ने र जिल्लाले पिच गर्नु पर्ने	सडक डिभिजन कार्यालयका इन्जिनियरका अनुसार यो सडक RIP प्रोजेक्टले बनाउदै छ र एस विषयमा जि बि स ले पनि सडक बिभाग संग बारम्बार पत्राचार गरिसकेको हुनाले SRN मा परिसकेको सडकलाई DRCN मा समाबेस गर्न नसकिने
कलैया महेशपुर खामुवा मधुबन प्रसौनी कोल्हबी सडकको मधुबन देखि प्रसौनी कोल्हबी सम्मको खण्ड DRCN मा छुटेको समावेश गर्नुपर्ने	DRCN workshop मा प्रस्तावित एस सडक मधुबनमा 33DR015 बरियारपुर नयाबस्ती संग Overlap हुने भएको र प्रसौनी र कोल्हबी सम्म कुनैपनि नया गा बि स केन्द्र नछुने भएकोले हटाइएको हो/ यदी यो सडक जिल्लाको महत्वपूर्ण हो भने त्यस खण्डलाई बिभाजन गरि अर्को नया DRCN थप गर्न सकिन्छ/
बिगतको DTMP को प्राथमिकताका सडकहरुलाई पुनः प्राथमिकता दिनु पर्ने, जिल्लाले छनौट गरेको सडकहरु प्राथमिकतामा पर्नु पर्यो	धैरै DRCN सडक हरु पुरानो DTMP को A र B class बाट नै छनौट भएका छन् प्राथमिकता तोक्ने काम निर्देशिकाको प्राबधान अनुसार भएको छ/
33DR015 बरियारपुर नयाबस्ती सडकको नाम अनुसार नक्सामा फरक देखियो महेन्द्र राजमार्ग सम्म र लम्बाई पनि फरक देखियो	पुरानो DTMP अनुसार यो सडक भएको र नक्सामा पनि त्यहि अनुसार सडक देखिएको र लम्बाई पनि पुँरै राखिएको हो यो सडक महेन्द्र राजमार्ग सम्म प्रस्तावित भएता यसलाई नया बस्तीसम्म मात्र विकास गर्नु राम्रो हुन्छ किनकि नयाबस्ती अगाडी पुँरै जंगल र प्रस्तावित निजगढ अन्तर्राष्ट्रिय विमानस्थलको अधिकार क्षेत्र भित्र पर्दछ
धैरै ग्रामिण सडकहरु छुटेको देखिन्छ ति सडकको विवरण देखिएन, र ति सडकहरु त बेवारिसै हुने भए/	34 वटा DRCN बाहेक १४७ वटा VRCN र १८ वटा GPS tracking नगरेको सडकको विवरण छुट्टै छ र DTMP रिपोर्टमा Annex को रुपमा राखिने छ/ VRCN हरु अब गाबिस र नगर क्षेत्र भित्रका नगरपालिकाको जिम्मा हुनेछ