

Government of Nepal
Ministry of Local Development
District Development Committee
Dadeldhura

DISTRICT TRANSPORT MASTER PLAN

Dadeldhura

VOLUME I – MAIN REPORT

September 2010



DoLIDAR



Prepared with the support of RAP/DFID and technical assistance from DoLIDAR/HELVETAS Nepal

ACKNOWLEDGEMENT

District Transport Master Plan (DTMP) of Dadeldhura District has been prepared under the financial support of RAP/DFID and technical Assistance of HELVETAS Nepal with close coordination with DoLIDAR.

We would like to extend our heartfelt gratitude to the RAP/DFID for providing us to carry out this task.

We would like to express their gratitude to Local Development Office Mr. Aananda Keshari Pokhrel, Mr. Narendra K.C (Khadka), Chief of the District Technical Office (DTO), and all the DDC and DTO staffs for their valuable suggestions and co- operation for the preparation of this report.

We render our thanks to Mr. Dhan Bahadur Tamang, DG, Mr. Bhupendra Basnet, DDG, Mr. Sushil Tiwari, SDE, DoLIDAR, Dr. Chandra Shrestha, Infrastructure Advisor, DFID and who played special role in materialising the project

The DTMP team of Helvetas Nepal – Mr. Mitra Shrestha, Field Coordinator, Mr. Prabhakar Pandit, Socio-economist and central team Mr. Adhir Sharma, the Deputy Country Programme Director, Mr. Hare Ram Shrestha, Team Leader, Mr. Umesh K. Shrestha Socio-economist, Ms. Diva Malla, GIS Officer, Ms. Sophiya Shrestha/Ms. Bipana Sharma Technical Officer has prepared this report after extensive documentary consultation/ field work, road inventory study (using GPS) and interaction relevant line agencies of the district. I thank the team who worked very hard to bring this report at this stage for successfully completed the work.

We are grateful to all the local people and leaders who have rendered their valuable accompany to our team during execution of the works.

Shiva Aryal
Country Programme Director
HELVETAS Nepal

ABBREVIATION

AMSL	:	Above Mean Sea Level
CEA	:	Cost Efficient Analysis
DADO	:	District Agriculture Development Office
DDC	:	District Development Committee
DEO	:	District Education office
DFID	:	Department for International Development (UK)
DIM	:	District Inventory Map
DoLIDAR	:	Department of Local Infrastructure Development and Agricultural Road
DoR	:	Department of Road
DTICC	:	District Transport Infrastructure Coordination Committee
DTMP	:	District Transport Master Plan
DTPP	:	District Transport Perspective Plan
DVO	:	District Veterinary Office
GIS	:	Geographical Information system
GPS	:	Global Positioning System
GoN	:	Government of Nepal
Ha	:	Hectare
ICIMOD	:	International Centre for Integrated Mountain Development
IDPM	:	Indicative Development Potential Map
Km	:	Kilometre
LGCDP	:	Local Governance and Community Development Programme
LEP	:	Labour based, Environment friendly and Participatory
MLD	:	Ministry of Local Development
NTC	:	Nepal Telecommunication Ltd
NTFP	:	Non-Timber Forest Product
PCO	:	Public Call Office
P-RRA	:	Participatory Rapid Rural Appraisal
TBSU	:	Trail Bridge Support Unit
TU	:	Traffic Unit
VDC	:	Village Development Committee
RCIW	:	Rural Community Infrastructure Works
RAP	:	Rural Access Programme
RTI	:	Rural Transport Infrastructure
SoR	:	Service of Roads
SWAp	:	Sector Wide Approach
RCC	:	Reinforce Cement Concrete
RRA	:	District Road Class A
RRB	:	District Road Class B
VR	:	Village Road
UR	:	Urban Road
ZoI	:	Zone of Influence

Table of Contents

Foreword	i
Acknowledgements	
Abbreviations	
Table of Contents	
Executive Summary	
CHAPTER I: INTRODUCTION	I-1
1.0 Introduction	I-1
1.1 Objective of the Study	I-2
1.2 Scope of Work	I-2
1.3 Limitation of DTMP Study	I-3
CHAPTER II : APPROACH AND METHODOLOGY	II-1
2.1 Approach	II-1
2.2 Methodology	II-1
2.2.1 Task/Activities	II-1
2.2.2 Complementary activities in the district for DTMP	II-7
CHAPTER III: INDICATIVE DEVELOPMENT POTENTIAL MAP (IDPM)	III-1
3.1 Physical Location & Geographical Characteristics	III-1
3.2 Socio-economic Characteristics	III-1
3.3 Service centers and facilities	III-7
3.4 Existing / Potential Development Area	III-10
3.5 Analysis of Market (Key Growth Centers) Centers	III-17
CHAPTER IV: DISTRICT INVENTORY MAP OF RURAL ROAD NETWORK	IV-1
4.1 Existing Transport Situation	IV-1
4.2 National Highway	IV-1
4.3 Feeder Roads	IV-1
4.4 Summary of District Roads "A"	IV-2
4.5 Briefs on District Roads "A"	IV-3
4.6 Summary of District Roads "B"	IV-5
4.7 Briefs on District Roads "B"	IV-7
4.8 Summary of Main Trails	IV-8
4.9 Major Historical Trails	IV-9
4.10 Summary of All Weather Roads	IV-9
4.11 List of Existing Trail Bridges	IV-9
4.12 Existing Road RCC Bridge	IV-12
4.13 Existing Concrete Causeway	IV-13
4.14 Existing Slab Culvert	IV-13
4.15 Existing Pipe Culvert	IV-15
4.16 District Inventory Map of Rural Road Network	IV-16
Chapter V District Network Planning	V-1
5.1 Accessibility Situation	V-1
5.2 Zone of Influence Area	V-1
5.3 Delineation of Accessible Area	V-1
5.4 Accessible Area, Coverage and Population	V-1
5.5 Delineation of inaccessible Area	V-2
5.6 Inaccessible Area, Coverage and Population	V-2
5.7 Network Planning in inaccessible Area	V-2
CHAPTER VI: PERSPECTIVE PLAN OF DISTRICT RURAL ROAD NETWORK	VI-1

6.	Perspective Plan of District Rural Road Networks	VI-1
6.1	Scoring system for Prioritization of Proposed New Roads	VI-1
6.2	Prioritization of District Road 'A' for New Linkage	VI-2
6.3	Brief on proposed District Roads A for New Linkages	VI-4
6.4	Prioritization of District Road 'B' for New Linkage	VI-4
6.5	Brief on proposed District Roads 'B' for New Linkages	VI-6
6.6	Possible Inter-district Transport Linkages	VI-7
6.7	Scoring system for prioritization of Rural Roads Class A and Class B for Upgrading	VI-7
6.8	Prioritized Existing Transport Linkages for Upgrading	VI-8
6.9	List of Village Roads	VI-9
6.10	Additional demanded rural roads during illaka level workshops	VI-10
6.11	Prioritized list of Trail Bridge for New construction	VI-11
6.12	Prioritized list of Trail Bridge for Major Maintenance	VI-13
6.13	Perspective Road RCC Bridge	VI-14
6.14	Perspective Slab Culverts	VI-14
6.15	Perspective Road Causeway	VI-15
CHAPTER VII:	FIRST FIVE-YEAR DISTRICT TRANSPORT MASTER PLAN	VII-1
7.0	First Five-Year District Transport Master Plan	VII-1
7.1	Five Year Projected Financial Plan	VII-1
7.2	Sharing of Budget	VII-2
7.3	Year- Wise Sharing of Budget	VII-4
7.4	Year-wise Targets	VII-4
7.5	Prioritized Transportation Linkages for the First Five Year Plan	VII-6
7.5.1	Prioritized District Roads A for the First Five Year Plan (DTMP)	VII-6
7.5.2	Prioritization of District Road (B) for First Five-Year Plan	VII-8
7.6	Prioritized Trail Bridges for New Construction, and Major Maintenance for Five years plan(DTMP)	VII-10
7.7	Recommendation	VII-13
7.7.1	Adherence of DTMP	VII-13
7.7.2	Construction Approach	VII-13

Annexes

Annex I	Existing/Potential Deployment Area And Market Centre
Annex II	Traffic Volume And List Of Existing Roads With Required Intervention
Annex III	Cost Estimate And Financial Analysis
Annex IV	Prioritization Of Proposed Transport Linkage For New/Upgrading For DTPP/DTMP
Annex V	Existing Trail Bridge And Allocated Budget For Trail Bridge
Annex VI	Photographs

List of Tables

Table 2.1:	Scoring System for Prioritization of New Linkages	II-4
Table 2.2:	Scoring System for Prioritization for Rehabilitation/Upgrading	II-5
Table 3.1:	Ethnic Composition	III-2
Table 3.2:	Economic active and inactive population above 10 years	III-2
Table 3.3:	Occupation Pattern	III-3
Table 3.4:	Land Use pattern	III-3
Table 3.5:	Landholding in Hectare	III-3
Table 3.6:	VDC wise Agri. Land	III-4
Table 3.7:	Major crops and their Production	III-5
Table 3.8:	Cropping Pattern	III-5
Table 3.9:	Cropping Calendar	III-6
Table 3.10:	Livestock Population	III-6
Table 3.11:	Livestock Production	III-7
Table 3.12:	Post office	III-7
Table 3.13:	Financial institutions	III-7
Table 3.14:	List of Telephone and communication facilities	III-8
Table 3.15:	Agri-Service Centers / Sub-Centers	III-8
Table 3.16:	Veterinary Service Centers/Sub-Centers	III-9
Table 3.17:	Government Health Service	III-9
Table 3.18:	Team Hospital, Dadeldhura	III-10
Table 3.19:	Potential Area with Extensive Agriculture-Commercial crops	III-10
Table 3.20:	Potential Area with Extensive Agriculture- Cereal crops	III-11
Table 3.21:	Potential Area with Extensive Agriculture- Fresh Vegetable/Vegetable seeds	III-12
Table 3.22:	Potential Area with Extensive Agriculture-Fruits	III-13

Table 3.23:	Area with Extensive Livestock	III-13
Table 3.24:	Area for NTFP	III-14
Table 3.25:	Area for Religious and Historical Place	III-15
Table 3.26:	Existing/Potential Area for Cottage and Agro-based Industries	III-16
Table 3.27:	Area for Mine	III-16
Table 3.28:	Area for Micro hydro power	III-17
Table 3.29:	Existing and Potential Market Centres with Grading	III-18
Table 4.1:	List of National Highway	IV-1
Table 4.2:	Summary of District Roads “A”	IV-2
Table 4.3:	Summary of District Roads (“B”)	IV-5
Table 4.4:	List of Main Trails	IV-8
Table 4.5:	List of Existing Trail Bridge	IV-10
Table 4.6:	Existing Road RCC Bridge	IV-12
Table 4.7:	Existing Concrete Causeway	IV-13
Table 4.8:	Existing Slab Culvert	IV-13
Table 4.9:	Existing Pipe Culvert	IV-15
Table 5.1:	Accessible Area, Coverage and Population	V-1
Table 5.2:	Inaccessible Area and Coverage	V-2
Table 6.1:	Scoring System for Prioritization for New Linkages	VI-1
Table 6.2:	Prioritization of District Road A for New Linkage	VI-3
Table 6.3:	Scoring System for Prioritization of District Road B for New Linkage	VI-5
Table 6.4:	Scoring System for Prioritisation of Rural Roads for Upgrading	VI-7
Table 6.5:	Prioritized List of District Road ‘A’ For Upgrading	VI-8
Table 6.6:	Prioritized List of District Road ‘B’ For Upgrading	VI-9
Table 6.7	List of Village Roads	VI-10

Table 6.8	Additional demanded rural roads during ilaka level workshops	VI-10
Table 6.9	Prioritized list of Trail Bridge for New construction	VI-11
Table 6.10	Prioritized list of Trail Bridge for Major Maintenance	VI-13
Table 6.11	Prospective Road RCC Bridge	VI-14
Table 6.12	Perspective Slab Culvert	VI-14
Table 6.13	Perspective Road Causeway	VI-15
Table 7.1	Possible Funding (Roads) for coming five years budget	VII-1
Table 7.2	Projected Financial Plans for Trail Bridges	VII-1
Table 7.3:	Year- Wise Sharing of Budget for roads	VII-4
Table 7.4:	Year-wise Targets for road	VII-4
Table 7.5:	Year-wise Targets for Trail Bridges	VII-5
Table 7.6:	Year-wise physical targets for new construction	VII- 5
Table 7.7:	Year-wise physical targets for Rehabilitation/Upgrading	VII- 5
Table 7.8:	Prioritized District Road 'A' for New Linkage	VII-6
Table 7.9:	Prioritized District Road 'A' for Upgrading	VII-7
Table 7.10:	Prioritized District Road (B) for New Construction	VII- 8
Table 7.11:	Prioritized District Road (B) for Upgrading	VII-9
Table 7.12:	Prioritized Trail Bridges for New Construction for Five years (DTMP)	VII- 10
Table 7.13:	Prioritized Trail Bridges for Major Maintenance for Five years (DTMP)	VII- 13

Executive Summary

Dadeldhura district is in Mahakali Zone in Far Western Development Region and is located within latitude 28° 59" N to 29° 26" N and Longitude 80° 12" E to 80 ° 47" E. It covers an area of 1538 sq. km. The district has elevation ranging from 333 m to 2639 m above the mean sea level. According to the National Census 2008 projection, the total population of the district is 1,43,178 comprising 74,216 male and 68,966 female clustered in 24,770 households. Subsistence agriculture farming and livestock rearing is widely practiced by the population.

The DTMP Study considered a total 34 possible market centre for analysis. After required data collection and analysis of collected information using Interim guideline of DTMP, the following categorisation can be made on the market centres: 2 market centres are grade A (Jogbudha and Amargadhi), 6 market centres as grade B (Katal, Godam, Shandhani, Bagarkot, Pokhara and Gaibande), 15 market centres as grade C (Gharelu, Bhatkanda, Rupal, Koteli, Pujarigaun, Anarkholi, Chamada, Kurmule, Shirsha, Panlakheth, Sakayal, Badal, Parigaun, Bhageswor, Kailpalmandu and Unikot). Additionally, 11 potential market centres were also identified by the Study

There are about 280 Km of district and rural roads that are motorable in fair weather conditions and need to be upgraded to all weather road standards.

Dadeldhura district has 9 district roads of class A and 11 district roads of class B. All the district roads are earthen surface,. The construction quality of the rural roads is poor and they need to be upgraded to all weather roads to provide accessibility throughout the year to improve overall accessibility and mobility in the district.

Study shows that accessibility area can be categorized into accessible and partially accessible VDC. About 34 % (520.54 Esq.) of total area are accessible areas based on serviceability of all weather road i.e. covered by Strategic Road Network (SRN). Similarly 79 % (1,221.38 sq.km) of total area falls under accessible area based on serviceability of all fair weather roads. Out of 20 VDC and 1 municipality, only 6 VDCs have fully access and 9 VDCs have partial access in all weather condition. Likewise, 11 VDCs have full access and 9 VDCs have partial access limited to fair-weather condition.

There are 14 main trails with total length of 361 km. There are four historical trails. There are 42 existing trail bridges in the district. Identification of 102 new trail bridges as prospective bridges for new construction has been made of which 53 trail bridges have been planned for construction within five years DTMP period.

In the twenty years of DTPP period, four new linkages of class A roads (124.03 Km), seven linkages of class B roads (112.17 Km) have been planned for construction. Likewise eight existing class A roads (146.100 KM) and five existing class B roads (36 Km) have been planned for upgrading to all weather road for sustainable and better transport services.

The percentage of budget sharing for DTMP as agreed in DTICC meeting is 25 %, 55 % and 20 % of total projected amount for new construction, upgrading and maintenance respectively. Total projected budget for 5 years is about Rs. 921,994,000 for roads and Rs. 87,111,000 for trail bridges.

Based on expected available budget and sharing ratio, four new linkages of class A roads (69.00 Km), seven linkages of class B roads (46.00 Km) have been proposed for construction. Likewise, six existing class A roads (115.00 KM) and five existing class B roads (36.00 Km) have been planned for upgrading to all weather road. Nearly 300 Km of class A roads, 184 Km

of class B roads and 7 trail bridges have been planned for maintenance during the period of DTMP.

However, problem lies in implementing the DTMP and adopting stipulated construction approach. Existing practices show that more roads are undertaken than envisaged in DTMP. Similarly existing practices of construction does not follow the environment-friendly, labour based and participatory (LEP) approach, except for condor funded community based projects like RAP and RCIW programme. Therefore it is recommended that the Dandeldhura district follows the planned investment as envisaged in the DTMP and adopt the environment-friendly, labour based and participatory approach (LEP) for the road construction.

CHAPTER I: INTRODUCTION

1.1 Introduction

Dadeldhura district is located in Mahakali Zone in Far-western Development Region and covers an area of 1538 square kilometer within latitude 28° 59" N to 29° 26" N and Longitude 80° 12" E to 80 ° 47" E. The district has elevation that ranges from 333 m to 2639 m above mean sea level (msl). Dadeldhura district borders Doti & Kailali to the East, India to the West, Baitadi to the North and Kailali and Kanchanpur to the South. According to the National Census 2008 projection, the total population of the district is 143,178 comprising 74,216 male and 68,966 female clustered in 24,770 households. Subsistence agriculture farming, mainly small scale livestock is the main source of occupation and livelihood of the majority of the population. Due to low level of agriculture production, the majority of the households face acute food shortage for the most part of the year.

Dadeldhura has limited but increasing accessibility. The district is served by surface transport facilities linking the district with the national strategic road network through Mahakali highway and Seti highway. The network of feeder roads, district roads and village roads are increasing significantly in the district. However, district and village roads are mostly in poor condition that require upgrading, rehabilitation and proper maintenance.

Transport facilities help in developing access of rural-urban linkages. Road accessibility can reduce isolation, stimulate crop production and marketing activities, encourage public services and help to transfer technology. Road building has been seen to bring about notable enthusiasm and visible changes in rural life. However, in the absence of rational criteria and professional guidelines, road constructions are carried out in an adhoc manner leading to, wastage of limited resources.

District transport Master Plan (DTMP) is being developed in the districts to support investments in transport development with appropriate guideline and criteria for rational and transparent decision making process.

Transport is one of the major components to improve access of the people to services and facilities through increased mobility. Increased mobility results in better linkages with market centres, agricultural production pocket areas and other opportunities in the district. With transport sector interventions and planning based on accessibility considerations, District Transport Master Plan (DTMP) for a district offers long-term perspective for the planned development of the rural roads in the district.

In a nutshell, District Transport Master Plan is a reflection of existing transport infrastructure situation and future potential in relation with the resources available the District. DTMP essentially covers the rural transport infrastructures (RTIs), which are funded, supported and implemented by DDCs. The DTMP preparation strongly advocates meaningful participation of all key stakeholders in the planning process to make DTMP more acceptable and ensure ownership. The preparation process goes through a series of techno-political activities that include consultation workshops and interactive meetings with stakeholders to increase participation of all stakeholders. These activities include District level workshop, DTICC meetings and cluster of *Ilaka* level workshops, formal/informal meeting, focus group discussions and transit walk, etc. At every stage, to careful consideration is given to ensure access and high level of participation of representatives from line agencies, major political parties, social leaders, women organizations, *Dalit* and *Janjati* coordination committees,

differently able people, chamber of commerce, transportation association etc. The approach is to work towards consensus building.

A completed and DDC endorsed DTMP serves as a planning document when potential donor agencies, line agencies and development partners approach the district for possible transport sector investments.. DTMP becomes an authoritative document of the district to negotiate possible grant and loan assistance from donor agencies. It facilitates project identification. Donors or funding agencies supporting rural transport investments have accepted DTMP as a prerequisite tool for transport related assistance.

The long term vision of the Government of Nepal for the road sector, as formulated National Strategy (MoLD 1997), is "...the development of basic rural infrastructure (with strong emphasis on district agricultural roads) country-wide in a planned and sustainable manner. In line with the poverty alleviation objectives, labour-based technology and environmental-friendly, local resource-oriented construction methods have to be incorporated in rural infrastructure development process." The National Strategy highlights that development of rural infrastructure takes place in a decentralized environment.

1.2 Objective of the DTMP

In brief, the overall objective of the District Transport Master Plan (DTMP) is to develop rural road network in a district in a planned and sustainable manner using labour based, local resources oriented, and environmental friendly approach within a decentralized participatory environment.

The specific objectives of preparing DTMP for a district are to:

- Analyse accessibility situation in the district
- Identify and prioritize interventions based on the accessibility situation.
- Prepare Indicative Developmental Potential Map (IDPM).
- Prepare District Inventory Map (DIM) of Rural Road networks.
- Prepare Perspective Plan of transport services and facilities.
- Prepare/update five years District Transport Master Plan (DTMP).
- Prepare a realistic physical and financial implementation plan of prioritized roads for the DTMP period.

1.3 Scope of work

The process of DTMP preparation as envisaged under this assignment includes studies of the district roads, their socio-economic analysis and scope of various sectors such as agriculture, industry etc. DTMP looks at the present transport situation, accessibility and socio-economic benefit that will accrue from planned development of the road network. This is reflected in the perspective plan of twenty years range based on which five years DTMP is designed. The short term investments will be completed in five year period. This study of DTMP is limited to areas within district boundary but due consideration is given to the nearest road-head and regional and intra-district connectivity. Participatory planning adopted for DTMP preparation is expected to contribute to consensus building among the politicians and district level stakeholders necessary for accepting DTMP as the agreed document of DDC. The District Council is expected to agree to the DTMP and use it for the road development, implementation, improvement and maintenance of transport networks in the district.

1.4 Limitation of DTMP Study

DTMP is prepared to be a valid legal document approved by DDC Council. In order to implement the Plan, DDC should consistently own the document and use the investment plan even if DDC Council is changed. The usefulness of DTMP depends on its use by the DDC.

Socio-economic data used in the DTMP preparation are collected from secondary sources. Prioritization criteria were presented in DTICC and were approved. Perspective Plan and five year DTMP plans are based on result of prioritization process and reflect information on DDC financial resources as made available to the study team.

Estimate of the cost of road construction has been prepared based on the experience gained in district roads in similar terrain. The estimated resource envelope for the implementation of road projects is prepared after analysing the past trend of budgets. Therefore, the budgetary figures projected are only indicative. There may be unforeseen changes in the level of actual allocation of budgets for the road sector.

CHAPTER II: APPROACH AND METHODOLOGY

2.1 Approach

District Transport Master Plan is prepared using participatory bottom-up approach and differs from conventional practices of top down approach. Techno-Political interface has been incorporated in the planning process, where active participation from representatives of political parties, line agencies, DDC officials is crucial.

The District Transport Infrastructure Coordination Committee (DTICC) has been constituted at the district level as authorized legislative body of DDC. This body, comprising political representatives from all political parties, provides necessary policy decisions during the DTMP preparation process.

2.2 Methodology

The preparation of DTMP goes through several stages in its planning stage. Secondary sources of information are collected from various line agencies. District level workshop is conducted to create awareness among district leadership and representatives as well as local people on how the planning activities are carried out and what their roles are in the process. Cluster of Ilaka level workshops are then carried out to verify and validate proposed network planning.

During the course of preparing DTMP for Dandeldhura, key steps in that the team went through during preparation process are described below:

2.2.1 Task/Activities

The consultant team undertook related tasks and activities according to a work schedule as agreed in their Inception Report.. These include:

Task- 1: Data/ Information collection

a) Collection and review of secondary information

Secondary data were collected from annual report published by District Level offices and through consultation with stakeholders (such as DADO, DVO, DDC, DEO, Small Cottage and Industries, local traders etc). The main objective of the secondary data is to verify the data collected from VDC level. Essential socio-economic data on an area, location and significance of development potential area such as extensive agriculture, extensive horticulture, livestock farming, high value cash crops, tourism, cottage and agro-based industries, center for business/commerce/markets, tourism area, hydropower and water mills, mines, service centers e.g. hospital, health post, agro-sub-center etc) have been collected from annual report, district profile and study report published by DDC, DADO, District Education office etc.

Demographic data of district, maps, service flow pattern, various maps showing service centers or the location of service of road (SoR) facilities, transport infrastructure inventory, past plans and sectoral study reports, sectoral standards and policy targets were sourced from DoLIDAR, DDC, line agencies of DDC, Bureau of Statistics, Kathmandu, Topographical Survey Branch, local NGOs etc. The details on the documents collected are summarised below:

List of documents

- Previous reports of DTMP prepared by the DDC.
- District periodic plan prepared by the DDC.

- Annual report of Agriculture Development Office, District Veterinary Office, report of District Education office etc.
- Report on settlement pattern and market centres of the district.
- Demographic Statistics and socio-economic feature of the district.

Collection of Maps

- Topo maps the 1:25000 and 1:50000 scales, for use as base map.
- Digitized topographic maps of Department of Survey.
- District Administrative Map.
- District Trail Map, Helvetas.
- Strategic Road Network Map.

b) Primary Data collection

Primary information on existing accessibility level of settlements was derived from the communities, VDC officials, and school teachers in special format developed for this purpose.

Task- 2: Indicative Development Potential Map (IDPM) Preparation

Indicative Development Potential Map (IDMP) was prepared in order to indicate existing level and potential development in agriculture, horticulture, livestock areas and growth of key market centres and other developments. IDPM is developed according to Approach Manual for the development of Agriculture and Rural Roads (DoLIDAR/MoLD). Based on data collected from annual reports from line agencies and DDC and Ilaka level workshops, development potentials of the district in agriculture, horticulture, livestock, cottage and small industries, etc have been identified.

Existing / potential areas are defines as:

- Areas with extensive agriculture.
- Areas with extensive high value cash crops.
- Areas with extensive NTFP.
- Areas with extensive horticulture.
- Areas with extensive livestock farming.
- Areas with extensive fisheries.
- Areas with extensive small cottage industries.
- Potential areas for tourism development.
- Existing/ potential areas for development of large industries like hydropower, mining etc.

Market Survey

Market Survey was carried out to identify market and service centres. Data and information collected in the field is the main basis for determining the importance or relative importance of market/service centres and central places. All services existing in a particular centre were listed by district line agencies and supplemented by field data on economic population

structure collected for the centre and its influence areas using P-RRA approach. For the evaluation purposes, data from offices, Industry, Business & Commerce, Education, Health, Communication, Electricity Supply, Drinking Water Supply services are combined for the centre and its influence areas. Assessment of economic facilities and services existing in the market/service centres and their catchments areas leads to the identification of the most important market/service centre. Centrality analysis of the market facilities and government services are carried out.

The Centrality Index is calculated using the following formula

$$C_j = \sum_{i=1}^n (W_i X_{ij})$$

Where,

C_j = Centrality Index of the j^{th} market centre

X_{ij} = Value of the i^{th} function (number of establishments or shops at the j^{th} market centre)

W_i = Weightage of the i^{th} function

The weight of each function was calculated by adopting the Median Threshold Population Technique. The Median Threshold Population Technique calculates the weight as:

$W_i = \frac{\text{Median population of the } i^{\text{th}} \text{ function}}{\text{Lowest median population of market centres where a function exists}}$

- The collected information is plotted on the base map indicating their geographical boundaries as accurately as possible.
- Base map on which all the development potential areas and sites have been plotted is the draft Indicative Development Potential Map (IDPM) of the district. Brief notes on each plotted area of development potential are prepared. The description should highlight the nature and size of the area.
- Presentation of IDPM in DTICC meeting to Finalize and approve IDPM.

Task- 3: Preparation of District Inventory Map (DIM)

The following steps were taken for preparation of DIM Report.

- The inventory survey of the existing rural roads was carried out and necessary interventions such as new construction, rehabilitation, periodic maintenance, regular maintenance etc are identified. Earlier, spatial information of existing roads was noted on photocopy of topographical maps.
- The information/ data on existing rural infrastructures was taken using Global Positioning System (GPS) instruments including GPS tracking of existing roads and GPS way points of trail bridges conducted by TBSU. GPS tracking constitutes major activity for DIM preparation, which takes considerable effort in field level.
- Information on road surface type, traffic levels, status of passability, status of construction, adequacy of bypasses, existing bridges and their requirements, status of drainage and other improvement required are collected during inventory survey.

- The DIM was presented and discussed in the DTICC meeting and the Interventions on rehabilitations, maintenance and upgrading of the existing rural roads were agreed. The required interventions were analysed based on accessibility situation.
- Presentation of DIM and IDPM was made in one day meeting with DTICC. This meeting then finalised IDPM and DIM.

Task- 4: Preparation of District Network Plan

- Market centre are graded based on centrality index; Market grade A (> 100), grade B (50-100), grade C (25-50), and potential (< 25).
- Preparation of GIS map of nodal centres (using graded market centres)
- All the market centres based on their hierarchy lies at the core of the central place and are plotted in GIS map.
- After plotting the market centrals, existing roads are overlaid on the GIS Map.
- Accessibility situation is analysed using GIS model.
- Buffering along the left and right of the existing all weather road is carried out on the basis of walking distance of 2 hours for terai and 4 hours for the hills. These delineated areas are considered as accessible area.
- The planning team proposes road network for the inaccessible area identified by the Zol analysis.
- Preliminary road network plan for inaccessible area is prepared based on the nodal points/market centres and government policy of 2 hours and 4 hours.
- Rural roads identified are categorised into two type of roads i.e. district roads and village roads. District roads are classified as RRA and RRB according to the significance of the roads.
- Prior to disseminating information in cluster of Ilaka level workshop, DTICC meeting was conducted and the proposed preliminary road network plan for inaccessible area was presented and discussed to verify and obtain preliminary approval of the proposed road networks.
- All suggestions and feedbacks were collected from DTICC meeting and incorporated in preliminary proposed road network plan.
- Preliminary road network plan is presented and discussed in series of Ilaka level workshops to collect their views and proposal for DTPP. Road network plan is finalised in the workshop.
- In the workshop, the DTMP study team presented and clarified the objective of the DTMP and process of its preparation.
- Plenary discussions were organised to verify their views on new demands as well as existing road networks.

Task- 5: Preparation of District Transport Perspective Plan (DTPP)

Prioritization of Proposed New Roads

The following criteria have been used for prioritisation of new transport linkages.

Table 2.1 Scoring System for Prioritization of New Linkages

S.N.	Parameter	Scoring Unit	Score
I	Population per unit Cost	Population/investment Cost in 100,000	55
ii	Cultivated Land	Cultivated Land/km	15

S.N.	Parameter	Scoring Unit	Score
iii	Inaccessibility	Population × Walking hour /km	20
iv	Total Population of poor, <i>Dalits</i> and marginalized <i>Janjatis</i> .	Population /km	10

Prioritisation of Rural Roads Class A and Class B for Rehabilitation /Upgrading

The following criteria are proposed for prioritisation of District Road A and District Road A for rehabilitation /Upgrading.

Table 2.2 Scoring System for Prioritisation for Rehabilitation/Upgrading

S. No.	Criteria	Scoring Unit	Score
1	Traffic Volume	TU	70
2	Cost	Cost /km	20
3	Market /service centre	Centrality Index	10
Total			100

Calculation of Scores for Prioritization of New, Rehabilitation and Upgrading of Roads

The following formula is applied to each indicator of the area of investigation

(For high value ranking)

Co.efficient = Value / Maximum Value of Row

Score= Highest weighted score X co.efficient

Where,

X= original indicator value

(For low value ranking)

Co.efficient = Lowest value of Row/ Value

Score= Highest weighted score X co.efficient

Where,

x= value of the Row

Prioritisation of Proposed Trail Bridge

The prioritization will be based on the following formula derived from a simulation model using ICIMOD indices, related poverty, education, health etc. as used by TBSU:

Prioritization Formula for New Construction

SSTB	$\{(2.041 P + 2.856 MP) \times DG\} \times \{((12-RT) \times (1+RF/100))/12\}$
LSTB	$0.3 \times \{(2.041 P + 2.856 MP) \times DG\} \times \{((12-RT) \times (1+RF/100))/12\}$

Prioritization Formula for Major Maintenance

SSTB	$2 \times \{(2.041 P + 2.856 MP) \times DG\} \times \{((12-RT) \times (1+RF/100))/12\}$
LSTB	$1.2 \times \{(2.041 P + 2.856 MP) \times DG\} \times \{((12-RT) \times (1+RF/100))/12\}$

Prioritization Formula for Rehabilitation

SSTB	$1 \times \{(2.041 P + 2.856 MP) \times DG\} \times \{((12-RT) \times (1+RF/100))/12\}$
LSTB	$0.3 \times \{(2.041 P + 2.856 MP) \times DG\} \times \{((12-RT) \times (1+RF/100))/12\}$

Where,

P = Population i.e. the beneficiary population of the prospective bridge

MP=Marginalized population (total dalit + marginalized janajatis + total minority + total poor from other castes)

DG= Distance Gained

R= River Type (no. of months crossable without a bridge)

RF= Risk Factor (Percent of population that has died within the last five year.

On the basis of prioritization criteria, the transport linkages under the categories of new construction /rehabilitation/upgrading for each class of roads are prioritized.

- After overlay all proposed transport linkages in the DIM, DTPP are prepared.
- Presentation of draft District Transport Perspective Plan (DTPP) in DTICC and finalization of DTPP.

Task- 6: Preparation of Five Year District Transport Master Plan (DTMP)

- The DTPP is used as the based documents on which the District Transport Master Plan is prepared.
- The financial resource of the district available for and spent on transportation sector was assessed from past trend of financing in this sector and allocation of budget by DDC and other line agencies for coming years. The tentative budget plan for coming five years was prepared in consultation with DDC.
- The interventions and road linkages identified in the DTPP were prioritized according to Approach for the Development of Agricultural and Rural Roads, DoLIDAR (1997).
- Final workshop was organized at the DDC where the prioritization of roads was approved.

Task-7: Endorsement of the Five Year District Transport Master Plan of District**RTI Network**

- DDC should submit the final District Transport Master Plan to District Council for approval. DTICC with the support from planning team shall brief the Council on the

entire process used in the preparation of the Plan including elaboration on scoring system used for prioritization.

- The DTMP is finally approved by the District Council.

2.2.2 Complementary activities in the district for DTMP:

In line with the approach mentioned above, orientation and interactive workshops and meetings were held at the district and cluster level. Activities that were carried out in the district as part of this DTMP preparation are summarised as follows.

- i) District level workshop on SWAp/DTMP in DDC on 3rd February 2010.
- ii) Selection of Technical Assistant (TA) and Research Associate (RA) for data collection.
- iii) 1st DTICC meeting in DDC on 30th May 2010.
- iv) Ilaka level workshop at Jogbuda on 4th June 2010.
- v) Ilaka level workshop at Dadaban on 6th June 2010.
- vi) Ilaka level workshop at Bagarkot on 7th June 2010.
- vii) 2nd DTICC meeting in DDC on 8th June 2010.
- viii) Final DTICC meeting on 30th July 2010 for draft report presentation.

In addition to above, meetings and sharing at individual level were carried out with selected persons, representatives from NGOs, line agencies, district based projects related to transport infrastructures development for collecting secondary information that were used in the preparation/updating of DTMP.

CHAPTER III: INDICATIVE DEVELOPMENT POTENTIAL MAP (IDPM)

3.1. Physical Location and Geographical Characteristics

Dadeldhura district is situated in Mahakali zone of Western Development Region and is located within latitude 28° 59" N to 29° 26" N and Longitude 80° 12" E to 80° 47" E. It is spread over mid hill within the range of 333 amsl (Simalkhet) to 2639 mt amsl (Mahabharat Lek). It covers an area of 1538 sq. km. It is bordered by Doti and Kailali district to the East, India to the West, and Baitadi district to the North, Kailali and Kanchanpur to the South.

The district experiences 3 types of climate: tropical climate up to altitude 800 amsl (as found in Jogbudha, Shirsha, Alital, Rupal, Bhageswor and Sakayal areas); sub tropical altitude between 800m to 2000 amsl and temperate climate above altitude 2000 amsl. The temperature ranges from 3.6 to 32.7 degree centigrade and average annual rainfall is 1344 msl.

Major rivers in the district are Mahakali and Seti. There are many streams such as Roongun, Surnaiya, Rupaligad, Chamgad, Silingad, Asigram Khola, Katkura Khola, Sailessworigad, Roduwagad, Dotigad, Punturagad, Byaurigad, Galphagad, Katkura Khola, Sun Khola, Dogad, Gaurikhet Khola, Gaibandhe Khola, Ghatal Khola, Shirsa Khola, Bantal Khola, Chaud Khola, Siroligad, and Seragad. The main lakes in the district are Alital (Alital), Jhilmilatal (Jogbudha), Ganyaptal (Kailpalmandu) and Sundeutal (Jogbudha).

Administratively, the district is divided into 20 VDCs, 1 Municipality, 9 Illakas and 1 constituency areas. Amargadhi Municipality is the district headquarters which also functions as the centre of Far-Western Development Region. The district has access to basic infrastructures like drinking water, electricity, telecommunication and transportation facilities though limited to VDCs connected with main highway.

Major market areas in the district are Dadeldhura Bazar, Jogbudha, Godam, Bagbazar, Gaibandhe, Sakayal, Pokhara, Bhatkanda, Rupal, Bhageswor, Anarkholi, Dewal, Chamada, Dandaban, Belapur, Katal, Parigaun, Shadhani, Shirsa, Kurmule, Gharelu, Badal, Kailpalmandu, Bakal, Koteli, Panlakheth, Chipur, Bhadrapur, Puilekh, Parcheta, Lamikande, Chama and Thanta

3.2 Socio-economic Characteristics

3.2.1 Population

According to the National Census 2008 projection, the total population of the district is 143,178 with comprises 74,216 male and 68,966 female clustered in 24,770 households. Average household size is 5.78 person per households and the population growth rate is 1.87 percent. The urban population is 14.58 %. The sex ratio is 1:0.94 (male population divided by female population). The district has multi ethnic composition with majority ethnic group comprising Chhetri, Kami, Thakuri, Brahman, Magar, Damai, Sarki, Newar, and Sanyashi (Giri and Puri). Life expectancy of the people is 47 years (2001) and population density is 82 people per square km (2009). Common communicating language is Nepali (99.6%) follow by Magar (1.5%).

3.2.2 Religion, Festivals and Caste

Based on ethnicity, the population of Chhetry (64759) is the highest and is followed by Brahmin (22560), Kami (9646), Sarki (6632), Thakuri (4489), Magar (3654), Damai (3632), Sanyasi (2128) and Lohar(1323). The district has 99.14%, 0.84%, 0.00079%, 0.0181%, 0.0135% Hindu, Buddha, Kirant, Muslim and Christian respectively. Dasai, Tihar, Teej, Sakranti, Janaipurnima, Buddhapurnima are the major festivals of the people of the district.

Table: 3.1 Ethnic Composition

SN	Description	Population	Percentage
1	Dalit	24612	19.51
2	Ethnic	7643	6.06
3	Others	93907	74.43

Source; District profile: 2063

3.2.3 Education Status

There are altogether 666 educational institutions of which 240 pre-primary schools, 247 primary schools, 107 lower secondary, 51 secondary, 12 higher secondary and 2 campuses. There are 30561 students in primary, 5643 in lower secondary, 3410 in secondary and 794 students in higher secondary. Comparatively boy students are more in lower secondary to higher secondary level but girls outnumber in primary level. The literacy rate of the district is 52.9 %. Among them the literate male is 66.71% and female is 33.3%.

3.2.4 Economically active and Inactive population

About 64.4% population are economically active and 35.6% are inactive. Among the active population, 62% are male and 66% are female as shown in table 3.2 below.

Table 3.2: Economic active and inactive Population above 10 years

Status	Total Percentage	Male Percentage	Female Percentage
Economic active	64.43	62.24	66.40
Economic inactive	35.57	37.76%	33.60
Total	100%	100%	100%

Source: District Profile, Dadeldhura, 2063

3.2.5 Occupation Pattern

Major occupation in the district has been agriculture though this has shifted with high youth force migration due to social conflict. This shift has been towards business and overseas employment. About 65% of people have been adopting agriculture as subsistence livelihood, whereas 6% in commercial business, 3% in government services, 3% in overseas employment, 8% on domestic daily wage labour and 15% in multitude activities as shown in table 3.5.

Table 3.3 Occupation Pattern

S.N.	Occupation	Percentage
1	Agriculture	65%
2	Business	6%
3	Government Service	3%
4	Overseas Employment	3%
5	Domestic wage labour	8%
6	Others	15%
	Total	100%

Source: District Profile, 2006

3.2.6 Land Use Pattern

District area is 153,800 ha, of which 19,242 ha is usable for cultivation. Actual cultivated land is 18,323 ha. Settlement covers 2,789 ha whereas river, streams, roads and other infrastructure cover 17,379 ha and forest land is 115,169 ha.

Table 3.4: Land Use pattern

S.N.	Land Use Pattern	Area (Ha.)	Percentage (%)
1	Total land of the District	153800	100
2	Land usable for cultivation	19242	13
3	Cultivated land	18323	10
4	Forest land	115169	64
5	Residence	2789	2
6	others (Residence, River, Khola, Rock, Roads etc)	17379	11

Source: District Profile, Dadeldhura, 2063

3.2.7 Agriculture Production**3.2.7.1 Land holding**

Land distribution and land holding by the household varies. Less than one percentage households are landless and very poor. Most of the families have less than one hectare land and some family have more than 5 hectare land (see Table 3.5 below).

Table: 3.5 Landholding in Hectare.

S.N.	Category	Family	Percentage
1	Landless	14	0.06
3	Less than 0.1 ha	476	2
4	Between 0.1 to 0.2 ha	1341	7

S.N.	Category	Family	Percentage
5	Between 0.2 to 0.5 ha	8248	40
6	Between 0.5 to 1 ha	7787	37
7	Between 1 to 2 ha	2394	11
8	Between 2 to 3 ha	274	1
9	Between 3 to 4 ha	72	0.3
10	Between 4 to 5 ha	-	
11	More than 5 ha	14	0.06

Source: District Profile, Dadeldhura, 2063

Major cash crops are paddy, maize, wheat, millet, oilseed and grams. As a substitute for the subsistence agriculture, they are shifting the production from subsistence crops to high value crops such as seasonal and non seasonal vegetable farming and horticulture. The land used for agriculture, types of production etc are summarised below in Table 3.6 and 3.7

Table: 3.6 VDC Wise Agriculture Land of Dadeldhura District in Ha

S.N.	Name of VDC	Agricultural Land	Total Land
1	Alital	1297	15235
2	Jogbudha	1750	30480
3	Shirsa	1620	17617
4	Rupal	1164	11593
5	Bhageswor	675	4123
6	Dewaldivyapur	1161	4617
7	Bagarkot	1010	7008
8	Bhadrapur	504	1606
9	Chipur	762	2245
10	Ajayameru	787	3525
11	Samaiji	615	2989
12	Koteli	684	3150
13	Manilekh	484	1772
14	Belapur	1020	7535
15	Nawadurgha	528	1319
16	Ganeshpur	541	1266
17	Mastamandu	560	2028
18	Kailpalmandu	655	3506
19	Amargadhi	2200	16917
20	Asigram	464	7740
21	Gankhet	672	12939
Total		19153	159210

Source: District Agriculture Development Office, 2065/66

Table 3.7 Major crops and their production

S.N.	Crops	Area (Hectare)	Productivity/ hectare (MT)	Production (MT)
1	Paddy	6221	2.60	16117
2	Maize	3744	1.68	6289
3	Wheat	7464	1.09	8135
4	Millet	302	0.8	241.6
5	Barley	2218	0.89	1974
6	Oilseed	610	1.64	1001
7	Grams	756	0.26	197
	Vegetable			
1	Vegetable winter	230	5.22	1201
2	Summer vegetable	135	3.70	499
3	Non seasonal vegetable	18	22.22	399
4	Potato	432	0.46	199
5	Spices (ginger, onion, chilly, daniya, besar, etc0	43	7.08	304
	Fruits			
1	Winter fruits: Apple, Pears, okhar, aru, arubakhada, lapsi	163	1.84	299.92
2	All seasons : Mango, lichhi, banana, amba, rukhkathar, bhuikathar	203	1.97	399.91
3	Orange other types	215	1.86	399.9

Source: District Agriculture Development Office, 2065/66

3.2.7.2 Cropping pattern and cropping calendar

Major crops of this district are paddy, corn, wheat, *fapper* and millet. *Bhatmas*, *Dalhan* crops are *bodi*, *simi*, *siltung*, *mas*, beans and *gahat*. Vegetables are raddish, *rayo*, kauli flower, cabbage, *giraula*, *lauka*, *pharsi* and potato. Fruits are orange, nashpati, banana, mango, lichhi, pears and arubakhada. Vegetable seeds are soyabean, raddish, gajare, cucumber, tomato, jukuni, cauliflower, chamsur. Cash crops are ginger, lasun, besar, sugarcane, onion.

Table 3.8: Cropping Pattern

Low Land (Khet)			Upland		
Paddy	Wheat	Maize	Maize	Millet	None
Paddy	Wheat		Maize	potato	Potato
Paddy	Potato	Maize	Maize	fapper	Potato
Paddy	Mustard	Maize	Maize	mustard	None
Paddy	vegetable	Maize	Maize	Jau	None
Paddy	Wheat	None	Vegetable	Vegetable	None
Paddy	none	None			

Source: Annual Report, DADO, 2065/66

Table 3.9: Cropping Calendar

S.N.	Crops	Time sowing/Transplanting	Harvesting
1	Paddy	Jastha, Asar, Shrawan	Kartik, Marg
2	Wheat	Kartik, Marg, Poush	Chaitra, Baishakh
3	Maize	Falgun, Chaitra, Baishakh,	Ashad, Shrawan, Bhadra
4	Mustard	Kartik, Marga	Falgun, Chairtra
5	Potato	Kartik, Marg, Magh	Magh, Falgun, Ashad, Shrawan
6	Fapper	Jestha, Ashad, Shrawan	Aswin, Kartik, Marg
7	kauli flower	aswin, kartik, marg, poush, magh, falgun, ashar, shrawan	aswin, kartik, marg, poush, magh, falgun, chaitra
8	Cabbage	aswin, kartik, marg, poush, magh, falgun, ashar, shrawan	aswin, kartik, marg, poush, magh, falgun, chaitra
9	Raddish	aswin, kartik, marg, poush, magh, falgun, ashar, shrawan	aswin, kartik, marg, poush, magh, falgun, chaitra
10	Cucumber	Magh, falgun	Baishakh, Jestha
11	Tomato	Magh, falgun	Baishakh, Jestha

Source: Annual Report, DADO, 2065/66

3.2.8 Livestock production

Livestock production is the main income of the people of Dadeldhura. Local population engage in farming number of domestic animals and sell their product. The number of livestock population and their products are as follows (Table 3.10 and 3.11).

Table 3.10: Livestock Population

S.N.	Livestock	Local	Improve	Total
1	Cattle	88386	850	89236
2	He/She Buffaloes	12825	10885	23710
3	Goat	118000		118000
4	Sheep/	413		413
5	Pig/Boar	1357		1357
6	Chicken	12679		12679
7	Others	803		803

Source: District Veterinary Office, 2065/066

Table 3.11: Livestock Production

S.N	Livestock's Products	Unit	Annual Production
1	Milk	MT	15307
2	Meat	MT	1696
3	Egg (hen)	MT	365

Source: District Veterinary Office, 2066

3.3 Service centers and facilities

3.3.1 Post office

This district has one District Post office in Amargadhi, 8 Illaka level post offices at Amargadhi, Ganeshpur, Nawadurga, Gaira, Jogbudha, Bhageswor, Chipur, Ajayameru VDC and 22 additional post offices in other remaining VDC.

Table 3.12: Post office

S.N.	Type of Post office	Number	VDC/Municipality
1	District Post Office	1	Amargadhi Municipality-5
2	Illaka Post Office	8	Amargadhi Municipality-7, Ganeshpur, Nawadurga, Gaira, Jogbudha, Bhageswor, Chipur, Ajayameru
3	Additional Post Office	22	Other VDCs

Source: District Post Office, Dadeldhura district

3.3.2 Financial institutions

There are four commercial banks, five development banks, some finance and money transfer services and many cooperatives that provide financial facilities.

Table 3.13: Financial Institution

SN	Particular	Units	Remarks
1	Commercial bank	4	
2	Development Bank	5	
3	Money Transfer	6	
4	Cooperatives	36	Agriculture, dairy, health, multipurpose, others, s/c, small farmers

Source: Market survey, 2006

3.3.3 Telecommunication

There are 750 PSTN telephone line, 750 fixed CDMA, 5400 CDMA mobile, 650 GSM mobile 450 internet users. There is one cable operator, two FM stations and 3 daily newspapers.

Table 3.14: List of telephone and communication facilities

S.N.	Description	unit	Remarks
1	PSTN	750	Capacity 2024
2	CDMA	5400	300 Post paid
3	CDMA Fixed	760	
4	GSM	6500	Capacity 8000
5	Internet	400 + 50	ADSL+Landline
6	Cable Operator	1	
7	FM Station	1	
8	Coverage	20+1	All VDC & Municipality

Source: NTC, Dadeldhura

3.3.4 Agriculture Service Centre

Dadeldhura has one District Agriculture Development Office at Amargadhi, 4 Illaka level service centres in Jogbudha, Nawadurga, Ganeshpur, Chipur and 5 Illaka level sub service-centre in Amargadhi, Ugratara, Ajayameru, Gankhet and Bhageswor VDC.

Table 3.15: Agri-Service Centres/Sub-Centres

S.N.	Ilaka No.	Service Centre/Sub-service Centre	Located Place	Coverage VDCs
1	7	Service Centre	Jogbudha	Jogbudha, Shirsa, Alital
2	3	Service Centre	Nawadurga	Nawadurga, Mastamandu, Belapur, Manilekh
3	4	Service Centre	Ganeshpur	Ganeshpur, Asigram, Kailpalmandu
4	8	Service Centre	Chipur	Chipur, Bhadrapur, Bagarkot, Dewldivapur
5	5	Sub-Service Centre	Saharsalinga	Amargadhi-1,2,3,4,5,10,11
6	1	Sub-Service Centre	Ugratara	Koteli, Amargadhi-6,7,8,9
7	9	Sub-Service Centre	Ajayameru	Ajayameru, Samaiji
8	5	Sub-Service Centre	Gankhet	Gankhet
9	6	Sub-Service Centre	Bhageswor	Bhageswor, Rupal

Source: Source: Annual Report, DADO

3.3.5 Veterinary Service Centre

The district has one District Veterinary Office at Amargadhi, 4 service centres in Jogbudha, Nawadurga, Ganeshpur, Chipur and 6 service sub-centres in Amargadhi, Ugratara, Ajayameru, Gankhet, Bhageswor and Manilekh VDC.

Table 3.16: Veterinary Service Centres/Sub-Centres

S.N.	Ilaka No.	Service Centre/Sub-service Centre	Located Place	Coverage VDCs
1	7	Service Centre	Jogbudha	Jogbudha, Shirsa, Alital
2	3	Service Centre	Nawadurga	Nawadurga, Mastamandu
3	4	Service Centre	Ganeshpur	Ganeshpur, Asigram, Kailpalmandu
4	8	Service Centre	Chipur	Chipur, Bhadrapur, Bagarkot, Dewldivyapur
5	5	Sub-Service Centre	Saharsalinga	Amargadhi-1,2,3,4,5,10,11
6	1	Sub-Service Centre	Ugratara	Koteli, Amargadhi-6,7,8,9
7	9	Sub-Service Centre	Ajayameru	Ajayameru, Samaiji
8	5	Sub-Service Centre	Gankhet	Gankhet
9	6	Sub-Service Centre	Bhageswor	Bhageswor Rupal
10	3	Sub-service Centre	Manilekh	Manilekh, Belapur

Source: District Veterinary Office, Dadeldhura, 2066

3.3.6 Irrigation

Of the total of 18323 ha of the cultivable land, irrigated land is 4897 ha only while 13426 are *pakho* (non-irrigated) land.

3.3.7 Health

Government health facilities include a District Hospital at Amargadhi with 15 bed and three primary health care centre, 9 health post, 15 sub health post and one Aurvedic clinic . There are 2 doctors, 1 staff nurse, 13 ANM, 12 HA, 29 AHW, 25 VHW, 1 lab technician and 462 female volunteers as health worker in the district. In team hospital, there are 43 beds with 2 doctors, 2 staff nurses, 5 ANM and 5 technicians

Table 3.17: Government Health Services

S.N.	Type of Health service	Number	Place
1	District Public Health Office	1	Dadeldhura
2	District Hospital	1	Dadeldhura
3	Bed	15	
4	Primary Health Centre	3	Jogbudha
5	Health Post	9	

S.N.	Type of Health service	Number	Place
6	Sub-Health Post	15	
7	Aurvedic Clinic	4	
8	Doctors	2	
9	Staff Nurse	1	
10	ANM	13	
11	HA	12	
12	AHW	29	
13	Lab technician	1	
14	VHW	25	
15	Female Volunteers	462	

Source: District Health Office, Dadeldhura, 2066

Table 3.18 Team Hospital, Dadeldhura

S.N.	Type of Health service	Number	Place
1	Hospital	1	Dadeldhura
2	Bed	43	Dadeldhura
3	Doctors	2	Dadeldhura
4	Staff Nurse	2	Dadeldhura
5	ANM	5	Dadeldhura
6	Lab technician	5	Dadeldhura

Source: District Public Health Office

3.4 Existing / Potential Development Area

3.4.1 Potential area with high value commercial crops

Dadeldhura district has high potential for high value agriculture products. Sugarcane, oilseed, soybean and honey are the major commercial products of the district that could be extensively marketed (see Table 3.18 below).

Table 3.19: Potential Area with Extensive Agriculture-Commercial crops

S.N	Name of VDC	Name Area/Settlement	High value crop
1	Jogbudha	Malas, Bhitrisal, Gaibadhe	Sugarcane, Oilseed
2	Rupal	Saunegad, Seltuda, Liud	Oilseed, Sugarcane
3	Chipur	Chipur, Bajghar, Dhor, Chauri, Sera, Pasela, Bhulkuda	Soybean, Sugarcane
4	Ajayameru	Titili, Silangae, Dungari, Basana	Soybean
		Titili, Basana, Rolli	Honey
5	Koteli	Koteli, Sunkot, Airbada, Arsurpa	Soybean
6	Manilekh	Dhileli, Bakal, Bungra	Soybean
7	Ganeshpur	Badal, Runtola, Koregaun, Maligaun, Ritha, Chamsal	Honey

S.N	Name of VDC	Name Area/Settlement	High value crop
8	Amargadhi	Dolaghatal, Damada, Koteuda, Damada	Soybean
		Damada, Aita	Honey
9	Asigram	Bhatkanda	Honey
10	Gankhet	Gankhet	Honey
11	Samaiji	Bajkot, Khateda, Pali	Soybean
12	Alital	Gharelu, Sail, Tileta, Dola	Honey
13	Shirsa	Katal, Bahadhune, Kalina	Oilseed
14	Bhadrapur	Belapur, Mamme, Siraud	Soybean
15	Belapur	Chama, Chaud	Soybean
16	Kailpalmandu	Kuledi, Rumayal	Soybean

Source: Groups Discussion/Workshop/Report of DADO

3.4.2 Potential Area with Extensive Agriculture-Cereal crops

Dadeldhura district has good prospect for different cereal crops production. Paddy, maize, wheat and barley are the important cereal crops of the district. Name of the VDC and their significant cereal crop production are as follows.

Table 3.20: Potential Area with Extensive Agriculture- Cereal crops

S.N	Name of VDC	Name Area/Settlement	Cereal crops
1	Alital	Maurikhet, Hamtad, Godam, Male Bhawar, Gharelu	Paddy, Maize, Wheat, Millet
2	Jogbudha	Kuyapani, Betrani, Puntura Phant, Shadhani, Kurmule, Saleta	Paddy, Maize, Wheat
3	Shirsa	Parigaun, Katal, Pipalkhet	Paddy, Maize, Wheat
4	Rupal	Thulakhet, Sukatikhet	Paddy, Wheat
5	Bhageswor	Radhii, Bhadar, Bayalpata	Paddy
6	Dewaldivyapur	Marad, Ninauli, Talligal, Bhandarigaun	Paddy, Wheat
7	Bagarkot	Kimaula, Dhittadi, Sirad	Maize
8	Belapur	Belapur, Chama	Paddy, Maize, Wheat
9	Nawadurgha	Dandaban, Guyalikhet	Paddy, Wheat
10	Mastamandu	Sakayal	Paddy, Wheat
11	Amargadhi	Malam, Aita, Maurada	Paddy, Maize, Wheat
12	Gankhet	Hartola, Sela, Gothana, Nigane, Katunthala	Maize

Source: Groups Discussion/Workshop/Report of DADO

3.4.3 Potential Area with Extensive Agriculture-Fresh Vegetable/Vegetable seeds

Dadeldhura is already known for good level of vegetable production with extensive potential for extension and growth. Vegetable of Dadeldhura district goes not only to whole of far western region districts, but also to India. Fresh vegetables such as cauliflower, cabbage, radish, tomato, guard and vegetable seeds such as garlic, onion, ginger, potato and chilly are major products of the district. Name of the VDC and their significance for this type of production are as follows.

Table 3.21: Potential Area with Extensive Agriculture- Fresh Vegetable/Vegetable seeds

S.N	Name of VDC	Name Area/Settlement	Main products
1	Alital	Dwali, Godam	Fresh Vegetable
2	Jogbudha	Attarchauki, Jogbudha, Bhitrisal, Gaibadhe	Garlic, Onion, Ginger
3	Shirsa	Katal, Salon, Shirsa	Ginger, Fresh Vegetable
4	Rupal	Saunegad, Seltuda	Chilly, Ginger
5	Bhageswor	Bogata, Baniya, Betaldev	Fresh Vegetable
6	Bagarkot	Lakam, Bagarkot, Aidungra, Ekthara, Dhadani, Ghoradi, Golai	Vegetable
7	Ajayameru	Chamada, Deuli, Hat, Rolli	Ginger, Garlik
8	Koteli	Dungra, Koteli, Nintola, Setigau	Vegetable, Ginger
9	Manilekh	Bedpani, Bakal, Bungra	Vegetable, Ginger
10	Nawadurga	Bedpani, Matela	Vegetable, Ginger, Garlik
11	Ganeshpur	Arkhattegau, Chamdalgau	Ginger
12	Amargadhi	Dola, Monana, Ghatal, Rajeuda, Suneuda, Koteuda, Sallagaun, Rawalgaun	Potato, Fresh Vegetable
13	Asigram	Bhatkanda, Matkatte, Bheta, Bhulana	Fresh Vegetable, Potato/seeds
14	Gankhet	Katunthala, Gankhet	Patato, Radish/seeds, Fresh Vegetable
15	Samaiji	Anarkholi	Fresh Vegetable, Potato, Ginger, Garlik
16	Mastamandu	Seltada, Sakayal	Fresh Vegetable

Source: Groups Discussion/Workshop/Report of DADO

3.4.4 Existing/Potential Area with Extensive Agriculture-Fruits

Dadeldhura is very important for existing/potential area for fruit production. Banana, mango, litchi and guava are found in *Bhitrimadhesh* area. Citrus species peach, plum, walnut are found in hilly areas. Name of the VDC and their key products are as follows.

Table 3.22: Potential Area with Extensive Agriculture- Fruits

S.N	Name of VDC	Name Area/Settlement	Key fruit products
1	Alital	Seribhawar, Godam, Hamtad, Dola, Bhairisain	Banana, Mango, Litchi, Gauva
2	Jogbudha	Naula, Jogbudha, Kurmule, Tatapani	Banana, Mango, Litchi, Gauva
3	Bagarkot	Bagarkot, Sirad, Chull, Lakam	Citrus Sps., Peach, Plum
4	Bhadrapur	Naulakot	Wallnut, Peach, Plum
5	Ajayameru	Rolli, Hat, Jijoda	Wallnut, Peach, Plum, Citrus Sps.
6	Belapur	Khadaute, Belapur, Kakadpani, Kathal, Thali, Ukali, Dola, Suku	Citrus Sps., Wallnut
7	Amargadhi	Selagau, Jhunkali, Suneuda, Bhaliya, Jiloda, Pokhara, Ghatal	Citrus Sps. Peach, Plum
8	Ganeshpur	Badalgau, Maligau	Citrus Sps. Peach, Plum
9	Samaiji	Siling, Pali, Mudrad	Wallnut, Peach, Plum, Citrus Sps.
10	Kailpalmandu	Jaisera, Okhalbata, Kapadigaun, Ganeda, Rel, Runrail	Citrus Sps., Peach, Plum, Gauva
11	Nawadurga	Dandaban	Mango, Gauva, Banana

Source: Groups Discussion/Workshop/Report of DADO

3.4.5 Existing/Potential Area with Extensive Livestock

Livestock product is the main economic activity of the district. Milk, ghee, curd, meat, wool are important products. Name of the VDC and their notable livestock products are as follows.

Table 3.23: Area with Extensive Livestock

S.N	Name of VDC	Name Area/Settlement	Livestock products
1	Alital	Seribhawar, Gharelu, Balaucha	Goat
2	Jogbudha	Jogbudha, Japhati, Gaibadhe, Naula	Buffalo, Cow, Goat, Poultry
3	Bagarkot	Pujarigaun, Pokhari, Bagarkot	Buffalo, Cow
4	Amargadhi	Malam, Pokhara, Aita, Maurada	Buffalo, Cow, Poultry, Pig
5	Asigram	Bhatkanda, Duwakhola, Sahukarka	Buffalo, Cow, Goat, Pig
6	Gankhet	Pipalgau	Buffalo, Cow, Goat
7	Chipur	Dhari, Mad, Chauri, Pasela	Goat

S.N	Name of VDC	Name Area/Settlement	Livestock products
8	Samaiji	Silangi, Khateda, Bagkhor, Mudurad	Buffalo, Cow, Poultry, Goat
9	Ganeshpur	Mailodagau, Jaikot	Goat
10	Shirsa	Kole Katal	Goat
11	Mastamandu	Cholera	Buffalo
12	Kailpalmandu	Rumayalkhaka, Jaisera, Rel	Cow, Poultry, Goat
13	Rupal	Rupaligadgau	Goat

Source: District Veterinary Office

3.4.6 Existing/Potential for Non Timber Forest Product

Upper part of the hills are famous for different type of NTFP products. Herbal plant like, kaulo, sapandus, imbilica, sugandhawala, timur, chutro, pasanbed, jyau, cinamomum, kurilo, artimesia, jibanti, harro, barro are found in this district. Allo, sisno, lokta, resin, bamboo are the other important NTFP of the district.

Table 3.24: Area for NTFP

S.N	Name of VDC	Name Area/Settlement	NTFP items
1	Shirsa	Saknyadi, Barma, Surkhal, Gogan	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
2	Dewaldivyapur	Degeswori, Dhudhapokhari, Sotalipur	<i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
3	Bagarkot	Bheta, Chirkatya, Chulla	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
4	Bhadrapur	Mangau, Bheta, Bhulkuda, Dhamigau	Sapindus, Imbilica
5	Chipur	Markatte, Bhulkuda, Gwani	Sapindus, Imbilica
6	Ajayameru	Suneokhad, Khateda, Dungra, Dola	Lichen, <i>Allo</i> , Sapindus, Imbilica, Cinamomum
7	Samaiji	Goldi, Pokharadin	Lichen, <i>Allo</i> , Sapindus, Xanthoxylum, Asparagus, Chutro
8	Koteli	Palethar, Taliukli	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
9	Belapur	Thanta, Talkot, Kathal	<i>Kaulo</i> , Sapindus, Imbilica, Artimesia
10	Kailpalmandu	Salkot, Relgau	Lichen, <i>kaulo</i> , Sapindus, Xanthoxylum, <i>Sugandhawala</i>
11	Amargadhi	Maduwa, Chirkatya, Gujalekh, Bhalumare	Lichen, <i>Allo</i> , Sapindus, Xanthoxylum, Asparagus, Chutro, <i>Kaulo</i> , Artimesia, Resin, <i>Jibanti</i>

S.N	Name of VDC	Name Area/Settlement	NFTP items
12	Asigram	Bhatkanda, Ganyap, Jarmana, Kuyapani	Lichen, <i>Allo</i> , Sapindus, Xanthoxylum, Asparagus, Chutro, Kaulo, Aconitum, Resin,
13	Gankhet	Chuda, Nigalikharka, Sisne	Lichen, <i>Kaulo</i> , Allo, Sapindus, <i>Pasanbed</i>
14	Alital	Matebhawar, Godam, Raksaun, Chaud	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum, <i>Harro</i> , <i>Barro</i>
15	Rupal	Bhandarigau, Dunalekh, Mahabharat Lekh	Lichen, <i>Sugandhawala</i> , <i>Kaulo</i> , Allo, Sapindus, <i>Pasanbedh</i> Imbilica, Cinamomum, <i>Harro</i> , <i>Barro</i>

Source: District Forest Office: 2066

3.4.7 Existing/Potential Area for Tourism, Religious and Historical Place

Dadeldhura is well known for religious and historical sites. Ugratara, Ghatalbaba, Dageswori, Jagannath, Bhageswori, Parasuramdham and Ganyap are famous temples of the district. There are many historical palaces such as Amargadhi, Ajayamerukot, and Betalkhola. Alital, Jilmila Lake, water falls of Gankhet and Rupal. The district has two main high level investments in hydropower (West Seti and Mahakali Pancheswor) which are likely to be important tourism areas in the future.

Table 3.25: Area for Religious and Historical Places

S.N	Name of VDC	Name Area/Settlement	Significance
1	Alital	Ali Lake	Tourism
2	Shirsa	Parigau, Badalake	Temple, Lake
3	Dewaldivyapur	Dewal	Dageswori Temple
4	Belapur	Gill	Seti Hydropower Project Site
5	Amargadhi	Amargadhi, Ghatal, Ugratara	Fort, Temple
6	Gankhet	Kumgad & Jaishina Water Falls	Water Falls
7	Rupal	Bhageswori, Sail Water Falls	Bhageswori temple, Water Falls
8	Ajayameru	Ajayamerukot, Betalkhola	Historical Place
9	Jogbudha	Chure Hill	Jilmila Lake, Chure Hill
10	Chipur	Jagannath Dham	Jagannath Temple
11	Ganeshpur	Ganyapdhura	Ganyap Temple

Source: District Forest Office: 2066

3.4.8 Existing/Potential Area for Cottage and Agro-based Industries

Cottage industries based on agricultural and forest products are operational in the district. These include industries such as furniture, allo processing, food processing, sisno powder, juice and paper making. There are some leather processing and metal processing industries as well (see Table 3.25)

Table 3.26 Existing/Potential Area for Cottage and Agro-based Industries

S.N	Name of VDC	Name Area/Settlement	Significance
1	Alital	Gharelu, Godam	Furniture
2	Jogbudha	Jogbudha, Kurmule	Furniture, food processing, rice mill, cotton processing
3	Bagarkot	Bagarkot, Sirad	Juice making
4	Nawadurga	Dandaban	Rice mills
5	Amargadhi	Dadeldhura, Pokhara	Bamboo, furniture, food processing, traditional pot making, leather processing
6	Belapur	Belapur, Chama	Bamboo
7	Samaiji	Puilekh, Anarkholi	Hand paper
8	Asigram	Bhatkanda	Leather
9	Mastamandu	Sakayal	Rice mills
10	Gankhet	Gankhet, Kanedi	Hand paper, traditional furniture
11	Shirsa	Shirsa, Katal	Wood carving

Source: Field Survey, group discussion, concern agency, 2010

3.3.9 Existing/Potential Areas for Mining development

Dadeldhura district has a range of natural resources. Possible mines that could be exploited include granite, slate, zinc, tungsten, copper etc.

Table 3.27 Potential Area for mine

S.N	Name of VDC	Name Area/Settlement	Possible mineral resources
1	Rupal	Different palace	Slate
2	Bhageswor	Madi	Zinc/Tongstone
3	Ajayameru	Different palace	Slate
4	Samaiji	Different palace	Slate
5	Belapur	Different palace	Slate
6	Ganeshpur	Melaure Baman	Copper
7	Bagarkot	Different palace	Slate
8	Dewaldivyapur	Different palace	Slate
9	Nawadurga	Different palace	Slate

Source: Department of Mines, 2010

3.4.9 Existing/Potential Area with Micro hydropower

There are many streams and two major rivers, Mahakali and Seti in the district. The possibility of the development of micro hydropower is very high. In the present time, 7 micro-hydro powers are operating, three are under construction, two are under study.

Table 3.28: Area for Micro hydro power

S.N	Name of VDC	Name Area/Settlement	Significance
1	Jogbudha	Gairigau	6 Kw
2		Sankhola	4 Kw
3		Selakhola	12 Kw
4	Shirsa	Sirsagad	22 Kw
5		Makail	10 Kw
6	Rupal	Dubid	100 Kw
7	Bagarkot	Annakhola	12 Kw
8	Belapur	Chalkatte	7 Kw
9		Chamagad	7 Kw
10	Kaipalmandu	Railgad	15 Kw
11	Asigram	Buwakhol	Under Study
12	Gankhet	Tuga-Rangun Khola	Under Study
13		Dahagad	25 Kw, Ongoing

Source: REDP, DDC Dadeldhura

3.5 Analysis of Market Centres (key growth areas)

Market Survey was carried out to identify potential market and service centres. Data and information collected in the field has been the main basis for determining the importance or relative importance of market/service centres and central places. All services existing in a particular centre were listed by the district line agencies and supplemented by a more detailed field data using P-RRA approach. For evaluation purposes, data from offices, Industry, Business & Commerce, Education, Health, Communication, Electricity Supply, Drinking Water Supply services are combined for the centre and its influence area. Assessment of economic facilities and services existing in the market/service centres and their catchments areas leads to the identification of the most important market/service centre. Centrality analysis of the market facilities and government services are then carried out using the following formula:

$$C_j = \sum_{i=1}^n (W_i X_{ij})$$

Details of the use of formula are elaborated in Approach and Methodology chapter. The following are the name of Market centres with their grading:

Table 3.29: Existing and Potential Market Centre with Grading

S.N.	Name of Market centre	Centrality Index	Grading of Market Centre
1	Dadeldhura	1373	A
2	Jogbudha	173	A
3	Katal	88	B
4	Godam	82	B
5	Shandhani	73	B
6	Bagarkot	70	B
7	Pokhara	62	B
8	Gaibande	61	B
9	Bhatkanda	45	C
10	Gharelu	45	C
11	Rupal	42	C
12	Koteli	39	C
13	Dewal/Pujarigaun	37	C
14	Anarkholi	32	C
15	Chamada	32	C
16	Kurmule	32	C
17	Shirsha	30	C
18	Palankhet	29	C
19	Sakayal	28	C
20	Badal	27	C
21	Parigaun	27	C
22	Bhageswor	27	C
23	Kaipalmandu	27	C
24	Unikot	26	C
25	Parcheta	23	as a potential
26	Thanta	22	as a potential
27	Chipur	22	as a potential
28	Belapur	22	as a potential
29	Dandaban	19	as a potential
30	Puilekh	18	as a potential
31	Lamikande	17	as a potential
32	Bhadrapur	16	as a potential
33	Chama	16	as a potential
34	Sallaghari	13	as a potential

Source: Market Survey, 2066

3.5.1 Descriptions of Market Centre

Based on relevant literatures/reports, consultation with related program/project and field visits, a total of 34 possible market centre was considered for Market Survey. After required data collection and analysis of collected information using updated guideline of district transport master plan, two market centres as grade A, six market centres as grade B and 15 market centres as grade C have been identified as existing market centre while other 11 are identified as potential future market centres. Brief description of market centres is given below.

3.5.1.1 Description of Market Centre Grade A

Dadeldhura (Amargadhi)

Amargadhi is the district headquarters of Dadeldhura district. It is connected with national network by Dhangadhi-Dadeldhura-Baitadi Highway and Syaule-Silgadhi-Safebagar Highway. It is also an important market centre of the Far-Western Development Region. The town has district level government offices, one team hospital, central grid of electricity, telephone services, many commercial and development banks, cooperatives, agro based, cottage and forest based industries, many hotel, guest house and restaurant, campus, higher secondary, high school, primary, boarding school, library, clothes, stationery shops, one weekly market shed for selling of local agricultural production, cable and internet services, FM radio station, many NGOs and some regional level office of INGOs and UN organization. The market grade, centrality index and ranking of this market centre is A, 1373 and first respectively.

Jogbudha

Jogbudha is the second major market centre after Amargadhi. It is the main centre of *Bhritrimadhesh* (Alital, Jogbudha, Shirsa) part of this district. It is connected with Dhangadhi-Dadeldhura high way by Budar-Jogbudha district road, Kanchanpur by Jogbudha-Lipna district road, Katal and Parigaun by Jogbudha-Katal-Parigaun road. This settlement has all illaka level government offices, one primary health care centre, central grid of electricity, telephone services, one development bank, cooperatives, agro based, cottage and forest based industries, many hotels, guest houses and restaurants, campus, higher secondary school, high school, primary schools, boarding school, library, community buildings, clothes shops, stationery shops, medicals and rice and flour mills. The market grade, centrality index and ranking of this market centre are A, 173 and second respectively.

3.5.1.2 Description of Market Centre Grade B

Katal

Katal is an important market centre of southern Dadeldhura situated in Shirsha VDC. In this market centre, there is a higher secondary school, high school, lower secondary school, primary school, post office as service centres and a number of hotels, restaurants, grocery shops, stationery shops, clothes shops, cooperatives and NGOs. Jogbudha-Katal-Parigaun Road connects this market centre with Jogbudha and Parigaun. The grade, centrality index and ranking of this market centre is B, 88 and third respectively.

Godam

Godam is situated in the border of Jogbudha VDC and Alital VDC. It is the centre of Gankhet, Alital and Jogbudha VDC. The Budar-Jogbudha-Gaibandhe district road passes through this market centre. There are number of services providers such as higher secondary school, secondary school, primary school, post office, cooperatives and NGOs. There are some hotels and restaurants, clothes shops, grocery shops, stationery shops,

medical shop and two rice mills. The centrality grade, index and ranking of this market centre is B, 82 and fourth respectively.

Shandhani

Shandhani is located on the bank of Mahakali River in Jogbudha VDC at 340 meter elevation. It is a new centre developed within thirty years. It is located on high productive fertile land. There is a temporary custom office at Sisamjala, 3 km from this town. There are some hotels, restaurants, grocery shops, medicals, clothes shops, stationery shops, a higher secondary school, secondary school and a primary school. It is connected by Gaibandhe-Shandhani-Bramadev road to the settlement of Gaibandhe. The centrality index of this market centre is 73, the grade is B and the rank is fifth.

Bagarkot

Bagarkot is a B grade market centre of Bagarkot VDC situated at central part of the district. The rank is sixth and the centrality index is 70. The service centres here constitute a higher secondary school, primary school, health post, post office, and telephone facility. A number of tea shops, hotel, restaurant, grocery shops, cloth shop, stationery, medical, rice mill are in this market centre. The people of Bagarkot, Rupal, Bhadrapur, Chipur, Dewaldivyapur, and Bhageswor use this centre to buy their daily household needs. The main important district road named Bagbazar-Bagarkot-Bhageswor-Rupal passes through this market centre. Bagarkot-Bhadrapur-Chipur and Bagarkot-Siradt-Rupaligad-Sauniya roads start from this market centre.

Pokhara

The centrality index, ranking and grade of this market centre is 62, seventh and B respectively. Pokhara is 5 km from district headquarters Amargadhi along Dadeldhura-Baitadi highway. The market centre is linked with central grid electricity. It is the centre of Samaiji, Koteli, Manilekh, Ajayameru and some part of Amargadhi Municipality. There are number of service centres such as higher secondary school, secondary school, primary school, agriculture service sub centre, veterinary service sub centre, electricity office, post office, cooperatives and NGOs. There are some hotels and restaurants, cloth shops, grocery shops, stationery, medical shop, hardware shop and two rice mills. Pokhara-Belapur and Ugratara-Melauli district road start from this market centre.

Gaibandhe

Gaibandhe is an important market centre of southern Dadeldhura located in Jogbudha VDC. In this market centre, there is a higher secondary school, high school, lower secondary school, primary school, as service centres and a number of hotels, restaurants, grocery shop, stationery, cloth shops, cooperatives, hardware shop and NGOs. The centrality index, ranking and grade of this market centre is 61, eighth and B respectively. The Budar-Jogbudha-Gaibandhe road connects this centre with Dhangadhi-Dadeldhura Highway and Gaibandhe-Lipna road connects it with Kanchanpur district. Gaibandhe-Kurmule-Saletta road and Gaibandhe-Shandhani-Bramadev start from this market Centre.

3.5.1.3 Description of Market Centre Grade C

Gharelu

Godam is situated near the border of Kailali district in Alital VDC. It is the centre of Gankhet, Alital and Jogbudha VDCs. The Budar-Jogbudha-Gaibandhe district road passes through this market centre. The centrality index, ranking and grade of this market centre are 45, ninth and C respectively. There are number of services centres such as higher secondary school, secondary school, primary school, cooperatives and NGOs. There are some hotels and restaurants, cloth shops, grocery shops, stationery, medical shop, agro based and forest based industries and a rice mill.

Bhatkanda

Bhatkanda is an important market centre of Dadeldhura district, situated in the Dhangadhi-Dadeldhura Highway in Asigram VDC, 7 km far from Amargadhi. The people of Asigram, Gankhet and some part of Amargadhi Municipality come here to buy their households need and to sell their local products. There are many hotels, restaurants, cloth shops, stationery shops, medical shops, hardware shops, workshops, a secondary school and a cooperative. The centrality index, ranking and grade of this market centre are 45, tenth and C respectively. Bhatkanda-Rel road and Bhatkanda-Parikhet-Raduwa road start from this market Centre.

Rupal (Bayalpata)

Bayalpata is about 60km west from Dadeldhura on the main trail from Baitadi to Mahendranagar. There are number of services centres such as higher secondary school, primary school, health post, electricity office, post office, cooperatives and NGOs. There are some hotels and restaurants, cloth shops, grocery shops, stationery, medical shop, and a rice mill. Bayalpata is a C grade market centre of Rupal VDC. The rank is eleventh and the centrality index is 44. There are three proposed roads under construction viz. Bagbazar-Bagarkot-Bhageswor-Rupal, Bagarkot, Sirad, Rupaligad and Jogbuda-Shirsha-Rupal which will connect this market centre with other parts of the district.

Koteli

Koteli is a C grade market centre of Koteli VDC. The rank is twelfth and the centrality index of this centre is 39. There is a higher secondary school, primary school, health post, post office. A number of teashops, grocery shops, cloth shop, stationery, medical, rice mill, agro based industry, cooperatives and NGOs in this market centre. The people of Koteli and Manilekh use this centre to buy their household needs.

Dewal/ Pujarigaun

This market centre lies in Dewaldivyapur VDC and is also its centre. Dewaldivyapur is a C grade market centre. The rank is thirteenth and the centrality index is 37. There are a number of shops, service and facility centres, sub centres, such as agriculture sub-centre, Illaka health post etc. People of Bhawani, Kharigaira, Badakhola, Toli and Baluwatar VDCs benefit from this market centre.

Anarkholi

This market centre is located on Dhangadhi-Dadeldhura-Baitadi Highway on Samaiji VDC. This centre has a number of teashops, hotel-lodges, restaurants, photo studios, medical shops, stationery, and different furniture industries. The centrality index, ranking and grade of this market centre are 32, sixteenth and C respectively. This centre has more significance than other market centre because of its bordered location with Baitadi district. It is the centre that serves north part of Samaiji, Ajayameru, Bhadrapur and many VDC of Baitadi district.

Chamada

This centre lies on Ajayameru VDC and connects with district headquarters by Ugrata-Melauli district road. Chamada is a C grade market centre, the rank is fifteenth and the centrality index is 32. This centre has number of varieties of shops, PCO, additional post office, secondary school, primary school etc. This centre is about 22 km far from Pokhara Bazaar. People of Ajayameru, Samaiji, and Bhadrapur access the facilities of this centre.

Kurmule

This centres lies on east-south of Jogbudha VDC. This centre has number of service and facility centres such as various shops, hotels and lodges, higher secondary, primary school, photo studio, rice mill, cloth shops, stationery shop. People of Jogbudha and Alital VDCs are directly benefit from these centres. This centre is about 7 km east from the Gaibandhe market. The centrality index, ranking and grade of this market centre are 32, thirteenth and C respectively.

Shirsha

Shirsha is a market and VDC centre of Shirsha VDC. There are some teashops, grocery shops, medicals, cloth shops, stationery, water mill, a secondary school, primary schools. The proposed Jogbudha-Shirsha-Rupal district road passes through this market centre. The people of Shirsa and Rupal benefit from this market centre. The centrality index of this market centre is 30, rank is seventeenth and the grade is C.

Panlakhhet

It is the market centre of Manilekh VDC. The centrality index, ranking and grade of this market centre are 29, eighteenth and C respectively. In this market centre, there are high school, lower secondary school, primary school, post office as service centres and a number of teashops, restaurant, grocery shop, stationery, cloth shops, rice and flour mill.

Sakayal

This centres lies on Mastamandu VDC and is located on Dhangadhi-Dadeldhura-Silgadhi-Achham Highway. This centre has number of service and facility centres such as various shops, hotel and lodges, school, photo studio, post office, police station etc. People of Mastamandu, Ganeshpur, Nawadurga, Kailpalmandu and some VDC in Doti district also benefit from this market centre. This centre is nearly 35 km east from the district headquarter. It is nearby bank of Raduwakhola. The centrality index, ranking and grade of this market centre are 28, nineteenth and C respectively.

Badal

Badal is about 30km east from Dadeldhura in Ganeshpur VDC. There are number of services centres such as higher secondary school, secondary school, health post, post office, agriculture service sub centre, veterinary service sub centre, cooperatives and NGO. There are some teashops and restaurant, cloth shops, grocery shop, stationery, medical shop, and a rice mill. Badal is a C grade market centre. The rank is 22nd and the centrality index is 2 of this centre.

Parigaun

Parigaun is situated near the boarder of India, at the bank of Mahakali River in Shirsha VDC. It is the centre of Shirsa and Jogbudha VDC. The Jogbudha-Katal-Parigun road connects this market centre to the other part of the district. The famous temple name Parasuram Mandir is situated just opposite of Mahakali River, at Indian side where people gather in large number in every birthday of Lord Buddha and first day of Magh. The centrality index, ranking and grade of this market centre are 27, 23rd and C respectively. There are a number of services centres such as higher secondary school (Sanskrit School), primary school, a costume office and a cooperative. There are some hotels and restaurants, cloth shops, grocery shop, stationery, medical shop, and a rice mill.

Bhageswor

This market centre lies in Bhageswor VDC and is also its centre. Bhageswor is a C grade market centre. The rank is twenty and the centrality index is 27 of this centre. There are a number of shops, service and facility centres, sub centres, such as agriculture sub-centre, veterinary service sub centre, health post, rice and flour mill etc. People of Bhageswor, Rupal, and some VDC of Baitadi district benefit from this market. Bagbazar-Bagarkot-Bhageswor-Rupal passes through this market centre.

Kailpalmandu

Kailpalmandu is a market centre of Kailpalmandu VDC. There are some teashops, grocery shops, medicals, cloth shops, stationery, water mill, a secondary school, primary schools, health post, a cooperative and post office. The proposed Sakayal-Kailpalmandu road passes through this market centre. The people of Ganeshpur, Kailpalmandu, Asigram and some VDC of Doti benefit from this market centre. The centrality index of this market centre is 21, rank is 21st and the grade is C.

Unikot

Unikot is a C grade market centre of Gankhet VDC. The rank is twenty fourth and the centrality index is 26 of this centre. There is a secondary school, primary school, health post, veterinary service centre, post office as service centre. A number of teashops, grocery shops, cloth shop, stationery, medical, rice mill and a cooperative in this market centre. The proposed Gaira-Gankhet-Niglad road will passes through this market centre.

3.5.1.5 Potential Market Centre

There are some other market centres in the district which are considered in market survey but received below 25 score in centrality index. They are treated as potential market centres. They are Parchheta of Bagarkot VDC, Thanta, Belapur and Chama of Belapur VDC, Chipur of Chipur VDC, Dandaban of Nawadurga VDC, Puilekh of Samaiji VDC, Lamikande of Bhageswor VDC, Bhadrapur of Bhadrapur VDC and Sallaghari of Amargadhi Municipality

CHAPTER IV: DISTRICT INVENTORY MAP OF RURAL ROAD NETWORK

4.1 Existing Transport Situation

Dadeldhura district has no air transport service to complement the surface transport facilities.. Surface transport facilities through Mahakali highway, Seti highway, feeder road, district road and village roads are notably increasing in the district. The length of Strategic Road Network that in Dadeldhura district is summarised below:

Table 4.1 List of National Highway:

S. No.	Name of Road	Length(Km)			Total length	Remark
		Black Topped	Gravel	Earthen		
1.	Mahakali Highway	52			52	
2.	Seti Highway	25			25	

About 280 Km of district and village roads are vehicle pliable but need to be upgraded to all weather road standard. Programmes from DoR and DoLIDAR are engaged in the district for upgrading important earthen roads to all-weather roads with gravelling and ottaseal surfacing.

Brief description of all transport linkages i.e. National highway, Feeder road, District roads, and Village roads in the district are given below:

4.2 National highway:

Mahakali highway, connecting Attariya to Darchula via Baitadi, has total length of 311 km, passes through south east of Dadeldhura district touching five VDCs viz. Aalital, Gangkhet, Ashigram, Samaiji and Koteli and Amargadi municipality. Nearly 52 km of Mahakali highway lies in the Dadeldhura district. Likewise, Seti highway starting from Syaule of Dadeldhura passes through Amargadi municipality and eastern VDCs viz. Ganeshpur and Mastamandu. A total of 25 km section of Seti highway lies in the district. These two sections of the national highways have provided good transport services to the people of Dadeldhura district.

4.3 Feeder Road:

Currently Dadeldhura district does not have any feeder roads. However, some of the District Roads such as Buder-Jogbudga-Gaibadhe-Lipna and Ugratara – Melauli roads are planned to be upgraded to feeder road in the future.

4.4 Summary of District Roads “A”

Table 4.2 Summary of District Roads “A”

Road code	Road name	Total length	Total existing length km	Road status (earthen/gravel/blacktopped/under construction)			Surface condition (good/fair/poor)			Serviceability (all weather/fair weather)		Required intervention(KM)		
				Earthen	Gravel	Black Top	Good	Fair	Poor	All Weather	Fair-weather	Upgrading	Under Construction	New
73A001R	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	65	28	28	-	-	-	-	28		28	28	14.5	22.5
73A002R	Pokhara -Belapur District Road	32	18	18	-				18		18	18	14	
73A003R	Bhatkanda-Rel District Road	40	10.25	10.25	-	-	-	-	10.25		10.25	10.3	4.76	
73A004R	Buder-Jogbuda - Gaibandhe District Road	37	37	37	-	-	-	-	37		37	37	0	
73A005R	Gaibandhe-Lipna District Road	10.5	10.5	10.5	-	-	-	-	10.5		10.5	10.5	0	
73A006R	Ugaratara -Meilauli District Road	52.4	17.6	17.6	-	-	-	-	17.6		17.6	17.6	4.8	24.6
73A007R	Aaita- Niglad- Achaksain-katal District Road	50	6.17	6.17	-	-	-	-	6.17		6.17	3	3	44
73A008R	Jogbuda-Shirsh Rupal District Road	30	6.7	6.7	-	-	-	-	6.7		6.7	3	4	23
73A009R	Bhatkanda-Parikhet Raduwa District Road	22	22	22	-	-	-	-	22		22	22	0	
		338.9	156.22	156.22					156.22		156.22	149.4	45.06	114.1

4.5 Briefs on District Roads “A”

Study and analysis shows that Dadeldhura district has 9 district roads. Most of the district roads have earthen surface restricting their operations in only fair weather. Moreover, construction quality of the road is poor and has to be upgraded to all weather roads to increase accessibility of the people and improve overall transport situation of the district. Different roads need different types of interventions as given in the summary table above (see Section 4.4) . The briefs on individual district roads are given below:

Bagbazar-Bagarkot-Rupal District Road (73A001R): Bagbazar-Bagarkot-Rupal Road starts from district headquarters of Dadeldhura and passes through Aita, Aidungra, Lakam, Bagarkot, Dumri, Naugaun, Bogota, Lamikande ends at Bayalpata of the Rupal VDC. It provides direct transport services to some parts of Amargadhi municipality, Bagarkot, Bhageswor and Rupal VDCs. This road also provides services to some parts of Chipur, Bhadrapur, Dewal Dibyapur VDCs and lower parts of Baitadi district. The total length of this road up to Rupal will be about 65 km out of which 28 km length is pliable in fair weather and construction work is ongoing up to Bhageswor VDC. Construction of this road started in 2050 B. S by DDC through RCIW programme. Seasonal vehicle pliable length of 28 km should be upgraded to all weather road for better and sustainable transport facilities and remaining construction work should be completed for linking with Rupal VDC. After its completion the road will be an important district road of Dadeldhura and will also be an access road to the Mahakali Pancheswor hydroelectricity project.

Pokhara -Belapur District Road (73A002R): This road starts from a junction at Bhim Datta highway near to Pokhara bazaar and passes through settlements of Pokhara, Asurupa, Koteli, Panalakhet, Ghuptakhan, Belapur of Amargadi Municipality, Koteli, Manipur, Belapur, Nawadurga VDCs. The total length of this road up to Belapur is 32 km out of which 18 km length has been pliable in fair weather and construction work is ongoing up to Bhageswor VDC. Construction of this road started in 2050 B. S by DDC through RCIW programme. Seasonal vehicle pliable length of 18 km should be upgraded to all weather road for better and sustainable transport facilities and remaining construction work should be completed for linking with Belapur VDC. This road will be an important district road of Dadeldhura which provides transport facilities to the people of eastern VDCs as well as a link -road connecting Doti district. This road will also serve as an additional access road linking Dadeldhura to the upper Seti hydroelectricity project.

Bhatkanda-Rel District Road (73A003R): This road starts branching from Mahakali highway at Bhatkanda bazaar and passes through Amargadi Nagarpalika, Ashigram, Ganeshpur, Mastamandu and Kailpalmandu VDCs. The total length of this road up to Rel will be about 40 Km and length under construction is 15 km out of which only 10 km length is seasonal vehicle pliable and this needs to be upgraded. This road will be an important district road of Dadeldhura for regional linkages with Doti district. Proper routine and periodic maintenance work should be carried out for smooth operation of the road.

Buder- Jogbuda - Gaibandhe District Road (73A004R): This road starts from Buder of Doti district and links with lower part VDCs to the district headquarters of Dadeldhura. This road passes through Buder, Gharelu, Godam, Kalakot, Mauri, Kainpani, Jogbuda, puntara, Gaibandhe of Aalital and Jogbuda VDCs. The total length of the road is 37 Km and has to be upgraded gradually to all weather road with gravelling and ottaseal. Being a valley aligned road, the road upgrading will require several bridges and culverts. Proper routine and periodic maintenance work should be done for smooth operation of the road. The road corridor has potential for agriculture, vegetable farming and NTFP which will be promoted by this road. This road will be a good link road to develop regional link with Kanchanpur district.

Gaibandhe-Lipna District Road (73A005R): This road starts from Gaibandhe of Jogbuda and passes through Gaibandhe, Naula, Khanidada, Lipna of Jogbuda VDC and Kanchanpur district. The total length of the road is 10.5 Km and needs to be upgraded gradually to all weather road with gravelling and ottaseal. This road corridor area has potential for agricultural growth and NTFP which will be promoted with this road. This road will be link road to join the Kanchanpur district. Proper routine and periodic maintenance work should be done for smooth operation of the road.

Ugaratara -Meilauli District Road (73A006R): This road starts from nearby Ugaratara temple and passes through different settlements such as Ugaratara, Puilek, Samaiji, Chamada, Bhadrapur, Chipur, Dewaldibyapur of Amargadi Nagarpalika, Samaiji, Ajayamaru, Bhadrapur, Chipur, Dewal Dibyapur VDCs. The total length of the seasonal pliable road is 18 up to Chamada. This road has been constructed up to 22.5 km and has to be extended towards Dewal VDC for providing transport services to the people of influenced areas. Total length of this road up to Dewal VDC will be about 53 Km and vehicle pliable length has to be upgraded gradually to all weather road with gravelling and ottaseal. Road corridor area has potential for agricultural growth, and vegetable farming which will be promoted by this road. Proper routine and periodic maintenance work should be done for long term operation of the road.

Aaita-Niglad-Achalsain-katal District Road (73A007R): This road starts from Aaita of Amargadi municipality and passes through Aaita, Kanda, Chamsal, Ghathalthan, Pathroad, Chirkutte, Niglad, Gogan, Kalena, Salon of Amargadi Nagarpalika, Gangkhet and Shirsha VDCs. The total length of the road up to Katal will be about 50 Km and 6 km road has been built out of which only 3 km length has been seasonal vehicle pliable. This road has the potential to be an important linkage with lower parts of the Dadeldhura district i.e. Jogbuda areas. Proper routine and periodic maintenance work should be done for long term operation of the road.

Jogbuda-Shirsh- Rupal Rural Road (73A008R): This road starts from Jogbuda bazar and passes through Jogbuda, Katal, Sirsha, Chamkechaud, Dunalek, Bayalpata (Rupal) of Jogbuda, shirsa and Rupal VDCs. The total length of the road up to Bayalpata will be about 30 Km and 7 km road has been built out of which 3 km length is usable in fair weather . This road in future will be an important linkage to upper part of Dadeldhura district via Bagbazar-Bagarkot-Rupal road. Proper routine and periodic maintenance work should be done for long term operation of the road.

Bhatkanda-Parikhet -Raduwa District Road (73A009R): This road starts from Bhatkanda bazar and passes through different settlements such as Bhatkanda, Parikhet and Raduwa of Amargadi Nagarpalika, Asigram VDCs. The total length of the road is 22 Km which has fair weather surface that was constructed by DOR. This road has not been in district priority. However if this is upgraded to all weather road, it will be used to link with Seti highway at Raduwa khola. Proper routine and periodic maintenance work on this road is needed for long term use of the road.

4.6 Summary of District Roads “B”

Table 4.3 Summary of District Roads “B”

Road code	Road name	Total Planned length km	existing length km	vehicle pliable length(Km)	Road status (earthen/gravel/blacktopped/under construction)			Surface condition (good/fair/poor)			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Good	Fair	Poor	All Weather	Fair-weather	Upgrading	Under Construction	New
73B001 R	Anarkholi-Mungraun-Dewal Rural Road	3.5	1.5	1.5	1.5					1.5		1.5	1.5	2	
73B002R	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.3	8.3	7.5	8.3					8.3		7.5	7.5	0.8	
73B003R	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.5	4.5	2	4.5					4.5				2.5	25
73B004R	Bhajnpur - Chhachauda Rural Road	3	3	1.2	3					3		1.2	1.2	1.8	
73B005R	Sakayal-Kailpalmandu Rural Road	7.5	7.5	4.5	7.5					7.5		4.5	4.5	3	
73B006R	Jogbuda - Shirsh-Parigaun Rural Road	16	16	16	16					16		16	16	0	
73B007R	Gaibadhe-Kurmule-Saleta Rural Road	5.5	4.25	4.25	4.25					4.3		4.25	4.25	1.25	
73B008R	Kritipur -Bhaliya-Ajaymarukot-Jagannath Rural Road	5.1	1.5	1.5	1.5					1.5		1.5	1.5	3.6	

Road code	Road name	Total Planned length km	existing length km	vehicle pliable length(Km)	Road status (earthen/gravel/blacktopped/under construction)			Surface condition (good/fair/poor)			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Good	Fair	Poor	All Weather	Fair-weather	Upgrading	Under Construction	New
73B009R	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.25	5.25	0	5.25					5.3		5.25	0	5.25	
73B010R	Gaibadhe-Jamrani Bramdev Rural Road	5.91		0									0	5.91	
73B11R	Gaira-Gangkhet - Niglad Rural Road	34.78	4	0	4					4		4	0	4.78	30
Total Length (km)		122.34	55.8	38.45	55.8					55.8		45.7	36.5	30.89	55

4.7 Briefs on District Roads “B”

Anarkholi-Mungraun-Dewal Rural Road (73B001R): This road starts from Anarkholi bazar and passes through settlements of Anarkholi, Bajkot, Khateda, Mugraun of Samaiji, Ajayamaru, Bhadrapur, Chipur, and Dewal VDCs. The total constructed road length is 3.5 Km. Of this, only 1.5 km length is motorable while the remaining length is under construction. This road follows a ridge alignment that connects Anarkhol to Dewal VDC providing transport services to the people of Baitadi..

Puntura-Simkhet-Tatapani -Sadani Rural Road (73B002R): This road starts from Puntura of Jogbuda and passes through Puntara, simalkhet, Tatapani of Jogbuda VDC. The total length of the constructed road is 8.3 Km out of which 7.5 km has been built for fair weather use. This road passes along the left bank of Rangun Khola crossing Puntura khola where approximately 300 m span RCC motorable bridge has to be constructed. Fair weather surface needs to be upgraded to all weather road gradually and proper routine and periodic maintenance work should be carried out for long term use of the road.

Bagarkot-Chulla-Sirad-Rupaligad Rural Road (73B003R): This road branches off from Bagbazar-Bagarkot-Rupal district road at Bagarkot and passes through Bagarkot, Chulla, Sirad, Rupaligad of Bagarkot and Rupal VDC. The total length of the proposed road will be about 27.500 Km out of which 4.500 km length has been constructed and only 2 km up to Khullakhet has been motorable while remaining length is under construction. This road will be extended to Rupaligad of Rupal VDC. Proper routine and periodic maintenance work is necessary for long term use of the road.

Bhajanpur -Chhachauda Rural Road (73B004R): This road starts from Ugratara-Melauli district road at Bhajanpur and passes through Bhajanpur and Chhachauda of Amargadi municipality. The total length of constructed road is 3 km and only 1.2 km has been motorable while remaining length is under construction. This road lies within municipality area..

Sakayal-Kailpalmandu Rural Road (73B005R): This road starts from Sakayal and passes through Sakayal, Gauligaun, Kailpalmandu, Rumayal of Mastamandu and Kailpalmandu VDC. The total length of the constructed road is 7.5 Km out of which 4.5 km is a as fair weather section. This road provides transport facilities to the people of Mastamandu, Kailpalmandu VDCs and will provide linkage with Doti district. Fair weather section has to be gradually upgraded to all weather roads gradually and proper routine and periodic maintenance needs to be carried out on the road section.

Jogbuda - Shirsh-Parigaun Rural Road (73B01206R): This road starts from Jogbuda Bazaar and passes through Jogbuda, Aampani, Salun Katal, Rajauda, Parigaun of Jogbuda and Shirsa VDCs. The road up to Parigaun is 16 Km and has fair weather surface. This road passes along the right bank of Rangun khola through the length up to parigaun. This road provides access to the historical site of Parshuramdham which is situated at the bank of Mahakali River. It is necessary for fair weather section to be upgraded to all weather surface and proper routine and periodic maintenance work carried out regularly.

Gaibadhe-Kurmule-Saleta Rural Road (73B010R): This road starts from Gaibandhe and passes through Gaibandhe, Jajala, Kurmule and Saleta of Jogbuda VDC. The total length of constructed road is about 5.5 km out of which 4 km is vehicle pliable. Seasonal vehicle pliable length should be upgraded to all weather road standards gradually and remaining works should be completed. This road passes through area of high agriculture production and forest products.

Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Kritipur -Bhaliya-Ajaymarukot-Jagannath Rural Road (73B008R): This road starts from and passes through different settlements such as Kritipur, Ajayamaru, Bhaliya of Amargadi Nagarpalika, Ajayamaru, Bhadrapur, and Chipur VDCs. The total constructed length of the road is 5.1 Km. Only 1.5 km length is motorable and remaining length is under construction. This road is seen to promote tourism as it connects with historical place of Ajayamarukot..

Dadaban-Nawdurga-Ghuptakhan Rural Road (73B006R): This road branches off from Seti Highway at nearby Dadaban and passes through Seltada, Dadaban, Matella, Matekanda and Sapalla of Nawadurga & Mastamandu VDC. The total length of constructed road is 5 km but not yet motorable as it is still under construction. This road will be extended up to Ghuptakhan of Belapur VDC. This road will meet with Pokhara-Belapur road at Ghuptakhan. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Gaibadhe-Jamrani Bramdev Rural Road (73B008R): This road starts from Gaibandhe and passes through Gaibandhe, Jamrani, sadani, machhitte, Bhramadev of Jogbuda VDC and some parts of Kanchanpur district. The total length of constructed road is about 6 km but is not yet motorable. This road will be extended up to border of Kanchanpur district and will provide regional linkages with Kanchanpur district. This road lies in agricultural potential area and forest products..

Gaira-Gangkhet-Niglad Rural Road (73B009R): This road starts from Gaira bazaar of Doti district and passes through Gair bazar, hartola, bantal, Gangkhet, Unikot, Odigaun, Kuledi and Niglad of Gangkhet and Shirsha VDCs. The total length of the road up to Niglad will be about 35 Km and 5 km road is under construction.. This road in future will be an important linkage to join with Rupal and Shirsha VDCs. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

4.8 Summary of Main Trails

Main trails are very useful to the rural population to access different services and facilities as well as to walk to a higher class of road. The work on main trails often involve rehabilitation and widening of the main trails in addition to their upgrading to rural roads. Main trails serve and connect all parts of the district and over to the neighboring districts. The Hulaki sadak is known as the main strategic trails which serves to promote inter–district and regional linkages. The existing main trails of the district are as follows:

Table 4.4 List of Main Trails:

S.N	Name of the Main Trail	Length (Km)	VDCs/Settlements covered
1	Dadeldhura-Gankhet-Alital	45	Amargadi Municipality, Gangkhet and Aalital
2	Bagarkot-Dewaldivyapur-Melauli	25	Bagarkot, Dewal and some VDCs of Baitadi District
3	Dadeldhura-Ajayamerukot-Chipur-Bhadrapur	15	Dadeldhura Municipality, Ajayamarukot, Chipur and Bhadrapur
4	Bhatkanda-Ganeshpur-Kailpalmandu	40	Bhatkada, Ganeshpur, Kailpalmandu
5	Korail khola-Dungad	25	Kailpalmandu

S.N	Name of the Main Trail	Length (Km)	VDCs/Settlements covered
6	Pokhara-Dhilei-Belapur	35	Amargadi Municipality, Koteli, Belapur
7	Anarkholi-Belapur	42	Samaiji, Belapur
8	Puilekh-Khateda	12	Samaiji,
9	Anarkholi-Khateda-Magarau	12	Samaiji,
10	Dadeldhura-Dogad-Ajayameru	20	Amargadi Municipality, Ajayamarukot
11	Bhatkanda-Asigram-Ganeshpur	20	Asigram, Ganeshpur
12	Dadeldhura-Koteli-Manilekh	15	Amargadi Municipality, Koteli, Manilekh
13	Raduwa-Manilekh	5	Ganeshpur, Manilekh
14	Shirsha-Dadeldhura	50	Amargadi Municipality, gangkhet, Shirsha

Some of the main trails mentioned in the previous DTMP have been converted to rural roads.

4.9 Major Historical Trails

In addition to the above existing main trails, there are some additional important historical main trails which were used for walking to reach the destination. After construction of roads in the districts, some main trails are not in common use, except during monsoon when mules are used for transporting goods along these trails. Some important historical main trails are listed as follows.

- I. Baitadi-Rogata-Lamikande-Girpata-Balgande-Chaud-Shirsa-Lateroda-Kauwani-Bramadev
- II. Baitadi-Rogata-Lamikande-Girpata-Balgande-Chaud-Shirsa-Lateroda-Parigau-India
- III. Baitadi-Rogata-Lamikande-Girpata-Balgande-Chaud-Shirsa-Lateroda-Gaibadhe—Lipna-Daiji
- IV. Dadeldhura-Aita-Ghatal-Chirkutte-Gogan-Kalena-Salon-Jogbudha-Gaibandhe-Lipna-Daiji

4.10 Summary of All Weather Roads

Dadeldhura district has all-weather roads that form part of SRN i.e.. Mahakali and Seti highways that pass through Dadeldhura district.

4.11 Listing of Existing Trail Bridge in Dadeldhura District

Table 4.5 List of Existing Trail Bridge in Dadeldhura District

SN	Bridge Number	Bridge Name	River Name	Span	Type	Bank		Coordinates	
						Right Bank	Left Bank	Northing	Easting
1	73 5 011 18 06 3	Debari	Debari Khola	72.9	D	Jogbuda Munc	Jogbuda Munc	29.08819	80.30139
2	73 5 011 18 06 2	Dhakani	Pantura Gad	113	D	Jogbuda Munc	Jogbuda Munc	29.07764	80.40919
3	73 5 011 18 06 1	Puntura Ghat	Puntura Gad	146.2	N	Jogbuda Munc	Jogbuda Munc	29.10442	80.34462
4	73 5 012 18 06 3	Shirsha Khola	Shirsha Khola	99.4	D	Serse	Serse	29.17397	80.34972
5	73 5 012 18 06 1	Rangun Gad	Rangun Gad	210	D	Serse	Jogbuda Munc	29.13109	80.38629
6	73 5 003 18 06 2	Gangali Khola	Gangali Khola	42	D	Belapur	Belapur	29.39986	80.68611
7	73 5 003 18 06 3	Chama Gad	Chama Gad	25	D	Belapur	Belapur	29.38567	80.71867
8	73 5 003 18 06 1	Chama Gad	Chama Gad	113.5	D	Belapur	Belapur	29.36522	80.77311
9	73 5 005 18 06 2	Sakayal	Sakail Gad	102.4	D	Mastamandu	Belapur	29.30936	80.75219
10	73 5 006 18 06 2	Naikolta	Ketkauli Gad	40	D	Kailpalmandu	Mastamandu	29.28854	80.73131
11	73 5 006 18 06 1	Ketkauli	Ketkauli Khola	22.5	D	Kailpalmandu	Mastamandu	29.27924	80.72228
12	73 5 006 18 06 3	Parikhet Truss	Rumail Gad	20	ST	Kailpalmandu	Kailpalmandu	29.29888	80.66690
13	73 5 005 18 06 1	Sakail Gad	Sakail Gad	30.5	LN	Mastamandu	Nawadurga	29.31029	80.71824
14	73 5 007 18 06 1	Bedapani Dovan	Lamakhet Gad	41.9	D	Ganeshpur	Manilek	29.31135	80.68440
15	73 3 001 18 06 1	Raduwa	Raduwa Khola	39.3	D	Amargadhi Munc	Manilek	29.30664	80.66601
16	73 5 002 18 06 1	Kali Gad	Kali Gad	12	RCC	Manilek	Manilek	29.35411	80.67377
17	73 5 008 18 06 1	Tikhatar	Tikhatar Khola	48.8	D	Achegram	Achegram	29.21181	80.64422
18	73 5 007 18 06 2	Parikhet	Lamakhet Gad	60.7	D	Ganeshpur	Achegram	29.27183	80.66332
19	73 3 001 18 06 5	Nali Khet	Shaileswari Khola	63	D	Amargadhi Munc	Kotaeli	29.33500	80.62161
20	73 5 001 18 06 1	Gortar Truss	Shaileswari Khola	18	ST	Kotaeli	Kotaeli	29.31795	80.63576
21	73 5 020 18 06 1	Silingi Gad	Silingi Gad	10.3	WC	Samaiji	Samaiji	29.36214	80.58836
22	73 5 020 18 06 2	Golfa Gad	Golfa Gad	41	D	Samaiji	Samaiji	29.35846	80.58518
23	73 5 020 18 06 3	Chine Dhunga	Deawal Gad	14	RCC	Samaiji	Samaiji	29.36497	80.58656
24	73 5 019 18 06 1	Ajaymeru Ghat	Chorkhet Khola	56.5	D	Ajaymeru	Samaiji	29.31834	80.56241
25	73 5 015 18 06 4	Bhulkhet Ghat	Doti Khola	49	D	Bagarkot	Bagarkot	29.30272	80.51144
26	73 5 015 18 06 2	Sautauda A	Doti Khola	26.2	D	Bagarkot	Bagarkot	29.29965	80.50386

SN	Bridge Number	Bridge Name	River Name	Span	Type	Bank		Coordinates	
						Right Bank	Left Bank	Northing	Easting
27	73 5 015 18 06 3	Sautauda B	Satkate Khola	26	D	Bagarkot	Bagarkot	29.30061	80.50395
28	73 5 016 18 06 2	Maljhulghat	Nani Gad	38	D	Dewaldebhyapur	Bagarkot	29.32921	80.44681
29	73 5 016 18 06 1	Kankadi Ghat		83	D	Dewaldebhyapur	Bhageshor	29.34531	80.41775
30	73 5 016 18 06 3	Sugaudi Ghat	Sornaya Gad	70.4	D	Dewaldebhyapur	Bishalpur	29.35781	80.40791
31	73 5 015 18 06 1	Asune Ghat	Doti Khola	53.6	D	Bagarkot	Bagarkot	29.31409	80.46038
32	73 3 001 18 06 6	Kalche Khola	Kalche Khola	42.8	D	Amargadhi Munc	Amargadhi Munc	29.32067	80.58267
33	73 5 009 18 06 1	Banatal	Bantal Gad	77.3	D	Gankhet	Gankhet	29.17425	80.55443
34	73 3 001 18 06 7	Jhadeta	Doti Khola	38	D	Amargadhi Munc	Amargadhi Munc	29.28172	80.60142
35	73 5 017 18 06 1	Chipur Bridge	Pasali Khola	40.3	D	Chepur	Bagarkot	29.31367	80.49653
36	73 3 001 18 06 3	Haat Gaun	Doti Khola	57	D	Amargadhi Munc	Amargadhi Munc	29.28469	80.57339
37	73 3 001 18 06 4	Ghatoda Ghat	Doti Khola	52	D	Amargadhi Munc	Amargadhi Munc	29.28575	80.53383
38	73 5 015 18 06 5	Kurchhva Gad	Satkata Khola	37	D	Bagarkot	Bagarkot	29.27475	80.51572
39	73 5 010 18 06 1	Kalakot	Rangoon	99.9	D	Aalital	Aaalital	29.12790	80.46659
40	73 5 010 18 06 2	Simal Ghat	Sun Khola	54.2	D	Aalital	Aaalital	29.11683	80.49753
41	73 5 007 18 06 3	Phatake	Lamikheth Gad	63.6	D	Ganeshpur	Amargadhi Munc	29.29900	80.66658
42	73 5 007 18 06 4	Khad Khola	Lamikheth Gad	40	D	Ganeshpur	Ganeshpur	29.30821	80.68781
43	73 5 008 18 06 2	Bali Ghat	Ruwa Khola	36	D	Achegram	Achegram	29.23300	80.65338
44	73 5 008 18 06 3	Baopur	Ruwa Khola	57.7	N	Achegram	Achegram	29.25346	80.66089
45	73 3 001 18 06 8	Jharda	Lamikheth Gad	56.6	D	Ganeshpur	Amargadhi Munc	29.29092	80.65450
46	73 5 001 18 06 2	Bayatadi	Saileshwori Gad	32.9	D	Amargadhi Munc	Kotaeli	29.32468	80.62479
47	73 5 001 18 06 3	Dhankat ST	Dhankat Khola	24	ST	Kotaeli	Kotaeli	29.35342	80.64311
48	73 5 015 18 06 6	Khulla Khet	Thuli Gad	38	N	Bagarkot	Bagarkot	29.30244	80.48094
49	73 3 001 18 06 2	Sela Khet	Chhachodi Gad	25.3	D	Amargadhi Munc	Amargadhi Munc	29.32113	80.59149
50	73 3 001 18 06 10	Saun Gaon	Doti Khola	24.2	RCC	Amargadhi	Amargadhi	29.28286	80.56772

SN	Bridge Number	Bridge Name	River Name	Span	Type	Bank		Coordinates	
						Right Bank	Left Bank	Northing	Easting
						Munc	Munc		
51	73 5 019 18 06 2	Doogad Brdige	Doogad	27	LN	Amargadhi Munc	Amargadhi Munc	29.32527	80.57219
52	73 5 019 18 06 3	Majar	Majar Khola	42	D	Ajaymeru	Amargadhi Munc	29.31419	80.55336
53	73 5 018 18 06 1	Bham Dauli	Bham Dauli Gad	32	ST	Bhadrapur	Bhadrapur	29.31594	80.51383
54	73 3 001 18 06 11	Gore Khet	Doti Khola	38	N	Amargadhi Munc	Amargadhi Munc	29.27457	80.54753
55	73 5 016 18 06 4	Daud Sera	Sera Gad	36	D	Dewaldebhyapur	Bagarkot	29.33053	80.48267
56	73 5 015 18 06 7	Parcheta Ghat Brdige	Doti Khola	29.2	Local D	Bagarkot	Bagarkot	29.32921	80.44682
57	73 5 014 18 06 1	Radil	Sarnaya Gad	68.8	N	Bishalpur	Bhageshwar	29.35639	80.38888
58	73 3 001 18 06 12	Ghatal Than	Doti Khola	20	Local D	Amargadhi Munc	Amargadhi Munc	29.27789	80.55649
59	73 3 001 18 06 13	Muduwa	Muduwa Kjhola	34.2	D	Amargadhi Munc	Amargadhi Munc	29.28255	80.59618
60	73 5 008 18 06 4	Mat kattaya	Ruwa Khola	20	ST	Achegram	Achegram	29.22672	80.65283

4.12 Existing Road RCC Bridge

Table 4.6 Existing Road RCC Bridge

S. N.	Code	Name of the road	Way Point/ Change	Coordinates		Span "M"	Condition of Structures
				X	Y		
1	73A001R	Bagbajar-Bagarkot-Rupal District Road	CH 27+720	446456	3245239	18	Damaged by flood
2	73A003R	Bhatkanda-Rel District Road	CH 11+330	466394	3234114	30	Fair

4.13 Existing Concrete Causeway

Table 4.7 Existing Concrete Causeway

S. N.	Code	Name of the road	Way Point/ Change	Coordinates		Types of Bridge/ Culvert/ Causeway	Span of Bridge	Condition of Structures
				X	Y			
1	73A004R	Buder-Jogbuda - Gaibandhe District Road	31	455211	3218277	Concrete Causeway	12	Fair
	73A004R	Buder-Jogbuda - Gaibandhe District Road	35	454531	3218444	Concrete Causeway	15	Fair
	73A004R	Buder-Jogbuda - Gaibandhe District Road	38	453328	3220738	Concrete Causeway	27	Fair

4.14 Existing Slab Culvert

Table 4.8 Existing Slab Culvert

Code	Name of the road	Way Point/ Change	Coordinates		Types of Slab Culvert	Span of Bridge	Condition of Structures	Remarks
			X	Y				
73A004R	Buder-Jogbuda - Gaibandhe District Road	9	456425	3218455	RCC slab culvert	4.2	Fair	
		16+910	449099	3223055	RCC slab culvert	2.6	Fair	
		20+070	446191	3222743	RCC slab culvert	2.6	Fair	
		CH 21+590	445843	3222793	RCC slab culvert	2.67	Fair	
73A006R	Ugaratara -Meilauli District Road	CH 1+980	461389	3247087	RCC slab culvert	6	Fair	

Code	Name of the road	Way Point/ Change	Coordinates		Types of Slab Culvert	Span of Bridge	Condition of Structures	Remarks
			X	Y				
		CH 4+120	460499	3247405	RCC slab culvert	6	Fair	
		CH 4+800	460440	3247812	RCC slab culvert	6	Fair	
		CH 6+030	459595	3247623	RCC slab culvert	6	Fair	
		CH 4+130	459163	3246968	RCC slab culvert	6	Fair	
		CH 8+130	458742	3246739	RCC slab culvert	6	Fair	
		CH 10+140	457954	3246658	RCC slab culvert	6	Fair	
73B006R	Jogbuda - Shirsh-Parigaun Rural Road	CH 6+210	437142	3224680	RCC Slab culvert	1	Fair	
		CH 7+210	436805	3224813	RCC Slab culvert	1	Fair	
		CH 7+740	436241	3225424	RCC Slab culvert	1	Fair	
		CH 8+910	435270	3225343	RCC Slab culvert	1	Fair	
		CH 12+210	432312	3225942	RCC Slab culvert	1.4	Fair	
		CH 13+310	431384	3225877	RCC Slab culvert	2.9	Fair	
73B007R	Gaibadhe-Kurmule-Saleta Rural Road	CH 2+650	438927	3217946	RCC Slab culvert	0.6	Fair	
		CH 3+050	439075	3217874	RCC Slab culvert	1.3	Fair	

Code	Name of the road	Way Point/ Change	Coordinates		Types of Slab Culvert	Span of Bridge	Condition of Structures	Remarks
			X	Y				
		CH 3+300	439153	3217847	RCC Slab culvert	1.3	Fair	
73B010R	Gaibadhe-Jamrani Bramdev Rural Road	CH 0+061	436418	3219385	Culvert		Poor	
		CH 0+710	436189	3218600	Culvert		Poor	
		CH 2+140	435369	3217962	Culvert		Poor	

4.15 Existing Pipe Culvert

Table 4.9 Existing Pipe Culvert

Code	Name of the road	Way Point/ Change	Coordinates		Types of Bridge/ Culvert/ Causeway	Span of Bridge	Condition of Structures	Remarks
			X	Y				
73A005R	Gaibandhe-Lipna District Road	CH 3+870	435661	3216343	Pipe culvert	7	Poor	

4.16 District Inventory Map of Rural Road Network (DIM)

The District Inventory Map of Rural Road Network is prepared to show existing rural transport linkages under different categories such as Upgrading.

CHAPTER V: DISTRICT ROAD NETWORK PLANNING

Rural transportation provision is mainly to improve accessibility of the people to markets and services and promote economic activities through increased agriculture as well as non-farm economic activities and the marketing of the products. For rural transportation to be effective, access networks need to be well planned. In the context of Nepal, a fixed point system model is adopted for networking where junctions are confined to a finite set of location such as markets, historical locations.

5.1 Accessibility Situation

After collecting data on existing roads within the district with GPS instrument, it is transferred to a GIS Map. This map is prepared to assess the accessibility situation of the district with the help of modelling in GIS. As Dandeldhura is a hilly district, the area from where people can reach the road head of all-weather road within 4 hours walk has been considered as accessible area and beyond that area considered is inaccessible area. The study shows that all of the recorded roads are earthen and fair weather surfaced implying that the roads are usable only during dry period.

5.2 Zone of Influence Area

The Zone of Influence (Zol) area for a road is defined as an area on either side of the road that is within 4 hours walk from the road.

5.3 Delineation of Accessible Area

The areas that are beyond the Zol is inaccessible area. The planning team proposes the road network for the inaccessible area as identified by the Zol analysis.

5.4 Accessible Area, Coverage and Population

Accessibility situation of the Dadeldhura district has been assessed based on serviciability of the transport linkage i.e. all weather and fair weather type of roads. In Dadeldhura district, all roads except the Highway sections are fair weather roads. Study shows that accessible area can be categorized into accessible and partially accessible VDC. Table 5.1 shows that about 34 % (520.54 Sq.km) of total area are under accessible area based on serviciability of all weather road. Similarly 79 % (1,221.38 Sq.km) of total area falls under accessible area based on serviciability of all fair weather road. Out of 20 VDCs and 1 Municipality, only 6 VDCs have fully access and 9 VDCs have partial access to all weather condition. Likewise, 11 VDCs have full access and 9 VDCs have partial access limited to fair weather condition. The following table shows the accessibility area, coverage and population.

Table 5.1: Accessible Area, Coverage and Population

Serviciability	Population	Accessible area (sq.km)	Accessible VDCs	Partially accessible VDCs
All weather	838256	520.54	Samejee, Koteli, Manilek, Nawaduga, Mashtamandau, Ganeshpur,	Ajayameru, Bhadrapur, Kailapalamandau, Ashigram, Gankhet, Alital, Amargadhi N.P, Belapur, Bagarkot

Serviciability	Population	Accessible area (sq.km)	Accessible VDCs	Partially accessible VDCs
Fair weather	1685654	1,221.38	Bhadrapur, Ajayameru, Samejee, Amargadhi N.P, Koteli, Manilek, Nawadurga, Mashtamandau, Kailapalamandau, Ashigram, Bhageswor	Rupal, Bagarkot, Dewal Dibyapur, Chipur, Belapur, Sirsha, Gankhet, Jogbuda, Alital

5.5 Delineation of inaccessible Area

After separating accessible areas, the identified un-served areas and considered by the planning team to propose road network to improve their accessibility.

5.6 Inaccessible Area, Coverage and Population

Table 5.2 shows that about 64 % (981.33 Sq.km) of total area are found inaccessible in the case of all weather serviceability of road. Similarly 18 % (280.5 Sq.km) of total area is inaccessible for fair weather serviceability of road. Out of 20 VDCs and 1 municipality, only 7 VDCs are found under inaccessible area. The following table shows the inaccessibility area, coverage and population.

Table 5.2: Accessible Area and Coverage

Serviciability	Inaccessible area (sq.km)	Percentage	Inaccessible VDCs
All weather	981.33	63.81	Chipur, Dewal Dibyapur, Bhageswor, Rupal, Sirsha, Jogbuda
Fair weather	280.50	18.24	

5.7 Network planning in inaccessible area

After separating inaccessible area, preliminary road networks have been prepared based on the nodal points/market centres and policy provision that people should reach to the road head of all weather roads within 4 hours walk. The preliminary road networks have been presented in DTICC meeting and Cluster of Ilaka level workshop where the proposed road networks for those inaccessible areas were finalised and agreed.

CHAPTER VI: DISTRICT TRANSPORT PERSPECTIVE PLAN (DTPP)

6. Perspective Plan of District Rural Road Networks

The DTPP has a perspective of 20 years. The DTPP is revised every five years when a new DTMP is being prepared according to the rolling plan system.

6.1 Scoring system for Prioritization of Proposed New Roads

A network consists of several links. It is not possible to construct all roads at a time due to resource gap, time constraint and limited management capacity. Therefore each link in a network should be prioritized. After developing a district level network, a road engineer prepares the cost estimate of the road and benefit of each link in the network. Cost Efficiency Analysis (CEA) is used to prioritize new transport linkage. Criteria such as per capita cost and special social consideration (of inclusiveness) receive weights (points) relative to their perceived importance. Each road link is then allocated the number of points corresponding to the fulfilment of the particular criteria. The aggregate number of points that each intervention receives is computed by simply adding the points allocated per indicator. The result of this process leads to a ranking of the investment options. The following criteria are used for prioritization of new transport linkages.

Table 6.1: Scoring System for Prioritization of New Linkages

S.N.	Parameter	Scoring Unit	Score
i	Population per unit Cost	Population/investment Cost in 100000	55
ii	Cultivated Land	Cultivated Land/km	15
iii	Inaccessibility	Population × Walking hour /km	20
iv	Population of poor, Dalits and marginalized Janajatis.	Population /km	10

PARAMETERS FOR PRIORITIZATION FOR NEW LINKAGE

Population per unit Cost

Population per unit cost has been taken as an important parameter for prioritization of linkage. Considering its importance, it has been given high score (55). Population within the zone of influence (Zol) area i.e. left and right of the road link within 4 hours in walking time has been taken as the beneficiaries of a proposed road. After locating the Zol, the household (within that Zol) have been counted in GIS map and then multiplied each household by average family size and again projected it by annual growth rate till 2010 to get the total number of population.

Population per unit cost is calculated from total population divided by investment cost in lakh (hundred thousand) rupees i.e. no of person per 1, 00,000 rupees. The road having the highest beneficiaries population per investment cost is given highest score i.e. 55.

The scoring of the individual District Road A and B based on population per unit cost is given in annex.

Cultivated land

Cultivated land with the Zone of Influence area of each proposed road corridor has been taken as the second parameter for the scoring. Cultivated land within the zone of influence (Zol) area i.e. left and right of the road link within 4 hours in walking time has been calculated from GIS modelling in Map. The road having the highest cultivated land /km is given highest score i.e. 15. The scoring of the individual District Road A and B based on Cultivated Land is given in annex.

3. Inaccessibility

The population within the zone of influence (Zol) area i.e. left and right of the proposed road within 4 hours in walking time has been estimated from GIS modelling as same as above. After delineating the Zol, the household within that Zol has been measured from GIS Modelling in maps. Total population within the range (20 minute, 2 hours and 4 hours) of zone of influence area is then multiplied by average walking distance and then divided by total km of proposed road. The road having the highest Population \times Walking Hour /km is given highest score i.e. 20. The scoring of the individual District Road A and B based on Population \times Walking Hour is given in annex.

4. Total Population of poor, Dalits and marginalized Janjatis.

The areas inhabited by poor, dalits, janajati and marginalized people are consider as parameter for prioritization of roads. In this regards, the population of **poor, dalits and marginalized janjatis** within the zone of influence (ZOI) area are collected from ward level or VDC level records or from key informant. The road having the highest cultivated land /km is given highest score i.e. 10. The scoring of the individual District Road A and B based on Total Population of poor, Dalits and marginalized Janajatis is given in annex.

The total scoring of all parameters per road corridor for prioritization of District Road A and B for new construction have been compiled in Table 6.2 and 6.3 respectively as following.

6.2 Prioritization of District Road 'A' for New Linkage

The following four roads are proposed for District Road 'A' for new construction. Details are presented in table 6.2 below.

Table 6.2: Prioritization of District Road 'A' for New Linkage

S.N	Road code	Road name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores					
					Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities (10)	Total Score (100)	Priority Rank
1	73A001R	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	34.36	55.00	14.48	14.05	8.34	91.87	1
2	73A007R	Aaita-Niglad-Achalsain - Katal Rural Road	36.97	32.97	42.21	8.05	14.21	10.00	74.47	2
3	73A006R	Ugratara-Melauli	47.00	30.00	36.17	15.00	15.00	4.69	70.86	3
4	73A008R	Jogbuda-Shirsh Rupal Rural Road	29.70	26.70	31.84	11.37	9.94	7.31	60.45	4
Total Length km			176.03	124.03						

6.3 Brief on proposed District Roads A for New Linkages

Bagbazar-Bagarkot-Bhageswor- Rupal District Road (73A001R):

Bag Bazar-Bagarkot-Rupal Road starts from district headquarters of Dadeldhura and passes through Aita, Aidungra, Lakam, Bagarkot, Dumri, Naugaun, Bogota, Lamikande ends at Bayalpata of the Rupal VDC. It provides direct transport services to some parts of Amargadhi municipality, Bagarkot, Bhageswor and Rupal VDCs. This road also provides services to some parts of Chipur, Bhadrapur, Dewal Dibyapur VDCs & lower parts of Baitadi district. The total length of this road up to Rupal will be about 65 km out of which 28 km length has been seasonal vehicle pliable and construction work is ongoing up to Bhageswor VDC. Construction of this road was started in 2050 B.S. by DDC through RCIW programme. Seasonal vehicle pliable length of 28 km should be upgraded to all weather road for better and sustainable transport facilities and remaining construction work should be completed for linking with Rupal VDC. After total completion of this road, this will be an important district road of Dadeldhura and will also be an access road to the Mahakali Pancheswor hydroelectricity project in future.

Aaita-Niglad-Achalsain -Katal District Road (73A007R):

This road starts from Aaita of Amargadi municipality and passes through Aaita, Kanda, Chamsal, Ghathalthan, Pathroad, Chirkitte, Niglad, Gogan, Kalena, Salon of Amargadi Nagarpalika, Gangkhet and Shirsha VDCs. The total length of the road up to salon will be about 50 Km and 6 km road has been built out of which only 3 km length has been seasonal vehicle pliable. New section of 30 km length has to be built as per plan for meeting accessibility situation to bring into 4 hrs walking. This road in future will be an important linkage to with lower part of Dadeldhura district i.e. jogbuda areas. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Ugratara-Melauli District Road (73A006R):

This road starts from nearby Ugratara temple and passes through different settlements such as Ugratara, Puilek, Samaiji, Chamada, Bhadrapur, Chipur, Dewaldibyapur of Amargadi Nagarpalika, Samaiji, Ajayamaru, Bhadrapur, Chipur, Dewal Dibyapur VDCs. The total length of the seasonal pliable road is 18 up to Chamada. This road has been intervened up to 22.5 km and has to be extended towards Dewal VDC for providing transport services to the people of influenced areas. Total length of this road up to Dewal VDC will be about 53 Km and vehicle pliable length has to be upgraded gradually to all weather road with gravelling and ottaseal. This road corridor area is potential of agricultural product, and vegetable farming which will be promoted with this road. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Jogbuda-Shirsh Rupal District Road (73A008R):

This road starts from Jogbuda bazar and passes through Jogbuda, Katal, Sirsha, Chamkechaud, Dunalek, Bayalpata (Rupal) of Jogbuda, Sirsa and Rupal VDCs. The total length of the road up to Bayalpata will be about 30 Km and 7 km road has been built out of which only 3 km length has been seasonal vehicle pliable. This road in future will be an important linkage to upper part of Dadeldhura district via Bagbazar-Bagarkot- Rupal road. For meeting the accessibility situation within 4hrs walking, remaining 23 km untouched section of the road should be constructed as per plan.

6.4 Prioritization of District Road 'B' for New Linkage

The following four roads are proposed for District Road 'B' for new construction. Details are presented in table 6.3 below.

Table 6.3: Scoring System for Prioritization of District Road 'B' for New Linkage

S.N.	Road code	Road Name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores					
					Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities (10)	Total Score (100)	Priority Rank
1	73B009R	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.25	5.25	55.00	15.00	20.00	10.00	100.00	1
2	73B014R	Dungari-Seragad-Dewal RR	7.72	7.72	12.03	10.06	7.12	3.22	32.43	2
3	73B013R	Khal-Dehimandu-Sarmali RR	10.00	10.00	11.07	4.54	7.55	3.67	26.82	3
4	73B003R	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.50	27.50	6.64	4.21	4.90	3.23	18.98	4
5	73B010R	Gaibadhe-Jamrani Bramdev Rural Road	5.91	5.91	3.32	5.84	3.72	4.51	17.39	5
6	73B011R	Gaira-Gangkhet-Niglad Rural Road	34.78	30.78	2.25	1.27	1.43	0.76	5.70	6
7	73B012R	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	1.82	0.98	1.90	0.72	5.42	7
Total Length km			116.17	112.17						

6.4 Brief on proposed District Roads 'B' for New Linkages

73B009R, Dadaban-Nawdurga-Ghupatkhan Rural Road

This road starts branching from Seti Highway at nearby Dadaban and passes through Seltada, Dadaban, Matella, Matekanda and Sapalla of Nawadurga & Mastamandu VDC. The total length of constructed road is 5 km but not vehicle pliable due to under construction. This road will be extended up to Ghuptakhan of Belapur VDC. This road will meet with Pokhara-Belapur road at ghuptakhan. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

73B014R, Dungari-Seragad-Dewal Rural Road

This road starts branching from Bagbazar-Bagarkot-Rupal district road at Dungari of Bagarkot VDC and passes through Dungari, Seragad, Odigaun, Dewal of Bagarkot and Dewal VDCs. The total length of the road will be about 10 km and this road has been under construction financing through LGCDP. This road will directly provide the transport services to the people of Bagarkot and Dewal VDCs and also will provide transport access to the people of neighboring district Baitadi.

73B013R, Khal-Dehimandu-Sarmali Rural Road

This road starts branching from Bagbazar-Bagarkot- Rupal district road at khal of Bhageswor VDC and passes through Khal, Dehimandu, Sarmali (Baitadi) of Bhageswor VDC and Sharmali VDC of Baitadi district. The total length of the proposed road will be about 10 km which will provide transport access to the people of both Dadeldhura and Baitadi districts. This will also be an access road to pancheswor hydro-electricity project.

73B003R, Bagarkot-Chulla-Sirad- Rupaligad Rural Road

This road starts branching from Bagbazar-Bagarkot- Rupal district road at Bagarkot and passes through Bagarkot, Chulla, Sirad, Rupaligad of Bagarkot and Rupal VDC. The total length of the road will be about 27 km. Out of 27 km 4.5 km has been built and under construction. This road will be extended up to Rupal igad of Rupal VDC which provides access to the people of influenced VDCs. This road will cost a little bit higher because of passing difficult terrain and jungle area.

73B010R, Gaibadhe-Jamrani Bramdev Rural Road

This road starts from Gaibandhe and passes through Gaibandhe, Jamrani, sadani, machhitte, Bhramadev of Jogbuda VDC and some parts of Kanchanpur district. The total length of constructed road is about 6 km but is not vehicle pliable due to under construction. This road will be extended up to border of Kanchanpur district so in future this road will be a link road to kanchanpur district. This road lies in the potentiality of agriculture production and forest products. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

73A011R, Gaira-Gangkhet-Niglad Rural Road

This road starts from Gaira bazaar of Doti district and passes through Gair bazar, hartola, bantal, Gangkhet, Unikot, Odigaun, Kuledi and Niglad of Gangkhet and Shirsha VDCs. The total length of the road up to Niglad will be about 35 Km and 5 km road has been built which is under construction. New section of 30 km length has to be built as per plan for meeting accessibility situation to bring into 4 hrs walking. This road in future will be an important linkage to join with Rupal and Shirsha VDCs. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

73B012R, Bipyakatal-Hatas-Chama-Dhungad Rural Road

This road starts from Bipyakatal of Baitadi district branching from Bhim Datta Rajmarga entering into Dadeldhura district at Hatas and passes through Bipyakatal, Hatas, Chama, Dhungad of Belapur VDC and some part of Baitadi district. Total length of new alignment is about 25 km to be constructed for meeting accessibility situation to bring into 4 hrs walking. This road will link with Baitadi district and Doti district so this road will provide transport services to the people of three districts.

6.5 Possible Inter- district Transport Linkages:

In Dadeldhura district, there are some district and rural roads which in future will be possible inter-district link roads. After completing the target of planned roads, there will be good transport facilities for the people of two districts. District should give priority for constructing the planned road which will be inter-district linkage and DTMP should be updated regularly. List of possible inter-district link roads are as follows:

- i. Bagbajar-Bagarkot-Bhageswor (Khal)-Dehimanu District Road with Baitadi district.
- ii. Pokhara -Belapur District Road with Doti district.
- iii. Ugratara-Melauli District Road with Baitadi district.
- iv. Bhatkada-Rel District Road with Doti district.
- v. Buder-Jogbuda-Gaibadhe-Lipna District Road with Kanchanpur and Doti districts.

6.6 Scoring system for prioritisation of Rural Roads Class A and Class B for Upgrading

The following criteria are proposed for prioritisation of District and Village Roads for Upgrading.

Table 6.4: Scoring System for Prioritisation of Rural Roads for Upgrading

S. No.	Criteria	Scoring Unit	Score
1	Traffic Volume	Traffic Unit (TU)	70
2	Cost	Cost /km	20
3	Market /service centre	Centrality Index	10
Total			100

Parameters for prioritization for upgrading:**Traffic Unit**

Information of Traffic data has been collected from field data. Cost estimate was based on the data collected during the walkover survey for inventory of existing road. Unit cost has been calculated on the basis of district approved rate for labour and materials. The volume and type of traffic movements is the major indicator for assessing the relative importance of existing road links. However, since most of the roads being considered for rehabilitation/upgrading are fair weather earthen roads that are in a poor state or closed to traffic, the conduct of a traffic census is usually not effective in providing the data required. Instead, the data on traffic movement is gathered from RRA and discussions with key individuals within the road corridor and at district and village level. Scores are awarded on the basis of the estimated traffic volumes on each of the roads being considered for rehabilitation. In accordance with traffic coefficients given in DoLIDAR's "Approach for the Development of Rural and Agricultural Roads", large trucks (more than 10 tones carrying capacity) and buses (Over 40 passengers) are given a weight of 4.0, small trucks (up to 10 tones carrying capacity) and buses (up to 40 passengers) are given 3.0 and tractors (4W towed trailers) are given a weight of 3.0, cars and pick-ups, light-vans, jeeps are given a weight of 1.0.

The road having the highest beneficiaries population per investment cost is given highest score i.e. 70.

The scoring of the individual District Road A and B based on traffic unit is given in annex.

Costs

Cost estimate is based on the data collected during the walkover survey for inventory of existing road. Unit costs are calculated on the basis of district approved rate for labour and materials. The linkage having the lowest per km cost get the highest score i.e. 20. The scoring of the individual District Road A and B based on cost is given in annex.

Market/Service Centres

Market Survey is carried out to identify market and service centre. Data and information collected in the field is the main basis for determining the importance on relative importance of market/service centre and central places. For evaluation purpose, data of offices, industry, business & commerce, education, and health, are combined for the centre and its influence area. Assessment of economic facilities and services existing in the market/service centres and their catchments areas leads to the identification of the most important market/service centre. All proposed roads scores based on centrality index of market /service centre by using same calculation method. The linkage having the lowest per km cost get the highest score i.e. 10. The scoring of the individual District Road A and B based on centrality index is given in annex.

The total scoring of all parameters per road corridor for prioritization of District Road A and B for Upgrading have been compiled in Table 6.5 and 6.6 respectively as following.

6.8 Prioritized Existing Transport Linkages for Upgrading

6.8.1 Prioritised List of District Road 'A' For Upgrading

Table 6.5: Prioritized List of District Road 'A' For Upgrading

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the Priorisation of Road and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	73A004R	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	70.00	3.45	15.21	88.66	1
2	73A001R	Bagbajar-Bagarkot-Rupal District Road	62.36	28.00	42.22	10.00	15.73	67.95	2
3	73A002R	Pokhara -Belapur District Road	32.00	18.00	31.11	0.81	20.00	51.92	3
4	73A003R	Bhatkanda-Rel District Road	15.01	10.00	31.11	0.49	13.42	45.02	4
5	73A005R	Gaibandhe-Lipna District Road	10.50	10.50	22.44	0.52	20.00	42.97	5
6	73A006R	Ugaratara -Meilauli	52.40	17.60	24.89	1.23	16.49	42.61	6

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the Priorisation of Road and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
		District Road							
7	73A008R	Jogbuda-Shirsh Rupal Rural Road	6.70	3.00	21.33	0.76	18.95	41.04	7
8	73A009R	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	11.11	0.50	20.00	31.61	8
Total Length km			237.97	146.10					

6.8.2 Prioritized List of District Road 'B' For Upgrading

Table 6.6: Prioritized List of District Road 'B' For Upgrading

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the Priorisation of Road and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	73B006R	Jogbuda - Shirsh-Parigaun Rural Road	16.00	16.00	70.00	10.00	9.55	89.55	1
2	73B005R	Sakayal-Kailpalmandu Rural Road	7.50	4.50	59.61	2.02	18.62	80.25	2
3	73B002R	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.30	7.50	47.42	8.45	18.00	73.87	3
4	73B007R	Gaibadhe-Kurmule-Saleta Rural Road	5.50	4.00	50.13	3.45	3.10	56.68	4
5	73B011R	Gaira-Gangkhet-Niglad Rural Road	34.79	4.00	28.00	0.61	20.00	48.61	5
Total Length km			72.09	36.00					

6.9: List of Village Roads:

Following are rural village roads which are under construction initiated by respective VDCs.

Table 6.7: List of Village Roads

S.No.	Name of roads	Built length (Km)	Benefiting VDCs
1	Alital-Tal RR	2.3 00	Aalital
2	Badar-Nail RR	3.000	Aalital,Jogbuda
3	Samaiji-Puilekh-Ajayameru(Samaiji Hariyali Sadak) RR	3.500	Samaiji
4	Kritipur-Bhaliya-Ajayamaru-Jagannath RR	5.000	Amargadi Municipality
5	Anarkholi-Mugraun RR	3.500	Samaijee
6	Gharelu-Dayani RR	4.500	Aalital
7	Goganpani-Katunthala-Losima-Bhitisain RR	1.500	Gangkhet,Aalital
8	Kalena-Amargadi RR	4.500	Shirsha,Gangkhet,Amargadi NP
9	Kulaukhola-Badal RR	0.500	Ganeshpur,Mastamandu
10	Bhatkada-Kafali RR	1.500	Asigram,Gangkhet
11	Bhatkada-Ghailakot RR	1.500	Gangkhet
12	Parikhet-Badal RR	0.500	Asigram,Ganeshpur
14	Koteli-Chora-Nimtola RR	2.000	Koteli
15	Bagarkot-Bhadrapur-Chipur RR	0.500	Bagarkot,Bhadrapur,Chipur
16	Bhageswor-Lamikade-Ratamati-Jakseltuda-Sauniya RR	2.000	Bhageswor,Rupal
17	Khullakhet-Chulla-Sirad RR		Bagarkot, Rupal

6.10: Additional demanded rural roads during ilaka level workshops

Following listed rural roads were demanded by the people of different VDCs during the ilaka level workshops. These demanded roads are small village roads and these should be considered while preparing Village Transport master Plan (VTMP). These roads can be implemented by the respective VDCs with their own resources. List of demanded roads are listed as follows.

Table 6.8 Additional demanded rural roads during ilaka level workshops

S.N	Road Name	Benefitting VDCs
1	Rupal igad-Lekuda-Basauti RR	Rupal, Shirsha
2	Shirsha-Basauti-Niglad RR	Gangkhet,Shirsha
3	Shirsha-Midsimalta-Parigaun RR	Shirsha
4	Gangkhet-Dhatadi -Godam RR	Gangkhet,Aalital
5	Unikot-Kafali-Saukharka RR	Gangkhet
6	Beriyal-Chamsal-Budichal-Bantal RR	Gangkhet
7	Godam-Pasairawal-Gangkhet RR	Gangkhet,Aalital
8	Ghumti-Bandale-Sela RR	Gangkhet,Aalital
9	Godam-Dola-Hamtad-Saleta RR	Aalital-Jogbuda
10	Mastamandir-Badal RR	Ganeshpur,Mastamandu
11	26 Kilo-Matkatte RR	Asigram
12	Matela-Tikhatar-Parikhet-Chamsal RR	Ganeshpur,Asigram

S.N	Road Name	Benefitting VDCs
13	Raduwakhola-Bakal-Phindeu RR	Manilekh,nawadurga,Belapur
14	Belapur-Chama RR	Belapur
15	Belapur-Sirod-Suwakot-Setirajmarga RR	Belapur
16	Dadaban-Judakatte-Dawali-Talamandu=VDC bld	Nawadurga
17	Dobata-Lipna-Malas-Jhilmila-Brahmade	Jogbudha, Alital
18	Naugaun-Baduwa RR	Bagarkot
19	Paniut-Jakseltuda RR	Rupal

6.11: Prioritized list of Trail Bridge for New construction

Table 6.9 Prioritized list of Trail Bridge for New construction

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
1	73501018062	Jogbudha	Aalital	Panturakhola	Sisham Jala	10.6	0.5	Suspended	70
2	73501118063	Jogbudha	Jogbudha	Lamigada Lhola	Shadani	2.6	0.5	Suspended	110
3	73501118061	Serese	Jogbudha	Rangu khola	Kainpani	11	0	Suspension	210
4	73501118065	Jogbudha	Jogbudha	Patali khola	Masanijhal	6.5	0	Suspended	70
5	73501118062	Jogbudha	Jogbudha	Shadani Khola	Chandani Ghat	6.6	0.5	Suspended	650
6	73501818061	Aajayamaru	Bhadrapur	Godi khet	Godi khet	10	0.5	Suspended	38
7	73501518061	Bagarkot	Bagarkot	Chulla gad	Gadi khet	11.41	0.5	Suspended	85
8	73501018063	Aalital	Aalital	Koirali khola	Janata	3.25	0.5	Suspended	75
9	73300118061	Amargadhi Municipality	Kotaeli	Tiladi Gad	Gadi khet	4	0.25	Suspended	85
10	735012180614	Serese	Serese	Kirod Khola	Kirod Khola	6	1	Suspended	95
11	73501418065	Udayadev	Bhageshor	Sumaya Gad	Anchalkhola	8	1.5	Suspended	135
12	73501118067	Jogbudha	Jogbudha	Palgadi Khola	Suwakhan	4	1	Truss	24
13	73501618061	Serese	Serese	Kalend khola	Samaiji Ghat	4.95	0.5	Suspended	95
14	73501018068	Jogbudha	Aalital	Bhalu khola	Bhatteni	5.32	0.5	Suspended	150
15	73501618061	Dewaldebhyapur	Barakot	Shera Gad	Shera Khet	3	0.25	Suspended	36
16	73501018066	Chepur	Chepur	Huragad	Latamandau	13	5	Suspended	55
17	73501018066	Aalital	Aalital	Rangun	Mori Bhumana	3	0	Suspended	155
18	735014180610	Bageshwor	Bageshwor	Panturakhola	Ghan Ghat	8	1.5	Suspended	110
19	73501018065	Gankhet	Aalital	Rangim	Ghankhet	5	0.5	Suspended	110
20	735010180610	Aalital	Jogbudha	Panturakhola	Sangurchaugada	4.5	0.75	Suspended	105
21	735011180610	Serese	Jogbudha	Rangun	Simla Khet	4.75	0.25	Suspended	900
22	73501018064	Aalital	Aalital	Sunkhola	Godam	2.3	0	Suspended	260
23	73502018061	Aajayamaru	Samaiji	Chorkhet Gad	Chorkhet	3.51	0.25	Suspended	100
24	735012180615	Champhawat	Serese	Mahakali	Prarsuram Ghat	4	0.5	Suspension	250
25	73501918062	Ajayamaru	Ajayamaru	Betal khola	Ghatte Gad	7	0.5	Suspended	50
26	73501118066	Jogbudha	Jogbudha	Dhikko khola	Dhakani Gad	4.8	0.5	Suspended	60
27	735013180612	Rupal	Rupal	Rudrawati	latachach	13	2	Suspended	60
28	73501318065	Rupal	Rupal I	Rudrawati	Gaurighat (Latadeu)	11.5	1.5	Suspended	65
29	73501718061	Dewaldebhyapur	Chepur	Huragad	Dobilla	5	0.5	Suspended	85
30	735012180613	Serese	Serese	Doli khola	Dolighatchaud	13.2	1	Suspended	68
31	73501018061	Aalital	Aalital	Junge khola	Seurad	3.21	0	Suspended	95

Chapter VI: District Transport Perspective Plan

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
32	73501318061	Rupal	Rupal	Rupali Gad	Chalse	10	2	Suspended	75
33	73501018069	Aalital	Aalital	Ghimada khola	Chaupata Ghat	3.68	0	Suspended	110
34	73501218012	Serese	Serese	Tallo Sirsa khola	Ghadjala Ghat	22	1	Suspended	120
35	73501218063	Serese	Serese	Matel khola	Matela Khola	16.21	1	Suspended	45
36	73501218062	Serese	Serese	Kalena khala	Khola Ghat	1.9	0.5	Suspended	75
37	735012180611	Serese	Serese	Ghari Khola	Gharikhasarebata	9.68	1	Suspended	60
38	735012180610	Serese	Serese	Niglad khola	Betatlchhida	14	1	Suspended	65
39	73501318068	Rupal	Rupal	Sinnym khola	Thulakhet (Cinnayam)	3.43	3	Suspended	65
40	73500218062	Manilek	Manilek	Bedupani Khola	Bedpani	2.4	0.1	Suspended	105
41	73500318064	Belapur	Belapur	Simal Gad	Simla ghat	2	2	Suspended	55
42	735013180610	Rupal	Rupal	Rudrawati	Koteuda	12.86	2	Suspended	70
43	73501018067	Aalital	Aalital	Sunkhola	Sunkhola	1.33	0.25	Suspended	80
44	73501618063	Dewaldebhyapur	Bhageshor	Dubar Ghat	Lamagada	1.7	0.5	Suspended	70
45	73501218064	Serese	Serese	Sirsha Khola	Kalpate Than	3.61	0.5	Suspended	86
46	7.35012E+11	Serese	Serese	Kalena Khola	Saudob	1.4	1	Suspended	65
47	73501418064	Dewaldebhyapur	Bageshwor	Thuligad	Khilabharad	1.78	1	Suspended	115
48	73500118061	Kotaeli	Kotaeli	Manasuta khola	Mansuta	1.97	0	Truss	28
49	73500518061	Mastamandu	Belapur	Sakail khola	Sakail Ara	1.11	0.25	Suspended	70
50	73500318063	Belapur	Belapur	Dornekhola	Chalkatta	1.1	1	Suspended	42
51	73500418061	Mastamandu	Nawadurga	Sakayal khola	Sakayal	1.71	0	Suspended	110
52	73500618062	Kailpalmandu	Kailpalmandu	Rumail khola	Ghatte Gad	2	0.25	Suspended	35
53	73502018062	Aajayamaru	Samaiji	Dogad	Dogad	3	1	Suspended	50
54	73501518063	Bagarkot	Bagarkot	Siradi Gad	Tithi Ghat	2.02	0.5	Suspended	77
55	73501318064	Rupal	Rupal	Rudrawati	Seragad	13	2	Suspended	200
56	73501218065	Serese	Serese	Sirsakhola	Todinna Pasamandu	4	2	Suspended	95
57	73501318063	Rupal	Rupal	Rudrawati khola	Pidasau	13	2	Suspended	65
58	73501318062	Mastamandu	Belapur	Sakayal khola	Sakayal- Kupa	1.37	0.25	Suspended	110
59	73500518061	Serese	Serese	Sirsha Khola	Asain Ghat	3.14	0.5	Suspended	65
60	73500618061	Kailpalmandu	Kailpalmandu	Kuledi khola	Kuledi	2	0.25	Suspended	55
61	73500318061	Belapur	Belapur	Meltada khola	Meltada	1	2	Suspended	80
62	73501218066	Serese	Serese	Pokana khola	Pokana	4.31	1	Suspended	58
63	73501518064	Bagarkot	Bagarkot	Jalchhinann	Gatalthan	4.9	0.5	Suspended	75
64	73502018064	Aajayamaru	Samaiji	Thulakhola	Koirali	2.4	1	Suspended	55
65	73500918062	Gankhet	Gankhet	Ullani khola	Ullani	3	1	Suspended	70
66	73501218067	Serese	Serese	Khoyadi khola	Khoyadi	6.44	1	Suspended	54
67	73500118062	Amargadhi Municipality	Kotaeli	Saileshwar khola	Saileshwar	2	0.5	Suspended	86
68	73501518065	Bagarkot	Barakot	Anaha khola	Khaltadi	5	0.25	Truss	32
69	73500818061	Ganeshpur	Achegram	Ruwakhola	Deubata	1	0.25	Suspended	60
70	73501718062	Chepur	Bhadrapur	Khetroda khola	Ketroda	1.4	0.5	Suspended	40
71	73501218069	Serese	Serese	Khoidi khola	Samaiji Ghat	5.84	1	Suspended	55
72	73500118066	Kotaeli	Kotaeli	Chiminda	Chiminda	1.55	0.25	Truss	16
73	73501618062	Dewaldebhyapur	Bagarkot	Jhigini khola	Jhiginighat	1.8	0.25	Suspended	70
74	73501318069	Rupal	Rupal	Rupali Gad	Bistadi khola	7.2	2	Suspended	70

Chapter VI: District Transport Perspective Plan

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
75	73500318068	Belapur	Belapur	Juwatadai khola	Juwatadi	1.14	2	Suspended	80
76	73501318061	Serese	Serese	Dogada khola	Dogadaburauji	5.1	1	Suspended	51
77	73502018063	Rupal	Rupal	Saikhola	Shail	4.44	2	Suspended	135
78	73502018067	Bhadrapur	Aajayamanu	Betal khola	Kudi Ghatta	1.5	0.5	Suspended	45
79	73502018063	Samaiji	Samaiji	Galphagad	Daisilagad	2	1	Suspended	70
80	73502018067	Samaiji	Samaiji	Dewali	Deula	2	1	Suspended	45
81	73502018067	Gankhet	Gankhet	Gangkhet khola	Koltada	2	1.5	Suspended	80
82	73500218063	Kotaeli	Manilek	Amatad	Amatad	2	0.5	Suspended	26
83	7350018066	Kotaeli	Manilek	Bugara khola	Bugara	1.29	0.5	Suspended	65
84	73501418066	Bhageshor	Bageshwar	Mullydanna (Nani gad)	Simalkhet (Mullydanna)	1	1	Suspended	65
85	73501318067	Rupal	Rupal	Nani gad	Lata Dhunga	2.86	2	Suspended	75
86	73500118065	Kotaeli	Kotaeli	OULI Gaon khola	Domila khola	1	2.5	Suspended	24
87	73501818062	Bhadrapur	Aajayamaru	Betal khola	Ringadagaun	2.5	0.5	Suspended	51
88	73502018068	Samaiji	Samaiji	Airadi khola	Airadi	2	1	Suspended	45
89	73300118065	Amargadhi Municipality	Amargadhi Municipality	Doti khola	Shali khet	1.51	0.25	Suspended	85
90	73500918065	Gankhet	Gankhet	Kanedi khola	Kanedi	4	2	Suspended	45
91	73502018065	Samaiji	Ajayamaru	Basani Gad	Chimsaladhamighatta	1.53	0.25	Suspended	50
92	73500918064	Gankhet	Gankhet	Shela Gad	Shela	2	1	Suspended	75
93	735012180616	Serese	Serese	Shirsa khola	Panatoli	3.51	0.5	Suspended	80
94	73501418067	Bhageshor	Bhageshor	Mouri Gad	Mouri Ghat	1.5	1.5	Suspended	70
95	73502018066	Samaiji	Samaiji	Khodpe khola	Bajkot	1.29	1	Suspended	35
96	73501518066	Bagarkot	Bagarkot	Satkata khola	Dhankhet	1.4	0.5	Suspended	60
97	73500918066	Gankhet	Gankhet	Tapkhola	Malagaun	2	1	Suspended	55
98	73501318066	Rupal	Rupal	Rupali Gad	Koteuda	2.41	1	Suspended	60
99	73500318065	Belapur	Belapur	Banchhida khola	Banchhida	1	1	Suspended	40
100	73500918063	Gankhet	Gankhet	Shela Khola	Deuwagaun	1	1	Suspended	50
101	735013180611	Rupal	Rupal	Rupal i Gad	Chaadi	1	1	Suspended	55
102	73501518067	Bagarkot	Bhageshor	Thuligad	Runadi	3	0.25	Suspended	65
103	735012180618	Serese	Serese	Kheti Gad	Ladaulikheta	3.42	1	Truss	24
104	735012180619	Serese	Serese	Sirsakhola	Panatoli	1.68	1	Suspended	65

6.12 Prioritized list of Trail Bridge for Major Maintenance

Seven numbers of Trail Bridges have been proposed for Major Maintenance

Table 6.10 Prioritized list of Trail Bridge for Major Maintenance

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Bridge	
		Right Bank	Left Bank			Type	Span
1	73501518062	Bagarkot	Bagarkot	Thuli gad	Khulla khet	Suspension	38
2	73501418061	Dewaldebhyapur	Bhageshor	Doteli khola	Kakadi Ghat	Suspended	82
3	73501418063	Bishapur	Bhageshor	Surnaya Gad	Radil	Suspended	55
4	73500618063	Jijodamdaun	Kailpanlmandu	Relgad	Relgad	Suspended	60

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Bridge	
		Right Bank	Left Bank			Type	Span
				Khola			
5	73500218062	Ganeshpur	Manilek	Lamakheti Gad	Khadkhola	Suspended	32
6	73500478062	Mastamandu	Nawadurag	Sakayal khola	Damarkot	Suspension	24
7	73500718061	Ganeshpur	Amargdhi Municipality	Ruwakhola	Lamikheth	Suspended	46

6.13 Prospective RCC Bridge

Five numbers of Road Bridges have been proposed for new construction

Table 6.11 Prospective RCC Bridge

S. N.	Code	Name of the road	Span " M"	Remarks
1	73A001R	Bagbajar-Bagarkot-Rupal District Road	42	
2	73A003R	Bhatkanda-Rel District Road	30	
3	73B006R	Jogbuda - Shirsh-Parigaun Rural Road	300	
4	73B007R	Gaibadhe-Kurmule-Saleta Rural Road	150	
5	73B010R	Gaibadhe-Jamrani Bramdev Rural Road	80	

6.14 Prospective Slab Culverts

Table 6.12 Prospective Slab Culverts

S. N	Code	Name of the road	Type of Slab Culvert	Span " M"	Remarks
1	73A001R	Bagbajar-Bagarkot-Rupal District Road	Culvert	9	
			Culvert	8	
			Culvert	5	
			Culvert	4	
2	73A006R	Ugaratara -Meilauli District Road	Slab culvert	7.5	
			Slab culvert	7.5	
			Slab culvert	7.5	
			Slab culvert	7.5	
			Slab culvert	7.5	
			Slab culvert	7.5	
			Slab culvert	7.5	
			Slab culvert	7.5	

S. N	Code	Name of the road	Type of Slab Culvert	Span " M"	Remarks
			Slab culvert	7.5	
			Slab culvert	7.5	
3	73A007R	Aaita-Niglad-Achailsain - Katal Rural Road	Slab culvert	5	
			Slab culvert	5	
4	73B004R	Bhajnpur -Chhachauda Rural Road	Slab culvert	7.5	
5	73B008R	Kritipur -Bhaliya-Ajaymarukot-Jagannath Rural Road	Slab culvert	7.5	

6.15 Prospective Causeways

Table 6.13 Prospective Causeways

S. N	Code	Name of the road	Type of Causeway	Span " M"	Remarks
1	60A001R	Ramaghat-Singhasan-Pipalkot District Road	RCC Causeway	20	
2	60A0013R	Banki-Matela-Bahankot-Kalikot RR	Causeway	30	

CHAPTER VII: FIRST FIVE-YEAR DISTRICT TRANSPORT MASTER PLAN (DTMP)

7.0 First Five-Year District Transport Master Plan

The first five-year District Transport Master Plan(DTMP) is prepared based on projected financial plan and prioritized transport linkages to indicate the year-wise target various categories of interventions is prepared and main trail (bridge only) for new construction.

7.1 Five Year Projected Financial Plan

The first five-year projected financial plan is prepared by considering all possible funding sources mainly DDC development grant, VDC's allocation, DDC's own resources, DoLIDAR support, GON's grant and support from other donor agencies. This project is based on existing trend of funding.

Table 7.1 Possible Funding (Roads) for coming five years Budget (in Thousand NRs.)

Source of Budget	Fiscal Year				
	067/68	068/69	069/70	070/71	071/072
DDC Internal Budget (33% of DDC Internal sources and 10% increment	2,100	2,310	2,541	2,795	3,075
Local Development Construction of Agriculture road	24,250	26,675	29,343	32,277	35,504
Road Maintenance Fund	5,000	5,500	6,050	6,655	7,321
Fund of Members of Parliaments (25% of total fund)	500	550	605	666	732
RRRSDP	60,000	66,000	72,600	79,860	87,846
LGCDP	4,000	4,400	4,840	5,324	5,856
VDC * (60% of T. Budget)	30,000	33,000	36,300	39,930	43,923
Sub- Total	125,850	138,435	152,279	167,507	184,257
People Participation (20%)	25,170	27,687	30,456	33,501	36,851
Total	151,020	166,122	182,735	201,008	221,108
Grand Total	921,994				

Table 7.2 Projected financial plan for trail bridges (InThousand NRs.)

Year	Projected Financial Plan for Trail Bridges		
	Routine Maintenance	Major Maintenance	New Construction Bridges
067/68	171,000	800,000	11,156,250
068/69	171,000	800,000	11,156,250
069/70	171,000	800,000	11,156,250
070/71	171,000	800,000	11,156,250
071/72	544,307	2,546,464	35,511,230
Total	1,228,306.58	5,746,463.54	80,136,229.9
Grand Total	87,111,000.00		

7.2 Sharing of Budget

The annual budget available for the development of transportation sector in this district will be shared for various intervention new construction, maintenance and rehabilitation and further divided into district road and village/agriculture road. As per local situation of the district, the sharing of fund will be done as per chart given below.

Sharing of Budget

		<div>Total Annual Budget (Road) (NRs.'000)</div> <div>921,994</div> <div>(100%)</div>			
New Construction		Rehabilitation/Upgrading		Maintenance	
25		55		20	
%		%		%	
230,498		507,096		184,399	
↓		↓		↓	
District Road A	District Road B	District Road A	District Road B	District Road A	District Road B
60	40	79.5	21.5	65	35
%	%	%	%	%	%
138,299	92,,199	403,142	109,026	119,859	64,540

7.3 Year- Wise Sharing Of Budget

Table 7.3: Year- Wise Sharing Of Budget for roads

S.N.	Fiscal Year	Total Budget (NRs.)	Total Budget (NRs. in '000) & Percentage for New, Rehabilitation & Maintenance						Total %
			New Construction		Rehabilitation/Upgrading		Maintenance		
			Amount	%	Amount	%	Amount	%	
1	067/68	151,020	37,755	25	83,061	55	30,204	20	100
2	068/69	166,122	41,531	25	91,367	55	33,224	20	100
3	069/70	182,735	45,684	25	100,504	55	36,547	20	100
4	070/71	201,008	50,252	25	110,555	55	40,202	20	100
5	071/72	221,108	55,277	25	121,610	55	44,222	20	100
	Total	921,994	230,498		507,096		184,399		100

7.4 Year-wise Targets

Table 7.4: Year-wise Targets

Year-Wise Target						
Fiscal Year	Road Category					
	District Road A Km			District Road B Km		
	New Construction	Rehabilitation/Upgrading	Maintenance	New Construction	Rehabilitation/Upgrading	Maintenance
067/68	11	19	49	8	6	30
068/69	12	21	54	8	7	33
069/70	14	23	59	9	7	37
070/71	15	25	65	10	8	40
071/72	17	28	72	11	9	44
Total (km)/no	69	115	300	46	36	184
Grand Total (km)/no	484			267		

Table 7.5: Year-wise Targets for Trail Bridges

Year	Year-Wise Target		
	Routine Maintenance	Major Maintenance	New Construction Bridges
	Number of Bridges	Number of Bridges	Number of Bridges
067/68	57	1	7
068/69	65	1	8
069/70	73	1	8
070/71	81	1	8
071/72	136	3	22
Total	412	7	53

According to the projected financial plan, year-wise physical targets are set as follows

Table 7.6: Year-wise physical targets for new construction

S.N.	Class of Transport Linkage	New Construction Budget ' 000											
		2067/68		2068/69		2069/70		2070/71		2071/72		Total	
		Budget	km	Budget	km	Budget NRs. '000	km	Budget	km	Budget	km	Budget	km
1	District A Road	22653	11	24918	12	27410	14	27410	15	33166	17	135558	69
2	District road B	15102	8	16612	8	18273	9	20101	10	22111	11	92199	46

Table 7.7: Year-wise physical targets for Rehabilitation/Upgrading

S.N.	Class of Transport Linkage	Upgrading Budget ' 000										Total	
		2067/68		2068/69		2069/70		2070/71		2071/72		Total	
		Budget	km	Budget	km	Budget	km	Budget	km	Budget	km	Budget	km
1	District A Road	66033	19	72637	21	79901	23	87891	25	96680	28	403142	115
2	District Road B	17858	6	19644	7	21608	7	23769	8	26146	9	109026	36

7.5 Prioritized Transportation Linkages for the First Five Year Plan (DTMP)

7.5.1 Prioritized District Roads A for the First Five Year Plan (DTMP)

Table 7.8: Prioritized District Road ‘A’ for New Linkage

S · N ·	Code	Name of Road	Total Length (km)	Targeted Length of Road for Upgrading to BT km	2067/68		2068/69		2069/70		2070/71		2071/72		Total		Source of Funding
					Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	
1	73A001R	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	30.00	39928	11	24000	12	14000	7					3741600	30	RRR SDP
2	73A007R	Aaita-Niglad-Achalsain - Katal Rural Road	32.97	20.00					13234	3	35290	8	39702	9	88226	20	RRR SDP
3	73A006R	Ugratara-Melauli	47.00	10.00					9574	4	9574	4	4787	2	23936	10	DDC/ VDC/ LGC DP/M oLP
4	73A008R	Jogbuda-Shirsh Rupal Rural Road	29.70	9.00							11960	3	23919	6.00	35879	9	DDC/ VDC/ LGC DP/M oLP
Required Budget and targeted length (km)			172.03	69	39927.82	11	24000.00	12	36808.32	14	56824.33	15	68407.97	17	3889640.62	69	
Total likely available Budget and targeted length (km)				69	22653.00	11	24918.30	12	27410.22	14	27410.22	15	33166.26	17	135558.00	69	

Table 7.9: Prioritized District Road 'A' for Upgrading

S.N.	Code	Name of Road	Total Length (km)	Targeted Length of Road for Upgrading to BT km	2067/68		2068/69		2069/70		2070/71		2071/72		Total		Source of Funding
					Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	
1	73A004R	Buder-Jogbuda - Gaibandhe District Road	37.00	37	38143	10	38143	10	30514	8					106800	28	DDC/VDC/LG CDP/MoLP
2	73A001R	Bagbajar-Bagarkot-Rupal District Road	62.36	28	35514	9	43405	11	39459	10	27622	7			146000	37	DDC/VDC/LG CDP/MoLP
3	73A002R	Pokhara -Belapur District Road	32.00	18					15000	5	27000	9	12000	4	54000	18	DDC/VDC/LG CDP/MoLP
4	73A003R	Bhatkanda-Rel District Road	15.01	7							16500	6	15000	5	31500	11	DDC/VDC/LG CDP/MoLP
5	73A005R	Gaibandhe-Lipna District Road	10.50	10.50							10918	3	43670	12	54588	15	DDC/VDC/LG CDP/MoLP
6	73A006R	Ugaratara -Meilauli District Road	52.40	15.00									19500	6.50	19500	6.5	DDC/VDC/LG CDP/MoLP
Required Budget and targeted length (km)			209.27	115	73656	19	81548	21	84974	23	82039	25	90170	28	412388	115	DDC/VDC/LG CDP/MoLP
Total likely available Budget and targeted length (km)				115	66033	19	72636.84	21	79901	23	87891	25	96680	28	403142	115	

7.5.2 Prioritization of District Road (B) for First Five-Year Plan

Table 7.10: Prioritized District Road (B) for New Construction

Code	Name of Road	Total Length (km)	Targeted Length of Road for Upgrading to BT km	2067/68		2068/69		2069/70		2070/71		2071/72		Total		Source of Funding
				Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	
73A004R	Buder-Jogbuda - Gaibandhe District Road	37.00	37	38143	10	38143	10	30514	8					106800	28	DDC/VDC/LGCDP/MoLP
73A001R	Bagbajar-Bagarkot-Rupal District Road	62.36	28	35514	9	43405	11	39459	10	27622	7			146000	37	DDC/VDC/LGCDP/MoLP
73A002R	Pokhara -Belapur District Road	32.00	18					15000	5	27000	9	12000	4	54000	18	DDC/VDC/LGCDP/MoLP
73A003R	Bhatkanda-Rel District Road	15.01	7							16500	6	15000	5	31500	11	DDC/VDC/LGCDP/MoLP
73A005R	Gaibandhe-Lipna District Road	10.50	10.50							10918	3	43670	12	54588	15	DDC/VDC/LGCDP/MoLP
73A006R	Ugaratara -Meilauli District Road	52.40	15.00									19500	6.50	19500	6.5	DDC/VDC/LGCDP/MoLP
Required Budget and targeted length (km)		209.27	115	73656	19	81548	21	84974	23	82039	25	90170	28	412388	115	DDC/VDC/LGCDP/MoLP
Total likely available Budget and targeted length (km)			115	66033	19	72636.84	21	79901	23	87891	25	96680	28	403142	115	

Table 7.11: Prioritized District Road (B) for Upgrading

Code	Name of Road	Total Length (km)	Targeted Length of Road for Upgrading to BT km	2067/68		2068/69		2069/70		2070/71		2071/72		Total		Source of Funding
				Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	
73B006R	Jogbuda - Shirsh-Parigaun Rural Road	16.000	16.000	9667	3.00	4833	1.50							14500	4.50	DDC/VD C/LGCD P/MoLP
73B005R	Sakayal-Kailpalmandu Rural Road	7.500	4.500	10000	3	8333	2.5	6667	2					25000	7.50	DDC/VD C/LGCD P/MoLP
73B002R	Puntura-Simkhet-Tatapani - Sadani Rural Road	8.300	7.500			9000	3	3000	1.00					12000	4.00	DDC/VD C/LGCD P/MoLP
73B007R	Gaibadhe-Kurmule-Saleta Rural Road	5.500	4.000					25125	4.00	50250	8.00	25125	4	100500	16.00	DDC/VD C/LGCD P/MoLP
73B011R	Gaira-Gangkhet-Niglad Rural Road	34.785	4.000									77500	4	77500	4.00	DDC/VD C/LGCD P/MoLP
Required Budget and targeted length (km)		72.085	36	19666.67	6	22166.67	7.0	34792	7	50250	8	102625	8	229500.00	36	DDC/VD C/LGCD P/MoLP
Total likely available Budget and targeted length (km)			36	17858.12	6	19643.93	7	21608.39	7	23769.24	8	26146.07	9	109025.74	36	

7.6: Prioritized list of Trail Bridge for First Five-Year Plan (DTMP)

Table 7.12: Prioritized numbers of Trail Bridges for New Construction for Five years (DTMP)

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
1	73501018062	Jogbudha	Aalital	Panturakhola	Sisham Jala	10.6	0.5	Suspended	70
2	73501118063	Jogbudha	Jogbudha	Lamigada Lhola	Shadani	2.6	0.5	Suspended	110
3	73501118061	Serse	Jogbudha	Rangu khola	Kainpani	11	0	Suspension	210
4	73501118065	Jogbudha	Jogbudha	Patali khola	Masanijhal	6.5	0	Suspended	70
5	73501118062	Jogbudha	Jogbudha	Shadani Khola	Chandani Ghat	6.6	0.5	Suspended	650
6	73501818061	Aajayamaru	Bhadrapur	Godi khet	Godi khet	10	0.5	Suspended	38
7	73501518061	Bagarkot	Bagarkot	Chulla gad	Gadi khet	11.41	0.5	Suspended	85
8	73501018063	Aalital	Aalital	Koirali khola	Janata	3.25	0.5	Suspended	75
9	73300118061	Amargadhi Municipality	Kotaeli	Tiladi Gad	Gadi khet	4	0.25	Suspended	85
10	735012180614	Serse	Serse	Kirod Khola	Kirod Khola	6	1	Suspended	95
11	73501418065	Udayadev	Bhageshor	Sumaya Gad	Anchalkhola	8	1.5	Suspended	135
12	73501118067	Jogbudha	Jogbudha	Palgadi Khola	Suwakhan	4	1	Truss	24
13	73501618061	Serse	Serse	Kalend khola	Samaiji Ghat	4.95	0.5	Suspended	95
14	73501018068	Jogbudha	Aalital	Bhalu khola	Bhatteni	5.32	0.5	Suspended	150
15	73501618061	Dewaldebhyapur	Barakot	Shera Gad	Shera Khet	3	0.25	Suspended	36
16	73501018066	Chepur	Chepur	Huragad	Latamandau	13	5	Suspended	55
17	73501018066	Aalital	Aalital	Rangun	Mori Bhumana	3	0	Suspended	155
18	735014180610	Bageshwor	Bageshwor	Panturakhola	Ghan Ghat	8	1.5	Suspended	110
19	73501018065	Gankhet	Aalital	Rangim	Ghankhet	5	0.5	Suspended	110
20	735010180610	Aalital	Jogbudha	Panturakhola	Sangurchaugada	4.5	0.75	Suspended	105
21	735011180610	Serse	Jogbudha	Rangun	Simla Khet	4.75	0.25	Suspended	900

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
22	73501018064	Aalital	Aalital	Sunkhola	Godam	2.3	0	Suspended	260
23	73502018061	Aajayamaru	Samaiji	Chorkhet Gad	Chorkhet	3.51	0.25	Suspended	100
24	735012180615	Champhawat	Serese	Mahakali	Prarsuram Ghat	4	0.5	Suspension	250
25	73501918062	Ajayamaru	Ajayamaru	Betal khola	Ghatte Gad	7	0.5	Suspended	50
26	73501118066	Jogbudha	Jogbudha	Dhikko khola	Dhakani Gad	4.8	0.5	Suspended	60
27	735013180612	Rupal	Rupal	Rudrawati	latachach	13	2	Suspended	60
28	73501318065	Rupal	Rupal	Rudrawati	Gaurighat (Latadeu)	11.5	1.5	Suspended	65
29	73501718061	Dewaldebhyapur	Chepur	Huragad	Dobilla	5	0.5	Suspended	85
30	735012180613	Serese	Serese	Doli khola	Dolighatchaud	13.2	1	Suspended	68
31	73501018061	Aalital	Aalital	Junge khola	Seurad	3.21	0	Suspended	95
32	73501318061	Rupal	Rupal	Rupali Gad	Chalse	10	2	Suspended	75
33	73501018069	Aalital	Aalital	Ghimada khola	Chaupata Ghat	3.68	0	Suspended	110
34	73501218012	Serese	Serese	Tallo Sirsa khola	Ghadjala Ghat	22	1	Suspended	120
35	73501218063	Serese	Serese	Matel khola	Matela Khola	16.21	1	Suspended	45
36	73501218062	Serese	Serese	Kalena khola	Khola Ghat	1.9	0.5	Suspended	75
37	735012180611	Serese	Serese	Ghari Khola	Gharikhasarebata	9.68	1	Suspended	60
38	735012180610	Serese	Serese	Niglad khola	Betatlchhida	14	1	Suspended	65
39	73501318068	Rupal	Rupal	Sinnym khola	Thulakhet (Cinnayam)	3.43	3	Suspended	65
40	73500218062	Manilek	Manilek	Bedupani Khola	Bedpani	2.4	0.1	Suspended	105
41	73500318064	Belapur	Belapur	Simal Gad	Simla ghat	2	2	Suspended	55
42	735013180610	Rupal	Rupal	Rudrawati	Koteuda	12.86	2	Suspended	70
43	73501018067	Aalital	Aalital	Sunkhola	Sunkhola	1.33	0.25	Suspended	80
44	73501618063	Dewaldebhyapur	Bhageshor	Dubar Ghat	Lamagada	1.7	0.5	Suspended	70
45	73501218064	Serese	Serese	Sirsha Khola	Kalpate Than	3.61	0.5	Suspended	86

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
46	7.35012E+11	Serse	Serse	Kalena Khola	Saudob	1.4	1	Suspended	65
47	73501418064	Dewaldebhyapur	Bageshwor	Thuligad	Khilabharad	1.78	1	Suspended	115
48	73500118061	Kotaeli	Kotaeli	Manasuta khola	Mansuta	1.97	0	Truss	28
49	73500518061	Mastamandu	Belapur	Sakail khola	Sakail Ara	1.11	0.25	Suspended	70
50	73500318063	Belapur	Belapur	Dornekhola	Chalkatta	1.1	1	Suspended	42
51	73500418061	Mastamandu	Nawadurga	Sakayal khola	Sakayal	1.71	0	Suspended	110
52	73500618062	Kailpalmandu	Kailpalmandu	Rumail khola	Ghatte Gad	2	0.25	Suspended	35
53	73502018062	Aajayamaru	Samaiji	Dogad	Dogad	3	1	Suspended	50

Table 7.13: Prioritized numbers of Trail Bridges for Major Maintenance for Five years (DTMP)

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Bridge	
		Right Bank	Left Bank			Type	Span
1	73501518062	Bagarkot	Bagarkot	Thuli gad	Khulla khet	Suspension	38
2	73501418061	Dewaldebhyapur	Bhageshor	Doteli khola	Kakadi Ghat	Suspended	82
3	73501418063	Bishapur	Bhageshor	Surnaya Gad	Radil	Suspended	55
4	73500618063	Jijodamdaun	Kailpanlmandu	Relgad Khola	Relgad	Suspended	60
5	73500218062	Ganeshpur	Manilek	Lamakheta Gad	Khadkhola	Suspended	32
6	73500478062	Mastamandu	Nawadurag	Sakayal khola	Damarkot	Suspension	24
7	73500718061	Ganeshpur	Amargdhi Municipality	Ruwakhola	Lamikhet	Suspended	46

7.7: Recommendation

7.7.1 Adherence of DTMP

The main issue of the district is difficult geographical situation requiring huge financial resources for its sustainable infrastructure development. Rational planning and proper implementation are two sides of coin; negligence in one part will make other meaningless. DDC should stop current practice of ad-hoc decision making on investing in roads with short-term consideration.

It is strongly recommended that following approval from the District Council, DDC shall strictly use and require other district level institutions to use the DTMP in particular the Perspective Plan of District Road Network, in deciding the sub-projects to be undertaken for development even beyond the five-year period. Strong commitment from all stakeholders is necessary for its implementation. It is also suggested that the DTMP shall be revised at the end of the fifth year after evaluating previous planning. DDC should proceed with required changes in the DTMP if the district development potentials change significantly.

7.7.2 Construction Approach

It is recommended to adopt Labour based Environmental friendly and Participatory (LEP) approach popularly known as Green Roads construction method. Green Road approach aims at reducing scarring by minimizing the amount of cut necessary and by balancing the amount of material cut with the amount of fill required. Fill material is disposed of in layers “tipping areas”, adjacent to the roads on the valley side and where necessary dry stone retaining walls are used to retain this on the road as well as in the tipping areas. Gabion structures are used for retaining structures over 3 meters high. Fill material is further protected by bamboo terracing and re-vegetation programs. In areas where large cut are unavoidable and it is uneconomical to transport the earth for long distance, surplus material is disposed of over the valley side. However, dry stone check dams or breast walls are built at intervals down the slope to retain this material.

Following are the main aspects of LEP/Green Roads Approach.

Labour based:

Labour is one of Nepal's largest resources and it is also one of the country's most under utilized resource especially in the agricultural slack period of October to May. During this period, underemployment is a problem in most districts when farmers need to supplement their agricultural income with off-farm work. The creation of short and medium-term employment is one of the major aims of the LEP approach.

Labour is employed from within a one to two hour walk from a construction site. They bring their own food and do not require accommodation, so the complications arising out of encampment are avoided. Some 65% to 90% of the construction cost is paid in wages, so the major part of the investment remains in the district and has a trickle down beneficial effect on the whole community. Local labourers learn skills that they can apply on their farms, use of future employment and which are beneficial for later road maintenance work. Labour is organized into group of 15 to 20 persons each with a group leader.

Environmental friendly:

A phased construction method is an essential part of this construction approach. Machine and outside contract oriented construction activities are not allowed in this method. The use of explosives is usually prohibited and rock splitter is used for breaking hard rocks. The improper use of explosives for blasting can destabilize mountain slopes and lead to environmental damage.

Due to very steep slopes, inherently unstable geology and harsh monsoon climate, standard engineering practices are not always the optimum solution for protecting roadside slopes in Nepal. Bio-engineering with vegetation can play an important role in stabilizing the surface layers of any slope. Vegetation with wide spreading root systems binds soil together and increases its sheer strength and limits the extent of slope failure.

Participatory Approach:

All stakeholders in the district and local people are involved in the process of planning, implementation, monitoring and evaluation and maintenance and operation of district/rural roads. LEP approach can only succeed if the local government and the people of the district feel a collective responsibility of the construction and maintenance of the district and village roads. The people will only assume this responsibility if they are the main benefactors of the program, both in terms of income earned during the construction phase and user benefit during the operation phase. Locally based and elected officials and organization is the best vehicle to represent the interests of local people and this is reflected in the User Committees constituted using LEP approach.

Annex: 1.1

Matrix of Present Centrality Index of Market Center of Dadeldhura District)

S.N.	Name of Market centre	Population, 2009*	EDUCATION			HEALTH		BUSINESS & COMMERCE							INDUSTRY						OFFICES								Centrality Index	Ranking	
			Campus (no)	High School (no.)	Primary School (no.)	Hospital (no.)	Health Post (no.)	Hotels & Lodges (no.)	Restaurants & Tea Stalls (no.)	Grocery Shops (no.)	Hardware Shop (no)	Medical Shop (no)	Clothes/readymade shop (no)	Household goods	Stationery	Rice & flour Mills (no.)	Water mill (no)	Forest Best Industry (no)	Handicraft (no)	Mechanical/Fabrication (no)	Agro-based (no)	Bank (no.)	Agriculture Service centre no	Veterinary office (no)	Post office (no)	Telephone office (no)	Electricity office (no)	Cooperatives office (no)			NGO (no)
1	Dadeldhura	16867	5		3	2		12	204	294	25	12	208	13	20	2		2	5	3	4	9	1	1	1	2	1	4	216	1373	1
2	Jogbudha	13359	1	1	10	1		5	10	35	8	6	20	4	3	1		4		1	1	1	1	1		1	1	5	173	2	
3	Katal	9916	1	1	4			1	20	12	2	1	7		4	3		3		2							3	3	88	3	
4	Godam	8308	1	1	9		2	5	6	18	1	5	8		2	2				1	1			1			1	4	4	82	4
5	Bagarkot	6187	1		3		1	6	8	18	1	1	6	1	1	1		1		1				1			1	3	70	6	
6	Pokhara	5337	1	1	1	1	1	3	12	3	1	2	5	2	3	2			1	1		1	1	1			1	3	62	7	
7	Bhatkanda	5061		1				8	16	7			2		1	1											1			45	10
8	Gaibande	4402	1		8		1	2	7	12		2	6		2		1	1						1		1	1	2	61	8	
9	Shandhani	3596	1	1	15		1	3	12	10		2	4		2			1						1		1	1	3	73	5	
10	Belapur	4804		1			1	2	7			1	1		2					1				1				1	22	27	
11	Parcheta	4704						4	1	5	4		1																23	25	
12	Gharelu	3763	1	1	8				5	11		2	3		1	1				1							1	2	45	9	
13	Chamada	4091	1				1	2	8			2	3	1	2	1						1	1	1			1	1	32	15	
14	Rupal	3730	1		3		1	2	5	6		1	6		1	6								1				2	42	11	
15	Palankhet	4027		1			1	2	8	3		1	1		2	1				1			1	1				1	29	18	
16	Badal	4022	1	1	0	0	1	1	7	3	0	1	1	0	1	1	0	0	0	0	0	1	1	1	0	0	1	0	27	22	
17	Koteli	3587	1		2		1	2	9	2		1	1		2	2				2				1			2	4	39	12	
18	Bageswor	3917	1				1	2	4	6			4			1						1	1					1	27	20	
19	Sakayal	3072		1	3		1	1	4	5		1	3		1	1								1			1		28	19	
20	Chipur	3241	1				1	2	3			1	1		2	1				1		1	1	1			1	1	22	26	
21	Unikot	3063		1	4		1		2	5			1		1		4						1	1			1		26	24	
22	Parigaun	2989	1		3		1	1	4	9		1	1			1													27	23	
23	Dawal/Pujarigaun	2426	1					3	2	11		2	3		2	2				1				1				2	37	13	
24	Anarkholi	2519						3	7	4	1	1	4	1	2					1				1					32	16	
25	Dandaban	2593		1			1	2	3	2		1	1		1	1						1	1	1					19	29	
26	Puilekh	2483		1			1		7			1			1	1											2	1	18	30	
27	Bhadrapur	2421		1			1	1	4			1	1		1	1				1				1					16	32	
28	Sallaghari	1821			1			1	5				1		1	1									1				13	34	
29	Thanta	1610						2	7	2		1	2		2	1								1					22	28	
30	Chama	1498	1		1			1	5			1	1		1		1										1		16	33	
31	Shirsha	1832		1	8				4				2	5	1	2												1	30	17	
32	Kaipalmandu	2677		1	1		1	4		3		1	2	5		1								1			1		27	21	
33	Kurmule	2160	1		4		1	1		7	1	1	5		1	1								1			2		32	14	
34	Lamikande	1550		1	1		1	2		5			1		1	1								1					17	31	
	Total Functions		23.0	18.0	92.0	4.0	23.0	86.0	406.0	498.0	44.0	53.0	316.0	32.0	67.0	40.0	6.0	12.0	5.0	5.0	19.0	10.0	8.0	10.0	25.0	2.0	4.0	28.0	256.0		
	Median Population		3840	3680	3592	4007	3592	3663	3730	3747	7248	3596	3596	4714	3592	3587	3063	8051	16866.9	13359	4415	15113	4,056	4024	3587	16867	8880	3892	4027		
	Weight		1.25	1.20	1.17	1.31	1.17	1.20	1.22	1.22	2.37	1.17	1.17	1.54	1.17	1.17	1.00	2.63	5.51	4.36	1.44	4.93	1.32	1.31	1.17	5.51	2.90	1.27	1.31		

@ Population based on the population census

* Population growth rate assumed to be 1.8 during the period of 2001-

Annex: 1.2
Development Potential Area of Dadeldhura District
For Agriculture-Fruits

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Alital	Seribhawar, Godam, Hamtad, Dola, Bhairisain	Banana, Mango, Litchi, Gauva
2	Jogbudha	Naula, Jogbudha, Kurmule, Tatapani	Banana, Mango, Litchi, Gauva
3	Bagarkot	Bagarkot, Sirad, Chull, Lakam	Citrus Sps., Peach, Plum
4	Bhadrapur	Naulakot	Wallnut, Peach, Plum
5	Ajayameru	Rolli, Hat, Jijoda	Wallnut, Peach, Plum, Citrus Sps.
6	Belapur	Khadaute, Belapur, Kakadpani, Kathal, Thali, Ukali, Dola, Suku	Citrus Sps., Wallnut
7	Amargadhi	Selagau, Jhunkali, Suneuda, Bhaliya, jiloda, Pokhara, Ghatal	Citrus Sps. Peach, Plum
8	Ganeshpur	Badalgau, Maligau	Citrus Sps. Peach, Plum
9	Samaiji	Siling, Pali, Mudrad	Wallnut, Peach, Plum, Citrus Sps.
10	Kailpalmandu	Jaisera, Okhalbata, Kapadigaun, Ganeda, Rel, Runrail	Citrus Sps., Peach, Plum, Gauva
11	Nawadurga	Dandaban	Mango, Gauva, Banana

Annex: 1.3

Development Potential Area of Dadeldhura District

Agriculture-Fresh Vegetable/Vegetable seeds

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Alital	Dwali, Godam	Fresh Vegetable
2	Jogbudha	Attarchauki, Jogbudha, Bhitrisal, Gaibadhe	Garlik, Onion, Ginger
3	Shirsa	Katal, Salon, Shirsa	Ginger, Fresh Vegetable
4	Rupal	Saunegad, Seltuda	Chilly, Ginger
5	Bhageswor	Bogata, Baniya, Betaldeu	Fresh Vegetable
6	Bagarkot	Lakam, Bagarkot, Aidungra, Ekthara, Dhadani, Ghoradi, Golai	Vegetable
7	Ajayameru	Chamada, Deuli, Hat, Rolli	Ginger, Garlik
8	Koteli	Dungra, Koteli, Nintola, Setigau	Vegetable, Ginger
9	Manilekh	Bedpani, Bakal, Bungra	Vegetable, Ginger
10	Navadurga	Bedpani, Matela	Vegetable, Ginger, Garlik
11	Ganeshpur	Arkhattegau, Chamdalgau	Ginger
12	Amargadhi	Dola, Monana, Ghatal, Rajeuda, Suneuda, Koteuda, Sallagaun, Rawalgaun	Potato, Fresh Vegetable
13	Asigram	Bhatkanda, Matkatte, Bheta, Bhulana	Fresh Vegetable, Potato/seeds
14	Gankhet	Katunthala, Gankhet	Patato, Radish/seeds, Fresh Vegetable
15	Samaiji	Anarkholi	Fresh Vegetable, Potato, Ginger, Garlik
16	Mastamandu	Seltada, Sakayal	Fresh Vegetable

Annex: 1.4
Development Potential Area of Dadeldhura District
Agriculture-Commercial crops

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Jogbudha	Malas, Bhitrisal, Gaibadhe	Sugarcane, Oilseed
2	Rupal	Saunegad, Seltuda, Liud	Oilseed, Sugarcane
3	Chipur	Chipur, Bajghar, Dhori, Chauri, Sera, Pasela, Bhulkuda	Soyabean, Sugarcane
4	Ajayameru	Titali, Silangae, Dungari, Basana	Soyabean
		Titali, Basana, Rolli	Honey
5	Koteli	Koteli, Sunkot, Airbada, Arsurpa	Soyabean
6	Manilekh	Dhileli, Bakal, Bungra	Soyabean
7	Ganeshpur	Badal, Runtola, Koregaun, Maligaun, Ritha, Chamsal	Honey
8	Amargadhi	Dolaghatal, Damada, Koteuda, Damada	Soyabean
		Damada, Aita	Honey
9	Asigram	Bhatkanda	Honey
10	Gankhet	Gankhet	Honey
11	Samaiji	Bajkot, Khateda, Pali	Soyabean
12	Alital	Gharelu, Sail, Tileta, Dola	Honey
13	Shirsa	Katal, Bahadhune, Kalina	Oilseed
14	Bhadrapur	Belapur, Mamme, Siraud	Soyabean
15	Belapur	Chama, Chaud	Soyabean
16	Kailpalmandu	Kuledi, Rumayal	Soyabean

Annex: 1.5
Development Potential Area of Dadeldhura District
For Livestock

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Alital	Seribhawar, Gharelu, Balaucha	Goat
2	Jogbudha	Jogbudha, Japhati, Gaibadhe, Naula	Buffalo, Cow, Goat, Poultry
3	Bagarkot	Pujarigaun, Pokhari, Bagarkot	Buffalo, Cow
4	Amargadhi	Malam, Pokhara, Aita, Maurada	Buffalo, Cow, Poultry, Pig
5	Asigram	Bhatkanda, Duwakhola, Sahukarka	Buffalo, Cow, Goat, Pig
6	Gankhet	Pipalgau	Buffalo, Cow, Goat
7	Chipur	Dhari, Mad, Chauri, Pasela	Goat
8	Samaiji	Silangi, Khateda, Bagkhor, Mudurad	Buffalo, Cow, Poultry, Goat
9	Ganeshpur	Mailodagau, Jaikot	Goat
10	Shirsa	Kole Katal	Goat
11	Mastamandu	Cholera	Buffalo
12	Kailpalmandu	Rumayalkhaka, Jaisera, Rel	Cow, Poultry, Goat
13	Rupal	Rupaligadgau	Goat

Annex: 1.6
Development Potential Area of Dadeldhura District
For Tourism/Religious/Historical Places

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Alital	Ali Lake	Tourism
2	Shirsa	Parigau, Badalake	Temple, Lake
3	Dewaldivyapur	Dewal	Dageswori Temple
4	Belapur	Gill	Seti Hydropower Project Site
5	Amargadhi	Amargadhi, Ghatal, Ugratara	Fort, Temple
6	Gankhet	Kumgad & Jaishina Water Falls	Water Falls
7	Rupal	Bhageswori, Sail Water Falls	Bhageswori temple, Water Falls
8	Ajayameru	Ajayamerukot, Betalkhola	Historical Place
9	Jogbudha	Chure Hill	Jilmila Lake, Chure Hill
10	Chipur	Jagannath Dham	Jagannath Temple
11	Ganeshpur	Ganyapdhura	Ganyap Temple

Annex: 1.7

Development Potential Area of Dadeldhura District

For Cottage/Agro/Forest Based Industries

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Alital	Gharelu, Godam	Furniture
2	Jogbudha	Jogbudha, Kurmule	Furniture, food processing, ricemill, cotton processing
3	Bagarkot	Bagarkot, Sirad	Juice making
4	Nawadurga	Dandaban	Ricemills
5	Amargadhi	Dadeldhura, Pokhara	Bamboo, furniture, food processing, traditional pot making, leather
6	Belapur	Belapur, Chama	Bamboo
7	Samaiji	Puilekh, Anarkholi	Hand paper
8	Asigram	Bhatkanda	Leather
9	Mastamandu	Sakayal	Ricemills
10	Gankhet	Gankhet, Kanedi	Hand paper, traditional furniture
11	Shirsa	Shirsa, Katal	Woodcarving

Annex: 1.8
Development Potential Area of Dadeldhura District
For Mines

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Rupal		Slate
2	Bhageswor	Madi	Zinc/Tongestone
3	Ajayameru		Slate
4	Samaiji		Slate
5	Belapur		Slate
6	Ganeshpur	Melaure Baman	Copper
7	Bagarkot		Slate
8	Dewaldivyapur		Slate
9	Nawadurga		Slate

Annex: 1.9
Development Potential Area of Dadeldhura
District

Micro Hydropower

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Jogbudha	Gairigau	6 Kw
2		Sankhola	4 Kw
3		Selakhola	12 Kw
4	Shirsa	Sirsagad	22 Kw
5		Makail	10 Kw
6	Rupal	Dubid	100 Kw
7	Bagarkot	Annakhola	12 Kw
8	Belapur	Chalkatte	7 Kw
9		Chamagad	7 Kw
10	Kaipalmandu	Railgad	15 Kw
11	Asigram	Buwakhol	Under Study
12	Gankhet	Tuga-Rangun Khola	Under Study
13		Dahagad	25 Kw, Ongoing

Annex: 1.10

Development Potential Area of Dadeldhura District

For NTFP

S.N	Name of VDC	Name Area/Settlement	Singnificance
1	Shirsa	Saknyadi, Barma, Surkhal, Gogan	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
2	Dewaldivyapur	Degeswori, Dhudhapokhari, Satalipur	<i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
3	Bagarkot	Bheta, Chirkatya, Chulla	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
4	Bhadrapur	Mangau, Bheta, Bhulkuda, Dhamigau	Sapindus, Imbilica
5	Chipur	Markatte, Bhulkuda, Gwani	Sapindus, Imbilica
6	Ajayameru	Suneokhad, Khateda, Dungra, Dola	Lichen, <i>Allo</i> , Sapindus, Imbilica, Cinamomum
7	Samaiji	Goldi, Pokharadin	Lichen, <i>Allo</i> , Sapindus, Xanthoxylum, Asparagus,
8	Koteli	Palethar, Taliukli	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum
9	Belapur	Thanta, Talkot, Kathal	<i>Kaulo</i> , Sapindus, Imbilica, Artimesia
10	Kailpalmandu	Salkot, Relgau	Lichen, <i>kaulo</i> , Sapindus, Xanthoxylum, <i>Sugandhawala</i>
11	Amargadhi	Maduwa, Chirkatya, Gujalekh, Bhalumare	Lichen, <i>Allo</i> , Sapindus, Xanthoxylum, Asparagus,
12	Asigram	Bhatkanda, Ganyap, Jarmana, Kuyapani	Lichen, <i>Allo</i> , Sapindus, Xanthoxylum, Asparagus,
13	Gankhet	Chuda, Nigalikharka, Sisne	Lichen, <i>Kaulo</i> , <i>Allo</i> , Sapindus, <i>Pasanbed</i>
14	Alital	Matebhawar, Godam, Raksaun, Chaud	Lichen, <i>Kaulo</i> , Sapindus, Imbilica, Cinamomum, <i>Harro</i> ,
15	Rupal	Bhandarigau, Dunalekh, Mahabharat Lekh	Lichen, <i>Sugandhawala</i> , <i>Kaulo</i> , <i>Allo</i> , Sapindus, <i>Pasanbedh</i>

Annex 2.1

Composition of traffic and the respective traffic coefficients

S.N.	Type of traffic	Transport unit
1	Cars, light vans, jeeps and pick-ups	1
2	Light trucks up to 2.5 tones gross	1.5
3	Trucks up to 10 tones gross	3
4	Trucks up to 15 tones gross	4
5	4 W tractor towed trailer-standards	3
6	2 W tractor towed trailer-standards	1.5
7	Buses up to 40 passengers	3
8	Buses over 40 passengers	4
9	Bicycles	0.5
10	Rickshawa and tricycles carrying goods	1
11	Carts pulled/pushed by the human beings	2
12	Bullock carts with pneumatic tyre wheels	6
13	Bullock carts with wooden wheels tyre wheels	8
14	Mule carts or horse drawn carts	6
15	Packed animals and mules	2
16	Pedestrians walking on the link	0.2
17	Porters walking on the link	0.4

Annex 2.2
Average Daily Traffic Volume of Existing Road (District Road A) of Dadeldhura

S.N.	Name of the Road	Total Length of Road km	Length of Road for Updrading km	Pedestrian	Porter	Pack Animal/Mule	Bicycle	Rickshaw	Car/ Jeep/ Van	Motorcycle	Carts	Minibus	Bus	Tractor	Light Truck	Truck	Heavy Truck	Total Score (Traffic Unit)
1	Bagbajar-Bagarkot-Rupal District Road	42.360	28.000	200	30				10	20		2		5	5	3		99.5
2	Pokhara -Belapur District Road	32.000	18.000	145	50				2	4				2	2			60
3	Bhatkanda-Rel District Road	15.010	10.250	160	30		3		3	5				1	1			53
4	Buder-Jogbuda - Gaibandhe District Road	37.140	37.140	250	50		15		5	30			3	10	10	6		157.5
5	Gaibandhe-Lipna District Road	10.500	10.500	150	20				5	10					5			50.5
6	Ugaratara -Meilauli District Road	22.400	17.600	220	30				2	3					2			61
7	Anarkholi-Mungraun-Dewal Rural Road	3.500	1.500	80	20													24
8	Kritipur -Bhaliya-Ajaymarukot-Jagannath Rural Road	5.100	1.500	75	20					2								23
9	Bhatkanda-Parikhet Raduwa District Road	22.000	22.000	130	25	5			1	2				1	1			51.5

Annex 2.3

Average Daily Traffic Volume/Unit of Existing Road (District Road B) of Dadeldhura

[illegible]

Annex:2.4

List if Existing Road of District A of Dadeldhura

S.N.	Road code	Road name	Total length (km)	Total existing vehicle pliable length (km)	Road status (earthen/gravel/blacktopped/under construction)	Surface condition (good/fair/poor)	Serviceability (all weather/fair weather)	Settlements passed	VDCs & wards passed	Name of market centres	Required intervention(KM)		
											Upgrading	Under Construction	New
1	73A001R	Bagbajar-Bagarkot-Rupal District Road	65.000	28.000	Earthen	Poor	Seasonal	Bagbazar,Aaidunga,aaita, Bagarkot,Dungari,Parchhetta ,Bhageswor,daijila,Khal,mallo bogata	Amargadi Nagarpalika, Bagarkot,Bhageswor,Rupa l	Bagbazar, Bagarkot, Parcheta, Bhageswor, Bayalpata	28.000	14.360	20.000
2	73A002R	Pokhara -Belapur District Road	32.000	18.000	Earthen	Poor	Seasonal	Pokhara,Asurupa,koteli,Pana lakhet, Ghuptakhan,Belapur	Amargadi NP,Koteli,Manipur, Belapur,Nawadurga	Pokhara, Koteli, Panlakhet, Belapur	18.000	14.000	
3	73A003R	Bhatkanda-Rel District Road	40.000	10.250	Earthen	Poor	Seasonal	Bhatkanda,Ruwakhola	Amargadi Nagarpalika, Ashigram,Ganeshpur,Mast amandu,Kailpalmandu	Bhatkanda, Kailpalmandu	10.250	4.760	
4	73A004R	Buder-Jogbuda - Gaibandhe District Road	37.000	37.000	Earthen	Poor	Seasonal	Buder,Gharelu,Godam,Kalak ot, Mauri,Kainpani,Jogbuda,punt ara, Gaibandhe	Doti,Aalital,Jogbuda	Gharelu, Godam, Jogbudha, Gaibandhe	37.000	0.000	
5	73A005R	Gaibandhe-Lipna District Road	10.500	10.500	Earthen	Poor	Seasonal	Gaibandhe,Naula,Khanidada ,Lipna	Jogbuda,Kanchanpur	Gaibandhe	10.500	0.000	
6	73A006R	Ugaratara -Meilauli District Road	52.400	17.600	Earthen	Poor	Seasonal	Ugratara,Puilek,Samaiji,Chamada	Amargadi Nagarpalika, Samaiji,Ajayamaru,Bhadra	Pokhara, Puilekh, Chamada,	17.600	4.800	
7	73A007R	Aaita- Niglad- Salon Rural Road	34.780	6.170	Earthen	Poor	Fairweather	Aaita,Kanda,Chamsal,Ghatal than, Pathroad,Chirkitte	Amargadi Nagarpalika, Gangkhet		3.200	2.970	30.000
8	73A008R	Jogbuda-Shirsh Rupal Rural Road	30.000	6.700	Earthen	Poor	Fairweather	Jogbuda,Katal Sirsa,Aamtali, Dunalek,Rupal	Jogbuda,shirsa and Rupal	Katal, Shirsa	3.000	3.700	23.000
9	73A009R	Bhatkanda-Parikhet Raduwa District Road	22.000	22.000	Earthen	Poor	Seasonal	Bhatkada,Parikhet,Raduwa	Amargadi Nagarpalika, Asigram	Bhatkanda, Badal	22.000	0.000	

Annex:2.5

List if Existing Road of District B of Dadeldhura

S.N.	Road code	Road Name	Total Targeted Length (km)	Total Existing Length km	Length measured (vehicle pliable)	Road status (earthen/gravel/blacktopped/under construction)	Surface condition (good/fair/poor)	Serviceability (all weather/fair weather)	Settlements passed	VDCs & wards passed	Name of market centres	Required intervention(KM)		
												Upgrading	under construction	New
1	73B001 R	Anarkholi-Mungraun-Dewal Rural Road	3.500	1.500	1.500	Earthen	Poor	Fairweather	Anarkholi,Bajkot,Khateda,Mungraun	Samaiji,Ajayamaru,Bhadrapur,Chinur Dewal	Anarkholi, Dewal	1.500	2.000	
2	73B002R	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.300	8.300	7.500	Earthen	Poor	Fairweather	Puntara,simalkhet,Tatapani	Jogbuda	Jogbudha, Sadhani	7.500	0.800	
3	73B003R	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	4.500	2.000	Earthen	Poor	Fairweather	Bagarkot,Chulla,Sirad,Rupaligad	Bagarkot	Bagarkot, Bayalpata		2.500	25.000
4	73B004R	Bhajnipur -Chhachauda Rural Road	3.000	3.000	1.200	Earthen	Poor	Fairweather	Bhajanpur,Chhachauda	Amargadi NP		1.200	1.800	
5	73B005R	Sakayal-Kailpalmandu Rural Road	7.500	7.500	4.500	Earthen		Fairweather	Gauligaun,Kailpalmandu,Rumayal	Mastamandu,Kailpalmandu	Sakayal, Kailpalmandu	4.500	3.000	
6	73B006R	Jogbuda - Shirsh-Parigaun Rural Road	16.000	16.000	16.000	Earthen	Poor	Fairweather	Jogbuda,Aampani,Salun Katal, Rajauda,Parigaun	Jogbuda and Sirsa VDCs	Jogbudha, Katal, Parigaun	16.000	0.000	
7	73B007R	Gaibadhe-Kurmule-Saleta Rural Road	5.500	4.250	4.250	Earthen	Poor	Fairweather	Gaibandhe,Jajala,Kurmule, Saleta	Jogbuda VDC	Gaibandhe, Kurmule	4.250	1.250	
8	73B008R	Kritipur -Bhaliya-Ajaymarukot-Jagannath Rural Road	5.100	1.500	1.500	Earthen	Poor	Fairweather	Kritipur,Ajayamaru,Bhaliya	Amargadi Nagarpalika ,Ajayamaru,Bhadrapur,Chipur	Dadeldhura	1.500	3.600	
9	73B009R	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.250	5.250	0.000	Earthen	Track opened	Fairweather	Seltada,Dadaban,Matella, Matekanda,Sapalla	Nawadurga & Mastamandu	Dandaban	0.000	5.250	
10	73B010R	Gaibadhe-Jamrani Bramdev Rural Road	5.910		0.000	Earthen	Poor	Fairweather	Gaibandhe,Jamrani,sadani, machhitte,Bhramadev	Jogbuda,Kanchanpur	Gaibandhe, Shadhani	0.000	5.910	
11	73B11R	Gaira-Gangkhet -Niglad Rural Road	34.780	4.000	0.000	Earthen	Poor	Fairweather	Gair bazar,hartola,bantal,Gangkhet	Doti,Gangkhet VDC	Unikot	0.000	4.780	30.000
Total			118.840	54.300	36.950							34.950	28.890	55.000

[illegible]

Annex: 3.1.1

Cost Estimate of Proposed District Road A for Upgrading and Under construction of Dadeldhura District

S.N	Road name	Total GPS length	Length measured from GPS (vehicle pliable)	Length measured from GPS (under construction)	Required			Structures			Cost(Nrs.)					Average cost/Km	Upgrading Cost	cost/Km
					Upgrading (Gravel)	Under construction	Maintenance	Bridge No	Culvert No	Causeway No	Upgrading (Gravelling)	On-going work (incomplete)	Maintenance	Structures	Total cost			
Class A																		
1	Bagbajar-Bagarkot-Rupal District Road	42.36	28.00	14.36	28.000	14.360	28.000	1	4		84,000,000	28,720,000	24,500,000	22,800,000	160,020,000	3,777,620	106,800,000	3,814,286
2	Pokhara -Belapur District Road	32.00	18.00	14.00	18.000	14.000	18.000				54,000,000	28,000,000	15,750,000	-	97,750,000	3,054,688	54,000,000	3,000,000
3	Bhatkanda-Rel District Road	15.01	10.25	4.76	10.000	5.010	10.000	1			30,000,000	10,020,000	8,750,000	14,700,000	63,470,000	4,228,514	44,700,000	4,470,000
4	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	0.00	37.000	0.000	25.000			3	111,000,000	-	21,875,000	35,000,000	167,875,000	4,537,162	146,000,000	3,945,946
5	Gaibandhe-Lipna District Road	10.50	10.50	0.00	10.500	0.000	10.000				31,500,000	-	8,750,000	-	40,250,000	3,833,333	31,500,000	3,000,000
6	Ugaratara -Meilauli District Road	22.40	17.60	4.80	17.600		17.000		10		52,800,000	-	14,875,000	11,250,000	78,925,000	3,523,438	64,050,000	3,639,205
7	Aaita-Niglad-Salon Rural Rd	6.17	3.20	2.97	0.000	2.970	2.000		2		-	5,940,000	1,750,000	1,500,000	9,190,000	1,489,465	1,500,000	505,051
8	Jogbuda-Shirsh Rupal Rural Road	6.70	3.00	3.70	3.000	3.700	3.000				9,000,000	7,400,000	2,625,000	-	19,025,000	2,839,552	9,000,000	3,000,000
9	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	0.00	22.000	0.000	22.000				66,000,000	-	19,250,000	-	85,250,000	3,875,000	66,000,000	3,000,000
Total		194.14	149.55	44.59	146.100	40.040					438,300,000	80,080,000	118,125,000		721,755,000			3,552,777

Annex: 3.1.2

Cost Estimate of Proposed District Road 'B' for Upgrading and Under construction of Dadeldhura District

Cost Estimate of Proposed District Road - B for Upgrading and Under construction of Badelunura District																		
S.N	Road name	Total GPS length	Length measured from GPS (vehicle pliable)	Length measured from GPS (under construction)	Required intervention(KM)			Structures			Cost(Nrs.)					Average cost/Km	Upgrading Cost	cost/Km
					Upgrading (Gravel)	Under construction	Maintenance	Bridge No	Culvert No	Causeway No	Upgrading (Gravelling)	On-going work (incomplete)	Maintenance	Structures	Total cost			
Class B																		
1	Anarkholi-Mungraun-Dewal Rural Road	3.50	1.50	2.00		2.00	2.00				-	4,000,000	1,750,000	-	5,750,000	1,642,857	-	
2	Puntura-Simkhet-Tatapani - Sadani Rural Road	8.30	7.50	0.80	7.50	0.80	7.00	1			22,500,000	1,600,000	6,125,000	-	30,225,000	3,641,566	22,500,000	3,000,000
3	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	4.50	2.00	2.50		2.50	2.00				-	5,000,000	1,750,000	-	6,750,000	1,500,000	-	
4	Bhajnpur -Chhachauda Rural Road	3.00	1.20	1.80		1.80	2.00		1		-	3,600,000	1,750,000	1,125,000	6,475,000	2,158,333	1,125,000	
5	Sakayal-Kailpalmandu Rural Road	7.50	4.50	3.00	4.50	3.00	4.00				13,500,000	6,000,000	3,500,000	-	23,000,000	3,066,667	13,500,000	3,000,000
6	Jogbuda - Shirsh-Parigaun Rural Road	16.08	16.00	0.08	16.00		15.00	1			48,000,000	-	13,125,000	112,500,000	173,625,000	10,797,575	160,500,000	10,031,250
7	Gaibadhe-Kurmule-Saleta Rural Road	5.50	4.25	1.25	4.00	1.50	4.00	1			12,000,000	3,000,000	3,500,000	67,500,000	86,000,000	15,636,364	79,500,000	19,875,000
8	Kritipur -Bhaliya-Ajaymarukot-Jagannath Rural Road	5.10	1.50	3.60		3.60	2.00		1		-	7,200,000	1,750,000	1,125,000	10,075,000	1,975,490		
9	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.25	0.00	5.25		5.25	5.00				-	10,500,000	4,375,000	-	14,875,000	2,833,333	-	
10	Gaibadhe-Jamrani Bramdev Rural Road	5.91	0.00	5.91		5.91	4.00	1			-	11,820,000	3,500,000	36,000,000	51,320,000	8,683,587	36,000,000	
11	Gaira-Gangkhet-Niglad Rural Road	4.79	4.00	0.79	4.00	4.79	4.00				12,000,000	9,570,000	3,500,000	-	25,070,000	5,239,289	12,000,000	
Total		69.43	42.45	26.98							-	-	44,625,000	-	433,165,000			8,976,563

Annex: 3.1.3

Cost Estimate of Proposed District Road A and B for New Construction of Dadeldhura District

S.N	Class of Road	Name of Road	Tentative Length(Km)				Cost(Nrs.)			Total cost (Nrs.)	cost/km (Nrs.)	Settlements passed	VDCs passed	VDCs beyond 4 hrs walking
			Total	A/D	Valley	Ridge	A/D	Valley	Ridge					
1	RRB	Jogbuda-Sirsha-Rupal DR	23	18	5	0	81,000,000	30,000,000	-	111,000,000	4,826,087	Jogbuda, Katal, Sirsha, Chamkech aud, Dunalek, Bayalpata (Rupal)	Jogbuda, Sirsha, Rupal	Sirsha, Rupal
2	RRB	Gaira-Gangkhet-Niglad	30	25	5	0	112,500,000	30,000,000	-	142,500,000	4,750,000	Unikot, Odigaun, Kuledi, Niglad	Gangkhet, Shirsha	Gangkhet, Shirsha
3	RRB	Aaita-Niglad-Salon	30	27	3	0	121,500,000	18,000,000	-	139,500,000	4,650,000	Chirkitte, Niglad, Gogan, Kalena, Salon	Amargadi NP, Gangkhet, Shirsha	Gangkhet, Shirsha
4	RRA	Bagbazar-Bagarkot-Rupal DR	20	16	4	0	72,000,000	24,000,000	-	96,000,000	4,800,000	Bogata, Satigaun, Bayalpata	Bhageswor, Rupal	Rupal
5	RRA	Ugratara-Melauli (DOR Road)	30	5	5	20	22,500,000	30,000,000	60,000,000	112,500,000	3,750,000	Chamada, Bhadrapur, Chipur, Dewal, Dibyapur	Amargadi NP, Samaiji, Ajayameru, Bhadrapur, Chipur, Dewal	Bhadrapur, Chipur, Dewal
6	RRB	Bipyakatal-Hatas-Chama-Dhungad RR	25	20	2	3	90,000,000	12,000,000	9,000,000	111,000,000	4,440,000	Bipyakatal, Hatas, Chama, Dhungad	Belapur, Some parts of Baitadi District	Belapur
7	RRB	Bagarkot-Khullakhet-Gwadi-Rupaligad RR	22	17	5	0	76,500,000	30,000,000	-	106,500,000	4,840,909	Khullakhet, Gwadi, Rupaligad	Bagarkot, Rupal	Rupal
8	RRB	Khal-Dehimandu-Sarmali RR	10	5	0	5	22,500,000	-	15,000,000	37,500,000	3,750,000	Khal, Dehimandu, Sarmali (Baitadi)	Bhageswor	Bhageswor
Total length in the District			190	133	29	28				856,500,000				

Annex:3.2.1

Year -wise Sharing of Budget and target (km)

According to the projected financial plan, year-wise physical targets are set as

S.N	Class of Transport Linkage	New Construction										Budget ' 000	
		2067/68		2068/69		2069/70		2070/71		2071/72		Total	
		Budget	km	Budget	km	Budget NRs. '000	km	Budget	km	Budget	km	Budget	km
1	District A Road	22653	11	24918	12	27410	14	27410	15	33166	17	135558	69
2	District road B	15102	8	16612	8	18273	9	20101	10	22111	11	92199	46

S.N	Class of Transport Linkage	Upgrading										Budget ' 000	
		2067/68		2068/69		2069/70		2070/71		2071/72		Total	
		Budget	km	Budget	km	Budget	km	Budget	km	Budget	km	Budget	km
1	District A Road	66033	19	72637	21	79901	23	87891	25	96680	28	403142	115
2	District Road B	17858	6	19644	7	21608	7	23769	8	26146	9	109026	36

S.N	Class of Transport Linkage	Maintenance										Budget ' 000	
		2067/68		2068/69		2069/70		2070/71		2071/72		Total	
		Budget	km	Budget	km	Budget	km	Budget	km	Budget	km	Budget	km
1	District A Road	19633	49	21596	54	23756	59	26131	65	28744	72	119859	300
2	District road B	10571	30	11629	33	12791	37	14071	40	15478	44	64540	184

Annex:3.2.2 Sharing of Budget

Total Annual Budget (Road) (NRs.'000)
921994
(100%

New Construction
25
%
230498



District Road A	District Road B
60	40
%	%
138299	92199
69	46

Rehabilitation/Upgrading
55
%
507096



District Road A	District Road B
79.5	21.5
%	%
403142	109026
115	36

Maintenance
20
%
184399



District Road A	District Road B
65	35
%	%
119859	64540
300	184

Annex:3.2.3

Year-Wise Target

Fiscal Year	Road Category					
	District Road A			District Road B		
	New Construction	Rehabilitation /Upgrading	Maintenance	New Construction	Rehabilitation /Upgrading	Maintenance
067/68	11	19	49	8	6	30
068/69	12	21	54	8	7	33
069/70	14	23	59	9	7	37
070/71	15	25	65	10	8	40
071/72	17	28	72	11	9	44
Total (km)/no	69	115	300	46	36	184
Grand Total (km)/no	484			267		

Annex:3.2.4

Year- Wise Sharing of Budget

S.N.	Fiscal Year	Total Budget (NRs.)	Total Budget (NRs. in 'ooo) & Percentage for New, Rehabilitation & Maintenance						Total %
			New Construction		Rehabilitation/U pgrading		Maintenance		
			Amount	%	Amount	%	Amount	%	
1	067/68	151020	37755	25	83061	55	30204	20	100
2	068/69	166122	41531	25	91367	55	33224	20	100
3	069/70	182735	45684	25	100504	55	36547	20	100
4	070/71	201008	50252	25	110555	55	40202	20	100
5	071/72	221108	55277	25	121610	55	44222	20	100
	Total	921994	230498		507096		184399		100

Annex : 4.1.1

Prioritization of District roads A for Upgrading based on Traffic Unit

S.N	Name of the Road	Total planned Length km	Length of Road for Upgrading km	Traffic Unit	Traffic Unit		Co.efficient	Score(70)
					Max	Min		
1	Bagbajar-Bagarkot-Rupal	62.36	28.00	95	157.5	25.0	0.60	42.22
2	Pokhara -Belapur District Road	32.00	18.00	70	157.5	25.0	0.44	31.11
3	Bhatkanda-Rel District Road	15.01	10.00	70	157.5	25.0	0.44	31.11
4	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	157.5	157.5	25.0	1.00	70.00
5	Gaibandhe-Lipna District Road	10.50	10.50	50.5	157.5	25.0	0.32	22.44
6	Ugaratara -Meilauli District Road	52.40	17.60	56	157.5	25.0	0.36	24.89
7	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	25	157.5	25.0	0.16	11.11
8	Jogbuda-Shirsh Rupal Rural Road	6.700	3.000	48	157.5	25.0	0.30	21.33

Annex : 4.1.2

Prioritization of District roads A for Upgrading based on Market Centre

S.N.	Road Name	Total Planned Length km	Length for Updrading km	Market centre	Centrality Index	Co.efficient	Standered Score(10)
1	Bagbajar-Bagarkot-Rupal District Road	62.36	28.00	Bagbazar/Dadeldhura, Bagarkot, Bayalpata/Rupal	2389	1.00	10.00
2	Pokhara -Belapur District Road	32.00	18.00	Pokhara, Koteli, Belapur	193	0.08	0.81
3	Bhatkanda-Rel District Road	15.01	10.00	Bhatkanda, Kailpalmandu, Gaibandhe	116	0.05	0.49
4	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	Gharelu, Godam, Jogbudha	825	0.35	3.45
5	Gaibandhe-Lipna District Road	10.50	10.50	Gaibandhe	125	0.05	0.52
6	Ugaratara -Meilauli District Road	52.40	17.60	Pokhara, Puilekh, Chamada, Bhadrapur, Chipur, Dewal	295	0.12	1.23
7	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	Bhatkanda, Badal	120	0.05	0.50
8	Jogbuda-Shirsh Rupal District Road	6.70	3.00	Katal, Shirsa	182	0.08	0.76

Annex : 4.1.3

Prioritization of District roads A for Upgrading based on Cost

S.N	Name of the Road	Total Planned Length km	Length for Upgrading km	Upgrading Cost	Upgrading Cost /km	Co.efficient	Score(20)
1	Bagbajar-Bagarkot-Rupal District Road	62.36	28.00	106800000	3814286	0.79	15.73
2	Pokhara -Belapur District Road	32.00	18.00	54000000	3000000	1.00	20.00
3	Bhatkanda-Rel District Road	15.01	10.00	44700000	4470000	0.67	13.42
4	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	146000000	3945946	0.76	15.21
5	Gaibandhe-Lipna District Road	10.50	10.50	31500000	3000000	1.00	20.00
6	Ugaratara -Meilauli District Road	52.40	17.60	64050000	3639205	0.82	16.49
7	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	66000000	3000000	1.00	20.00
8	Jogbuda-Shirsh Rupal Rural Road	6.700	3.000	9500000	3166667	0.95	18.95

Annex : 4.1.4

Scoring for prioritisation of the District Roads A for Upgrading

S.N	Name of Road	Total Targeted Length km	Length of Road for Updrading km	Parameter Used for the Priorisation of Road Corridors and				
				Traffic volume (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Rank
1	Bagbajar-Bagarkot-Rupal District Road	62.36	28.00	42.22	10.00	15.73	67.95	2
2	Pokhara -Belapur District Road	32.00	18.00	31.11	0.81	20.00	51.92	3
3	Bhatkanda-Rel District Road	15.01	10.00	31.11	0.49	13.42	45.02	4
4	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	70.00	3.45	15.21	88.66	1
5	Gaibandhe-Lipna District Road	10.50	10.50	22.44	0.52	20.00	42.97	5
6	Ugaratara -Meilauli District Road	52.40	17.60	24.89	1.23	16.49	42.61	6
7	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	11.11	0.50	20.00	31.61	8
8	Jogbuda-Shirsh Rupal Rural Road	6.700	3.000	21.33	0.76	18.95	41.04	7

Annex : 4.1.5

Prioritized District Road A for Twenty Year DTPP for Upgrading (Dadeldhura District)

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the Priorisation of Road and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	73A004R	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	70.00	3.45	15.21	88.66	1
2	73A001R	Bagbajar-Bagarkot-Rupal District Road	62.36	28.00	42.22	10.00	15.73	67.95	2
3	73A002R	Pokhara -Belapur District Road	32.00	18.00	31.11	0.81	20.00	51.92	3
4	73A003R	Bhatkanda-Rel District Road	15.01	10.00	31.11	0.49	13.42	45.02	4
5	73A005R	Gaibandhe-Lipna District Road	10.50	10.50	22.44	0.52	20.00	42.97	5
6	73A006R	Ugaratara -Meilauli District Road	52.40	17.60	24.89	1.23	16.49	42.61	6
7	73A008R	Jogbuda-Shirsh Rupal Rural Road	6.70	3.00	21.33	0.76	18.95	41.04	7
8	73A009R	Bhatkanda-Parikhet Raduwa District Road	22.00	22.00	11.11	0.50	20.00	31.61	8
Total Length km			237.97	146.10					

Annex : 4.1.6

Prioritized District Road A for Five Years DTMP for Upgrading (Dadeldhura District)

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Rank
1	73A004R	Buder-Jogbuda - Gaibandhe District Road	37.00	37.00	70.00	3.45	15.21	88.66	1
2	73A001R	Bagbajar-Bagarkot-Rupal District Road	62.36	28.00	42.22	10.00	15.73	67.95	2
3	73A002R	Pokhara -Belapur District Road	32.00	18.00	31.11	0.81	20.00	51.92	3
4	73A003R	Bhatkanda-Rel District Road	15.01	6.50	31.11	0.49	13.42	45.02	4
5	73A005R	Gaibandhe-Lipna District Road	10.50	10.50	22.44	0.52	20.00	42.97	5
6	73A006R	Ugaratara -Meilauli District Road	52.40	15.00	24.89	1.23	16.49	42.61	6
Total Length km			209.27	115.00					

Annex : 4.1.7
Prioritized District Road A for Five Year DTMP for New Construction (Dadeldhura District)

S.N.	Code	Name of Road	Total Length (km)	Targeted Length of Road for Upgrading to BT km	2067/68		2068/69		2069/70		2070/71		2071/72		Total		Source of Funding
					Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	Budget Nrs in '000	km	
1	73A004R	Buder-Jogbuda - Gaibandhe District Road	37.00	37	38143	10	38143	10	30514	8					106800	28	DDC/VDC/L GCDP/MoLP
2	73A001R	Bagbajar-Bagarkot-Rupal District Road	62.36	28	35514	9	43405	11	39459	10	27622	7			146000	37	DDC/VDC/L GCDP/MoLP
3	73A002R	Pokhara -	32.00	18					15000	5	27000	9	12000	4	54000	18	DDC/VDC/L
4	73A003R	Bhatkanda-Rel District Road	15.01	7					0		16500	5.5	15000	5	31500	10.5	DDC/VDC/L GCDP/MoLP
5	73A005R	Gaibandhe-Lipna District Road	10.50	10.50							10918	3	43670	12	54588	15	DDC/VDC/L GCDP/MoLP
6	73A006R	Ugaratara - Meilauli District Road	52.40	15.00									19500	6.50	19500	6.5	DDC/VDC/L GCDP/MoLP
Required Budget and targeted			209.27	115	73656	19	81548	21	84974	23	82039	25	90170	28	412388	115	DDC/VDC/L
Total likely available Budget and targeted				115	66033	19	72636.84	21	79901	23	87891	25	96680	28	403142	115	

Annex : 4.2.1**Prioritization of District roads B for Upgrading based on Traffic Unit**

S.N	Name of the Road	Total Planned Length km	Length of Road for Updrading km	Traffic Unit	Co.efficient	Score(70)
1	Gaibadhe-Kurmule-Saleta Rural Road	5.500	4.000	55.5	0.72	50.13
2	Jogbuda - Shirsh-Parigaun Rural Road	16.000	16.000	77.5	1.00	70.00
3	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.300	7.500	52.5	0.68	47.42
4	Sakayal-Kailpalmandu Rural Road	7.500	4.500	66	0.85	59.61
5	Gaira-Gangkhet-Niglad Rural Road	34.785	4.000	31	0.40	28.00

Annex : 4.2.2

Prioritization of District roads B for Upgrading based on Market Centre

S.N	Growth Centre/market	Total Targeted Length km	Length of Road for Updrading km	Market centre	Total Centrality Index	Co.efficient	Standered Score(10)
1	Gaibadhe-Kurmule-Saleta Rural Road	5.50	4.00	Gaibandhe, Kurmule	147	0.35	3.45
2	Jogbuda - Shirsh-Parigaun Rural Road	16.00	16.00	Jogbudha,Katal,Parigaun	426	1.00	10.00
3	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.30	7.50	Jogbudha,Sadhani	360	0.85	8.45
4	Sakayal-Kailpalmandu Rural Road	7.50	4.50	Sakayal,Kailpalmandu	86	0.20	2.02
5	Gaira-Gangkhet-Niglad Rural Road	34.79	4.00	Unikot	26	0.06	0.61

Annex : 4.2.3

Prioritization of District roads B for Upgrading based on Cost

S.N	Name of the Road	Total Targeted Length km	Length of Road for Updrading km	Upgrading Cost	Upgrading Cost/km	Co.efficient	Score(20)
1	Gaibadhe-Kurmule-Saleta Rural Road	5.500	4.000	77500000	19375000	0.15	3.10
2	Jogbuda - Shirsh-Parigaun Rural Road	16.000	16.000	100500000	6281250	0.48	9.55
3	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.300	7.500	25000000	3333333	0.90	18.00
4	Sakayal-Kailpalmandu Rural Road	7.500	4.500	14500000	3222222	0.93	18.62
5	Gaira-Gangkhet-Niglad Rural Road	34.785	4.000	12000000	3000000	1.00	20.00

Annex : 4.2.4

Scoring System for prioritisation of the roads for Upgrading

S.N	Name of Road	Total Targeted Length km	Length of Road for Updrading km	Parameter Used for the Priorisation of Road				
				Traffic volume (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Rank
1	Gaibadhe-Kurmule-Saleta Rural Road	5.500	4.000	50.13	3.45	3.10	56.68	4
2	Jogbuda - Shirsh-Parigaun Rural Road	16.000	16.000	70.00	10.00	9.55	89.55	1
3	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.300	7.500	47.42	8.45	18.00	73.87	3
4	Sakayal-Kailpalmandu Rural Road	7.500	4.500	59.61	2.02	18.62	80.25	2
5	Gaira-Gangkhet-Niglad Rural Road	34.785	4.000	28.00	0.61	20.00	48.61	5
Total Length km		72.085	36.000					

Annex : 4.2.5

Prioritized District Road B for Twenty Years DTPP for Upgrading

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the Priorisation of Road and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	73B006R	Jogbuda - Shirsh-Parigaun Rural Road	16.00	16.00	70.00	10.00	9.55	89.55	1
2	73B005R	Sakayal-Kailpalmandu Rural Road	7.50	4.50	59.61	2.02	18.62	80.25	2
3	73B002R	Puntura-Simkhet-Tatapani -Sadani Rural Road	8.30	7.50	47.42	8.45	18.00	73.87	3
4	73B007R	Gaibadhe-Kurmule-Saleta Rural Road	5.50	4.00	50.13	3.45	3.10	56.68	4
5	73B011R	Gaira-Gangkhet-Niglad Rural Road	34.79	4.00	28.00	0.61	20.00	48.61	5
Total Length km			72.09	36.00					

Annex : 4.2.6

Prioritized District Road B for Five Year DTMP for Upgrading

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	73B006R	Jogbuda - Shirsh-Parigaun Rural Road	16.000	16.000	70.00	10.00	9.55	89.55	1
2	73B005R	Sakayal-Kailpalmandu Rural Road	7.500	4.500	59.61	2.02	18.62	80.25	2
3	73B002R	Puntura-Simkhet-Tatapani - Sadani Rural Road	8.300	7.500	47.42	8.45	18.00	73.87	3
4	73B007R	Gaibadhe-Kurmule-Saleta Rural Road	5.500	4.000	50.13	3.45	3.10	56.68	4
5	73B011R	Gaira-Gangkhet-Niglad Rural Road	34.785	4.000	28.00	0.61	20.00	48.61	5
Total Length km			72.085	36.000					

Annex : 4.3.1

Scoring of proposed District Roads A based on Population per unit Cost

S.N	Road name	Total Target Length km	length for new construction km	Population	Investment Cost	Population /cost in one lacks	co.efficient	weightage Score
A	C	D	E	F	G	H		
						=(E/G)*100000		
1	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.360	34.360	49761	124720000	40	1.00	55.00
2	Ugratara-Melauli	47	30	29515	112500000	26	0.66	36.17
3	Aaita-Niglad-Achalsain - Katal Rural Road	32.970	32.970	44539	145440000	31	0.77	42.21
4	Jogbuda-Shirsh Rupal Rural Road	29.700	26.700	27344	118400000	23	0.58	31.84

Scoring of proposed District Roads A based on Cultivated Land

S.N	Road name	Total Planned Length km	length for new construction km	Cultivated land in ha	Cultivated land in ha/km	co.efficient	Score(15)
1	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	34.36	8497	247	0.97	14.48
2	Ugratara-Melauli	47	30	7688	256	1.00	15.00
3	Aaita-Niglad-Achalsain -Katal Rural Road	32.970	32.970	4534	138	0.54	8.05
4	Jogbuda-Shirsh Rupal Rural Road	29.700	26.700	5186	194	0.76	11.37

Annex : 4.3.3
Scoring of proposed District Roads A based on Population multiply by walk hou

S.N	Road name	Total Target Length km	length for new constructi on km	Population* waking Hour	Pop.*Walking Hour/km	Co.efficient	Score(20)
1	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	34.36	99526	2897	0.94	14.05
2	Ugratara-Melauli	47	30	92760	3092	1.00	15.00
3	Aaita-Niglad-Achalsain -Katal Rural Road	32.970	32.970	96549	2928	0.95	14.21
4	Jogbuda-Shirsh Rupal Rural Road	29.700	26.700	54688	2048	0.66	9.94

Annex : 4.3.4

Scoring of proposed District Roads A based on Population effected by poor, Dalits and marginalized Janjatis/ethnic groups/communities in the influence area of the proposed road(Socil Issues)							
S.N	Road name	Total Target Length km	length for new construction km	Population of dalit, poor, janazati of IZI	Population of dalit, poor, janazati of IZI ./km	Co.efficient	Score(10)
1	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	34.36	18877	549	0.83	8.34
2	Ugratara-Melauli	47	30	9276	309	0.47	4.69
3	Aaita-Niglad-Achalsain -Katal Rural Road	32.970	32.97	21724	659	1.00	10.00
4	Jogbuda-Shirsh Rupal Rural Road	29.700	26.70	12852	481	0.73	7.31

Annex : 4.3.5
Scoring System for prioritisation of the proposed District Roads A for new construction

S.N	Road name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores					
				<i>Population served per unit cost (55)</i>	<i>Cultivated land within zone of influence (15)</i>	<i>Population (20)</i>	<i>Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities (10)</i>	<i>Total Score (100)</i>	<i>Rank</i>
1	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.360	34.360	55.00	14.48	14.05	8.34	91.87	1
2	Ugratara-Melauli	47	30	36.17	15.00	15.00	4.69	70.86	3
3	Aaita-Niglad-Achalsain -Katal Rural Road	36.970	32.970	42.21	8.05	14.21	10.00	74.47	2
4	Jogbuda-Shirsh Rupal Rural Road	29.700	26.700	31.84	11.37	9.94	7.31	60.45	4

Annex : 4.3.6

Prioritized District Road A for Twenty Year DTPP for New Costruction

S.N	Road code	Road name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores					
					Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities	Total Score (100)	Priority Rank
1	73A001R	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	34.36	55.00	14.48	14.05	8.34	91.87	1
2	73A007R	Aaita-Niglad-Achalsain -Katal Rural Road	36.97	32.97	42.21	8.05	14.21	10.00	74.47	2
3	73A006R	Ugratara-Melauli	47.00	30.00	36.17	15.00	15.00	4.69	70.86	3
4	73A008R	Jogbuda-Shirsh Rupal Rural Road	29.70	26.70	31.84	11.37	9.94	7.31	60.45	4
Total Length km			176.03	124.03						

Annex : 4.3.7

Prioritized District Road A for Five Year DTMP for New Construction (Dadeldhura District)

S.N.	Road code	Road name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors and					
					Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities (10)	Total Score (100)	Priority Rank
1	73A001R	Bagbajar-Bagarkot-Bhageswor-Rupal District Road	62.36	30.00	55.00	14.48	14.05	8.34	91.87	1
3	73A007R	Aaita-Niglad-Achalsain -Katal Rural Road	32.97	20.00	42.21	8.05	14.21	10.00	74.47	2
2	73A006R	Ugratara-Melauli	47.00	10.00	36.17	15.00	15.00	4.69	70.86	3
4	73A008R	Jogbuda-Shirsh Rupal Rural Road	29.70	9.00	31.84	11.37	9.94	7.31	60.45	4
Total Length km			172.03	69.00						

Annex : 4.4.1

Scoring of proposed District Roads B based on Population per unit Cost

S.N	Road name	Total Target Length km	length for new construction km	Population	Investment Cost	Population /cost in one lacks	co.efficient	Score (55)
A	C	D	E	F	G	H	I	J
						=(E/G)*100000		
1	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	27.500	25114	111500000	23	0.12	6.64
2	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.250	5.250	19578	10500000	186	1.00	55.00
3	Gaibadhe-Jamrani Bramdev Rural Road	5.910	5.910	5768	51320000	11	0.06	3.32
4	Gaira-Gangkhet-Niglad Rural Road	34.785	34.785	11580	152070000	8	0.04	2.25
5	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	6856	111000000	6	0.03	1.82
6	Khal-Dehimandu-Sarmali RR	10	10	14071	37500000	38	0.20	11.07
7	Dungari-Seragad-Dewal RR	7.720	7.720	12500	30660000	41	0.22	12.03

Annex : 4.4.2**Scoring of proposed District Roads B based on Cultivated Land**

S.N	Road name	Total Target Length km	length for new construction km	Cultivated land in ha	Cultivated land in ha/km	co-efficient	Score(15)
1	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	27.500	6570	239	0.28	4.21
2	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.250	5.250	4470	851	1.00	15.00
3	Gaibadhe-Jamrani Bramdev Rural Road	5.910	5.910	1960	332	0.39	5.84
4	Gaira-Gangkhet-Niglad Rural Road	34.785	34.785	2502	72	0.08	1.27
5	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	1389	56	0.07	0.98
6	Khal-Dehimandu-Sarmali RR	10	10	2576	258	0.30	4.54
7	Dungari-Seragad-Dewal RR	7.72	7.72	4406.13	571	0.67	10.06

Annex : 4.4.3

Scoring of proposed District Roads B based on Population multiply by walk hour

S.N	Road name	Total Target Length km	length for new construction km	Population *walking Hour	Pop.*Walking Hour/km	Pop.*Walking Hour/km		Co.efficient	Score(20)
						Max	Min		
1	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	27.500	50228	1826	7458	532	0.24	4.90
2	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.250	5.250	39157	7458	7458	532	1.00	20.00
3	Gaibadhe-Jamrani Bramdev Rural Road	5.910	5.910	8200	1387	7458	532	0.19	3.72
4	Gaira-Gangkhet-Niglad Rural Road	34.785	34.785	18501	532	7458	532	0.07	1.43
5	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	17712	708	7458	532	0.09	1.90
6	Khal-Dehimandu-Sarmali RR	10	10	28142	2814	7458	532	0.38	7.55
7	Dungari-Seragad-Dewal RR	7.72	7.72	20500	2655	7458	532	0.36	7.12

Annex : 4.4.4

Scoring of proposed District Roads B based on Population effected by poor, Dalits and marginalized Janjatis/ethnic groups/communities in the influence area of the proposed road(Socil Issues)

S.N	Road name	Total Target Length km	Length for new construction km	Population of dalit, poor, janazati of IZI	Population of dalit, poor, janazati of IZI /km	Co.efficient	Score(10)
1	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	27.500	15000	545	0.32	3.23
2	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.250	5.250	8859	1687	1.00	10.00
3	Gaibadhe-Jamrani Bramdev Rural Road	5.910	5.910	4500	761	0.45	4.51
4	Gaira-Gangkhet-Niglad Rural Road	34.785	34.785	4440	128	0.08	0.76
5	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	3017	121	0.07	0.72
6	Khal-Dehimandu-Sarmali RR	10	10	6191	619	0.37	3.67
7	Dungari-Seragad-Dewal RR	7.72	7.72	4200	544	0.32	3.22

Annex : 4.4.5
Agreegate Scoring of proposed District Roads B

S.N	Road name	Total Target Length km	length for new constructio n km	Parameter Used for the Priorisation of Road Corridors and their corresponding Score:					
				Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, <i>Dalits</i> and marginalized <i>Janjatis</i> /ethnic groups/communities (10)	Total Score (100)	Rank
1	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	27.500	6.64	4.21	4.90	3.23	18.98	4
2	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.250	5.250	55.00	15.00	20.00	10.00	100.00	1
3	Gaibadhe-Jamrani Bramdev Rural Road	5.910	5.910	3.32	5.84	3.72	4.51	17.39	5
4	Gaira-Gangkhet-Niglad Rural Road	34.785	30.785	2.25	1.27	1.43	0.76	5.70	6
5	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	1.82	0.98	1.90	0.72	5.42	7
6	Khal-Dehimandu-Sarmali RR	10	10	11.07	4.54	7.55	3.67	26.82	3

Annex : 4.4.6

Prioritized District Road B for Twenty Years DTPPP for New Construction (Dadeldhura District)

S.N.	Road code	Road name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors a			
					Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities (10)
2	73B009R	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.25	5.25	55.00	15.00	20.00	10.00
7	73B014R	Dungari-Seragad-Dewal RR	7.720	7.720	12.03	10.06	7.12	3.22
6	73B013R	Khal-Dehimandu-Sarmali RR	10.000	10.000	11.07	4.54	7.55	3.67
1	73B003R	Bagarkot-Chulla-Sirad-Rupaligad Rural Road	27.500	27.500	6.64	4.21	4.90	3.23
3	73B010R	Gaibadhe-Jamrani Bramdev Rural Road	5.910	5.910	3.32	5.84	3.72	4.51
4	73B011R	Gaira-Gangkhet-Niglad Rural Road	34.785	30.785	2.25	1.27	1.43	0.76
5	73B012R	Bipyakatal-Hatas-Chama-Dhungad RR	25	25	1.82	0.98	1.90	0.72
Total Length km			116.17	112.17				

and their	
<i>Total Score (100)</i>	<i>Priority Rank</i>
100.00	1
32.43	2
26.82	3
18.98	4
17.39	5
5.70	6
5.42	7

Annex : 4.4.7

Prioritized District Road B for Five Years DTMP for New Construction (Dadeldhura District)

S.N.	Road code	Road name	Total Target Length km	length for new construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores					
					Population served per unit cost (55)	Cultivated land within zone of influence (15)	Population (20)	Link providing service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities (10)	Total Score (100)	Priority Rank
1	73B009R	Dadaban-Nawdurga-Ghupatkhan Rural Road	5.25	5.00	55.00	15.00	20.00	10.00	100.00	1
2	73B014R	Dungari-Seragad-Dewal RR	7.72	5.00	12.03	10.06	7.12	3.22	32.43	2
3	73B013R	Khal-Dehimandu-Sarmali RR	10.00	5.00	11.07	4.54	7.55	3.67	26.82	3
4	73B003R	Bagarkot-Chulla-Sirad-Rupaliqad Rural Road	27.50	10.00	6.64	4.21	4.90	3.23	18.98	4
5	73B010R	Gaibadhe-Jamrani Bramdev Rural Road	5.91	4.00	3.32	5.84	3.72	4.51	17.39	5
6	73B011R	Gaira-Gangkhet-Niglad Rural Rd	34.79	10.00	2.25	1.27	1.43	0.76	5.70	6
7	73B012R	Bipyakatal-Hatas-Chama-Dhungad RR	25.00	7.00	1.82	0.98	1.90	0.72	5.42	7
Total Length km			116.17	46.00						

Annex 5.1

District-wise plan - 2009/10 to 2013/14 (5 years) for Routine Maintenance

SN	District	Number of Bridges						Total budget in NRs.					
		2009/10	2010/11	2011/12	2012/13	2013/14	Total	2009/10	2010/11	2011/12	2012/13	2013/14	Total
1	Dadeldhura	50	57	65	73	81	326	150,000.00	171,000.00	195,000.00	219,000.00	243,000.00	978,000.00
3,000.00													

District-wise plan - 2009/10 to 2013/14 (5 years) for Major Maintenance

SN	District	Number of Bridges						Total budget in NRs.					
		2009/10	2010/11	2011/12	2012/13	2013/14	Total	2009/10	2010/11	2011/12	2012/13	2013/14	Total
1	Dadeldhura	1	1	1	1	1	5	800,000.00	800,000.00	800,000.00	800,000.00	800,000.00	4,000,000.00

District-wise plan - 2009/10 to 2013/14 (5 years) for New Construction Bridges

SN	District	Number of Bridges						Total budget in NRs.					
		2009/10	2010/11	2011/12	2012/13	2013/14	Total	2009/10	2010/11	2011/12	2012/13	2013/14	Total
1	Dadeldhura	5	7	8	8	8	36	7,968,750.00	11,156,250.0	12,750,000.0	12,750,000.0	12,750,000.0	57,375,000.00
								1,593,750.00	1,593,750.0				

District-wise plan - 2009/10 to 2013/14 (5 years) for Access Trail Improvement

SN	District	Number of Bridges						Total budget in NRs.					
		2009/10	2010/11	2011/12	2012/13	2013/14	Total	2009/10	2010/11	2011/12	2012/13	2013/14	Total
1	Sangkhuwasabha	3	3	3	3	3	15	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00	1,500,000.00
2	Khotang	3	3	3	3	3	15	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00	1,500,000.00
3	Jhapa	0	0	0	0	0	0	-	-	-	-	-	-
4	Morang	0	0	0	0	0	0	-	-	-	-	-	-
5	Sindhupalchok	0	0	0	0	0	0	-	-	-	-	-	-
6	Parbat	3	3	3	3	3	15	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00	1,500,000.00
7	Dailekh	3	3	3	3	3	15	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00	1,500,000.00
8	Dadeldhura	3	3	3	3	3	15	300,000.00	300,000.00	300,000.00	300,000.00	300,000.00	1,500,000.00

Annex: 5.2
Projected Financial Plan for Trail Bridges

Year	Routine Maintenance		Major Maintenance		New Construction Bridges	
	Number of Bridges	Total budget in NRs.	Number of Bridges	Total budget in NRs.	Number of Bridges	Total budget in NRs.
2010/11	57	171,000.00	2	1,600,000.00	7	11,156,250.0
2011/12	65	195,000.00	1	1,600,000.00	8	12,750,000.0
2012/13	73	219,000.00	1	800,000.00	8	12,750,000.0
2013/14	81	243,000.00	2	1,600,000.00	8	12,750,000.0
2014/15	136	544306	3	2546463	22	35511229
Total	412	1,372,306.00	9	8,146,463.00	53	84,917,479.0

Annex: 5.3

Projected Financial Plan for Trail Bridges

Year	Projected Financial Plan for Trail Bridges		
	Routine Maintenance	Major Maintenance	New Construction Bridges
067/68	171,000	800,000	11,156,250
068/69	171,000	800,000	11,156,250
069/70	171,000	800,000	11,156,250
070/71	171,000	800,000	11,156,250
071/72	544,307	2,546,464	35,511,230
Total	1,228,306.58	5,746,463.54	80,136,229.9
Grand Total	87,111,000.00		

Annex: 5.4
Projected Financial Plan for Trail Bridges
NRs.

Year	Year-Wise Target		
	Routine Maintenance	Major Maintenance	New Construction Bridges
	Number of Bridges	Number of Bridges	Number of Bridges
067/68	57	1	7
068/69	65	1	8
069/70	73	1	8
070/71	81	1	8
071/72	136	3	22
Total	412	7	53

Annex: 5.5

Prospective Bridge (Major Maintenance)

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Bridge		Priliminary Cost est NRs.	Total		Marginalized Population					
		Right Bank	Left Bank			Type	Span		HH	Populatio n	Dalit	Janajati	Minorities	other poor	Total No	%
1	73501518062	Bagarkot	Bagarkot	Thuli gad	Khulla khet	Suspension	38	37,848,000	740	4,900	900	200	0	1,500	2,600	53
2	73501418061	Dewaldebhyapur	Bhageshor	Doteli khola	Kakadi Ghat	Suspended	82	290,624	620	3,625	845	0	0	1,000	1,845	51
3	73501418063	Bishapur	Bhageshor	Surnaya Gad	Radil	Suspended	55	217,800	725	4,430	675	125	0	175	975	22
4	73500618063	Jijodamdaun	KailpanImandu	Relgad Khola	Relgad	Suspended	60	384,000	622	4,198	1,490	0	0	1,458	2,948	70
5	73500218062	Ganeshpur	Manilek	Lamakheti Gad	Khadkhola	Suspended	32	105,600	475	3,374	988	0	0	1,791	2,779	82
6	73500478062	Mastamandu	Nawadurag	Sakayal khola	Damarkot	Suspension	24	79,200	329	2,032	392	0	0	1,145	1,537	76
7	73500718061	Ganeshpur	Amargdhi Municipality	Ruwakhola	Lamikhet	Suspended	46	154,836	240	1,626	366	0	0	640	1,006	62

Annex: 5.6

Prospective Bridge FOR New Construction in Dadeldhura District

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge		Primlinary Cost est NRs.	Total		Marginalized Population					
		Right Bank	Left Bank			Gained (hrs)	Roadhe ad (day)	Type	Span		HH	Populati on	Dalit	Janajati	Minorities	other poor	Total No	%
1	73501018062	Jogbudha	Aalital	Panturakhola	Sisham Jala	10.6	0.5	Suspended	70	742,000	908	6,325	550	0	0	4,908	5,458	86
2	73501118063	Jogbudha	Jogbudha	Lamigada Khola	Shadani	2.6	0.5	Suspended	110	1,116,000	1,840	12,770	1,700	1,238	0	9,304	12,242	96
3	73501118061	Serse	Jogbudha	Rangu khola	Kainpani	11	0	Suspension	210	6,300,000	1,506	10,495	1,282	836	0	6,971	9,089	87
4	73501118065	Jogbudha	Jogbudha	Patali khola	Masanijhal	6.5	0	Suspended	70	742,000	864	4,743	952	226	0	2,257	3,435	72
5	73501118062	Jogbudha	Jogbudha	Shadani Khola	Chandani Ghat	6.6	0.5	Suspended	650	6,890,000	1,885	12,830	1,635	1,418	0	7,929	10,982	86
6	73501818061	Aajayamaru	Bhadrapur	Godi khet	Godi khet	10	0.5	Suspended	38	402,800	545	3,270	1,238	0	0	2,010	3,248	99
7	73501518061	Bagarkot	Bagarkot	Chulla gad	Gadi khet	11.41	0.5	Suspended	85	901,000	825	6,200	335	0	0	125	460	7
8	73501018063	Aalital	Aalital	Koirali khola	Janata	3.25	0.5	Suspended	75	795,000	683	6,614	785	511	0	4,480	5,776	87
9	73300118061	Amargadhi Municipality	Kotaeli	Tiladi Gad	Gadi khet	4	0.25	Suspended	85	1,324,000	1,002	6,012	850	0	0	4,600	5,450	91
10	735012180614	Serse	Serse	Kirod Khola	Kirod Khola	6	1	Suspended	95	1,064,000	640	3,540	186	260	80	2,100	2,626	74
11	73501418065	Udayadev	Bhageshor	Sumaya Gad	Anchalkhola	8	1.5	Suspended	135	3,186,000	1,073	6,660	1,200	50	0	2,000	3,250	49
12	73501118067	Jogbudha	Jogbudha	Palgadi Khola	Suwakhan	4	1	Truss	24	878,400	777	5,389	1,939	392	0	1,681	4,012	74
13	73501618061	Serse	Serse	Kalend khola	Samaiji Ghat	4.95	0.5	Suspended	95	1,501,000	850	5,100	840	30	0	3,400	4,270	84
14	73501018068	Jogbudha	Aalital	Bhalu khola	Bhatteni	5.32	0.5	Suspended	150	3,180,000	1,265	10,888	1,475	382	0	6,348	8,205	75
15	73501618061	Dewaldebhyapur	Barakot	Shera Gad	Shera Khet	3	0.25	Suspended	36	370,000	1,022	5,110	1,750	0	0	3,080	4,830	95
16	73501018066	Chepur	Chepur	Huragad	Latamandau	13	5	Suspended	55	583,000	295	1,770	146	0	0	1,510	1,656	94
17	73501018066	Aalital	Aalital	Rangun	Mori Bhumana	3	0	Suspended	155	1,150,000	831	5,177	811	900	0	2,750	4,461	86
18	735014180610	Bageshwor	Bageshwor	Panturakhola	Ghan Ghat	8	1.5	Suspended	110	1,298,000	676	5,820	715	0	0	920	1,635	28
19	73501018065	Gankhet	Aalital	Rangim	Ghankhet	5	0.5	Suspended	110	1,166,000	692	5,448	1,350	345	0	2,899	4,594	84
20	735010180610	Aalital	Jogbudha	Panturakhola	Sangurchaugada	4.5	0.75	Suspended	105	1,144,500	386	2,772	419	0	0	2,216	2,635	95
21	735011180610	Serse	Jogbudha	Rangun	Simla Khet	4.75	0.25	Suspended	900	9,270,000	10,505	8,973	1,032	895	0	6,207	8,134	91
22	73501018064	Aalital	Aalital	Sunkhola	Godam	2.3	0	Suspended	260	5,200,000	2,848	20,288	3,116	1,503	0	10,430	15,049	74
23	73502018061	Aajayamaru	Samaiji	Chorkhet Gad	Chorkhet	3.51	0.25	Suspended	100	1,030,000	550	3,100	500	0	0	2,600	3,100	100
24	735012180615	Champhawat	Serse	Mahakali	Prasuram Ghat	4	0.5	Suspension	250	7,950,000	665	4,003	522	300	0	3,421	4,243	106
25	73501918062	Ajayamaru	Ajayamaru	Betal khola	Ghatte Gad	7	0.5	Suspended	50	530,000	450	2,250	150	0	0	1,900	2,050	91
26	73501118066	Jogbudha	Jogbudha	Dhikko khola	Dhakani Gad	4.8	0.5	Suspended	60	636,000	574	2,714	781	154	0	1,605	2,540	94
27	735013180612	Rupal	Rupal	Rudrawati	latachach	13	2	Suspended	60	744,000	200	1,770	275	0	0	375	650	37
28	73501318065	Rupal	Rupal	Rudrawati	Gaurighat (Latadeu)	11.5	1.5	Suspended	65	767,000	255	2,535	125	0	0	200	325	13
29	73501718061	Dewaldebhyapur	Chepur	Huragad	Dobilla	5	0.5	Suspended	85	901,000	290	1,740	778	0	0	925	1,703	98
30	735012180613	Serse	Serse	Doli khola	Dolighatchaud	13.2	1	Suspended	68	7,616,000	120	800	76	95	76	510	757	95
31	73501018061	Aalital	Aalital	Junge khola	Seurad	3.21	0	Suspended	95	950,000	504	2,974	657	110	222	314	1,303	44
32	73501318061	Rupal	Rupal	Rupali Gad	Chalse	10	2	Suspended	75	930,000	220	1,911	385	0	0	445	830	43
33	73501018069	Aalital	Aalital	Ghimada khola	Chauptata Ghat	3.68	0	Suspended	110	1,100,000	360	2,285	1,015	50	67	181	1,313	57
34	73501218012	Serse	Serse	Tallo Sirsa khola	Ghadjala Ghat	22	1	Suspended	120	1,344,000	49	284	18	0	12	224	254	89
35	73501218063	Serse	Serse	Matel khola	Matela Khola	16.21	1	Suspended	45	504,000	82	487	50	33	39	345	467	96
36	73501218062	Serse	Serse	Kalena khala	Khola Ghat	1.9	0.5	Suspended	75	1,185,000	670	4,020	380	60	135	3,220	3,795	94
37	735012180611	Serse	Serse	Ghari Khola	Gharikhasarebata	9.68	1	Suspended	60	672,000	125	750	110	120	150	290	670	89
38	735012180610	Serse	Serse	Niglad khola	Betatichhida	14	1	Suspended	65	728,000	80	480	56	40	56	304	456	95
39	73501318068	Rupal	Rupal	Sinnyam khola	Thulakhet (Cinnavam)	3.43	3	Suspended	65	884,000	441	4,255	357	225	0	510	1,092	26
40	73500218062	Manilek	Manilek	Bedupani Khola	Bedpani	2.4	0.1	Suspended	105	1,062,600	514	4,063	1,977	0	0	948	2,925	72
41	73500318064	Belapur	Belapur	Simal Gad	Simla ghat	2	2	Suspended	55	682,000	400	2,800	550	0	0	900	1,450	52
42	735013180610	Rupal	Rupal	Rudrawati	Koteuda	12.86	2	Suspended	70	868,000	120	1,115	82	0	0	170	252	23
43	73501018067	Aalital	Aalital	Sunkhola	Sunkhola	1.33	0.25	Suspended	80	824,000	330	3,710	1,425	1,000	0	656	3,081	83
44	73501618063	Dewaldebhyapur	Bhageshor	Dubar Ghat	Lamagada	1.7	0.5	Suspended	70	742,000	370	2,600	1,075	0	0	1,500	2,575	99
45	73501218064	Serse	Serse	Sirsha Khola	Kalpate Than	3.61	0.5	Suspended	86	911,600	167	1,002	480	0	80	430	990	99
46	7.35012E+11	Serse	Serse	Kalena Khola	Saubod	1.4	1	Suspended	65	728,000	650	3,900	410	35	435	2,850	3,730	96
47	73501418064	Dewaldebhyapur	Bageshwor	Thuligad	Khilabharad	1.78	1	Suspended	115	1,288,000	976	6,569	821	0	0	1,145	1,966	30

Annex: 5.6

Prospective Bridge FOR New Construction in Dadeldhura District

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge		Primary Cost est NRs.	Total		Marginalized Population					
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span		HH	Population	Dalit	Janajati	Minorities	other poor	Total No	%
48	73500118061	Kotaeli	Kotaeli	Manasuta khola	Mansuta	1.97	0	Truss	28	980,000	441	2,946	741	0	0	1,654	2,395	81
49	73500518061	Mastamandu	Belapur	Sakail khola	Sakail Ara	1.11	0.25	Suspended	70	721,000	571	4,042	1,605	0	0	1,821	3,426	85
50	73500318063	Belapur	Belapur	Dornekhola	Chalkatta	1.1	1	Suspended	42	470,000	335	2,345	150	0	0	2,000	2,150	92
51	73500418061	Mastamandu	Nawadurga	Sakayal khola	Sakayal	1.71	0	Suspended	110	1,100,000	387	2,814	1,006	0	0	826	1,832	65
52	73500618062	Kailpalmandu	Kailpalmandu	Rumail khola	Ghatte Gad	2	0.25	Suspended	35	360,500	319	2,123	608	0	0	960	1,568	74
53	73502018062	Aajayamaru	Samaiji	Dogad	Dogad	3	1	Suspended	50	830,000	210	966	420	0	0	546	966	100
54	73501518063	Bagarkot	Bagarkot	Siradi Gad	Tithi Ghat	2.02	0.5	Suspended	77	8,136,200	384	3,208	450	412	0	367	1,229	38
55	73501318064	Rupal	Rupal	Rudrawati	Seragad	13	2	Suspended	200	4,960,000	363	2,446	177	75	0	256	508	21
56	73501218065	Serese	Serese	Sirsakhola	Todinna Pasamandu	4	2	Suspended	95	1,178,000	110	660	90	0	50	454	594	90
57	73501318063	Rupal	Rupal	Rudrawati khola	Pidasau	13	2	Suspended	65	806,000	93	735	50	0	0	75	125	17
58	73501318062	Mastamandu	Belapur	Sakayal khola	Sakayal- Kupa	1.37	0.25	Suspended	110	1,133,000	306	2,106	825	0	0	1,043	1,868	89
59	73500518061	Serese	Serese	Sirsha Khola	Asain Ghat	3.14	0.5	Suspended	65	689,000	125	750	270	0	60	310	640	85
60	73500618061	Kailpalmandu	Kailpalmandu	Kuledi khola	Kuledi	2	0.25	Suspended	55	566,500	282	1,907	657	0	0	777	1,434	75
61	73500318061	Belapur	Belapur	Meltada khola	Meltada	1	2	Suspended	80	992,000	304	2,128	630	0	0	1,300	1,930	91
62	73501218066	Serese	Serese	Pokana khola	Pokana	4.31	1	Suspended	58	649,600	116	712	75	95	24	490	684	96
63	73501518064	Bagarkot	Bagarkot	Jalchhinann	Gatalthan	4.9	0.5	Suspended	75	795,000	110	880	190	150	0	45	385	44
64	73502018064	Aajayamaru	Samaiji	Thulakhola	Koirali	2.4	1	Suspended	55	616,000	112	854	0	0	0	750	750	88
65	73500918062	Gankhet	Gankhet	Ullani khola	Ullani	3	1	Suspended	70	784,000	108	660	65	0	0	530	595	90
66	73501218067	Serese	Serese	Khoyadi khola	Khoyadi	6.44	1	Suspended	54	604,800	72	432	42	46	32	310	430	100
67	73500118062	Amargadhi Municipality	Kotaeli	Saileshwar khola	Saileshwar	2	0.5	Suspended	86	911,600	261	1,566	252	0	0	930	1,182	75
68	73501518065	Bagarkot	Bagarkot	Anaha khola	Khaltadi	5	0.25	Truss	32	1,132,000	183	1,371	66	0	0	180	246	18
69	73500818061	Ganeshpur	Achegram	Ruwakhola	Deubata	1	0.25	Suspended	60	618,000	314	2,847	903	0	0	1,505	2,408	85
70	73501718062	Chepur	Bhadrapur	Khetroda khola	Ketroda	1.4	0.5	Suspended	40	424,000	411	2,745	922	0	0	1,339	2,261	82
71	73501218069	Serese	Serese	Khoidei khola	Samaiji Ghat	5.84	1	Suspended	55	616,000	76	456	24	54	0	350	428	94
72	73500118066	Kotaeli	Kotaeli	Chiminda	Chiminda	1.55	0.25	Truss	16	566,400	369	2,449	492	0	0	1,290	1,782	73
73	73501618062	Dewaldebhyapur	Bagarkot	Jhigini khola	Jhiginighat	1.8	0.25	Suspended	70	412,000	500	3,000	500	0	0	1,700	2,200	73
74	73501318069	Rupal	Rupal	Rupali Gad	Bistadi khola	7.2	2	Suspended	70	868,000	108	775	235	0	0	280	515	66
75	73500318068	Belapur	Belapur	Juwatadai khola	Juwatadi	1.14	2	Suspended	80	992,000	182	1,274	511	0	0	600	1,111	87
76	73501318061	Serese	Serese	Dogada khola	Dogadaburauji	5.1	1	Suspended	51	571,200	80	435	72	0	18	272	362	83
77	73502018063	Rupal	Rupal	Saikhola	Shail	4.44	2	Suspended	135	5,022,000	313	2,967	147	25	0	157	329	11
78	73502018067	Bhadrapur	Aajayamaru	Betal khola	Kudi Ghatta	1.5	0.5	Suspended	45	477,000	295	1,770	432	12	0	1,185	1,629	92
79	73502018063	Samaiji	Samaiji	Galphagad	Daisilagad	2	1	Suspended	70	784,000	100	700	50	0	0	500	550	79
80	73502018067	Samaiji	Samaiji	Dewali	Deula	2	1	Suspended	45	504,000	72	504	50	0	0	350	400	79
81	73502018067	Gankhet	Gankhet	Gangkhet khola	Koltada	2	1.5	Suspended	80	944,000	80	560	37	7	0	460	504	90
82	73500218063	Kotaeli	Manilek	Amatad	Amatad	2	0.5	Suspended	26	930,800	554	3,885	726	0	0	2,385	3,111	80
83	7350018066	Kotaeli	Manilek	Bugara khola	Bugara	1.29	0.5	Suspended	65	689,000	250	1,639	384	0	0	844	1,228	75
84	73501418066	Bhageshor	Bageshwar	Mullydanna (Nani gad)	Simalkhet (Mullydanna)	1	1	Suspended	65	728,000	675	4,590	345	0	0	745	1,090	24
85	73501318067	Rupal	Rupal	Nani gad	Lata Dhunga	2.86	2	Suspended	75	930,000	175	1,371	200	0	0	320	520	38
86	73500118065	Kotaeli	Kotaeli	OULI Gaon khola	Domila khola	1	2.5	Suspended	24	8,496,000	209	1,450	422	0	0	667	1,089	75
87	73501818062	Bhadrapur	Aajayamaru	Betal khola	Ringadagaun	2.5	0.5	Suspended	51	540,600	109	581	162	0	0	365	527	91
88	73502018068	Samaiji	Samaiji	Airadi khola	Airadi	2	1	Suspended	45	504,000	52	364	100	0	0	210	310	85
89	73300118065	Amargadhi Municipality	Amargadhi Municipality	Doti khola	Shali khet	1.51	0.25	Suspended	85	875,500	176	1,062	200	65	0	320	585	55
90	73500918065	Gankhet	Gankhet	Kanedi khola	Kanedi	4	2	Suspended	45	558,000	21	147	0	122	0	25	147	100
91	73502018065	Samaiji	Ajayamaru	Basani Gad	Chimsaladhami ghatta	1.53	0.25	Suspended	50	515,000	84	375	32	0	0	250	282	75
92	73500918064	Gankhet	Gankhet	Shela Gad	Shela	2	1	Suspended	75	840,000	35	265	20	20	0	163	203	77
93	735012180616	Serese	Serese	Shirsa khola	Panatoli	3.51	0.5	Suspended	80	848,000	33	198	0	0	0	170	170	86
94	73501418067	Bhageshor	Bhageshor	Mouri Gad	Mouri Ghat	1.5	1.5	Suspended	70	826,000	192	1,206	215	0	0	300	515	43
95	73502018066	Samaiji	Samaiji	Khodpe khola	Bajkot	1.29	1	Suspended	35	392,000	113	668	60	0	0	450	510	76

Annex: 5.6

Prospective Bridge FOR New Construction in Dadeldhura District

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge		Priliminary Cost est NRs.	Total		Marginalized Population					
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span		HH	Populati on	Dalit	Janajati	Minorities	other poor	Total No	%
96	73501518066	Bagarkot	Bagarkot	Satkata khola	Dhankhet	1.4	0.5	Suspended	60	636,000	102	670	139	0	0	225	364	54
97	73500918066	Gankhet	Gankhet	Tapkhola	Malagaun	2	1	Suspended	55	616,000	30	202	97	14	0	20	131	65
98	73501318066	Rupal	Rupal	Rupali Gad	Koteuda	2.41	1	Suspended	60	1,344,000	180	1,341	116	0	0	230	346	26
99	73500318065	Belapur	Belapur	Banchhida khola	Banchhida	1	1	Suspended	40	448,000	60	420	140	0	0	220	360	86
100	73500918063	Gankhet	Gankhet	Shela Khola	Deuwagaun	1	1	Suspended	50	560,000	35	280	68	26	0	140	234	84
101	735013180611	Rupal	Rupal	Rupali Gad	Chaadi	1	1	Suspended	55	616,000	81	800	99	0	0	100	199	25
102	73501518067	Bagarkot	Bhageshor	Thuligad	Runadi	3	0.25	Suspended	65	669,500	35	263	70	0	0	100	170	65
103	735012180618	Serese	Serese	Kheti Gad	Ladaulikheta	3.42	1	Truss	24	878,400	20	105	46	0	0	50	96	91
104	735012180619	Serese	Serese	Sirsakhola	Panatoli	1.68	1	Suspended	65	728,000	22	132	0	0	0	122	122	92

PHOTOGRAPHS



Photo 2: Bagarkot Bazaar



Photo 2: Bagbazar-Bagarkot Road



Photo 3: Budar-Jogbudha Road



Photo 4: Gaibadhe-Lipna Road



Photo 5: Introductory Workshop



Photo 6: Religious Place (Ugratara Mandir)