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Ministry of Local Development
District Development Committee
Dailekh

DISTRICT TRANSPORT MASTER PLAN DAILEKH

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DoLIDAR



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ABBREVIATION

AMSL	:	Above Mean Sea Level
CEA	:	Cost Efficient Analysis
DADO	:	District Agriculture Development Office
DDC	:	District Development Committee
DEO	:	District Education office
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
Zol	:	Zone of Influence

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EXECUTIVE SUMMARY

Dailekh district is in Bheri zone of Mid-Western Region is located within latitude 28° 00' 35" N to 29° 08" N and Longitude 81° 25" E to 81° 55" E. It covers an area of 1502 sq. km. The district has elevation ranging from 544 m to 4168 m above the mean sea level. According to the National Census 2008 projection, the total population of the district is 2, 55,842 with comprising of 130,745 male and 125,104 female clustered in 47,025 households. Subsistence agriculture farming and livestock rearing is widely practiced by the population.

The DTMP Study considered a total 47 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: 4 market centres as grade A (Dailekh, Dullu, Mathillodungeswor and Rakamkarnali), 12 market centres as grade B (Naumule, Tunibagar, Dandimadi, Ramaghat/Mora, Chupra, Hadakot, Khambagade, Thatikandh, Baik/Binayak, Bestada, Chagatra and Dharampokhara), 17 market centres as grade C (Bhikhet, Tallo Dungeswor, Bahankot, Jambukadh, Khidkijyula, Gainsdabaj, Patikanla, Tilepata, Sinhasain, Milan Bazar, Vaisakhori, Awalparajul, Sermakot, Hulaktakura, Kharigaira, Airadi and Kholibazar). Additionally, 14 potential market centres were also identified by the Study.

There are about 250 Km of district and rural roads that are motorable in fair weather conditions and need to be upgraded to all weather road standards.

Dailekh district has 13 district roads of class A and 14 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 fully and partially accessible VDCs. Based on national transport policy of maximum four hour walking distance from the road head for hill districts, 36 % (545 Sq.km) of total area is under full accessible area based on serviceability of all weather roads. Similarly 80 % (1198 sq. km) of total area falls under partial accessible area based on serviceability of all fair weather roads. Out of 55 VDCs and 1 municipality, only 15 VDCs are full accessible and 9 VDCs are partial accessible in all weather serviceability situation. Likewise, 43 VDCs have full access and 17 VDCs partial accessible in fair weather serviceability situation.

There are 7 main trails with total 270 km length and additionally 3 historical trails. There are 56 existing trail bridges in the Dailekh district. Identification of 72 new trail bridges as prospective bridges for new construction, has been made of ,which 31 trail bridges have been planned for construction within five years DTMP period .

In the twenty years of DTPP period, eight new linkages of class A roads (187.000 Km), seven linkages of class B roads (96.00 Km) have been planned for construction. Likewise eleven existing class A roads (168.36 KM) and seven existing class B roads (48 Km) have been planned for upgrading to all weather road for sustainable and better transport services. Similarly 72 trail bridges have been planned for construction during the time of DTPP.

The percentage of budget sharing for DTMP as agreed in DTICC meeting is 20 %, 60 % and 20 % of total projected amount for new construction, upgrading and maintenance respectively. Total projected budget for 5 years is about Rs. 1,306,561,000 for roads and Rs. 61,069,250 for trail bridges.

Based on expected available budget and sharing ratio, six new linkages of class A roads (78.000 Km), seven linkages of class B roads (89.00 Km) have been proposed for construction. Likewise eleven existing class A roads (148.00 KM) and seven existing class B roads (48 Km) have been planned for upgrading to all weather road. Nearly, 425 Km of class A roads, 261 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 Dailekh 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

Dailekh district is located in Bheri Zone in Mid-western Development Region and covers an area of 1502 square kilometer within latitude 28° 00' 35" N to 29° 08" N and Longitude 81° 25" E to 81° 55" E. The district has elevation that ranges from 544 m to 4168 m above mean sea level (msl). Dailekh district borders Jajarkot to the East, Achham to the West; Kalikot to the North and Surkhet to the South. According to the National Census 2008 projection, the total population of the district is 2,55,842 comprising of 130,745 male and 125,104 female clustered in 47,025 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 most part of the year.

Dailekh district has limited but increasing accessibility. The district is served by the surface transport facilities. The existing transport accessibility situation in the district is getting better gradually in comparison to the past. Ground transport facilities through Karnali highway, feeder road, district road and village roads are increasing significantly in the district. However, district and rural roads are under poor condition requiring upgrading, rehabilitation and proper maintenance. Since Karnali highway (Surkhet-Jumla) is being upgraded to blacktop which furnishes transport service to the people of Dailekh district. Surkhet – Dailekh feeder road having total length of 67 km, is also being upgraded to blacktop surface by Department of Road. Mid-hill highway of DOR is also being implemented which passes almost parallel to the Karnali highway linking with the district headquarter, Dailekh.

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.

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 in 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 year 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 Dailekh, 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.

c) 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:

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

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 has 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	Population × Walking hour	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) Introductory workshop in DDC on 14th January 2010.
- ii) Selection of Technical Assistant (TA) and Research Associate (RA) for data collection.
- iii) 1st DTICC meeting in DDC on 26th April 2010.
- iv) Ilaka level workshop at Dailekh on 30th April 2010.
- v) Ilaka level workshop at Mathillodungeswor on 11th May 2010.
- vi) Ilaka level workshop at Dandimadi on 13th May 2010.
- vii) Ilaka level workshop at Rakam on 15th May 2010.
- viii) 2nd DTICC meeting in DDC on 20th May 2010.
- ix) Last DTICC meeting on 6th August, 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)

Indicators of District Development

3.1. Physical Location and Geographical Characteristics

Dailekh district is situated in Bheri zone of Mid-Western Region and is located within latitude 28° 00' 35" N to 29° 08" N and Longitude 81° 25" E to 81° 55" E. It is spread over mid hill and terrain within the range of 544 msl (Tallo Dungeswor) to 4168 meter msl (Mahabu Lek). It covers an area of 1502 sq. km. It is bordered by Jajarkot to the East, Achham of Seti Zone to the West, Kalikot of Karnali Zone to the North and Surkhet of Bheri Zone to the South.

The district experiences three types of climate; tropical climate by 15.5% of land and altitude up to 1000 msl, sub tropical by 69% and altitude up to 2000 amsl and temperate climate by 15.5% of landscape and altitude up to 3300 amsl. The temperature ranges from 7.5 to 32.3 centigrade and annual rain-fall up to 2400 to 2600 ml. There is 37% forest, 4% pasture land, 45% cultivated land and 4% water bodies in the district.

Major rivers in the district are Karnali, Rampaged, Chhamgad, and Lohare. Other river streams are Taragad, Tame, Dwari, Parajul khola, Navisthan Khola Paduka Khola Kanegad Khola, Chine gad, Rati Khola, Laitada, Saaltada, Bestada, Katti khola, and Matela Khola.

Administratively, the district is divided into 55 VDCs, 1 Municipality, 11 Illakas and 2 constituency areas. Narayan Municipality is the district head quarter; it has access to all basic infrastructures like drinking water, electricity, telecommunication and transportation facilities though limited to some VDC.

Major market areas in the districts are Dailekh Bazar, Chupra, Naumule, Tallo Dhungeswor, Mathillo Dhungeswor, Bestada, Lohare, Sermakot, Talpokhari, Dandimadi, Dullu, Bhirkhet, Tunibagar, Rakam, Jambukandh, Lakandra, Ramaghat, Hadakot, Chhanna, Awalparajul, Dharampokhara, Guranse, Baik malika and Khambagadhe.

3.2 Socio-economic Characteristics

3.2.1 Population

According to the National Census 2008 projection, the total population of the district is 2,55,842 with comprise of 130,745 male and 125,104 female clustered in 47,025 households. Average population is 5.44 people per households and the population growth rate is 1.84. The urban population is 8.63 %. The sex ratio is 1:0.96 (male population divided by female). The district has multi ethnic composition; majorities are, Chhetri, Kami, Thakuri, Brahman, Magar, Damai, Sarki, Newar, and Sanyashi (Giri and Puri). Life expectancy of the people is 58 years (2009) and population density is 150 people per square km (2001). Common communicating language is Nepali (97.39%) follow by Magar (1.8%) and Tamang (0.05 %)

3.2.2 Religion, Festivals and Caste

Based on ethnicity, the population of Chhetry (35%) is highest and is followed by Dalit (25%), Thakuri (14%), Brahman (12%), Magar (10%), Puri (1.61%) and Gurung (1.43%). In terms of religion, the Hindu is 98.98 %, Buddhist is 1.45 %, Muslim is 0.08 % and other is 0.15 %. Major festivals are Dasain, Tihar, Maghe Sankranti, Janaipurnima, Gaijatra, Phagupurnima, Shivaratri, and Christmas.

3.2.3 Education Status

There are altogether 742 educational institutions of which; 169 pre-primary schools, 410 primary schools, 106 lower secondary, 50 secondary, 5 higher secondary and 2 campuses. Number of student is 53484 in primary, 12520 in lower secondary and 4272 in secondary. Comparatively boy students are outnumber in primary to higher secondary level. The literacy rate of the district is 48 %. Among them the literate male is 64.7 % and female is 32.3 %.

3.2.4 Economically active and inactive population

About 102019 (74%) population are economically active and 35782 (26%) are inactive. Among the active population 48% are male and 52% are female as shown in table below.

Table 3.1: Economic active and inactive population above 10 years

Status	Total	Percentage	Male	Percentage	Female	Percentage
Economic active	114640	74%	55462	48%	59178	52%
Economic inactive	40650	26%	19405	48%	21245	52%
	155290	100%	74867		80423	

Source: District Profile, Dailekh, 2063

3.2.5 Occupation Pattern

Major occupation in the district has been agriculture and now this has shifted with high youth force migration due to social conflict. This shift has been towards business and overseas employment. About 79 % of people have been adopting agriculture as subsistence livelihood, whereas 3% in commercial business, 2% in government services, 3% in overseas employment, 6% on domestic daily wage labour and 7% in multidimensional activities as shown in table 3.5.

Table 3.2 Occupation Pattern

S.N.	Occupation	Percentage
1	Agriculture	79%
2	Business	3%
3	Government Service	2%
4	Overseas Employment	3%
5	Domestic wage labor	6%
6	Others	7%
Total		100%

3.2.6 Land Use Pattern

District area is 150051 ha, of which 43121 hectare is useable for cultivation. Actual cultivated area is 34497 hectares. Irrigation facility is limited to 10681 ha. Non irrigated land is 23816 ha. Settlement, river/rivulets, road and other infrastructure cover 13333 ha. Altogether 3698 ha land is for pasture and forest land is 89899 ha.

Table 3.3: Land Use pattern

S.N.	Land Use Pattern	Area (Ha.)	Percentage (%)
1	Feasible and usable land for cultivation	43121	28.74
2	Cultivated land	34497	23
3	Fully Irrigated land (12 months)	10681	24.77
4	Pakho	23816	
5	Pasture land	3698	2.46
6	Forest land	89899	37
7	others (Residence, River, Khola, Rock, Roads etc)	13333	8.89
Total		195229	

Source: District Profile, Dailekh, 2063

3.2.7 Agriculture Production

3.2.7.1 Land holding

Land distribution and land holding by the household varies to higher range. Less than two percentage households are land-less and very poor. Most of the families have less than 1 hectare land and some family have more than 2 hectare land. The average landholding per person is 0.17 ha.

3.2.7.2 Cultivated Land

Only 23 % of total land is cultivated of the district. Highest cultivated land is in Narayan Municipality followed by Chamunda, Dullu, Jambhukandh, Katti, Lyatibindrasaini and Dadaparajul.

Table 3.4: VDC Wise Agricultural Land in Hectare

S.N.	Name of VDC	Agricultural Land	Total Land
1	Narayan Municipality	2975	6454
2	Bhawani	368	1445
3	Belpata	504	1089
4	Lakuri	824	2277
5	Goganpani	858	3130
6	Piladi	636	2182
7	Dandaparajul	1114	3386
8	Khadkabada	1002	2912
9	Seri	445	1319
10	Baraha	850	1775
11	Awalparajul	926	3558
12	Lalikanda	876	4564

S.N.	Name of VDC	Agricultural Land	Total Land
13	Rum	501	1308
14	Badabhairab	651	2058
15	Pagnath	501	1388
16	Bindabasini	893	2475
17	Katti	1398	4345
18	Jagannath	831	2531
19	Meheltoli	803	3042
20	Dwari	562	3767
21	Salleri	1038	2493
22	Naumule	407	1268
23	Toli	462	2160
24	Kalika	670	5702
25	Baluwatar	668	3452
26	Chauratha	672	1342
27	Nepa	842	2005
28	Gauri	501	1153
29	Kalbhairab	885	1329
30	Naulekatuwal	895	2230
31	Malika	1081	2397
32	Chhiudipusakot	981	2230
33	Dullu	1484	2485
34	Paduka	526	2172
35	Badalamji	786	1532
36	Gamaudi	632	1817
37	Sattala	718	4481
38	Lyatibindrasaini	1161	2562
39	Chamunda	1726	4050
40	Jambukandh	1353	2839
41	Bisalla	216	3192
42	Lakandra	750	2881
43	Tolijaisi	507	3387
44	Sigaudi	895	3190
45	Rakamkarnali	112	1297
46	Tilepata	603	2984
47	Singasain	407	4786
48	Pipalkot	256	3638
49	Bansi	724	1782
50	Kharigaira	543	1838
51	Badakhola	512	1120
52	Raniban	697	3053
53	Rawatkot	706	1862
54	Kasikandh	940	3624
55	Kusapani	704	4193
56	Bhairikalikathum	990	2510

Source: District Agriculture Development Office, 2065/66

3.2.7.3 Production

Major cash crops are paddy, maize, wheat, millet, oilseed and grams. As a substitute for the subsistence agriculture, they are shifting the production from crop to high value crops as vegetable farming as seasonal and non seasonal as well as horticulture. The annual production and areas are as mentioned below:

Table 3.5 Major crops and their production

S.N.	Crops	Area (Hectare)	Production MT	Productivity per hectare MT
1	Paddy (summer)	8955	24203	2.7
2	Maize	19941	33394	1.67
3	Wheat	21880	23777	1.09
4	Millet	2410	2170	0.90
5	Barley	195	179.4	0.92
6	Oilseed	804	624	0.78
7	Grams	1611	1585	0.98
	Vegetable			
8	Vegetable winter	1481	16500	11.14
9	Summer vegetable	2479	26972	10.88
10	Non seasonal vegetable	352	3801	10.80
11	Potato	1585	23017	14.52
12	Spices (ginger, onion, chilly, daniya, besar, etc0	451	3189	7.07
13	Aduwa	140	1760	12.57
	Fruits			
14	Winter fruits: Apple, Pears, okhar, aru, arubakhada, lapsi	340	1491	6.57
15	All season : Mango, Lichhi, banana, amba, rukhkathar, bhuikatter	308	2029	10.15
16	Orange other types	694	4368	10.50

S.N.	Crops	Area (Hectare)	Production MT	Productivity per hectare MT
	Total			

Source: District Agriculture Development Office, 2065/66

3.2.7.4 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, jamsur. Cash crops are ginger, lasun, besar, sugarcane, onion.

Table 3.6: 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 3.7: Cropping Calendar

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

There is a myths about the livestock production and the name Dailekh, means the huge

quantity of curd in top hills. People of district are farming number of domestic animals and sell their product. The number of livestock population and their product are as follows.

Table 3.8: Livestock Population

S.N.	Livestock	Local	Improve	Total
1	Cattle	107906	168	108074
2	He/She Buffaloes	67734	21952	89686
3	Goat	134582	31547	166129
4	Sheep	9479	151	9630
5	Pig/Boar	5046	3391	8437
6	Chicken	135000	3500	138500
7	Rabbit		1480	1480
8	Duck	1530	503	2033
9	Others	803		803

Source: District Veterinary Office, 2065/066

Table 3.9: Livestock production

S.N.	Livestock's Products	Unit	Annual Production
1	Milk	Litre	27355
2	Meat	MT	712
3	Egg (hen)	Thousand	294.617
4	Wool	MT	3.5
5	Ghee	MT	246

Source: District Veterinary Office, 2066

3.3 Service centers and facilities

3.3.1 Post office

This district has one District Post office in Dailekh Bazar, 8 Illaka level post offices at Naumule, Dandaparajul, Rum, Raniban, Malika, Dullu, Jambukandh and Rakamkarnali VDC and 47 additional post offices in other remaining VDCs.

Table 3.10: Post Office

S.N.	Type of Post office	Number	VDC/Municipality
1	District Post Office	1	Narayan Municipality
2	Illaka Post Office	8	Naumule, Dandaparajul, Rum, Raniban, Malika, Dullu, Jambukandh & Rakamkarnali
3	Additional Post Office	47	Other VDCs

Source: District Post Office, Dailekh district

3.3.2: Financial Institutions

There is one Rastriya Baniya Bank as commercial bank, one Agricultural Development Bank, some finance and money transfer service and many saving and credit cooperatives

as financial institutions.

Table 3.11 Financial institutions

SN	Particular	Units	remarks
1	Commercial bank	2	
2	Development Bank	3	
3	Money Transfer	3	
4	Cooperatives	90	Agriculture, dairy, health, multipurpose, others, s/c, small farmers

Source, Market Survey, 2010

3.3.3. Telecommunication

There are 430 PSTN telephone line, 550 CDMA, 4000 GSM mobile, 6 VST, 5 MARTS, 150 internet users, and 3 telecentre as telecommunication. There are 2 cable operator, 2 FM station and 2 daily news papers.

Table 3.12: List of Telephone and communication facilities

S.N.	Description	unit	Remarks
1	PSTN	430	Capacity 800
2	CDMA	550	
3	GSM Coverage, 50 VDC	4000	Capacity 8000
4	VST	6 VDC	
5	MARTS	5 Line	
6	Internet	150	
7	Telecentre	3	
8	Cabel Operator	2	
9	FM Station	2	

Source: NTC

3.3.4 Agriculture Service Centre

Dailekh has one District Agriculture Development Office at Dailekh Bazar, 7 Illaka level service centres in Naumule, Bestada, Dungsor, Dullu, Badalamji, Chamunda and Rakamkarnali.

Table 3.13: Agri-Service Centres/Sub-Centres

S.N.	Illaka No.	Service Centre/Sub-service Centre	Located Place	Influence VDCs
1	3	Service Centre	Naumule	Baluwatar, Toli, Dwari, Kalika, Naumule, Salleri, Chauratha
2	4	Service Centre	Bestada	Bindabasini, Rum, Pagnath, Mehaltoli, Jagannth, Katti, Badabhairab

S.N.	Ilaka No.	Service Centre/Sub-service Centre	Located Place	Influence VDCs
3	5	Service Centre	Dhungeswor	Lakuri, Belpata, Dandaparajul, Awalaparajul, Lalikanda, Piladi, Goganpani, Seri, Baraha, Khadakabada
4	8	Service Centre	Dullu	Gauri, Kalbhairab, Malika, Chhiudipusakot, Naulekatuwal, Gamaudi, Nepa, Dullu, Paduka
5	8	Service Centre	Badalamji	Rawatkot, Badalamji, Bhairikalikathum, Kusapani,
6	9	Service Centre	Lakandra	Chamunda, Jambukandh, Bisalla, Lakandra, Lyatibindrasaini
7	10	Service Centre	Rakam Karnali	Sattala, Sigaudi, Rakamkarnali, Tolijaisi, Tilepata, Singasain, Pipalkot

Source: Annual Report, DADO, 2065/66

3.3.5 Veterinary Service Centre

The district has one District Veterinary Office at Dailekh Bazar, 4 service centres in Naumule, Awalaparajul, Dullu, Jambukadh and 7 sub-service centres in Desigade, Gaindabaj, Pagnath, Patikanla, Sigaudi, Tilepata and Singasain.

Table 3.14: Veterinary Service Centres/Sub-Centres

S.N.	Ilaka No.	Service Centre/Sub-service Centre	Located Place	Influence VDCs
1	3	Service Centre	Naumule	Baluwatar, Toli, Dwari, Kalika, Naumule, Salleri, Chauratha
2	5	Service Centre	Awalaparajul	Awalaparajul, Dandaparajul, Lakuri, Lalikanda, Piladi, Goganpani
3	8	Service Centre	Dullu	Dullu, Paduka, Nepa, Rawatkot, Badalamji, Kusapani, Bhairikalikathum
4	9	Service Centre	Jambukadh	Jambukadh, Chamunda, Lyatibindrasaini, Bisalla, Lakandra
5	1	Sub-service Centre	Desigade	Narayan Municipality, Belpata

S.N.	Ilaka No.	Service Centre/Sub-service Centre	Located Place	Influence VDCs
1	3	Service Centre	Naumule	Baluwatar, Toli, Dwari, Kalika, Naumule, Salleri, Chauratha
6	2	Sub-service Centre	Gaindabaj	Bansi, Badakhola, Kharigaira, Bhawani, Raniban, Kasikandh
7	4	Sub-service Centre	Pagnath	Pagnath, Rum, Meheltoli, Katti, Jagannath, Bindabasini, Badabhairab
8	6	Sub-service Centre	Patikanla	Khadkabada, Seri, Baraha
9	10	Sub-service Centre	Sigaudi	Sigaudi, Sattala, Rakamkarnali
10	11	Sub-service Centre	Tilepata	Tilepata, Tolijaisi
11	7	Sub-service Centre	Singasain	Malika, Kalbhairab, Gauri, Gamaudi, Chhiudipusakot, Naulekatuwal

Source: District Veterinary Office, Dailekh, 2066

3.3.6 Irrigation

Of the total 34497 ha of the cultivable land, irrigated land is 10681 ha only, which is 31 percent of total feasible agricultural land.

3.3.7 Health

There is one District Hospital at Dailekh Bazar with 17 bed and one Aurvedic Ausadhalaya, three primary health care centre, 6 health post and 50 sub health post. There are 5 doctors, 7 staff nurse, 16 ANM, 12 HA and 64 AHW as health worker in the district.

Table 3.15: Health Services

S.N.	Type of Health service	Number	Place
1	District Public Health Office	1	Dailekh
2	District Hospital	1	Dailekh
	Bed	17	
3	District Ayarvedik Ausadhalaya	1	Dailekh
4	Primary Health Centre	3	
5	Health Post	6	
6	Sub-Health Post	50	
7	Doctors	5	
8	Staff Nurse	7	
9	ANM	16	
10	HA	12	
11	AHW	64	

Source: District Health Office, Dailekh, 2066

3.4 Existing / Potential Development Area

3.4.1 Existing/Potential Area with Extensive Agriculture

Dailekh district has high potential for high value agriculture product. Paddy, maize, wheat and millet are the major cereal crops of the district. Name of the VDC and their significance for agricultural production are as follows.

Table 3.16: Area with Extensive Agriculture

S.N	Name of VDC	Settlement/Area	High value crop
1	Basi	Khada, Palchaur	Paddy/Wheat
2	Sattala	Rawatbada, Chinejiula,	Paddy
		Sattalagau	Maize
3	Dandaparajul	Dungeswor, Dadaparajul	Paddy, Maize
4	Toli	Naumule, Tame, Bhursu	Paddy
5	Rakamkarnali	Rakam, Serabada	Paddy
6	Padukasthan	Bhajanepokhari	Maize, Wheat
		Padukasthan	Paddy
7	Sigaudi	Kujyad, Hulakdanda, Jaksi, Sisne, Niyamal, Bhatgau	Maize, Paddy
8	Awalparajul	Biurakhet, Hanephant	Paddy
9	Badabhirab	Bhairabsthan, Taplung	Maize, Wheat
10	Bhawani	Okarbas, Majhgau	Millet, Wheat
11	Chauratha	Sanimakhu, Thandanda	Maize
12	Katti	Katti	Maize, Wheat
13	Kharigaira	Binetada	Maize
		Chaura, Rigetada, Ralchaur, Sera	Paddy
14	Naumule	Bhitrikholagaun	Paddy
15	Piladi	Torebajh	Millet, Maize
		Kalekhol	Paddy
16	Pipalkot	Tolichka	Millet, Maize
17	Singasain	Singasain	Wheat & Millet
18	Badakhola	Alari, Dungri	Maize
		Tilediphat, Tarachaur	Paddy
19	Badalamji	Gadajula	Paddy
20	Baraha	Saltada, Ritha, Chisapani	Maize
21	Rawatkot	Chamgad, Dipayal, Bedukhet	Paddy/Maize
22	Gamaudi	Gamaudi	Maize

S.N	Name of VDC	Settlement/Area	High value crop
23	Dullu	Ranukhana	Maize
24	Khadkabada	Chalsa, Pipalchautari	Maize
25	Bindabasini	Tatamakhu	Maize
26	Bisalla	Bahakot, Mauveri, Khudkhudi	Millet
27	Narayan Muni.	Marsheket, Tamekhola, Deula, Ukali, Jyamirekhola, Simaltola, Matela, kotilaphant, Sera	Paddy
28	Lakandra	Matela	Paddy
29	Tolijaisi	Parchala	Paddy
30	Lakuri	Um, Guyali	Wheat
31	Jambukadh	Lainchaur, Bastakot	Wheat
32	Nepa	Dharkhola	Wheat
33	Salleri	Paiti, Nauli	Maize
34	Kusapani	Panipokhara	Millet
35	Raniban	Kadesiramla, Gurjeni	Millet
36	Kasikandh	Badaban, Takuri	Millet
37	Kalika	Siyala	Millet
38	Baluwatar	Chamalaya, Naupheri	Millet
39	Dwari	Gopeni, Jaisidanda, Bhande	Millet
40	Belpata	Chupra	Paddy
41	Vairikalikathum	Dadimadi	Maize, Wheat

Source: Groups Discussion/Workshop/Report of DADO

3.4.2 Existing/Potential Area with Extensive Horticulture

Orange, Mango, Banana, Gauva, Arubakhada, Wallnut, Apple, Litchi, *Kagati*, *Amilo* are the major horticultural product of the district. Mango, Banana and Litchi are found in low land and the others fruit found in mid hills.

Table 3.17: Area with Extensive Horticulture

S.N	VDC	Settlement/Area	Cereal crops
1	Narayan Municipality	Sadu	Mango
2	Dullu	Dullu, Timurgau, Sukhana	Citrus Sps.
3	Dandaparajul	Dadaparajul, Pokharipata	Citrus Sps.
		Dungeswor	Banana/ Mango/Litchi
4	Rakamkarnali	Rakam	Banana/ Mango
5	Nepa	Nepa	Citrus Sps.
6	Badabhairab	Duni, Khora, Khajena	Citrus Sps.

S.N	VDC	Settlement/Area	Cereal crops
7	Singasain	Bajkatiyan	Apple
8	Padukasthan	Khetgau, Tallipau, Padukasthan, Dhamigau	Citrus Sps., Mango
9	Kalbhairab	Bhukaha, Toraya, Palta, Chisapani	Citrus Sps.
10	Chhiudipusakot	Kalikachaur, Pusakot	Citrus Sps.
11	Tolijaisi	Panchala	Citrus Sps.
12	Gamaudi	Chhuwala, Gamaudi, Bedegau, Satkhamba	Citrus Sps.
13	Jambukadh	Lainchaur	Mango
14	Kasikadh	Gorthi	Apple
15	Malika	Baika	Citrus Sps.
16	Lyatibindrasaini	Khada, Paletada	Banana/ Mango
17	Naulekatuwal	Katuwalgau, Betani	Citrus Sps.
		Subachhed	Mango
18	Gauri	Daha, Lamsu	Citrus Sps.
19	Khadkabada	Chalsa, Patikanla	Citrus Sps.
			Walnut
20	Baraha	Seribada, Punakot	Citrus Sps.
		Saltada, Chisapani	Mango
		Tudikhel	Walnut
21	Lakuri	Guyali, Sermakot, Um	Citrus Sps.
22	Katti	Katti	Citrus Sps.
23	Seri	Gurase	Arubakhada, Walnut
24	Pipalkot	Patal	Apple, Walnut
25	Bisalla	Khurkhuri, Madantal	Apple, Walnut
26	Kalika	Siyala	Apple
27	Baluwatar	Bhabasain	Apple
28	Raniban	Bajthala	Apple, Walnut
29	Pagnath	Pagnath, Chipintola	Walnut, Pear
30	Piladi	Piladi	Citrus Sps.
33	Bindabasini	Kanda	Pear
34	Goganpani	Lahara	Apple, Walnut
35	Awalparajul	Kolchetuda, Chhana, Rechcha, Jadi	Apple, Walnut
36	Tilepata	Badasain, Miulakot, Tarku, Lamichhani	Citrus Sps., Mango

Source: Groups Discussion/Workshop/Report of DADO

3.4.3 Existing/Potential Area with Extensive Livestock

Livestock product is the economic backbone of the district. Milk, ghee, curd, meat, wool are the important product of the district. Name of the VDC and their significance for livestock production are as follows.

Table 3.18: Area with Extensive Livestock

S.N	VDC	Settlement/Area	Livestock products
1	Narayan Municipality	Triveni	Sheep, Buffalo
		Dailekh	Pig, Poultry
2	Toli	Aultoli	Goat
3	Kusapani	Khambagade	Goat
4	Dullu	Dullu	Buffalo
5	Bhairikalikathum	Dandimadi	Goat
6	Awalparajul	Awalparajul	Buffalo
7	Gauri	Sarkibada	Goat
8	Baluwatar	Rapat	Goat
9	Kalika	Timure	Goat
10	Salleri	Buttar	Goat
11	Khadkabada	Tallo Dungeswor	Pig, Goat, Buffalo
12	Belpata	Chupara	Poultry
		Dandathar	Buffalo
13	Bhawani	Gwati	Goat
14	Pagnath	Maulesal	Goat
15	Baraha	Talpokhari	Buffalo
16	Seri	Bhitrikholagau	Buffalo
17	Lakuri	Lakur	Buffalo
18	Dandaparajul	Dandaparajul	Buffalo
19	Badalamji	Chagatra	Buffalo
20	Kalbhairab	Bukaha	Buffalo
21	Naulekatuwal	Gadapani	Goat
22	Malika	Baika	Goat
23	Goganpani	Goganpani	Goat
24	Dwari	Dwari	Goat
25	Chamunda	Many place	Goat, Buffalo
26	Meheltoli	Many place	Goat, Buffalo
27	Lalikanda	Many place	Goat
28	Chauratha	Mlu	Goat
29	Pipalkot	Tolichaka	Goat
30	Singasain	Sinhasain, Phurugade, Chhepadi	Buffalo, Goat
31	Tilepata	Nauli, Amkana, Lamichhani	Buffalo, Goat

Source: Groups Discussion/Workshop/Report of DVO

3.4.4 Existing/Potential Area with Microhydropower

There is one major river Karnali in the district and many streams. The possibility of the development of microhydropower is very high. At present, 6 micro-hydropowers are operating, three are under construction, three are under study and two need maintenance for operation.

Table 3.19: Area for Microhydropower

S.N.	VDC	Settlement/Area	Capacity
1	Bhawani	Gopikhola, Domill Khola	16+9 kw
2	Piladi	Pirekhola	15 kw
3	Lalikanda	Dhulekhola	15 kw
4	Baluwatar	Raratkhola	10-15 kw
5	Dwari	Rapatkhola	6 kw
6	Meheltoli	Tursukhola	15+12 kw
7	Jagannath	Kaintada (Badaul) Khola	10-15 kw
8	Rakamkarnali	Kanegadkhola	10-15 kw
9	Tilepata	Kanegadkhola	5-6 kw
10	Bisalla	Bhitrikhola	8 kw
11	Lakandra	Budhgad & Ramgad	15 kw
12	Rum	Kattikhola	18 +13kw
13	Raniban		15 kw
14	Katti	Kattikhola	11kw

Source: REDP, Dailekh, 2066

3.4.5 Existing/Potential Areas for Mining development

Table 3.20 Potential Area for mine

S.N.	VDC	Settlement/Area	Possible mineral resources
1	Lakuri	Um	Granite
2	Raniban	Geetachaur	Granite
3	Narayan Municipality	Bijaura	Granite
		Kimu	Slate
		Khageda	Slate
4	Bissalla	Bahakot	Slate
5	Lakandra	Bahakot	Copper
6	Padukasthan	Padukasthan	Gas/Petroleum
7	Badalamji	Shreesthan	Gas/Petroleum

S.N.	VDC	Settlement/Area	Possible mineral resources
8	Gamaudi	Navisthan	Gas/Petroleum
9	Rakamkarnali	Near Karnali Bridge	Basic Rock
10	Katti	Katti Lekh	Slate
11	Chamunda		Slate
12	Kharigaira		Slate
13	Dwari		Valuable stone
14	Baluwatar		Valuable stone
15	Badabhairab	Bahairabsthan	Slate
16	Pagnath	Radi	Valuable stone
17	Rum	Ward no-9	Valuable stone
18	Meheltoli	Dandakatera, Metalpata	Valuable stone

Source: Department of Mines

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

Cottage industries based on agricultural and forest products are present in the district. These included industries such as furniture, allo processing, food processing, sisno podwer, juice and paper making. There are some leather processing industries in the district. as well (see Table 3.21).

Table 3.21 Existing/Potential Area for Cottage and Agro-based Industries

S.N.	VDC	Settlement/Area	Significance
1	Dull	Dullu	Juice, Cloth making, pot making
2	Narayan Municipality	Dailekh	Leather processing, food processing
3	Belpata	Chupra	Food processing, bamboo
4	Meheltoli	Meheltoli	
5	Toli	Naumule	Allo processing
6	Dandaparajul	Dungeswor	Rice mill
7	Dwari	Dwari	Cloth making, bamboo
8	Rum	Bestada	Cloth making
9	Sigaudi	Tunibagar	
10	Kusapani	Kusapani	Paper processing
11	Sattala	Ramghat	
12	Chamunda	Hadakot	
13	Bhirikalikathum		Juice, sisno powder
14	Seri	Gurase	sisno powder

S.N.	VDC	Settlement/Area	Significance
15	Bhawani		allo processing, sisno power, wool processing
16	Kasikandh		paper processing
17	Pipalkot		Allo processing
18	Naumule	Naumule	Paper processing, Clothing
19	Badalamji		Hand ring

Source: Groups Discussion/Workshop/Report of Chamber of Commerce, SmaI, Cottage Industry Development Committee, 2010

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

Dailekh is well known for religious and historical sites. The oldest Nepalese script is in Dullu. Shreesthan, Navisthan, Padukasthan, Koteli and Dhuleswor are the five holy religious places. There are many historical places such as Kotgadhi, Panchkhamba, Satkhamba, Kirtikhamba, Panchadeval, Cave and Bagdhunga. Guranse, Dullu, Dwari waterfalls, Mahabulekh, Bhairabkunda, Raili, Dailekh and Tripani are the important tourism area.

Table 3.22: Area for Religious and Historical Places

S.N	VDC	Settlement/Area	Significance
1	Goganpani	Guranse	Hilltop Station
2	Dullu	Dullu	Oldest Neplese script
		Dharamgadhi	Fort
		Patkani	Stone statue of tiger
3	Baluwatar	Mahabulekh	Trekking route
4	Bhairikalikathum	Bhairakunda	Kunda (Religious Pond)
5	Bindabasini	Raili	Seightseening
6	Narayan Municipality	Shreesthan	Natural gasflame
		Navisthan	
		Bhurti	Panchadeval
		Kotgadhi	Fort, Constructed for defense purpose
7	Badalamji	Dhuleswor	Stone sculputures
8	Dandaparajul	Mathillo Dungeswor	Pilgrims are gather in Shripanchami
9	Khadkawada	Tallodungeswor	Mahadev Temple
10	Gamaudi	Satkhamba, Navisthan	Stones pillars
11	Rakamkarnali	Bank of Karnali river	Possibility of Raffting
12	Sattala	Bank of Karnali river	Upper Karnali hydropower site
13	Sigaudi	Bank of Karnali river	Upper Karnali hydropower site
14	Dwari	Bulbule	Water falls
15	Toli	Tham	Seightseening

S.N	VDC	Settlement/Area	Significance
16	Badabhirab	Ghodadauna	Seightseeing
17	Katti	Gothi	Cave
18	Padukasthan	Padukasthan	Temple
19	Pagnath	Pagnath-8	Pandab Cave

Source: Dailekh District Profile, 2063

3.4.8 Existing/Potential for High Value Cash Crops

District Agricultural Development Office identified different pocket area for high value cash crops. Fresh vegetable, onion, garlic, soyabean, potato, oilseed, cardamom are the major cash crops of the district.

Table 3.23: Area for High Value Cash Crops (with vegetable)

S.N	VDC	Settlement/Area	High value cash crops
1	Kalbhairab	Toraya, Bhukaha, Bahuntol	Fresh Vegetable, Onion
		Bhukaha	Garlic
2	Narayan Municipality	Bhurti, Kalimati, Jaharkot, Kuikana, Kusada	Fresh Vegetable
		Triveni	Soyabean
		Tartan, Bijaura, Baskot	Onion
3	Khadkabada	Septi, Rangu	Fresh Vegetable
4	Goganpani	Lahara area	Potato, Fresh Vegetable
5	Lakuri	Paiyachaur, Roti,	Oil seeds
		Guyali, Um	Fresh Vegetable
6	Rakamkarnali	Rakam	Oil seeds
7	Baraha	Saltada, Udikhel, Ghodabas, nigalpani	Potato, Fresh Vegetable
8	Piladi	Torebaj, Nigalpani, Thantakuri	Potato Seed, Fresh Vegetable
9	Chauratha	Nauli, Paiti	Fresh Vegetable, Potato
		Chauratha	Soyabean
10	Toli	Bhursu	Fresh Vegetable
11	Bindabasini	Thali, Bindabasini, Juphiya, Lohare, Bikram	Fresh Vegetable
12	Seri	Garase, Dabalgaira	Potato, Fresh Vegetable
13	Layatibindrasaini	Daha	Potato, Fresh Vegetable
14	Sattala	Dab	Fresh & Potato
15	Gauri	Lamsu, Daha	Fresh Vegetable
16	Bhawani	Chhanna, Okharbash, Dasarathe	Potato
		Gwati	Soyabean
17	Dandaparajul	Pokharipata	Garlic

S.N	VDC	Settlement/Area	High value cash crops
18	Belpata	Chupra, Matela	Grams
19	Kharigaira	Pipalpata, Dabada	Oil seeds
20	Sigaudi	Nimayal, Taksi	Oil seeds
		Nimayal	Soyabean
21	Katti	Chhapigau, Katti	Cardamom
		Katti	Soyabean
22	Mallika	Kharchegaira	Vegetable seed
		Kharchegaira	Garlic
23	Nepa	Nepa	Fresh Vegetable
24	Awalparajul	Parajul	Garlic
		Bahunechaur	Soyabean
25	Sinhasain	Singhsain	Soyabean
26	Tilepata	Daha	Soyabean
27	Naulekatuwal	Tariya	Garlic
28	Badabhairab	Khor	Soyabean
29	Basi	Airadi	Soyabean
30	Salleri	Many part of the VDC	Potato, fresh vegetable
31	Lalikanda	Many part of the VDC	Soyabean
32	Badakhola	Many part of the VDC	Fresh Vegetable
33	Raniban	Many part of the VDC	Soyabean
34	Baluwatar	Many part of the VDC	Soyabean
35	Tolijaisi	Agra, Pachala	Potato, Fresh Vegetable, Onion

Source: Groups Discution/Workshop/Report of DADO,2010

3.4.9 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 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	VDC	Settlement/Area	NTFP items
1	Meheltoli	Metalpata	Herbal Plant, Kaulo
2	Baluwatar	Bhamasaini	Herbal Plant, Allo, Sisno powder
3	Basi	Gawa, Rithha gau	Sapindus sp.
4	Bhawani	Dasarathe	Allo, sisno, kaulo
5	Bisalla	Many part of VDC	Timur, allo, chutro

S.N	VDC	Settlement/Area	NTFP items
6	Dwari	Sanochamalaya	Herbal Plant, Allo
7	Kalika	Bangebazar, Rapat, Timur gau	Timur, sugandhawala
8	Katti	Barma, Gothi	Resin, kaulo
9	Kusapani	Dandaswara	Lokta
10	Lalikanda	Lalikanda, Okreni	resin, timur, kaulo, allo
11	Naumule	Jarbutta	Herbal Plant, Allo, Tejpat
12	Baraha	Ghodabas	sugandhawala
13	Lakuri	In forest area	Lokta, timur
14	Kasikandh	In forest area	Lokta, pasanbedh
15	Kalbhairab	In forest area	Bamboo
16	Gamaudi	In forest area	Bamboo
17	Narayan Municipality	In forest area	Bamboo
18	Rum	In forest area	Allo, kaulo, pasanbedh
19	Dadaparajul	In forest area	Tejpat, Timur, Kaulo, Kurilo
20	Badabhairab	In forest area	Kaulo, pasanbedh, resin
21	Awalaparajul	In forest area	Resin, Tejapat
22	Sigaudi	In forest area	Resin
23	Sattala	In forest area	Resin
24	Layatibindrasaini	In forest area	Resin
25	Sinhasain	In forest area	Resin
26	Piladi	In forest area	Resin
27	Goganpani	In forest area	Resin
28	Salleri	Malika, Deuli	Allo, kaulo, pasanbedh
29	Toli	Raili, Dhanigau, Lekhtoli	Allo, kaulo
30	Tilepata	Lamichhani, Tarku, Bisala, Bhadasain	Resin, Bmboo

Source: Groups Discussion/Workshop/Report of Chamber of Chambers, Small, Cottage Industry Development Committee, 2010

3.5 Analysis of Market Centres (key growth centers)

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 3.25: Existing and Potential Market Centres with Grading

S.N.	Name of Market centre	Centrality Index	Grading of Market Centre
1	Dailekh	684	A
2	Dullu	153	A
3	Rakam	151	A
4	Mathillo Dhungeswor	104	A
5	Naumule	94	B
6	Tunibagar	93	B
7	Dadamadi	90	B
8	Ramaghat/Mora	82	B
9	Chupra	80	B
10	Hadakot	79	B
11	Khambagade	74	B
12	Thatikadh	65	B
13	Baik/Binayak	54	B
14	Bestada	53	B
15	Badalamji/Chagatra	52	B
16	Dharampokhara	51	B
17	Bhirkhet	46	C
18	Tallo Dhungeshor	45	C
19	Bahankot	45	C
20	Jambukandh	45	C
21	Khidkijyula (Rakamkarnali)	42	C
22	Gaindabaj	40	C
23	Patikanla	39	C
24	Tilepata (Tilepata)	38	C
25	Sinhasain (Sinhasain)	35	C
26	Milan Bazar (Bansi)	35	C
27	Vaisakhori	33	C
28	Awalparajul	32	C
29	Sermakot	31	C
30	Hulaktakura (Pagnath)	30	C

S.N.	Name of Market centre	Centrality Index	Grading of Market Centre
31	Kharigaira	29	C
32	Airadi (Badakhola)	29	C
33	Kholibazar (Raniban)	25	C
34	Sainchaur (Bhairikalikathum)	23	as a potential
35	Bangebazar (Kalika)	22	as a potential
36	Santada (Meheltoli)	21	as a potential
37	Guranse	20	as a potential
38	Ghodabas	20	as a potential
39	Kotadanda (Kasikadh)	20	as a potential
40	Lohare	19	as a potential
41	Rapat (Baluwatar)	17	as a potential
42	Thandanda	17	as a potential
43	Padukakhola	16	as a potential
44	Majgau (Bhawani)	14	as a potential
45	Lamsu (Gauri)	14	as a potential
46	Chhanna	11	as a potential
47	Talpokhari	11	as a potential

Source: Market Survey, 2066

3.5.1 Brief on Existing and Potential Market centre (key growth centre)

Based on relevant literatures/reports, consultation with related program/project and field visits, a total of 47 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, 4 market centres as grade A, 12 market centres as grade B and 17 market centres as grade C have been identified as existing market centre while other 14 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

Dailekh

Dailekh is the district headquarters and the only municipality of the Dailekh district. There are numbers of district level offices, district offices of NGO/INGOs, numbers of general shops, medicals PCOs and many more. This is connected with the regional headquarter Surkhet by Surkhet-Dailekh Feeder Road. Dailekh is A grade market centre of Narayan Municipality. The rank is first and the centrality index is 684 of this centre. People of Narayan Municipality, Rawatkot, Bayalpata, Bindabasini, Chauratha, Toli, Bhawani, Kharigaira, and Gauri are directly benefited from this market center.

Dullu

The centrality index, ranking and grade of this market centre is 153, second and A respectively. This is the old district headquarter of Dailekh and has its own historical and archeological values. There is numbers of shops, services and facility centres such as Ayurved Aushadhalaya, Higher secondary school, campus, lower secondary school, PCO, Illaka post office, Illaka forest office, Illaka police office, primary health centre, various shops, hotel and lodges etc. This centre is linked with district headquarters by Dailekh-Chagatra-Dullu district road. This centre is about 25 km far from district headquarters. People of Rawatkot, Badalamji,

Gamaudi, Kalbhairab, Malika, Naulekatuwal, Nepa, Kusapani, Chamunda, Jambukadh and Padukasthan VDCs are directly benefited from this market.

Rakamkarnali

This centre is located on Karnali Highway and in western border of the district. There are numbers of various shops, hotel/lodges, secondary schools, Ilaka post offices, police bits etc. This area is highly potential for agriculture, horticulture and tourism with plain terrain. Tilepata, Pipalkot, Singasain VDCs and some VDCs of Accham and Kalikot district are benefited from this growth centres. Rakamkarnali is a A grade market centre of Rakamkarnali VDC. The rank is third and the centrality index is 151 of this centre.

Mathillo Dungeswor

This centre lies on Dandaparajul VDC and is located on Surkhet-Dailekh Feeder Road. This centre has numbers of services and facility centres such as various shops, hotels and lodges, schools, photo studios, Ilaka post offices, police stations etc. People of Awalaparajul, Lalikanda and Goganpani VDCs are directly benefited from this centre. This centre is about 15 km south from the district headquarter. It is near by bank of confluences point of Lahore Khola and Parajul Khola. The centrality index, ranking and grade of this market centre is 105, fourth and A respectively.

3.5.1.2 Description of Market Centre Grade B

Naumule

This centre lies on the Toli VDC in the junction of Toli, Naumule and Baluwatar VDC. This centre connect district headquarters by Dailekh-Naumule road. The centrality index, ranking and grade of this market centre is 94, fifth and B respectively. The centrality index, ranking and grade of this market centre are 76, 10th and B respectively. This centre comprises various services and facility centres such as veterinary service centres, Ilaka post offices Ilaka police offices, higher secondary and secondary schoolsteashops, small hotels and restaurants. Naumule, Dwari, Baluwatar and Kalika VDCs are directly benefited from this market centres.

Tunibagar

This market centre is located on Karnali Highway and lies on Sigaudi VDC. IT is about 55 km far from district headquarter. The centrality index of this market centre is 93 and the grade is B and the rank is 6th. There are hotels-lodges, schools, pharmacies and medicals, photo studios and general shops etc. People of Tilepata, Sattala, Tolijaisi VDCs and some VDCs of Achham district are benefited from this centre.

Dandimadi

This market centre is located on Dailekh-Dandimadi-Kusapani-Chamunda district road on Bhairikalikathum VDC. This centre has numbers of tea shops, hotel-lodges, higher secondary schools, photo studios, different furniture industries. The centrality index, ranking and grade of this market centre is 90, seventh and B respectively. This centre has more significance than other market centre because of its central location. People of Chamunda, Bansi, Kusapani, Badalamji and Jambhukadh VDCs benefited from this centrer.

Ramaghat/Mora:

Ramghat is a market centre of Sattala VDC which is situated in the Bank of Karnali river. There are some hotel, restaurant, grocery shops, medicals, cloth shops, stationery, water mill, a primary school. The Ramghat-Singasain-Pipalkot district road is started from this market centre. People of Sattala, Layatibindrasaini, Jambukandh, Lakandra and Tolijaisi are benefited from this market centre. The centrality index of this market centre is 84 and the grade is B.

Chupra

This growth centre is located on Surkhet-Dailekh Feeder Road of Belpata VDC. This centre has various services and facility centres. Such as secondary schools, additional post offices, PCO, sub health posts, hotels and lodges, cloth shops, photo studios etc. This centre is electrified from national grid. Belpata, Kalbhairab, Lakuri VDC are benefited from this market centres. Chupra is a B grade market centre of Belpata VDC. The rank is ninth and the centrality index is 80 of this centre.

Hadakot:

Hadakot is an important market centre of western part of this district in Chamunda VDC. The centrality index, ranking and grade of this market centre are 76, 10th and B respectively. In this market centre, there are campuses, high schools, lower secondary schools, primary schools, post offices as service centres and a number of hotels, restaurants, grocery shops, stationeries, cloth shops. The road name, Dailekh-Dandimadi-Hadakot-Agra-Rakamkarnali passes through this market centre.

Khambagade

This centre lies on Kusapani VDC and connect with district headquarter by Tallodungeswor-Dullu-Dadimdi-Kusapani-Kalikot road. Khambagade is a B grade market centre of Kusapani VDC. The rank is twelfth and the centrality index is 65 of this centre. This centre has varieties of shops, PCOs, additional post offices, secondary schools etc. This centre is about 25 km far from Dailekh bazaar. People of Kusapani, Kasikandh, Chamunda and Bisalla VDCs consume the facilities of this centre.

Thatikandh

The centrality index of this market centre is 65 and the grade is B and the rank is 12th. Thatikandh is the VDC centre of Lakandra. This centre is going to connect to Karnali Highway by Ramghat-Singasain rural road. There is higher secondary schools, medicals, veterinary sub-centres, sub-health posts, and no of general shops and tea shops

Baik/Binayak:

Baika is a B grade market centre of Malika VDC. The rank is 15 and the centrality index is 53 of this centre. There are a higher secondary schools, secondary schools, primary schools, health posts, veterinary service centres, agriculture service centres, post offices as service centres. A number of tea shops, grocery shops, cloth shop, stationery, medical, rice mill in this market centre. The people of Chhiudipusakot, Malika, Gauri come to buy their household needs

Bestada

This centre is located on the eastern part of the district called Rum VDC. The centrality index of this market centre is 53 and the grade is B and the rank is 14th. It has no. of tea shops, general shops, hotels, Illaka post offices, higher secondary schools etc. This centre link with district headquarter and Surkhet by Chupra-Meheltoli road. It is about 18 km from the Chupra market centre. Rum, Meheltoli, Katti, Jagannath and Pagnath VDCs are directly benefited from this centre.

Badalamji/Chagatra:

Badalamji is an important market centre of central Dailekh situated in Badalamji VDC. The centrality index, ranking and grade of this market centre are 54, 14th and B respectively. In this market centres, there a higher secondary school, secondary schools, lower secondary schools, primary school, s post offices as service centres and a number of hotels, restaurants, grocery shops, stationeries, cloth shops. The road name, Tallodungeswor-Dullu-Khambagade-Kalikot passes through this market centre.

Dharampokhara

Dharampokhara is an important market centre of south-eastern part of the district in Lalikanda VDC. It is a centre of Piladi, Lalikanda, Goganpani of Dailekh district and a number of VDC of Surkhet district. It is 22 km east from Ratanagla and connected with Ratanagla-Dharampokhara district road. The centrality index, ranking and grade of this market centre are 54, 13th and B respectively. There is a high school for education and number of tea shops, hotels, restaurants, cloth shops, stationaries and medical shops.

3.5.1.3 Discription of Market Centre Grade C**Bhikhet:**

Bhikhet is situated in the boarded of Badakhola VDC in Rawatkot VDC. It is the centre of Badakhola, Rawatkot, Dailekh Municipality and Gamaudi VDC. The Dailekh-Dandimadi-Hadakot-Agra-Rakamkarnali district road passes through this market centre. The centrality index, ranking and grade of this market centre are 45, 19th and C respectively. There are number of services centres such as higher secondary schools, secondary schools, primary schools, veterinary service centres, cooperatives and a NGO. There are some hotels and restaurants, cloth shops, grocery shop, stationary, medical shops and rice mills.

Tallo Dungeswor

The centrality index of this market centre is 45 and the grade is C and the rank is 18th. This centre lies on the boarder of Naulekatuwal and Khadkabada VDCs. This centre is located on Karnali Highway and connected with the district headquarter through Tallo-Dungeswor-Mathillo Dungeswor road. This centre has numbers of services and facilities such as various shops, hotel lodges, primary schools, PCO and CDMA phones, pharmacies, photo studios etc. The centre is about 25 km far from district headquarter. People of Naulekatuwal, Chhiudipusakot, Khadkabada and Malika VDCs are directly benefited from this centre.

Bahankot:

Bahankot market of Bisalla VDC is in the northern part near Kalikot district, in north-western part of the district. It is beyond 4 hours walking distance from the road head and connected with only trail to the other part of the district. There are number of services centres such as

higher secondary schools, secondary schools, primary schools, veterinary service centres, cooperatives and a NGO. There are some hotels and restaurants, cloth shops, grocery shops, stationaries, medical shops and rice mills. It is a C grade market centre of Bisala VDC. The rank is 18 and the centrality index is 45 of this centre.

Jambukadh

Jambukadh is the VDC centre of Jambukadh VDC. There are numbers of shops, service and facility centres, sub service centres. People from Chamunda, Nepa, Padukasthan and Jambukadh are benefited from this market. The centrality index of this market centre is 45 and the grade is C and the rank is 20th. Middle High way passes through this market centre, the work this High way is going on.

Khidkijyula (Rakamkarnali):

Khidkijyula lies on the way of Surkhet-Kalikot-Jumla Highway in Rakamkarnali VDC. It is collection centre of agricultural and livestock products from Pipalkot, Rakamkarnali and some VDC of Accham District. There are higher secondary schools, high schools, teashops, restaurants, guest houses, rice mills, cooperatives, cloth shops, grocery shops, medical shops. The centrality index, ranking and grade of this market centre are 42, 21st and C respectively.

Gaindabaj:

Gaindabaj is a market centre of Raniban VDC. There are some hotel, restaurant, grocery shops, medicals, cloth shops, stationeries, and a higher secondary school. It is connected with a branch road to the Dailekh-Desigade-Mahabu district road. The people of Raniban, Bhawani, Kharigaira and Bansi are benefited from this market centre. The centrality index of this market centre is 39 and the grade is C and the rank is 22nd.

Patikanla:

Patikanla is 10 Km far to west from the Guranse in Khadkabada VDC at 1500m elevation. The centrality index, ranking and grade of this market centre are 39, 23rd and C respectively. It is the market centre of Seri, Khadkabada and Baraha VDC. There is a high school and veterinary service sub centre and a number of teashops, cloth shops, grocery shop, stationeries and medical shops.

Tilepata (Tilepata):

Tilepata is a C grade market centre of Tilepata VDC. The rank is 25 and the centrality index is 38 of this centre. There are a higher secondary school, secondary school, primary school, health post, veterinary service centre, agriculture service centre, post office as service centre and a cooperative. A number of teashops, grocery shops, cloth shops, stationeries, medicals, are in this market centre. The people of Tilepata, Sigasain, Tolijaisi, Sigaudi comes to buy their household needs sell their local production

.Sinhasain (Sinhasain):

Singasain is VDC centre of Singasain VDC market centre of western part of this district. The centrality index, ranking and grade of this market centre are 35, 25th and C respectively. In this market centre, there is a higher secondary school, lower secondary school, primary school, post office, veterinary service centre, agriculture service centre as service centres and a number of teashops, grocery shop, stationery, cloth shops and medical shops. The road name,

Ramghat-Singasain-Pipalkot which is under construction passes through this market centre.

Milan Bazar (Bansi):

Milan Bazar is a market centre of Bansi VDC. It is a centre of Bansi, Raniban and Kharigaira. The centrality index of this market centre is 35 and the grade is C and the rank is 26th. There are a higher secondary schools, primary schools, post offices as service centres, cooperatives and a NGO. A number of teashops, grocery shops, cloth shops, stationeries, medicals, are in this market centre.

Vaisakhori

This growth centre lies within Narayan municipality of Dailekh district and is located on Dailekh-Desigade-Mahabu district road under construction by RAP-II. Vaisakhori is a C grade market centre. The rank is 27 and the centrality index is 33 of this centre. There are numbers of shops, service and facility centres, sub centres, such as agriculture sub-centres, Illaka health posts etc. People of Bhawani, Kharigaira, Badakhola, Toli and Baluwatar VDCs are benefited from this market.

Awalparajul:

Awalparajul is a market centre of Awalparajul VDC. There are some teashops, grocery shops, medicals, cloth shops, stationeries, and a higher secondary school. It is connected with a road named Mathillo Dungsor-Dandaparajul-Awalparajul to Surkhet- Dailekh Feeder road at Mathillo dungsor. The centrality index of this market centre is 32 and the grade is C and the rank is 28th.

Sermakot:

Sermakot is a VDC centre and market centre of Lakuri VDC. Recently it is connected by Chupra-Kafalsain-Sermakot road. The centrality index, ranking and grade of this market centre is 31, 29th and C respectively. There is a higher secondary school, a high school, health post, post office, number of teashops, cloth shop, grocery shop, medical shops, rice and flour mill and stationery shop.

Hulaktakura (Pagnath):

It is the market centre of Pagnath VDC. There is a high school, sub health post primary school, number of teashops, restaurants, cloth shops, stationery shops, grocery shops, a medical shop, a cooperative and a NGO. The rank is 30th, grade is C and the centrality index is 30 of this market centre.

Kharigaira:

It is a market centre and VDC centre of Kharigaira VDC in the boarder of Badakhola VDC. The market centre is connected with Dailekh-Dandimadi-Hadakot-Agra-Rakamkarnali district road through Bhikhet-Kharigaira rural road. It is the market centre of Kharigaira, Badakhola and Bansi VDCs. The centrality index, ranking and grade of this market centre are 29, 32nd and C respectively. There is a high school and post office service sub centre and a number of teashops, cloth shops, grocery shops, stationeries and medical shops.

Airadi (Badakhola):

Aired is the market centre of Badakhola VDC. There is a higher secondary school, primary

school, a post office, number of teashops, restaurants, cloth shops, stationery shops, grocery shops, a medical shop, a rice mill, a cooperative and a NGO. The rank is 32nd, grade is C and the centrality index is 29 of this market centre.

Kholibazar (Rawatkot):

Kholibazar is a C grade market centre of Rawatkot VDC. The rank is 33th and the centrality index is 25 of this centre. There is a secondary school, primary school, health post, post office as service centre, a NGO and a cooperative. A number of teashops, grocery shops, cloth shop, stationery, medical, rice mill are in this market centre. The people of Rawatkot, Badakhola to buy their household needs sell their local production.

3.5.1.4 Potential Market Centre

There are some other market centre in the district which are consider in market survey but they received below 25 score in centrality index. They are potential market centre. They are Sainchaur of Bhirikalikathum, Bangebazar of Kalika, Santada of Meheltoli, Gurase of Seri, Ghodabas and Talpokhari of Baraha, Kotdanda of Kasikandh, Lohare of Narayan Municipality, Rapat of Baluwatar, Thandanda of Chauratha, Padukakhola of Layatibindrasaini, Majgau and Chhana of Bhawani and Lamsu of Gauri VDC.

CHAPTER IV: DISTRICT INVENTORY MAP OF RURAL ROAD

4.1 Existing Transport Situation

Dailekh district has no air transport service besides the ground transport facilities. Ground transport facilities through Karnali Highway, feeder road, district road and village roads are increasing dramatically in the district. Karnali Highway is being upgraded to blacktop which furnishes transport service to the people of Dailekh district. Surkhet –Dailekh Feeder Road is also being upgraded to blacktop surface. Mid-hill highway of DOR is also being implemented which passes almost parallel to the Karnali Highway linking with the district headquarters of Dailekh. The length of Strategic Road Network that in Dailekh 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.	Karnali Highway	-	86	-	86	Blacktopping in progress by DOR

Table 4.2 List of Feeder Roads:

S. No.	Name of Road	Length(Km)			Total length	Remark
		Black Topped	Gravel	Earthen		
1.	Ranimatta-Dailekh section of Surkhet Dailekh feeder Road	-	47	-	47	Blacktopping in progress by DOR

About 400 Km of district and village roads are vehicle pliable but need to be upgraded to all weather road standard. DOR is upgrading two district roads viz. Tallodungeswor – Dullu and Tallodungeswor – Mathillodungeswor. Moreover, Mid-Hill Highway is also being constructed from east to west of Dailekh district linking to the district headquarters almost parallel to the Karnali Highway.

4.2 National Highway:

Karnali Highway, linking Surkhet to Jumla, has total length of 220 km passes through south west and west boarder touchingeight VDCs of the district. This highway is the valley road and follows

the left bank of Karnali River. This highway passes through eight VDCs of Dailekh district viz. Khadgadaba, Naulekatuwal, Nepa, Layati Bindasairi, Sattala, Singaudi and Rakam Karnali and Pipalkot.

Among the total length of the highway, 86 km lies along this district. DOR is upgrading this highway from gravel to blacktop pavement surface gradually. Blacktop work is in progress up to Khidkijula and rest of the construction work is going on under the Department of Road.

4.3 Feeder Road:

Dailekh district has single feeder road Surkhet - Dailekh Road which is being upgraded from earthen to blacktop for rendering all weather service. Total length of this road is 67 km out of which 47 km lies in Dailekh district. This road starts in Dailekh from Ranimatta bazar and passes through four VDCs and one municipality namely Seri, Barah, Dandaparajul, Belpata and Narayan municipality. This road has two RCC bridges over Parajul khola and Lohare khola.

4.4 Roads being implemented under DOR (Mid-hill Highway & District Roads):

DOR is also implementing some District Roads in the district including mid-hill highway which have not been included in DTMP for implementation. Swap budget is accumulated in the DDC and get done work as per plan. DOR has its own plan for implementing different road projects.

1. Dailekh-Dadimadi-Hadako-Agra-Rakamkarnali District Road

This is one of the famous district roads in Dailekh district which links to western parts of the district, Rakam Karnali area. This road starts from district headquarter Dailekh and passes through Dailekh, Rawatkot, Dadimadi, Khusapani, Chamunda, Hadakot, Thantikadh, Agra, Syaulekadth, Tilepata, Rakamkarnali of Narayan Nagarpalika, Rawatkot, Badalamji, Bhairikalikathum, Kusapani, Chamunda, Chamunda, Jambukadh, Tolijaisi, Tilepata, Rakamkarnali VDCs. This road will be a backbone to the district for connecting western parts of the district. About 22 km section from Dailekh to Dadimadi falls under mid-hill highway from the district headquarter Dailekh. DOR has its own plan to build mid-hill highway so this road section up to Dadimadi has not been included in this DTMP.

2. Dailekh-Lohare District Road:

This road starts from Dailekh Nayabaazar and passes through Nayagaun, tallo bijaura, bijaura of Narayan municipality, which ultimately connects, to the Chupra-Meheltoli road at the bank of Lohore khola. The total length of the road is 9 km earthen surface which is seasonal vehicle pliable till now. This entire section of this road falls under mid-hill highway through Chupra-Mehaltoli district road. This road connects the eastern belt of the district to the district headquarter.

3. Tallo Dungeswor-Mathillo Dungeswor District Road

This road branches from Karnali highway at Tallodungeswor and directs towards Mathillo Dungeswor through Barah and Khadgabada VDCs along left bank of the Lohore khola. The total length of this road is 8 km which is being upgraded to all weather roads by DOR. This road was previously built by DDC through RAP/RCIW programme. This road meets the Dailekh-Surkhet Feeder Road at Mathillo Dungeswor and ultimately connects with the Karnali highway. So, this road can be alternate route to link the district headquarter to Surkhet via Karnali highway.

4. Tallodungeswor-Dullu-Khambagade-Kalikot District Road

This road branches from Karnali highway at Tallodungeswor and directs towards Dullu Bazar through Khadgabada, Naulekatwal, Chhiudipusakot and Kusapani VDCs. The total length of this road will be about 60 km up to Kalikot border. 35 km length up to Khambagade is earthen road which is seasonal vehicle pliable. DOR is upgrading this road to all weather road up to Dullu. From Khambagade to Kalikot border through Byauli has to be built as new earthen road which will be about 25 Km. This road will promote the horticulture, agriculture and livestock farming of this area and will be an important transport linkage with Kalikot district in future. From Khambagade to Kalikot border through Byauli of about 25 Km length has to be built as new road.

5. Ratanagla-Dharmapokhara District Road

This road starts from Ratanagla of Surkhet district and enters the Dailekh at Ranimatta. After entering the Dailekh, it passes along the border side of Dailekh and passes through patihalne, Kanchhibaazar, Dugurnechaur, Bhiuchula, Pakhapani of Goganpani, Piladi and Lalikanda VDCs. This road serves to the people of both districts, Dailekh and Surkhet. This road was constructed with joint effort of Dailekh and Surkhet DDC and DOR. Now Surkhet DDC has working for upgrading this to all weather road using ottaseal technology under Rural Access Improvement and Decentralization Project (RAIDP). The total length of this road is 22 km. The inventory of this road has been kept in DTMP of Surkhet district and only accessibility mapping for Dailekh district has been considered.

4.5 Summary of District Roads “A”

Table 4.3 Summary of District Roads “A”

Road code	Road Name	Total Planned length (km)	existing length (km)	Length measured from GPS (vehicle pliable) (km)	Road status			Surface condition			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Poor	Fair	Good	All Weather	Fair weather	Upgrading	under construction	New construction
60A001R	Ramaghat-Singhasan-Pipalkot District Road	50	25	25	25			25				25	25	15	10
60A002R	Dharmapokhara-Mathillo Dungeswor District Road	20	9	9	9			9				9	9	11	
60A003R	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.61	19.61	19.61	19.6				19.6			19.61	13	6.61	
60A004R	Chupra- Mehaltoli District Road	34.9	21.9	21.9	21.9			21.9				21.9	21.9	0	13
60A005R	Dailekh-Naumule District Road	18	18	18	18			18				18	18	0	
60A006R	Dailekh Bazar-Deshigad-Mahabu District Road	42.4	30.4	30.4	30.4			30.4				30.4	30.4	12	
60A007R	Dullu(Kritikham)-shantibazar-sanagaun-Paligaun-	9.92	9	9	9			9				9	9.92	0	0

Road code	Road Name	Total Planned length (km)	existing length (km)	Length measured from GPS (vehicle pliable) (km)	Road status			Surface condition			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Poor	Fair	Good	All Weather	Fair weather	Upgrading	under construction	New construction
	Pipalghari District Road														
60A008R	Sangetada-Badala-Budeli-Chalnechautara-Rangajujha District Road	6.44	6	6	6			6				6		6.44	
60A009R	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi District Road	15.6	15.6	15.6	15.6			15.6				15.6	15.6		
60A010R	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.85	12.85	12.85	12.9			12.9				12.85	12.85		23
60A011R	Dailekh-Thandanda-Salleri-Naumule District Road	32.69	7.69	7.69	7.69			7.69				7.69	7.69		
60A012R	Dailekh-Kharigaira - Gaidabanjh District Road	10.55	2.86	2.86	2.86			2.86				2.86		9.55	

Road code	Road Name	Total Planned length (km)	existing length (km)	Length measured from GPS (vehicle pliable) (km)	Road status			Surface condition			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Poor	Fair	Good	All Weather	Fair weather	Upgrading	under construction	New construction
60A013R	Banki-Matela-Bisala District Road	37.33	7.33	7.33	7.33				7.33			7.33			30
60A014R	Chupra-Kalbhairab- Bhuka-Chhuwala- Gamaudi-Satkhamma District Road	7.52	7.52	7.52	7.52				7.52			7.52	7.52		
Total Length (km)		340.81	192.76	192.76	192.8			158.3	34.5			192.76	170.88	60.6	76

4.6 Briefs on District Roads “A”

Study and analysis shows that Dailekh district has 18 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:

Ramagad-Singasain-Pipalkot District Road (60A001R):

This road starts from Ramagad bazaar of the Karnali Highway. It follows right bank of the Rangad first and passes through Manakot, Sirari, Pachala, Thantikandh, Daha, Chhadathan, Tolipata, Srikot, Nurathun, Chhopadi, Tolichaka of Sattala, Lakaandra, Tolijaisi, Tilepata, Singasain and Pipalkot VDCs. The total target length of this road is about 50 km, out of which 25 km length is vehicle pliable up to Daha bazaar of Tolijaisi and 15 Km length is under construction through RAP-II programme. Remaining about 10 Km new length of road should be built to join the border of Kalikot District. This vehicle pliable length of 25 Km has been built through RAP/RCIW programme. This road will provide good transport facilities for people and traders of Illaka no. 11 of Dailekh district and in future, Kalikot district will be linked with this road.

Dharmapokhara - Mathillodungeswor District Road (60A002R):

This road starts from Dharmapokhara and meets at Mathillodungeswor along Surkhet - Dailekh Feeder Road. This road passes through different settlements Dharmapokhara, Thati, Sisneri of Lalikanda, Piladi and Awalparajul VDCs. The total length of this road will be about 20 km up to Mathillodungeswor and only 9 Km is vehicle pliable as seasonal road. This length of 9 Km has to be upgraded to all weather roads for better transport facilities.

Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road (60A003A):

This road starts from Mathillo Dungeshor and links with east parts of the VDCs to district headquarters via Mathillodungeswor. This road passes through Mathillodungeswor, Dadaparajul, Aulparajul, Satuda of Dadaparajul and Awalparajul VDCs. The total length of the road is 19.610 Km and has to be upgraded gradually to all weather road with gravelling. This road corridor area is potential of agriculture, vegetable farming and NTFP which will be promoted with this road.

Chupra-Mehaltoli District Road (60A004R):

This road starts from Lohare Khola of Surkhet – Dailekh Feeder Road and passes along right bank of Lohore Khola crossing through different settlements viz. Saalkharka, Simada, Thali, Kugri, Bestada, Rumi etc. of different VDCs such as Narayan Municipality Bindhyabasini, Pagnath, Rum and Meheltoli. This road is providing transport facility for the people and traders of eastern parts of the district. The total length of this road is 35 km, out of which 22 km length is vehicle pliable constructed by RAP/RCIW joint project. Remaining length of 13 Km is under construction through RAP-II programme. It will also promote the Alaichi farming of Katti VDC.

Dailekh-Naumule-Kalika District Road (60A005A):

This road starts from the district headquarter Dailekh and links with north-east parts of the district to district headquarter. It starts at Bhaisakhori of district headquarter and passes through Bini, Chakha, Khajuri, Toli, Bhursu, Nougau, Darbare of different VDCs viz. Narayan Municipality, Toli, Baluwatar and Naumule. The total length of the road is 18 Km and has to be upgraded to all weather road with gravelling. This road will support to promote the vegetables and agriculture production of this area.

Dailekh Bazar-Desigade-Mahabu District Road (60A006R):

This road starts from district headquarter, Dailekh bazaar and passes through Dailekh bazar, Lamidada, Kamigaun, Chhanna, Patihalna, Bhabasaini settlements of different VDCs viz. Narayan Municipality, Bhawani, Kharigaira, Raniban and Baluwatar. The total length of this road is 42 km out of which 30 Km length has been vehicle pliable built through RAP/RCIW programme. The vehicle pliable length has to be upgraded to all weather with gravelling. The rest work of the remaining length is under construction by RAP-II programme. This road will be developed as inter district linkage road with Kalikot district in future.

Dullu -Shantibazar-Sanagaun-Paligaun-Pipalghari District Road (60A007R):

This road starts from Dullu Kritikham and meets with Karnali Highway at Paligaun passing through different settlements such as Dullu, Sanagaun, Shantibazar, Gharkhola, Pali, Pipalghari of Dullu and Nepa VDCs. The total length of this road is about 10 km which is being used as seasonal road has to be upgraded to all weather road. This road will provide good transport facilities to the people of several VDCs like Naulekatuwal, Nepa, Jambukadh, Paduka of the Dailekh district. This road will promote the agriculture production and increase market access to the local people.

Sangetada-Badala-Budeli-Chalneathara-Bhuwakhada District Road (60A008R):

This road starts from Sangetada of Layati Bindhyabasini VDC and passes through different settlements viz. Sangetada, Layati, Jambukandh, Chamunda, Bisala of Layati Bindhyabasini, Jjammukandh, Chamunda and Bisala VDCs. The total length of the road is 12.5 km and only 6 km length is vehicle pliable. This road should be upgraded gradually with proper maintenance work for sustainable operation.

Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi District Road (60A009R):

This road is the alternate route for reaching Dullu via Gamaudi. Total length of the road up to Gamaudi is 15.600 km which is fear weather road and needs upgrading to as all weather road for better transport facilities. This road connects the pocket area of citrus production i.e. Gamaudi

and Chhiudipusakot. The road starts from Dailekh Bazaar and descends down up to Shreesthan and ascends up passing through Shreestha, Navisthan, Rajakandh, Gamaudi.

Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR (60A010R):

This road starts from Birkhet of Dailekh-Dandimadi-Dullu Rural Road and passes through different settlements such as Kholibazar, jajljale, Koldada, Bahunbada, Debanbada, Suwakot of Rawakot, Badakhola and Bansi VDCs. The total length of this road is about 36 km out of which 13 km has to be upgraded to all weather road and about 23 km length has to be built for meeting the accessibility indicator of national policy. This road will provide good transport facilities to the people of several VDCs of the Dailekh district.

Dailekh-Thandanda-Salleri-Naumule RR (60A011R):

This road starts from district headquarter and passes through Kimugaun, Nayagaun, Rajigaun, Sanikakhu and Chaurattaha. This road will increase the access to agriculture production of this area towards market. The total length of this road 8 km, which is operational during fair weather and has to be upgraded to all weather road.

Dailekh-Kharigaira – Gaidabanjh District Road (60A012R):

This road provides transport facilities for the people and traders of Khaigarra, Bansi, and Raniban VDCs of the district and passes through settlement of Naya Bazaar, RupakhetJ Jaharkot, Dewalkanda, Dunikholagaun, Suwakot, Gitachour of Narayan Municipality, Khariganira, Bansi and Ranivan VDCs. The total length of the road is about 10 km out of which only 3 km is seasonal vehicle pliable. Routine and periodic maintenance work should be done properly for sustainable operation of the road.

Banki-Matela-Bahankot-Kalikot District Road (60A013R):

This road starts from Banki of Satala VDC and passes through Banki, Baneswor Bazaar, Koteswor Bazaar, Khetgad khola, Matella bazaar and Bisala of Satala, Lakandra Bisala VDCs. The total length of the road is 7 km earthen surface seasonal vehicle pliable. This road should be upgraded gradually for better transport facilities. Routine and periodic maintenance work should be done properly for sustainable operation of the road.

Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road (60A014R):

This road starts from Chupra and passes through the bottom part of Narayan municipality to Shreesthan through Kotila. This road passes through the settlement viz. Chupra, Kalbhairab, Bhuka, Chhuwala, Gamaudi, Satkhamma of Belpata, Kalbhairab, Gamaudi VDCs. The total length of this road is 7.5 km and has to be upgraded gradually for better transport facilities. Initially 5 km length has to be upgraded to gravel road and routine and periodic maintenance work should be done properly for sustainable operation of the road.

4.7 Summary of District Roads “B”

Table 4.4 Summary of District Roads (Class B)

Road code	Road Name	Total Planned length (km)	existing length (km)	Length measured from GPS (vehicle pliable) (km)	Road status			Surface condition			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Poor	Fair	Good	All Weather	Fair weather	Upgrading	under construction	New construction
60B001R	Ghetidu-Bhajaniya Pokhari-Padukakhola Rural Road	14.89	14.89	14.89	14.89			14.9				14.89	14.9	0	
60B002R	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road	3.76	3.76	0	3.76			3.76				0	3.76	0	0
60B003R	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2)Rural Road	5	5	5	5			5				5	5	0	0
60B004R	Toraiya-Baika Rural Road	4.71	4.71	0	4.71			4.71				0	4.71	0	0
60B005R	Toraiya-Gauri-Malika-Tolipani Rural Road	3.76	3.76	3.76	3.76			3.76				3.76			
60B006R	Guranse-Patikalna Rural Road	10	10	10	10				10			10	10	0	0
60B0007R	Ghodamarche-Gaidabanjh Rural Road	3.66	3.66	3.66	3.66			3.66				3.66		0	
60B008R	Simada-Brindrabasini-Salleri Rural Road	8.49	8.49	8.49	8.49			8.49				8.49	5	0	
60B009R	Lohare-Badabhairab Rural Road	6.32	6.32	6.32	6.32			6.32				6.32	5	0	

Road code	Road Name	Total Planned length (km)	existing length (km)	Length measured from GPS (vehicle pliable) (km)	Road status			Surface condition			Serviceability (all weather/fair weather)		Required intervention(KM)		
					Earthen	Gravel	Black Top	Poor	Fair	Good	All Weather	Fair weather	Upgrading	under construction	New construction
60B0010R	Dailekh Bazar-Bhirkhet - Kharigaira Rural Road	6.85	6.85	6.85	6.85			6.85				6.85	5	0	0
60B011R	Baik-Dullu Rural Road	11	11	11	11				11			11	5	0	0
60B012R	Baratadi-Riju-Pokhara-Ratimati Rural Road	6	6	6	6			6				6	6	0	0
60B0013R	Baika-Malika -Tallo Dungeswor Rural Road	3.87	3.87	3.87	3.87			3.87				3.87		0	0
Total Length (km)		88.31	88.31	79.84	88.31			67.31	21			79.84	64.36	0	0

4.8 Briefs on District Roads “B”

Ghetidu-Bhajaniya Pokhari-Padukakhola Rural Road (60B001R): This road starts from Ghetidu and passes through Chagatra, Ghiyatidu, Padukagaun, Dhamigaun, Paligaun of Padukasthan and Nepa VDCs. The total length of this road is about 15 km seasonal vehicle pliable and has to be upgraded to all weather roads gradually for better transport facilities. Initially 10 km length has to be upgraded to gravel road and routine and periodic maintenance work should be done properly for sustainable operation of the road.

Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road (60B002R): This road starts from Chhiudipusakot and passes through Chhiudi, Lujai, Malika, of Chhiudipusakot and Malika VDCs. The total constructed length of this road is about 4 km not vehicle pliable due to incomplete work. This road will be easy access to people for reaching up to Tallodungeswor.

Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani Rural Road (60B003R):

This road starts from Satkhumba and passes through Satkhamma, Gamaudi, Rajakandh, Navisthan of Rawakot and Gamaudi VDCs. The total length of this road is about 8.5 km and only 3 km length is vehicle pliable. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Toraiya-Baika Rural Road (60B004R): This road starts from Toraiya and passes through Toraya, Chhadgaun, Baik of Kalbhairab and Malika VDCs. The total constructed length of this road is about 5 km not vehicle pliable due to incomplete work. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Toraiya-Gauri-Malika-Tolipani Rural Road (60B005R): This road starts from Toraiya and passes through Toraya, Baskhola, Gauri of Kalbhairab and Gauri VDCs. The total constructed length of this road is about 4 Km seasonal vehicle pliable. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Guranse-Patikalna Rural Road (60B006R): This road will link the Dailekh - Surkhet Feeder Road at Guranse and Karnali Highway at Patikanla. It passes through Guranse, Gaibanna, Salleri, Chalsa and Gopalsain of Seri and Khadgabada VDCs. The total length of this road is about 10 km seasonal vehicle pliable and has to be upgraded to all weather road gradually for better transport facilities. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Ghodamarche-Gaidabanjh Rural Road (60B007R): This road starts from Ghodamarche and passes through Ghodamarche, Chhanna, Gaidabanjh of Raniban and Kharigaira VDCs. The total constructed length of this road is about 4 Km seasonal vehicle pliable. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Simada-Brindrabasini-Salleri Rural Road (60B008R): This road starts from Simada of Bindhyabasini and passes through Simada, thali, Bindhyabasini of Bindhyabasini VDCs. The total length of this road is about 8.5 km and has to be upgraded gradually for better transport facilities. Initially 5 km length has to be upgraded to gravel road and routine and periodic maintenance work should be done properly for sustainable operation of the road.

Lohare-Badabhairab Rural Road (60B009R): This road starts from Lohara Khola and passes through Lohare, Khor, Badabhairab of Bindhyabasini, Badabhairab VDCs. The total length of this road is 6.5 km and has to be upgraded gradually for better transport facilities. Initially 5 km length has to be upgraded to gravel road and routine and periodic maintenance work should be done properly for sustainable operation of the road.

Bhirkhet - Kharigaira Rural Road (60B010R): This road starts from Bhirkhet and passes through bhirkhet, suntada, kharigaira of Badakhola and Kharigaira VDCs. The total seasonal vehicle pliable length of this road is about 7 km and this road should be upgraded to all weather road gradually. Initially 5 km length has to be upgraded and routine and periodic maintenance work should be done for better transport access to people and goods.

Baik - Dullu Rural Road (60B011R): This road starts from Badegaun part of 'Tallo Dungeshor-Dullu road and passes through Baik, Chhiudipusakot, Satkhamma, Dullu, and Dhiyatidu. The total length of this road is 11km and has to be upgraded gradually for better transport facilities. Initially 8 km length has to be upgraded to gravel road and routine and periodic maintenance work should be done properly for sustainable operation of the road. This road has high significance to promote the horticulture sector of this area by providing easy market access.

Baratadi-Riju-Pokhara-Ratimati Rural Road (60B012R): This road starts from Baratadi branching from Tallodungeswor Dullu road and passes through Baratadi, Riju, Pokhara and Ratimati of Naulekatwal and Dullu VDCs. The total constructed length of this road is about 6 Km seasonal vehicle pliable. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

Baika-Malika -Tallo Dungeswor Rural Road (60B013R): This road starts from Baika and passes through Baik, Tallodungeswor, Malika of Khadgabada and Malika VDCs. The total constructed length of this road is about 4 Km seasonal vehicle pliable. Proper routine and periodic maintenance work should be done for sustainable operation of the road.

4.9 Summary of Main Trails

Main trails are very useful to the people for accessing different services and facilities as well as to reach the higher class of road. The interventions are determined for the rehabilitation and widening of the main trails in addition to the upgrading of the main trails into rural roads. Main trails serve and connect all parts of the district and over to the neighbouring districts. The Hulaki Sadak is known as the main strategic trails which serves the inter-district and regional linkage. The existing main trails of the district are as follows:

Table 4.5 List of Main Trails

S.N.	Name of Main Trail	Length (km)	Width (m)	Pavement	Condition	Intervention required
1	Dailekh-Baluwatar	37	2	Earthen	Passable	Maintenance
2	Dailekh-Rakam	65	1.5	Earthen	Passable	Widening and maintenance
3	Dailekh-Byauli-Manma	35	1.5	Earthen	Passable	Widening and

S.N.	Name of Main Trail	Length (km)	Width (m)	Pavement	Condition	Intervention required
						maintenance
4	Dailekh-Bestada-Jagannath	36	1.5	Earthen	Passable	Widening and maintenance
5	Dailekh Awalparajul-Piladi	45	1.5	Earthen	Passable	Widening and maintenance
6	Dailekh-Bhawani-Mahabu	33	2	Earthen	Passable	Maintenance
7	Rakam-Sattala-Jambukadh	19	1.5	Earthen	Passable	Widening and maintenance

4.10 Major Historical Trails

In addition to the above existing main trails, there are important historical main trails which are listed as follows.

- i) Naumule-Rapat-Kaprekhol-Bhandekhola-Sanochamalaya-Thulochamalaya-Gobrekhada
- ii) Naumule-Jaisidanda-Gopeni-Chandomesoli-Ghoptelekh-Tinchule-Bagdiula-Jumla
- iii) Mathillo Dugeswor-Koteli-Shreesthan-Navisthan-Panchadewal-Dhuleswor-Padukasthan

4.11 List of Existing Trail Bridge

Table 4.6 List of Existing Trail Bridge

SN	Bridge Number	Bridge Name	River Name	Span	Type	Bank		Coordinates	
						Right Bank	Left Bank	Northing	Easting
1	61 5 015 18 06 1	Kanegad	Kanegad	80	D	Tilepata	Tilepata	29.04108	81.48346
2	61 5 027 18 06 1	Kadelkhet	Ranibon	42	D	Kashikadh	Ranibon	28.96336	81.70642
3	61 5 006 18 06 1	Jhuja	Jhuja	78	D	Lalikada	Lalikada	28.66831	80.76239
4	61 3 001 18 06 4	Jhilkebagar	Lohore	70	D	Na Na Pa	Chaurata	28.85944	81.76392
5	61 5 046 18 06 3	Jhagadikhet	Kashikadh	89	D	Kusapani	Kashikadh	28.95503	81.65519
6	61 3 001 18 06 7	Jatada	Lohore	104	D	Na Na Pa	Bindhabasini	28.83492	81.74714
7	61 5 011 18 06 1	Hulaktakura	Katti Khola	62	D	Pagnath	Badabhairab	28.80539	81.77719
8	61 5 046 18 06 1	Gortithulebagar	Gorti Khola	60	D	Kusapani	Kashikadh	28.99836	81.65686
9	61 5 054 18 06 1	Ghatte Khola B	Ghatte Khola	52	D	Pipalkot	Pipalkot	29.10396	81.52361
10	61 5 029 18 06 1	Ghatte Khola A	Tame Khola	41	D	Bhawani	Bhawani	28.00000	81.75150
11	61 5 032 18 06 1	Dugeshor N	Lohore	103	N	Dandaparajuli/Belpata	Gauri	28.76250	81.66456
12	61 5 028 18 06 4	Doviladovan	Ranibon	42	D	Ranibon	Ranibon	28.96336	81.70642
13	61 5 050 18 06 1	Dimure Gad	Dimure Gad	46	D	Tolijaisi	Tolijaisi	28.99439	81.51322
14	61 5 047 18 06 1	Dhyapa	Chamunda	81	D	Bisalaa	Chamunda	28.96774	81.08877
15	61 5 039 18 06 2	Dareghat	Chamghat	82	D	Rawotkot	Bada Khola	28.87328	81.67469
16	61 5 018 18 06 1	Chisapani	Lohore	71	D	Badabhairab	Bindhabasini	28.80975	81.73931
17	61 5 002 18 06 1	Biuritada	Rati Khola	45	D	Baraha	Baraha	28.75986	81.63283
18	61 5 036 18 06 1	Bhirkhet N	Chamghat	69	N	Gamaudi	Badakhola	28.85503	81.68309
19	61 5 032 18 06 2	Bhangad	Lohore	64	D	Gauri	Belpata	28.78303	81.68316
20	61 3 001 18 06 2	Bhanbhane	Lohore	97	D	Na Na Pa	Bindhabasini	28.84711	81.75464
21	61 5 007 18 06 2	Beurakhet	Parajuli	100	D	Awalparajuli	Goganpani	28.72022	81.69367
22	61 5 023 18 06 1	Baltar	Lohore	72	D	Baluwatar	Dwari	28.91531	81.81664
23	61 3 001 18 06 6	Todkeghat	Lohore	75	D	Na Na Pa	Lakuri	28.80672	81.72006
24	61 5 008 18 06 1	Tiliyaghat	Parajuli	62	D	Awalparajuli	Dandaparajuli	28.72742	81.68313
25	61 5 050 18 06 1	Thutesimal	Lohore	100	D	Toli	Saleri	28.90283	81.80008
26	61 5 027 18 06 3	Tarepahara	Kashikadh	73	D	Kashikadh	Kashikadh	28.97153	81.67872
27	61 5 025 18 06 1	Taraghat	Taraghat	92	D	Kharigaira	Na Na Pa	28.87058	81.70708

SN	Bridge Number	Bridge Name	River Name	Span	Type	Bank		Coordinates	
						Right Bank	Left Bank	Northing	Easting
28	61 5 024 18 06 2	Tarachaur	Taraghat	90	D	Badakhola	Na Na Pa	28.86404	81.69574
29	61 3 001 18 06 5	Tamekhola B	Tame Khola	80.5	D	Na Na Pa	Toli	28.90392	81.76956
30	61 3 001 18 06 3	Tamekhola A	Tame Khola	71	D	Na Na Pa	Toli	28.89958	81.77211
31	61 5 031 18 06 1	Tallodugeschor	Lohore	80	D	Malika	Khadakbada	28.78458	81.58672
32	61 5 036 18 06 3	Shristhan	Navisthan Khola	61.5	D	Gamaudi	Rawotkot	28.84006	81.67958
33	61 5 039 18 06 3	Shristhan (SBP)	Chhamghat	84.4	D	Rawotkot	Na Na Pa	28.84271	81.67945
34	61 5 039 18 06 1	Saltada	Chamghat	97	D	Rawotkot	Bashi	28.88353	81.66322
35	61 5 028 18 06 1	Ranibon N	Karnali	151	N	Ranibon	Sigaudi	28.98158	81.42569
36	61 5 048 18 06 1	Ramagad	Ramaghat	62	D	Lakandra	Layati	28.93669	81.52242
37	61 5 033 18 06 1	Raksebaraha	Lohore	80	D	Kalvairab	Belpata	28.79971	81.68660
38	61 5 028 18 06 3	Phagu	Kasikadh	50	D	Ranibon	Kashikadh	28.94344	81.66567
39	61 5 007 18 06 1	Parajuli N	Parajuli	32	N	Awalparajuli	Baraha	28.75933	81.66433
40	61 5 041 18 06 1	Paduka	Paduka Khola	79.5	D	Layatibindrasaini	Paduka	28.89986	81.58428
41	61 5 031 18 06 2	Okhaldhunga	Lohore	93.5	D	Malika	Baraha	28.76825	81.63764
42	61 5 017 18 06 1	Naumule	Lohore	55	D	Toli	Naumule	28.90653	81.81164
43	61 5 024 18 06 1	Mohoradovan	Taraghat	53	D	Badakhola	Na Na Pa	28.85353	81.68434
44	61 5 016 18 06 1	Mehelje	Katti Khola	68	D	Pagnath	Badabhairab	28.78639	81.82839
45	61 5 045 18 06 1	Matela Khola	Matela Khola	69	D	Lakandra	Chamunda	28.97423	81.55227
46	61 5 015 18 06 1	Mangharsamje	Rum Khola	58	D	Rum	Jaganath	28.78556	81.83811
47	61 5 036 18 06 2	Malighat	Chamghat	96	D	Gamaudi	Na Na Pa	28.82469	81.69397
48	61 3 001 18 06 1	Lohore N	Lohore	89	N	Na Na Pa	Bindhabasini	28.81529	81.73813
49	61 5 027 18 06 2	Kutigadi	Gortikhola	85	D	Kusapani	Kashikadh	28.96097	81.65269
50	61 5 039 18 06 4	Kitula	Chamghat	50.5	D	Rawotkot	Bashi	28.87568	81.66841
51	61 5 026 18 06 1	Khorsajakhet	Chamghat	95	D	Rawotkot	Bashi	28.89567	81.65719
52	61 5 044 18 06 1	Khatada	Paduka Khola	44	D	Layatibindrasaini	Paduka	28.89250	81.54228
53	61 5 028 18 06 2	Khadapalchaur	Chamghat	39	D	Bharikalikathum	Raniban	28.91475	81.65431
54	61 3 001 18 06 8	Khadadovan	Lohore	84	D	Na Na Pa	Lakuri	28.80174	81.71468
55	61 5 033 18 06 2	Kayalkuna	Chamghat	109	D	Kalvairab	Na Na Pa	28.80678	81.68345

4.12 Existing Road RCC Bridge**Table 4.7 Existing Road RCC Bridge**

S. N.	Code	Name of the road	Way Point	River Name	Place Name	Span "M"	Present Condition of Structures	Remarks
1	60A014R	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	35	Chupra Jholung Khola	Chupra Jholung	150	Good	

4.13 Existing Concrete Causeway**Table 4.8 Existing Concrete Causeway**

S. N.	Code	Name of the road	WayPoint	Span "M"	Condition of Structures	Remarks
1	60A001R	Ramaghat-Singhasan-Pipalkot District Road	7	0	Poor	
2	60A013R	Banki-Matela-Bisala Rural Road	17	20.00	Poor	Khetghat Khola

4.14 District Inventory Map of Rural Road Network

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 Dailekh 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 are inaccessible area. The planning team proposes the road network for the inaccessible area as identified by the Zol analysis.

5.4 Accessible Area and VDCs

Accessibility situation of the Dailekh 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 36 % (545 Sq.km) of total area are under accessible area based on serviciability of all weather road. Similarly 80% (1198 sq.km)) of total area falls under accessible area based on serviciability of all fair weather road. Out of 55 VDCs and 1 Municipality, only 15 VDCs have fully access and 9 VDCs have partial access to all weather condition. Likewise, 43 VDCs have full access and 17 VDCs have partial access limited to fair weather condition. The following table shows the accessibility area, coverage and population.

Table 5.1: Accessible Area and VDCs

Serviciability	Accessible area (sq.km)	Percentage	Accessible VDCs	Partially accessible VDCs
All weather	545	36	Seri, Malika, Baraha, Khadkawada, Belpata, Gauri, Kalbhairab, Chiudipusakot, Naule katuwal, Nepa, Padukasthan, Narayan N.P, Badakhola, Lyati bindraseni, Gamaudi	Goganpani, DadaParajul, Lakuri, Badabhairab, Bindhyabasini, Chauratha, Toli, Bhawani, Kharigera, Bansi, Dullu, Badalamji, Janbukandh, Lakandra, Tolijaisi, Chamunda, Rawatkot, Sattala
Fair weather	1198	80	Seri, Malika, Baraha, Khadkawada, Belpata, Gauri, Kalbhairab, Chiudipusakot, Naule katuwal, Nepa, Padukasthan, Narayan N.P, Badakhola, Lyati bindraseni, Gamaudi, Goganpani, DadaParajul, Lakuri, Badabhairab, Bindhyabasini, Toli, Bhawani, Kharigera, Bansi, Dullu, Badalamji, Janbukandh, Lakandra, Tolijaisi, Chamunda, Rawatkot, Sattala, Rakam Karnali, Tilepata, Sigaudi, Bhairi Kalikathum, Raniban, Naumule, Pagnath, Piladi	Pipalkot, Sinhasain, Bisalla, Kusapani, Kasikandh, Baluwatar, Dwari, Kalika, Salleri, Chauratha, Room, Moheltolee, Jaganath, Katti, Awal Parajul, Lalikanda

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 and VDCs

Table 5.2 shows that about 62 % (929 Sq.km) of total area are found inaccessible in the case of all weather serviceability of road. Similarly 18 % (275 Sq.km) of total area is inaccessible for fair weather serviceability of road. Out of 20 VDCs and 1 municipality, only 26 VDCs are found under inaccessible area. The following table shows the inaccessibility area, coverage and population.

Table 5.2: inaccessible Area and VDCs

Serviciability	Inaccessible area (sq.km)	Percentage	Inaccessible VDCs
All weather	929	62	Pipalkot, Sinhasain, Rakam Karnali, Tilepata, Sigaudi, Bisalla, Kusapani, Kasikandh, Bhairi Kalikathum, Raniban, Baluwatar, Dwari, Naumule, Kalika, Salleri, Moheltolee, Room, Pagnath, Jaganath, Katti, Awal Parajul, Piladi, Lalikanda.
Fair weather	275	18	

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	Total 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 RRA for New Linkage

S.N.	Code	Name of Road	Total Target Length km	Road 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 walk hour (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	60A004 R	Chupra- Mehaltoli District Road	34.90	13.00	55.00	15.00	20.00	7.63	97.63	1
2	60A001R	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	30.55	4.84	5.85	9.94	51.18	2
3	60A010 R	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.85	23.00	22.36	7.16	9.39	8.78	47.68	3
4	60A006 R	Dailekh Bazar-Deshigad-Mahabu District Road	42.40	12.00	25.18	8.14	8.18	5.55	47.04	4
5	60A015 R	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road	34.00	34.00	21.22	6.14	7.28	10.00	44.64	5
6	60A011R	Dailekh-Thandanda-Salleri-Naumule District Road	32.69	25.00	13.72	3.42	5.05	8.09	30.27	6
7	60A013R	Banki-Matela-Bahankot-Kalikot District Road	30.00	30.00	15.05	5.91	6.19	1.60	28.75	7
8	60A014 R	Khambagade-Beuli-Kalikot	25.00	25.00	10.84	4.30	4.46	5.13	24.73	8
Total Length km			284.84	187.00						

6.3 Brief on proposed District Roads Class A for New Linkages

60A004 R, Chupra- Mehaltoli District Road

This road starts from Lohare Khola of Surkhet – Dailekh feeder road and passes along right bank of Lohore khola crossing through different settlements viz. Saalkharka, Simada, Thali, Kugri, Bestada, Rumi etc. of different VDCs such as Narayan municipality Bindhyabasini, Pagnath, Rum and Meheltoli. This road is providing transport facility for the people and traders of eastern parts of the district. The total length of this road is 35 km out of which 22 km length is vehicle pliable constructed by RAP/RCIW joint project. Remaining length of 13 Km is under construction through RAP-II programme. It will also promote the Alaichi farming of Katti VDC.

60A001R, Ramaghat-Singhasan-Pipalkot District Road

This road starts from Ramagad bazaar of the Karnali highway. It follows right bank of the Rangad first and passes through Manakot, Sirari, Pachala, Thantikandh, Daha, Chhadathan, Tolipata, Srikot, Nurathun, Chhopadi, Tolichaka of Sattala, Lakaandra, Tolijaisi, Tilepata, Singasain and Pipalkot VDCs. The total target length of this road is about 50 km out of which 25 km length is vehicle pliable up to Daha bazaar of Tolijaisi and 15 Km length is under construction through RAP-II programme. Remaining about 10 Km new length of road should be built to join the border of Kalikot District. This vehicle pliable length of 25 Km has been built through RAP/RCIW programme. This road will provide good transport facilities for people and traders of Illaka no. 11 of Dailekh district and in future, Kalikot district will be linked with this road.

60A010 R, Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road

This road starts from Birkhet of Dailekh-Dandimadi-Dullu Rural Road and passes through different settlements such as Kholibazar, jajljale, Koldada, Bahunbada, debanbada, suwakot of Rawakot, Badakhola and Bansi VDCs. The total length of this road will be about 36 km out of which 13 km has been vehicle pliable which has to be upgraded to all weather road and about 23 km new length has to be built for meeting the accessibility indicator of national policy. This road will provide good transport facilities to the people of several VDCs of the Dailekh district.

60A010 R, Dailekh-Thandanda-Salleri-Naumule District Road

This road starts from district headquarter and passes through Kimugaun, Nayagaun, Rajigaun, Sanikakhu and Chaurattaha. This road will increase the access to agriculture production of this area towards market. The total length of this road will be about 33 Km out of which 8 km length is operational during fair weather and has to be upgraded to all weather road and remaining new segment of length has to be constructed gradually as per plan.

60A006 R, Dailekh Bazar-Deshigad-Mahabu District Road

This road starts from district headquarter, dailekh bazaar and passes through dailekh bazar, lamidada, kamigaun, chhanna, patihalna, bhabasaini settlements of different VDCs viz. Narayan Nagarpalika, Bhawani, Kharigaira, Raniban and Baluwatar. The total length of this road is 42 km out of which 30 Km length has been vehicle pliable built through RAP/RCIW programme. The vehicle pliable length has to be upgraded to all weather with gravelling. The rest work of the remaining length is under construction by RAP-II programme. This road will be developed as inter district linkage road with Kalikot district in future.

60A015 R, Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road

This is one of the famous district roads in Dailekh district which links to Rakam Karnali area passing through different settlements of different VDCs. This road starts from district headquarter Dailekh and passes through Dailekh, Rawatkot, Dadimadi, Khusapani, Chamunda, Hadakot, Thantikadh, Agra, Syaulekadth, Tilepata, Rakamkarnali of Narayan

Nagarpalika, Rawatkot, Badalamji, Bhairikalikathum, Kusapani, Chamunda, Chamunda, Jambukadh, Tolijaisi, Tilepata, Rakamkarnali VDCs. This road will be a backbone to the district for connecting western parts of the district. About 36 km section falls under mid-hill highway from Ddailekh. Total length of the road will be about 70 km up to Rakam karnali. New road section of 34 km length from Hadakot to Rakam Karnali has to be built with labour based technology. Dadimadi and Thantikhand are the key growth centers through which this road passes.

60A013R, Banki-Matela-Bahankot-Kalikot District Road

This road starts from Banki of Satala VDC and passes through Banki, Baneswor bazar, Koteswor bazar, Khetgad khola, Matella bazaar and Bisala of Satala, Lakandra. Bisala VDCs. The total length of the road is 7 km earthen surface seasonal vehicle pliable. This road should be upgraded gradually for better transport facilities. Routine and periodic maintenance work should be done properly for sustainable operation of the road. New alignment of about 30 km length extending from 7 km chainage should be constructed for bringing into accessibility situation of within 4 hrs walking.

60A014 R, Khambagade-Beuli-Kalikot District Road

This road branches from Karnali highway at Tallodungeswor and directs towards Dullu through Khadgabada, Naulekatwal, Chhiudipusakot and Kusapani VDCs. The total length of this road will be about 60 km up to Kalikot border. 35 km length up to khambagade is earthen road which is seasonal vehicle pliable. DOR is upgrading this road as all weather road up to Dullu. From Khambagade to Kalikot border through Byauli has to be built as new earthen road which will be about 25 Km. This road will promote the horticulture, agriculture and livestock farming of this area and will be an important transport linkage with Kalikot district in future.

6.4 Prioritization of District Road 'B' for New Linkage

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

S.N.	Code	Name of Road	Total Targeted Length km	Length for New constructionkm	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 ' Walk Hour (20)	service to the areas inhabited by the poor, Dalits and marginalized Janjatis/ethnic groups/communities	Total Score (100)	Priority Rank
1	60B019R	Naumule-Kalika RR	10.000	10.000	50.43	13.27	20.00	10.00	93.70	1
2	60B018R	Dhungemela-Markhe-Rhekcha RR	5.000	5.000	55.00	15.00	17.45	2.10	89.55	2
3	60B002R	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road	3.760	3.760	54.48	6.17	8.65	3.45	72.75	3
4	60B020R	Syaulekandh-Phulkechaur-Bistagau-Dap	16.000	16.000	37.99	8.41	10.36	1.70	58.46	4
5	60B016R	Santada-Mandhar-Suyad-Jajarkot	15.000	15.000	32.27	7.30	10.24	0.78	50.59	5
6	60B017R	Bestada-Katti-Thuwa-Jajarkot	21.000	21.000	23.52	4.25	7.46	1.13	36.37	6
7	60B014R	Naumule-Rapat-Bhurunge-Dwaree-Bulbule Jharana RR	25.000	25.000	11.64	3.23	4.10	1.79	20.77	7
Total Length km			95.760	95.760						

6.5 Brief Description of proposed District Roads 'B' for New Linkages

60B019R, Naumule-Kalika Rural Road:

This road starts from Naumule of Toli VDC, of Dailekh-Naumule rural road. This road passes through Naumule, Dhandgaun, Bangebazar of Naumule and Kalika VDCs. About 2.5 km length has been seasonal vehicle pliable and under construction. The total new length of this road up to Kalika will be about 10 km which has to be built to bring into accessibility situation within 4 hrs walking. Routine and periodic maintenance work should be done properly for sustainable operation of the road.

60B018R, Dhungemela-Markhe-Rhekcha Rural Road:

This road starts branching from Dharampokhara-Mathillodungeswor district road at Dhungemela and passes through Dhungemela and Markhe of Piladi and Lalikanda VDCs. The total new length of this road up to Rhekcha will be about 5 km which has to be built to bring into accessibility situation within 4 hrs walking.

60B002R, Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road:

This road starts from Chhiudipusakot and passes through Chhiudi, Lujai, Malika, of Chhiudipusakot and Malika VDCs. The total constructed length of this road is about 4 km not vehicle pliable due to incomplete work. This road will be easy access to people for reaching up to Tallodungeswor.

60B020R, Syaulekandh-Phulkechaur-Bistagau-Dap Rural Road:

This road starts branching from Ramagad-Singhasain district road at Syaulekandh and passes through Syaulekandh, Tolipata, Phulkechaur, Simgau, Khambada, Bistagau, Dap of Tilepata and Sattala VDCs. This road will increase the access to agriculture production of this area towards market. The total new length of this road up to Dap will be about 16 km which has to be built to bring into accessibility situation within 4 hrs walking. Ultimately this road will meet Karnali highway

60B016R, Santada-Mandhar-Suyad-Jajarkot Rural Road:

This road starts branching from Chupra-Mehaltoli district road at Santada and passes through Santada, Mandhar, Suyad of Mehaltoli and Jagannath VDCs. This road will increase the access to agriculture production of this area towards market. The total new length of this road up to Jajarkot border will be about 15 km which has to be built to bring into accessibility situation within 4 hrs walking.

60B017R, Bestada-Katti-Thuwa-Jajarkot Rural Road:

This road starts branching from Chupra-Mehaltoli district road at Bestada and passes through Bestada, Katti, Thuwa, Kachali of Pagnath and Katti VDCs. This road will increase the access to agriculture production of this area towards market. The total new length of this road up to Jajarkot border will be about 21 km which has to be built to bring into accessibility situation within 4 hrs walking.

60B014R, Naumule-Rapat-Bhurunge-Dwaree-Bulbule Jharana Rural Road:

This road starts from Naumule Bagbazar and passes through Naumule, Baltar, Rapat, Salleri, Bhurunge, Dwaree of Naumule, Baluwatar and Dwaree VDCs. The total length of the road will be about 25 km. This road will be extended up to Bulbule jharana (Waterfall) of Dwaree VDC which is historical and tourism place. This road will cost a little bit higher because of passing difficult terrain and jungle area.

6.6 Possible Inter-district Transport Linkages:

In Dailekh 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. Tallodungeswor-Dullu-Khambagade-Kalikot District Road with Kalikot district.
- ii. Ramaghat-Singhasan-Pipalkot-Kalikot District Road with Kalikot district.
- iii. Dailekh Bazar-Deshigad-Mahabu District Road with Kalikot district.
- iv. Santada-Mandhar-Suyad-Jajarkot with Jajarkot district.
- v. Bestada-Katti-Thuwa-Jajarkot with Jajarkot district.

6.7 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 Corridors and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	60A001R	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	70.00	2.83	18.99	91.82	1
2	60A005 R	Dailekh-Naumule District Road	18.00	18.00	64.23	10.00	12.12	86.35	2
3	60A004 R	Chupra- Mehaltoli District Road	34.90	21.90	67.31	2.61	12.37	82.29	3
4	60A006 R	Dailekh Bazar-Deshigad-Mahabu District Road	30.400	30.400	50.00	9.54	20.00	79.54	4
5	60A003 R	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.61	13.00	36.15	2.38	20.00	58.53	5
6	60A010R	Dailekh-Thandanda-Salleri-Naumule RR	32.69	7.69	40.38	9.43	7.26	57.08	6
7	60A011R	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.85	12.85	31.92	1.62	20.00	53.54	7
8	60A007 R	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.92	9.92	29.62	2.17	20.00	51.79	8
9	60A002 R	Dharmapokhara-Mathillo Dungeswor District Road	20.00	9.00	27.62	2.62	20.00	50.24	9

S.N.	Code	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
10	60A014R	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	7.52	5.00	26.92	1.03	20.00	47.95	10
11	60A009 R	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.60	15.60	16.15	8.79	13.29	38.23	11
Total Length km			274.49	168.36					

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 Corridors and their corresponding Scores				
					Traffic volume per cost (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	60B010R	Bhirkhet - Kharigaira Rural Road	6.85	5.00	70.00	1.10	19.87	90.96	1
2	60B011R	Baik-Dullu Rural Road	11.00	8.00	61.31	3.68	20.00	84.99	2
3	60B009R	Lohare-Badabhairab Rural Road	6.32	5.00	56.73	0.28	19.11	76.12	3
4	60B008R	Simada-Brindrabasini-Salleri Rural Road	8.49	5.00	45.75	0.28	19.35	65.38	4
5	60B001R	Ghetidu-Bhajaniya pokhari-Padukakhola Rural Road	14.89	10.00	45.29	0.99	17.14	63.43	5
6	60B003R	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	5.00	5.00	26.54	10.00	19.35	55.89	6
7	60B006R	Guranse-Patikalna Rural Road	10.00	10.00	38.34	0.86	15.79	54.99	7
Total Length km			62.55	48.00					

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.N.	Name of Road	Built length (Km)	Settlements passed	VDCs passed
1	Sangetada-Budeli-Badala-Chalnechautara-Bhuwakhada	6.000	Sangetada,Layati,Jambukandh, Chamunda,Bisala	layatibindhyabasini,jammuk andh,Chamunda,Bisala
2	Rakam-Rola-Singhasain	1.700	Rakam,Rola,Singhasain	Rakam Karnali,Singhasain
3	Rakam Karnali-Tilepata	2.000	Rakam Karnali,Tilepata	Rakam Karnali,Tilepata
4	Ghetidu-Bhuwatakura	3.000	Ghetidu,Bhuwatakura	Badalamji
5	Chagatra-Dhuleswor	2.000	Chagatra,Dhuleswor	Badalamji
6	Chupra-Kalbhairab-Bhukaha	4.000	Chupra,Kalbhairab,Bhukaha	Belpata,kalbhairab
7	Dullu Patangini-Khetgaun-Tallipadu-Pipalgadi	4.000	Dullu,Patangini,Khetgaun, Tallipadu-Pipalgadi	Dullu,Padukasthan
8	Kafalpani-Patihalna-Shantibazar	4.000	Kafalpani,Patihalna,Shantibazar	Naulekatwal,Dullu
9	Tallodungeswor-Dhulegalba-Kafalpani-Dullu	10.000	Tallodungeswor,Dhulegalba, kafalpani,Dullu	Naulekatwal,Dullu
10	Patikalla-Kafalpani-Beteni-Tariya	12.000	Patikalla,Kafalpani,Beteni,Tariya	Naulekatwal,Chhiudipusak ot
11	Chupra-Kafalsaini-Shermakot	15.500	Chupra,Kafalsaini,Shermakot	Belpata,Lakuri
12	Ratanagla-Agodhune-Goganpani-Biurakhet		Ratanagla,Agodhune,Goganpani ,Biurakhet	Goganpani,Awalparajul
13	Hulaktakura-Ganma-Pagnath Bagdanda		Hulaktakura,Ganma,Pagnath, Bagdanda	
14	Dailekh Bazar-Koteli-Bhukaha Rural Road		Dailekh,Koteli,Bhukaha	
15	Baraha-Seribada-Khadkabada-Septi Rural Road		Baraha,Seribada,Khadkabada, Septi	Khadkabada
16	Pugya-Dakeli-Chauratha Rural Road		Pugya,Dakeli,Chauratha	
17	Ghiupokhari-Bagaura-Lambada Rural Road		Ghiupokhari,Bagaura,Lambada	
18	Santada-Mehaltoli-Turshu-Mandhar Rural Road		Santada,Mehaltoli,Turshu,Mand har	
19	Shrithan-Navisthan-Ggamaudi-Dhuleshwor Rural Road		Shrithan,Navisthan,Gamaudi, Dhuleswor	Narayan Nagarpalika,

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	VDCs passed
1	Rapat-Naupheri-jabasain-Mahabu Rural Road	Baluwatar
2	Pipalchautara-Pangkot-Bhijkot-Lakuri Rural Road	Dadaparajul, Lakuri
3	Matela-Sanabairi-Pangkot-Bhijikhola Rural Road	Dadaparajul, Lakuri
4	Ghodbas-Nautale-Aagra-Jyamire-Biurakhet Rural Road	Dadaparajul
5	Gothpada-Khanichaur-Biurakhet-Dharampokhara Rural Road	Dada Aulparajul, Piladi, Lalikanda
6	Mathillodungeswor-Gauree-Malika-Baik Rural Road	Gauri, Malika
7	Dullu-Sahubada-Hadechaur-Nabhasthan Rural Road	
8	Chupra-Hanchi-Simaltoli-Gauri Rural Road	Belpata, Gauri, Kalbhairab
9	Patal-Kalbhairab-Baik Rural Road	
10	Shantibazar-Sieesthali-Satkhamba Rural Road	Dullu, Chhiudipusakot
11	Dadimadi-Sangkhola-Liuda-Bhairabi Mandir Rural Road	Bhairikalikathum
12	Dadimadi-Thapabada-Gauti-Bahachaur-Dokra-Sainchaur Rural Road	Bhairikalikathum
13	Ghiyatidu-Bhuwatakura-Gadajiula-Goryan-Saitisain Rural Road	Badalamji
14	Dadimadi-Gosthan Rural Road	Bhairikalokathum
15	Chagatra-Rokabada-Saunbada-Gadajiula Rural Road	Badalamji
16	Sigaudi-Jaksi-Nimayal-Bhatgaun-Hulakdada Rural Road	Sigaudi
18	Rakamkarnali-Rola-Singhasain-Gorkhi-Tolichaka Rural Road	Rakam, Singhasain
19	Singhasain-Chhopadi-Tilepata-Bhadasain Uchha Ma. Bi. Rural Road	Singhasain, Tilepata
21	Syaulekandh-Tolipata-Chagata-Phulechaur-Simgaun-Khamdada-Bistagaun-Daba Rural Road	Satala
22	Rautegalchhi-Aagodhukaune-Goganpani-Lamatada-Byurakhet Rural Road	
23	Bubairakhe-Shantibazar-Bhairi-Lamatada Rural Road	
24	Bhiyapaila-Bichor-Bharta-Kalikot District Road	
25	Ghumnekhali-Pundadabazar-Bishala-Bahakot-Madantal Rural Road	
26	Santada-Ruma-Sidam Rural Road	

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	61 5 049 18 06 1	Bhairavsthan	Satala	Karnali	Dab Karnali	5	0.5	SuspenNsion	150
2	61 5 048 18 06 1	Bisalla	Chamundasthan	Rama Gad	Rate Gada	2	1	SuspenDed	100
3	61 5 045 18 06 1	Lakandra	Chamundasthan	Rama Gad	Simalsera	2	1	SuspenDed	100
4	61 5 055 18 06 1	Layati	Rakam	Karnali	Bheltadi	2	0.5	SuspenNsion	300
5	61 5 023 18 06 1	Baluwatar	Dwari	Lohare Khola	Baltar	3	1	SuspenDed	60
6	61 5 008 18 06 1	Dandaparajuli	Dandaparajuli	Parajul Khola	Chaite kuna	2	0.5	SuspenDed	100
7	61 5 052 18 06 1	Tilepata	Singasain	Kane Gad	Masta	3	0.5	SuspenDed	100
8	61 5 015 18 06 1	Rum	Mehaltoli	Santada	Santada	2	2	SuspenDed	100
9	61 5 047 18 06 2	Bisalla	Bisalla	Bhut Gad	Moubheni Buki	2	2	SuspenDed	100
10	61 5 013 18 06 3	Jaganath	Mehaltoli	Tame Khola	Tunda Khola	2	3	SuspenDed	110
11	61 5 002 18 06 1	Baraha	Bisalla	Rati Khola	Twal Twale	2	0.5	SuspenDed	80
12	61 5 047 18 06 3	Bisalla	Chamundasthan	Palta Khola	Maluka Khola	2	1.5	SuspenDed	80
13	61 5 004 18 06 1	Dandaparajuli	Goganpani	Parajul Khola	Tiliya Ghat	2	0.5	SuspenDed	70
14	61 5 019 18 06 1	Toli	choratha	Lohare Khola	Patta Ghat	2	1	SuspenDed	80
15	61 5 007 18 06 1	awalparajuli	piladi	Parajul Khola	Lama Tada	2	0.5	SuspenDed	70
16	61 5 018 18 06 1	badabhairav	Bindhyabasini	Bada Khola	Jirku	2	1	SuspenDed	80
17	61 5 017 18 06 1	Toli	Salleri	Lohare Khola	Batar Ratamate	2	1	SuspenDed	52
18	61 5 012 18 06 1	Katti	Jaganath	palta Khola	Maluka Khola	2	1	SuspenDed	100
19	61 5 026 18 06 1	Rawatkot	Basi	Chham Gad	Khod Saltada	3	1	SuspenDed	90
20	61 5 026 18 06 2	Rawatkot	Basi	Chham Ghat	Simal Tada	2	2	SuspenDed	110
21	61 5 030 18 06 1	Baluwatar	Dwari	Lohare Khola	Rapat	2	1	SuspenDed	45
22	61 5 022 18 06 1	Kalika	Kalika	Lohare Khola	Dhat Gaon	2	1.5	SuspenDed	65
23	61 5 047 18 06 1	Bisalla	Bisalla	Deuti Khola	Gaira Goan	1	2	SuspenDed	80
24	61 5 003 18 06 1	Seri	Seri	Kune	Kune Khola	2	0.5	SuspenDed	90
25	61 5 008 18 06 3	Dandaparajuli	Dandaparajuli	Parule Ghat	Parule Ghat	2	0.5	SuspenDed	100
26	61 5 048 18 06 2	Lakandra	Jambukandh	Rama Gad	Kukur Dula	3	0.5	SuspenDed	100
27	61 5 005 18 06 1	awalparajuli	piladi	Chhota Thulo Khola	Puliyaghat	2	0.5	SuspenDed	100
28	61 5 008 18 06 4	Lakuri	Dandaparajuli	Metala Khola	Kuntha Khet	2	0.5	SuspenDed	90
29	61 5 050 18 06 1	Tolijaisi	Tolijaisi	Khatte Khola	Hrisiko	2	3	SuspenDed	80
30	61 5 027 18 06 1	Kasikandh	Raniban	Hulaki Bato Dovan	Hulaki Bato	2	1	SuspenDed	70
31	61 5 027 18 06 3	Kasikandh	Kasikandh	Thada Khola	Thado Khola	3	2	SuspenDed	40
32	61 5 046 18 06 1	Kusapani	Kasikandh	Chham Gad	Arupate	3	1	SuspenDed	80
33	61 5 016 18 06 1	Badabhairav	Pagnath	Katti	Hulak Takura	2	0	SuspenDed	125
34	61 5 007 18 06 2	awalparajuli	Lalikandh	Haneta Khola	Haneta	2	0.5	SuspenDed	100
35	61 5 001 18 06 1	Narayan Municipality	Toli	Tame Khola	Tame danda	2	0.5	SuspenDed	50

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge	
		Right Bank	Left Bank			Gained (hrs)	Roadhead (day)	Type	Span
36	61 5 021 18 06 1	Naumule	Naumule	Lohare Khola	Bhitri Khola	2	1	SuspenDed	55
37	61 5 054 18 06 1	Pipalkot	Pipalkot	Bhitri Hukkana Khola	Kanma	2	1	SuspenDed	80
38	61 5 052 18 06 2	Singasain	Tilepata	Kane Gad	Alaichi Bari	2	1.5	SuspenDed	100
39	61 5 001 18 06 1	Malika	Khadkadanda	Lohare khola	Bhahade Khola	2	0.5	SuspenDed	125
40	61 5 023 18 06 2	Dwari	Dwari	Dwari Khola	Dwari Khola	2	2	SuspenDed	50
41	61 5 028 18 06 1	Kasikandh	Raniban	Rabat Uttisaini	Uttisaini	2	1	SuspenDed	45
42	61 5 039 18 06 1	Rawatkot	Badakhola	Chham Gad	Dare Ghat	1	1	SuspenDed	120
43	61 5 012 18 06 2	Katti	Pagnath	Shakutanda	Shanku Tada	2	1.5	SuspenDed	125
44	61 5 012 18 06 3	Katti	Katti	Ghote Khola	Ghatte Danda	2	3	SuspenDed	90
45	61 5 055 18 06 2	Rakam	Rakam	Kane Khola	Okhal Dhunga	1	0.5	SuspenDed	80
46	61 5 039 18 06 2	Rawatkot	Badakhola	Chham Gad	Kitulla	1	1	SuspenDed	80
47	61 5 045 18 06 2	Chamundasthan	Bhairikalikathum	Gada Jiula	Gada Jiula	1	1	SuspenDed	200
48	61 5 014 18 06 1	Rum	Mehaltoli	Bhere khola	Nimada	1	3	SuspenDed	95
49	61 5 049 18 06 2	Satala	Satala	Chine Khola	Chine Jiula	2	1	SuspenDed	150
50	61 5 008 18 06 2	Goganpani	Dandaparajuli	Chor Khola	Chor Khola	2	0.5	SuspenDed	150
51	61 5 017 18 06 3	Toli	Toli	Toli Khola	Toli Khola	2	1	Truss	32
52	61 5 010 18 06 1	Badabhairav	Lakuri	Baitadi Khola	Baitadi Khola	2	0.5	SuspenDed	65
53	61 5 050 18 06 2	Tolijaisi	Tolijaisi	Nara Khola	Ghatte Khet	1	3	SuspenDed	80
54	61 5 001 18 06 2	Khadigaira	Narayan Municipality	Tara Ghat	Budha Gaun	2	1	SuspenDed	80
55	61 5 013 18 06 2	Jaganath	Jaganath	Ghumne Khola	Ghumne Khola	1	3	SuspenDed	100
56	61 5 016 18 06 2	Katti	Pagnath	Katti	Pagnath	1	2	SuspenDed	80
57	61 5 030 18 06 2	Baluwatar	Baluwatar	Lohare Khola	Neupheri Mallal	1	2	SuspenDed	35
58	61 5 028 18 06 2	Raniban	Raniban	Gitachaur	Dadi Khola	3	1	SuspenDed	40
59	61 5 027 18 06 2	Kasikandh	Kusapani	Gotri Khola	Gotri Khola	3	2	SuspenDed	35
60	61 5 022 18 06 2	Kalika	Kalika	Padam Khola	Mouri Bhiri	1	2	SuspenDed	60
61	61 5 020 18 06 1	Salleri	choratha	Gad Khola	Gad Khola	1	2	SuspenDed	40
62	61 5 002 18 06 2	Gauri	Baraha	Lohare Khola	Saltada	2	0.5	SuspenDed	125
63	61 5 027 18 06 5	Kusapani	Kasikandh	Chham gad	Thulo Khola	2	2	SuspenDed	70
64	61 5 017 18 06 2	Narayan Municipality	Toli	Tame Khola	Bagh Khor	1	1	SuspenDed	50
65	61 5 019 18 06 2	Salleri	choratha	Amla Chaur	Dada Khet	1	1	SuspenDed	50
66	61 5 017 18 06 4	Bhawani	Toli	Gopi Khola	Gopi Khola	2	1	SuspenDed	45
67	61 5 013 18 06 1	Jaganath	Mehaltoli	Dhara Khola	Dhara Khola	1	3	SuspenDed	80
68	61 5 029 18 06 1	Bhawani	Bhawani	Tame Khola	Tame Khola	1	1	SuspenDed	45
69	61 5 027 18 06 4	Kasikandh	Kasikandh	Chonar Khola	Chonar Khola	2	1	SuspenDed	45
70	61 5 048 18 06 3	Lakandra	Bisalla	Rama Gad	Dunike	1	2	SuspenDed	150
71	61 5 053 18 06 1	Pipalkot	Singasain	Khum Gad	Okhale	1	0.5	SuspenDed	80
72	61 5 027 18 06 6	Kasikandh	Kasikandh	Sanjhu Khola	Sanjhu Khola	2	2	SuspenDed	50

6.12 Prioritized list of Trail Bridge for Major Maintenance

There are no demand for Major Maintenance and Rehabilitation of Trail Bridges in the Dailekh District.

6.13 Prospective Road RCC Bridge

Table 6.10 Prospective Road RCC Bridge

S. N.	Code	Name of the road	Span "M"	Remarks
1	60A004R	Chupra- Mehaltoli District Road	90	
2	60A005R	Dailekh-Naumule District Road	78	
3	60A011R	Dailekh-Thandada - Salleri - Naumule	90	
4	60B019R	Naumule-Kalika Rural Road RR	87	
		Dailekh-Dadimadi-Hadako-Agra-Rakamkarnali DR	150	Mid Hill Highway ,Chamaghat khola
		Dailekh-Dadimadi-Hadako-Agra-Rakamkarnali DR	140	Mid Hill HighwayTaragadi Khola
		Dailekh-Dadimadi-Hadako-Agra-Rakamkarnali DR	200	Mid Hill Highway

6.14 Perspective Road Causeway

Table 6.11 Perspective Road Causeway

S. N.	Code	Name of the road	Span "M"	Remarks
1	73A004	Buder-Jogbuda - Gaibandhe District Road		
2	73A005	Buder-Jogbuda - Gaibandhe District Road		
3	73A006	Buder-Jogbuda - Gaibandhe District Road		

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 20% increment	200	220	242	266.2	292.82
Local Rural Agricultural Road Program	9100	10000	11000	12100	13300
Road Maintenance Fund	1500	1650	1815	1997	2196
Fund of Members of Parliaments (10% of Total Fund)	600	660	726	798.6	878.46
RAP/Other	120000	132000	145200	159720	175692
LGCDP	4360	4796	5276	5803	6383
VDC * (40% of T. Budget)	42592	46851	51536	56690	62359
Sub-Total	178352	196177	215795	237375	261101
People's Participation (20 %)	35670	39235	43159	47475	52220
Total	214022	235413	258954	284850	313321
Grand Total	1306561				

Table 7.2 Projected Financial Plans for Trail Bridges (in Thousand NRs.)

Year	Projected Financial Plan for Trail Bridges		
	Routine Maintenance	Major Maintenance	New Construction Bridges
067/68	171,000.00	1,600,000.00	11,156,250.0
068/69	195,000.00	1,600,000.00	12,750,000.0
069/70	219,000.00	800,000.00	12,750,000.0
070/71	243,000.00	1,600,000.00	12,750,000.0
071/72	69,247.91	647,933.63	4,517,818.46
Total	897,247.91	6,247,933.63	53,924,068.5
Grand Total	61,069,250.00		

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

Total Annual Budget (Road) (NRs.'000)
1306561
(100%

New Construction		Rehabilitation/Upgrading		Maintenance	
20		60		20	
%		%		%	
261312		783936		261312	
↓		↓		↓	
District Road 'A'	District Road 'B'	District Road 'A'	District Road 'B'	District Road 'A'	District Road 'A'
60	40	66	34	65	35
%	%	%	%	%	%
156787	104525	517398	266538	169853	91459

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 'ooo) & Percentage for New, Rehabilitation & Maintenance						Total %
			New Construction		Rehabilitation/Upgrading		Maintenance		
			Amount	%	Amount	%	Amount	%	
1	067/68	214022	42804	20	128413	60	42804	20	100
2	068/69	235413	47083	20	141248	60	47083	20	100
3	069/70	258954	51791	20	155373	60	51791	20	100
4	070/71	284850	56970	20	170910	60	56970	20	100
5	071/72	313321	62664	20	187993	60	62664	20	100
	Total	1306561	261312		783936		261312		100

7.4 Year-wise Targets

Table 7.4: Year-wise Targets for road

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	13	24	70	9	15	43
068/69	14	27	77	9	16	47
069/70	16	29	84	10	18	52
070/71	17	32	93	11	19	57
071/72	19	35	102	13	21	63
Total (km)/no	78	148	425	52	89	261
Grand Total (km)/no	651			402		

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	2	7
068/69	65	1	8
069/70	73	1	8
070/71	81	2	8
071/72	23	1	3
Total	299	7	34

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	25683	13	28250	14	31075	16	31075	17	37599	19	153680	78
2	District Road B	17122	9	18833	9	20716	10	22788	11	25066	13	104525	52

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

S.N.	Class of Transport Linkage	Rehabilitation/Upgrading Budget ' 000										Total	
		2065/66		2066/67		2067/68		2068/69		2069/70		Total	
		Budget	km	Budget	km	Budget	km	Budget	km	Budget	km	Budget	km
1	District A Road	84753	24	93223	27	102546	29	112800	32	124075	35	517398	148
2	District Road B	43661	15	48024	16	52827	18	58109	19	63918	21	266538	89

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

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	
60A004 R	Chupra- Mehaltoli DR	34.900	13.00	17692	5.00	21231	6.00	7077	2.00					46000	13.00	DDC/VDC/L GCDP/MoLP
60A001R	Ramaghat-Singhasan-Pipalkot DR	50.000	25.00	20000	8	20000	8	15000	6.00	7500	3.00			62500	25.00	DDC/VDC/L GCDP/MoLP
60A010 R	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.850	23.00					32696	8.00	36783	9.00	28609	7	98087	24.00	DDC/VDC/L GCDP/MoLP
60A006 R	Dailekh Bazar-Deshigad-Mahabu District Road	42.400	7.00							13542	5.00	5417	2.00	18958	7.00	RRRSDP
60A015 R	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali DR	34.000	5.00									16691	5.00	16691	5.00	DDC/VDC/L GCDP/MoLP
60A011R	Dailekh-Thandanda-Salleri-Naumule RR	32.690	5.00									17900	5.00	17900	5.00	

Required Budget and targeted length (km)	229.84	78	37692	13	41231	14	54773	16	57824	17	34025	19	225545	79	
Total likely available Budget and targeted length (km)		78	25683	13	28250	14	31075	16	31075	17	37599	19	153680	78	

Table 7.9: Prioritized District Road ‘A’ for Upgrading

<i>Code</i>	<i>Name of Road</i>	<i>Total Length (km)</i>	<i>Upgrading Length km</i>	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	
60A001R	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	31600	10.00	31600	10.00	15800	5.00					79000	25.00	DDC/V DC/LG CDP/M oLP
60A005 R	Dailekh-Naumule District Road	18.00	12.00	39600	8	19800	4							59400	12.00	DDC/V DC/LG CDP/M oLP
60A004 R	Chupra-Mehaltoli District Road	34.90	21.90	29096	6	38795	8	33945	7.00					101836	21.00	DDC/V DC/LG CDP/M oLP
60A006 R	Dailekh Bazar-Deshigad-Mahabu District Road	30.40	30.40			15000	5	36000	12.00	39000	13.00			90000	30.00	DDC/V DC/LG CDP/M oLP
60A003 R	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.61	10.00					15000	5.00	15000	5.00			30000	10.00	DDC/V DC/LG CDP/M oLP

Code	Name of Road	Total Length (km)	Upgrading Length 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	
60A010R	Dailekh Bazar- Kholibazar- Badakhola-Basi- Kashikandh DR	35.850	10.000							15000	5.00	15000	5.00	30000	10.00	DDC/V DC/LG CDP/M oLP
60A011R	Dailekh- Thandanda- Salleri-Naumule RR	32.69	7.00							57866	7.00			57866	7.00	DDC/V DC/LG CDP/M oLP
60A007 R	Dullu(Kritikham)- Shantibazar- Sanagaun- Paligaun- Pipalghari Rural Road	9.92	8.00							6000	2.00	18000	6.00	24000	8.00	DDC/V DC/LG CDP/M oLP
60A002 R	Dharmapokhara -Mathillo Dungeswor District Road	20.00	9.00									27000	9.00	27000	9.00	DDC/V DC/LG CDP/M oLP
60A014R	Chupra- Kalbhairab- Bhuka- Chhuwala- Gamaudi- Satkhamma Rural Road	7.52	5.00									15000	5.00	15000	5.00	DDC/V DC/LG CDP/M oLP
60A009 R	Puranobazar- Shreesthan- Rajakandh- Chautara-	15.60	10.00									45154	10.00	45154	10.00	DDC/V DC/LG CDP/M oLP

Code	Name of Road	Total Length (km)	Upgrading Length 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	
	Gamaudi Rural Road															
Required Budget and targeted length (km)		274.49	148	100296	24	105195	27	100745	29	132866	32	120154	35	559256	147	
Total likely available Budget and targeted length (km)			148	84753	24	93223	27	102546	29	112800	32	124075	35	517398	148	

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	
60B019R	Naumule-Kalika RR	10.000	10.000	17760	4.00	26640	6.00							44400	10.00	DDC/VDC/LG CDP/MoLP
60B018R	Dhungemela-Markhe-Rhekcha RR	5.000	5.000	20000	5									20000	5.00	DDC/VDC/LG CDP/MoLP

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	
60B002R	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road	3.760	3.000			6000	3							6000	3.00	DDC/VDC/LG CDP/MoLP
60B020R	Syaulekandh-Phulkechaur-Bistagau-Dap	16.000	5.000					17188	5.00					17188	5.00	RRRSDP
60B016R	Santada-Mandhar-Suyad-Jajarkot	15.000	5.000					20000	5.00					20000	5.00	DDC/VDC/LG CDP/MoLP
60B017R	Bestada-Katti-Thuwa-Jajarkot	21.000	14.000							28000	7.00	28000	7.00	56000	14.00	DDC/VDC/LG CDP/MoLP
60B014R	Naumule-Rapat-Bhurunge-Dwaree-Bulbule Jharana RR	25.000	10.000							17760	4.00	26640	6.00	44400	10.00	DDC/VDC/LG CDP/MoLP
Required Budget and targeted length (km)		95.76	52	37760	9	32640	9	17188	10	45760	11	54640	13	87588	52	

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	
60B010R	Bhirkhet - Kharigaira Rural Road	6.85	5.00	15100	5.00	0		0						15100	5.00	DDC/VDC/LGCDP/MoLP
60B011R	Baik-Dullu Rural Road	11.00	8.00	15000	5	9000	3							24000	8.00	DDC/VDC/LGCDP/MoLP
60B009R	Lohare-Badabhairab Rural Road	6.32	5.00	15700	5									15700	5.00	DDC/VDC/LGCDP/MoLP
60B008R	Simada-Brindrabasini-Salleri Rural Road	8.49	5.00			15500	5							15500	5.00	DDC/VDC/LGCDP/MoLP
60B001R	Ghetidu-Bhajaniya pokhari-Padukakhola Rural Road	14.89	10.00			28000	8	7000	2.00					35000	10.00	DDC/VDC/LGCDP/MoLP
60B003R	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	5.00	5.00					15500	5.00					15500	5.00	DDC/VDC/LGCDP/MoLP

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	
60B006R	Guranse-Patikalna Rural Road	10.00	10.00					19000	5.00	19000	5.00			38000	10.00	DDC/VDC/LGCDP/MoLP
Required Budget and targeted length (km)		62.55	48	45800	15	52500	16	41500	12	19000	5	0	0	158800	48	
Total likely available Budget and targeted length (km)			89	43661	15	48024	16	52827	18	58109	19	63918	21	266538	89	

7.6 Prioritized Trail Bridges for New Construction for Five years plan(DTMP)

Table 7.12: Prioritized 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	Aprox Span
1	61 5 049 18 06 1	Bhairavsthan	Satala	Karnali	Dab Karnali	5	0.5	SuspenNsion	150
2	61 5 048 18 06 1	Bisalla	Chamundasthan	Rama Gad	Rate Gada	2	1	SuspenDed	100
3	61 5 045 18 06 1	Lakandra	Chamundasthan	Rama Gad	Simalsea	2	1	SuspenDed	100
4	61 5 055 18 06 1	Layati	Rakam	Karnali	Bheltadi	2	0.5	SuspenNsion	300
5	61 5 023 18 06 1	Baluwatar	Dwari	Lohare Khola	Baltar	3	1	SuspenDed	60
6	61 5 008 18 06 1	Dandaparajuli	Dandaparajuli	Parajul Khola	Chaite kuna	2	0.5	SuspenDed	100
7	61 5 052 18 06 1	Tilepata	Singasain	Kane Gad	Masta	3	0.5	SuspenDed	100
8	61 5 015 18 06 1	Rum	Mehaltoli	Santada	Santada	2	2	SuspenDed	100
9	61 5 047 18 06 2	Bisalla	Bisalla	Bhut Gad	Moubheni Buki	2	2	SuspenDed	100
10	61 5 013 18 06 3	Jaganath	Mehaltoli	Tame Khola	Tunda Khola	2	3	SuspenDed	110
11	61 5 002 18 06 1	Baraha	Bisalla	Rati Khola	Twal Twale	2	0.5	SuspenDed	80
12	61 5 047 18 06 3	Bisalla	Chamundasthan	Palta Khola	Maluka Khola	2	1.5	SuspenDed	80
13	61 5 004 18 06 1	Dandaparajuli	Goganpani	Parajul Khola	Tiliya Ghat	2	0.5	SuspenDed	70
14	61 5 019 18 06 1	Toli	choratha	Lohare Khola	Patta Ghat	2	1	SuspenDed	80
15	61 5 007 18 06 1	awalparajuli	piladi	Parajul Khola	Lama Tada	2	0.5	SuspenDed	70
16	61 5 018 18 06 1	badabhairav	Bindhyabasini	Bada Khola	Jirku	2	1	SuspenDed	80
17	61 5 017 18 06 1	Toli	Salleri	Lohare Khola	Batar Ratamate	2	1	SuspenDed	52
18	61 5 012 18 06 1	Katti	Jaganath	palta Khola	Maluka Khola	2	1	SuspenDed	100
19	61 5 026 18 06 1	Rawatkot	Basi	Chham Gad	Khod Saltada	3	1	SuspenDed	90
20	61 5 026 18 06 2	Rawatkot	Basi	Chham Ghat	Simal Tada	2	2	SuspenDed	110
21	61 5 030 18 06 1	Baluwatar	Dwari	Lohare Khola	Rapat	2	1	SuspenDed	45
22	61 5 022 18 06 1	Kalika	Kalika	Lohare Khola	Dhat Gaon	2	1.5	SuspenDed	65
23	61 5 047 18 06 1	Bisalla	Bisalla	Deuti Khola	Gaira Goan	1	2	SuspenDed	80
24	61 5 003 18 06 1	Seri	Seri	Kune	Kune Khola	2	0.5	SuspenDed	90
25	61 5 008 18 06 3	Dandaparajuli	Dandaparajuli	Parule Ghat	Parule Ghat	2	0.5	SuspenDed	100
26	61 5 048 18 06 2	Lakandra	Jambukandh	Rama Gad	Kukur Dula	3	0.5	SuspenDed	100
27	61 5 005 18 06 1	awalparajuli	piladi	Chhota Thulo Khola	Puliyaghat	2	0.5	SuspenDed	100
28	61 5 008 18 06 4	Lakuri	Dandaparajuli	Metala Khola	Kuntha Khet	2	0.5	SuspenDed	90
29	61 5 050 18 06 1	Tolijaisi	Tolijaisi	Khatte Khola	Hrisiko	2	3	SuspenDed	80
30	61 5 027 18 06 1	Kasikandh	Raniban	Hulaki Bato Dovan	Hulaki Bato	2	1	SuspenDed	70
31	61 5 027 18 06 3	Kasikandh	Kasikandh	Thada Khola	Thado Khola	3	2	SuspenDed	40

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.

7.6.2 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
Population of Dailekh District

S.No.	Name of VDCs & Municipalities	2001 Census				2008 Projection			
		T. No. Of H/H	TP	M	F	T.No. Of H/H	TP	F	M
1	AwalParajul	653	3,710	1,798	1,912	746	4,215	2,043	2,172
2	BadaBhairab	482	2,709	1,326	1,383	551	3,078	1,507	1,571
3	BadaKhola	507	2,620	1,190	1,430	580	2,977	1,352	1,625
4	Badalamji	1,007	4,811	2,139	2,672	1151	5,466	2,430	3,036
5	Baluwatar	520	3,134	1,571	1,563	594	3,561	1,785	1,776
6	Bansi	669	3,579	1,668	1,911	765	4,066	1,895	2,171
7	Baraha	651	3,634	1,764	1,870	744	4,129	2,004	2,125
8	Belpata	529	2,657	1,293	1,364	605	3,019	1,469	1,550
9	Bhawani	332	1,835	910	925	380	2,085	1,034	1,051
10	Bindhyabasini	545	3,026	1,438	1,588	623	3,438	1,634	1,804
11	Bisalla	942	5,295	2,666	2,629	1077	6,016	3,029	2,987
12	Chamunda	1,680	9,458	4,708	4,750	1920	10,746	5,349	5,397
13	Chauratha	476	2,918	1,412	1,506	544	3,315	1,604	1,711
14	DadaParajul	939	5,417	2,675	2,742	1073	6,154	3,039	3,115
15	Dullu	709	3,340	1,585	1,755	810	3,795	1,801	1,994
16	Gamaudi	645	3,120	1,444	1,676	737	3,545	1,641	1,904
17	Gauri	458	2,398	1,088	1,310	524	2,724	1,236	1,488
18	Goganpani	566	3,118	1,543	1,575	647	3,542	1,753	1,789
19	Jaganath	427	2,370	1,154	1,216	488	2,693	1,311	1,382
20	Jambukandh	1,041	5,358	2,585	2,773	1190	6,087	2,937	3,150
21	KalBhairab	809	4,262	1,991	2,271	925	4,842	2,262	2,580
22	Kalika	379	2,292	1,109	1,183	433	2,604	1,260	1,344
23	Kasikandh	683	4,501	2,308	2,193	781	5,114	2,622	2,492
24	Katti	801	4,602	2,331	2,271	916	5,228	2,648	2,580
25	Khadkawada	800	4,323	2,121	2,202	914	4,911	2,410	2,502
26	Kharigera	709	3,750	1,721	2,029	810	4,260	1,955	2,305
27	Kusapani	786	4,330	2,197	2,133	898	4,919	2,496	2,423
28	Lakandra	798	4,449	2,278	2,171	912	5,055	2,588	2,467
29	Lakuri	665	3,640	1,719	1,921	760	4,136	1,953	2,183
30	Lalikanda	616	3,926	1,968	1,958	704	4,460	2,236	2,225
31	LyatiBindraseni	1,155	5,985	2,953	3,032	1320	6,800	3,355	3,445
32	MairiKalikathum	928	4,856	2,397	2,459	1061	5,517	2,723	2,794
33	Malika	879	4,950	2,384	2,566	1005	5,624	2,709	2,915
34	Moheltolee	367	2,013	973	1,040	420	2,287	1,105	1,182
35	Narayan N.P.	3,854	19,446	9,373	10,073	4406	22,093	10,649	11,444
36	NauleKatuwal	707	3,658	1,787	1,871	808	4,156	2,030	2,126
37	Nepa	885	4,489	2,215	2,274	1012	5,100	2,517	2,584
38	Nomule	302	1,807	899	908	345	2,053	1,021	1,032
39	Odhari	443	2,533	1,319	1,214	506	2,878	1,499	1,379
40	Padukasthan	843	4,560	2,305	2,255	964	5,181	2,619	2,562
41	Pagnath	389	2,369	1,117	1,252	445	2,691	1,269	1,422
42	Piladi	426	2,705	1,352	1,353	487	3,073	1,536	1,537
43	Pipalkot	400	2,355	1,203	1,152	457	2,676	1,367	1,309
44	PusakotChiudi	742	4,145	2,051	2,094	848	4,709	2,330	2,379
45	RakamKarnali	332	1,803	878	925	380	2,048	998	1,051
46	Raniban	652	4,098	1,986	2,112	745	4,656	2,256	2,400
47	RawatKot	887	4,759	2,306	2,453	1014	5,407	2,620	2,787
48	Room	331	1,913	920	993	378	2,173	1,045	1,128
49	Salleri	650	3,823	1,828	1,995	743	4,343	2,077	2,267
50	Santalla	670	3,714	1,901	1,813	766	4,220	2,160	2,060
51	Seri	385	2,075	1,034	1,041	440	2,357	1,175	1,183
52	Sigaudi	909	4,707	2,278	2,429	1039	5,348	2,588	2,760
53	Sinhasain	877	4,940	2,455	2,485	1003	5,612	2,789	2,823
54	Tilepata	847	4,650	2,322	2,328	968	5,283	2,638	2,645
55	Toli	540	3,197	1,607	1,590	617	3,632	1,826	1,806
56	Tolijaisi	915	5,057	2,570	2,487	1046	5,745	2,920	2,826

Annex: 1.1
Population of Dailekh District

Population of Buxar District									
S.No.	Name of VDCs & Municipalities	2001 Census				2008 Projection			
		T. No. Of H/H	TP	M	F	T.No. Of H/H	TP	F	M
Total Population		41139	225,189	110,113	115,076	47025	255,842	125,104	130,745

Annex: 1.2

Matrix of Present Centrality Index of Market Centre of Dailekh District

S.N.	Name of Market centre	Population, 2009*	EDUCATION			HEALTH		BUSINESS & COMMERCE										INDUSTRY					OFFICES							Centrality Index	Ranking	Grading of Market Centre
			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	Dailekh	24,148	3	2	5	1	0	35	55	101	15	10	51	11	7	1	0	1	1	3	1	2	1	1	1	1	1	11	112	684	1	A
2	Dullu	12,464	2	1	3	1	0	15	20	40	3	5	7	2	5	1	0	0	0	0	5	0	1	1	1	0	0	2	1	153	2	A
3	Rakam	10,180	1	1	3	1	0	22	18	22	3	4	14	7	3	0	0	0	0	3	2	0	0	0	1	0	0	3	2	151	3	A
4	Mathillo Dhungeswor	11,934	0	0	1	0	0	20	10	10	3	3	15	5	3	1	1	0	0	0	0	0	1	1	1	0	0	2	1	104	4	A
5	Naumule	11,074	1	1	2	1	0	10	12	17	2	1	13	1	2	1	0	0	0	0	0	0	1	1	1	0	0	1	2	94	5	B
6	Tunibagar	9,165	1	0	1	0	0	10	10	15	2	2	15	2	2	0	0	0	0	2	1	0	1	1	1	0	0	0	1	93	6	B
7	Dadamadi	10,613	1	1	1	0	1	12	15	20	2	2	4	2	3	1	0	0	0	1	0	0	0	0	1	0	0	0	2	90	7	B
8	Ramaghat/Mora	8,772	0	0	1	0	1	15	10	15	0	5	8	2	2	0	1	0	0	3	0	0	0	0	0	0	0	0	0	82	8	B
9	Chupra	9,483	1	1	0	0	1	10	12	11	3	3	3	5	4	1	0	0	0	0	0	0	0	0	0	0	1	2	0	80	9	B
10	Hadakot	8,160	3	1	7	0	1	10	5	7	0	2	2	5	2	0	0	0	2	1	1	0	0	0	1	0	0	0	1	79	10	B
11	Khambagade	7,108	1	2	3	0	1	2	5	10	2	3	10	2	2	1	0	2	0	0	3	0	0	0	1	0	0	0	3	74	11	B
12	Thalikadh	8,896	1	1	3	1	0	7	5	5	1	6	10	3	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	65	12	B
13	Baik/Binayak	8,049	1	1	2	0	1	3	10	7	0	1	8	0	2	1	0	0	0	0	1	0	0	1	1	0	0	0	0	54	13	B
14	Bestada	10,291	1	1	0	0	0	2	3	10	1	2	12	2	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	53	14	B
15	Badalamji/Chagatra	2,704	1	1	3	0	1	3	14	3	1	2	5	0	2	1	0	1	0	0	1	0	0	0	1	0	0	0	0	52	15	B
16	Dharampokhara	5,380	0	1	0	0	0	10	7	16	0	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	16	B
17	Bhirkhet	5,697	1	1	1	1	0	6	10	3	0	0	5	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	1	46	17	C
18	Tallo Dhungeshor	6,558	0	1	0	0	0	12	4	3	2	2	7	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	45	18	C
19	Bahankot	3,490	1	1	2	0	1	2	5	5	1	1	5	1	2	1	0	2	0	0	1	0	0	0	1	0	0	0	1	45	19	C
20	Jambukandh	7,635	1	1	1	0	1	3	5	7	0	2	5	2	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	45	20	C
21	Khidkiyula (Rakamkarnali)	3816	1	1	1			10	5	5	2	3	1		1		3											1		42	21	C
22	Gaundabai	4,906	1	1	0	0	1	3	4	12	0	2	3	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	40	22	C
23	Patikanla	3,299	1	0	0	0	0	5	5	11	1	3	3	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	39	23	C
24	Tilepata (Tilepata)	1973	1		1		1	7	2	9		2	2		1								1	1	1					38	24	C
25	Sinhasain (Sinhasain)	2501	1		2		1	6		5		1	3	1	2								1	1	1				1	35	25	C
26	Milan Bazar (Bansi)	2748		1	5		1	4	1	4		1	4	1	1	1								1				2	1	35	26	C
27	Vaisakhori	5,452	0	1	0	0	1	3	5	6	3	1	4	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	33	27	C
28	Awalparajul	1,712	1	1	0	0	0	3	7	5	0	2	3	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	32	28	C
29	Sermakot	3,698	1	1	0	0	1	6	5	2	0	1	5	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	31	29	C
30	Hulaktakura (Pagnath)	2618		1	3		1	4	2	4		1	3	1	2													1	1	30	30	C
31	Kharigaira	4,490	0	1	1	0	1	2	5	7	1	1	3	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	29	31	C
32	Airadi (Badakhola)	2489	1		4		1	3	1	3		1	3		2	1								1				1	1	29	32	C
33	Kholibazar (Raniban)	3358		1	2		1	3	1	3		1	2		2	1								1				1	1	25	33	C
34	Sainchaur (Bhairikalikathum)	2102			2			4	1	4		1	2	1	2		1													23	34	as a potential
35	Bangebazar (Kalika)	1548		1	2		1	2		3		1	2	1	1	1									1				1	22	35	as a potential
36	Santada (Meheltoli)	1855		1	2			3	1	2		1	2	1	1	1		1											1	21	36	as a potential
37	Guranse	2,452	0	0	0	0	0	10	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	20	37	as a potential
38	Ghodabas	1,728	0	0	1	0	0	2	4	5	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	20	38	as a potential
39	Kotadanda (Kasikadh)	1521	1		3		1	2		2		1	2	1	1										1					20	39	as a potential
40	Lohare	4,533	0	0	0	0	0	2	3	5	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	40	as a potential
41	Rapat (Baluwatar)	1808		1	2			2		2		1	2		1	1									1				1	17	41	as a potential
42	Mandanda	3,493	0	0	1	0	0	2	3	2	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	42	as a potential
43	Padukakhola	9,026	0	1	1	0	1	1	4	0	2	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	16	43	as a potential
44	Majgau (Bhawani)	1832		1	2		1	1		2		1	1		1										1				1	14	44	as a potential
45	Lamsu (Gauri)	2994		1	2			3	1	2		1			1														1	14	45	as a potential
46	Chhanna	1,465	0	0	1	0	0	1	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	46	as a potential
47	Talpokhari	2,047	0	0	0	0	0	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	47	as a potential
Total Functions			27.0	32.0	72.0	5.0	23.0	270.0	252.0	338.0	314.7	349.2	369.8	365.5	335.8	342.4	248.3	335.8	413.2	413.2	514.3	335.8	261.8	335.8	305.3	335.8	791.1	299.4	365.5			
Median Population			3816	3655	3358	4369	2748	3816	4698	3816	3147	3492	3698	3655	3358	3424	2483	3358	4132	4132	5143	3358	2618	3358	3053	3358	7911	2994	3655			
Weight			1.14	1.09	1.00	1.30	0.82	1.14	1.40	1.14	0.94	1.04	1.10	1.09	1.00	1.02	0.74	1.00	1.23	1.23	1.53	1.00	0.78	1.00	0.91	1.00	2.36	0.89	1.09			

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	Padestrians walking on the link	0.2
17	Porters walking on the link	0.4

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

[illegible]

Annex 2.3
Average Daily Traffic Volume of Existing Road (District Road A) of Dailekh

S.N.	District	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	Dailekh	Dailekh-Rawatkot-Dadimadi-Airpata-Budeli-Hadakot-Thantikhad-Agra-Syaulekhand-Tilepata-Rakam Karnali District Road	28.300	28.000	320	50				5	15		5		8	3			132.5
2	Dailekh	Ramaghat-Singhasan-Pipalkot District Road	25.250	25.000	150	60	40			15	20				10	2			182
3	Dailekh	Tallo Dungeswor-Mathillo Dungeswor District Road	8.000	8.000	40	10				3	10				5	4	5		51
4	Dailekh	Tallodungeswor-Chamchetatura-Patikhola-Shantibazar-Dullu -Dadimadi-Khambagade-Beuli-Kalikot District Road(DOR Road)	18.600	18.000	150	30				8	10		2	6	5	6	3		113
5	Dailekh	Ratanagla-Dharmapokhara District Road	22.860	13.000	100	60	10			3	2		1	1	2	4	1		89
6	Dailekh	Dharmapokhara-Mathillo Dungeswor District Road	9.870	9.000	80	32	16			2	1				3				71.8
7	Dailekh	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.610	19.000	160	60	10			3	5				5				94
8	Dailekh	Chupra- Mehaltoli District Road	21.900	21.000	120	30	21			3	10			2	12	5			132.5
9	Dailekh	Dailekh-Naumule District Road	18.020	18.000	150	30	50			4	10		1		5	2			167
10	Dailekh	Dailekh Bazar-Deshigad-Mahabu District Road	30.400	23.000	200	40	30			5	10				3				130
11	Dailekh	Dailekh-Lohare District Road	9.290	9.000	60	30				3	5				5				42
12	Dailekh	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.920	10.000	150	20	10	3		2	5			2	2	1			77
14	Dailekh	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	5.480	5.000	150	10				2	5				2				42
15	Dailekh	Dailekh Bazar-Kholibazar-Basi Rural Road	12.850	12.000	70	50	20			3	6				2				83
16	Dailekh	Dailekh-Bijaura-Chaurata Rural Road	7.690	7.000	80	20	20			2	5				3				75

Annex:2.4													
List of Existing Road of District A of Dailekh													
S.N	Road Name	Total length	Total Existing Length km	Length measured from GPS (vehicle pliable)	Road status(earthen/gravel/blacktopped/under construction)	Surface condition /fair/poor)	Serviceability (all weather/fair weather)	Settlements passed	VDCs & wards passed	Name of market centres	Required intervention(KM)		
											Upgrading	under construction	New construction
1	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	25.00	Earthen	Poor	Fair weather	Ramagad,Sukupipli,Thatikhanda bazar,Daha,Sihasain bazar	Satala,Lakandra,Tolijaisi	Ramghat, Thantikandh, Tilepata, Singasain	25.00	15.00	10.00
2	Dharmapokhara-Mathillo Duneswor District Road	20.00	9.00	9.00	Earthen	Poor	Fair weather	Dharmapokhara,Thati,sisneri	Lalikanda,Piladi,Awalparajul	Dharampokhara, Mathilloduneswor	9.00	11.00	
3	Mathillo Duneswor-Dada Aulparajul-Chaukhada District Road	19.61	19.61	19.61	Earthen	Fair	Fair weather	Mathilloduneswor,Dadaparajul, Aulparajul,Satuda	Dadaparajul,Awalparajul	Awalaparajul, Matthilloduneswor	13.00	6.61	
4	Chupra- Mehaltoli District Road	34.90	21.90	21.90	Earthen	Poor	Fair weather	Chupra,Lamatada,Bikramechaur, Maulesal,Bestada	Narayan Nagarpalika, Bindyabasini,Pagnath	Chupra, Lohare,Hulaktakura, Bestada, Santada	21.90	0.00	13.00
5	Dailekh-Naumule District Road	18.00	18.00	18.00	Earthen	Poor	Fair weather	Khursanibari,Bisuna,Toli,bhursu,Naumule	Narayan,Toli	Dailekh, Naumule	18.00	0.00	
6	Dailekh Bazar-Deshigad-Mahabu District Road	42.40	30.40	30.40	Earthen	Poor	Fair weather	Dailekh bazar,lamidada,Kamigaun,chhanna,patihalna,Bhabasaini	Narayan,Bhawani,Kharigaira,Raniban,Baluwatar	Dailekh, Vaisakhora, Chhanna, Majhgau	30.40	12.00	
7	Dullu(Kritikham)-shantibazar-sanagaun-Paligaun-Pipalghari Rural Road	9.92	9.00	9.00	Earthen	Poor	Seasonal	Dullu,Sanagaun,Shantibazar, Gharkhola,Pali,Pipalghari	Dullu and Nepa	Dullu, Padukakhola	9.92	0.00	0.00
8	Sangetada-Badala-Budeli-Chalnehautara-Rangajujha Rural Road	6.44	6.00	6.00	Earthen	Poor	Seasonal	Sangetada,Layati,Jambukandh, Chamunda,Bisala	layatibindhyabasini,jammukandh,Chamunda,Bisala	Padukakhola, Jambukandh		6.44	
9	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.60	15.60	15.60	Earthen	Poor	Seasonal	Shreestha,Rajakandh,Gamaudi	Gamaudi	Dailekh	15.60	0.00	
10	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.85	12.85	12.85	Earthen	Poor	Seasonal	Kholibazar,jajijale,Koldada,Bahunbada,debanbada,suwakot	Rawakot,Badakhola,Bansi	Bhirkhet, Milanbazar, Kholibazar, Kotdanda	12.85	0.00	23.00
11	Dailekh-Thandanda-Salleri-Naumule RR	32.69	7.69	7.69	Earthen	Poor	Seasonal	Dailekh,Bijaura,Chaurata	Narayan municipality	Dailekh, Thandanda	7.69	0.00	25.00
12	Dailekh-Kharigaira -Gaidabanjh Rural Road	10.55	2.86	2.86	Earthen	Poor	Seasonal	nauyabazar, rupakhet	Narayan municipality	Dailekh, Kharigaira, Gaidabaj		9.55	
13	Banki-Matela-Bisala Rural Road	37.33	7.33	7.33	Earthen	Fair	Seasonal	Baki,Baneswor bazar,Koteswor bazar, Khetgad khola,Matella bazar,Bisala	Satala,Lakandra.Bisala	Ramghat, Bahakot		0.00	30.00
Total		235.41	150.05	150.05							138.36	36.05	61.00

Annex:2.5

List of Existing Road of District A of Dailekh

S.N	Road Name	Total length with target km	Total Existing Length km	Length measured from GPS (vehicle pliable)	Road status(earthen/gravel/blacktopped/un der	Surface condition /fair/poor)	Serviceability (all weather/fair weather)	Settlements passed	VDCs & wards passed	Name of market centres	Required intervention(KM)		
											Upgrading	Under construction	New construction
1	Ghetidu-Bhajaniya pokhari-Padukakhola Rural Road	14.89	14.89	14.89	Earthen	Poor	Seasoanl	Chagatra,Ghiyatidu,Padukagaun,D hamigaun,Paligaun	Padukasthan,Nepa	Chagatra, Padukakhola	14.89	0.00	
2	Chhiudipusakot-basnepati-Lujai-Tolipani Rural Road	3.76	3.76	0.00	Earthen	Poor		Chhiudi,Lujai,Malika,tallodungeswor	Chhiudipusakot	Tallodungeswor	3.76	0.00	0.00
3	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	7.52	7.52	7.52	Earthen	Fair	Seasoanl	Chupra,kalbhairab,Bhuka,Chhuwala, Gamaudi,Satkhamma	Belpata,kalbhairab,Gamaudi	Chupra	7.52	0.00	
4	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2)Rural Road	5.00	5.00	3.00	Earthen	Poor	Seasoanl	Satkhamma,Gamaudi,Rajakandh, Navisthan	Rawakot,Gamaudi		5.00	0.00	0.00
5	Toriya-Baika Rural Road	4.71	4.71	0.00	Earthen	Poor		Toraya,Chhadgaun,Baik	Kalbhairab,Malika	Baika	4.71	0.00	0.00
6	Toriya-Gauri-Malika-Tolipani Rural Road	3.76	3.76	3.76	Earthen	Poor	Seasoanl	Toraya,Baskhola,Gauri	Kalbhairab,Gauri	Tallodungeswor, Lamsu			
7	Guranse-Patikalna Rural Road	10.00	10.00	10.00	Earthen	Fair	Seasoanl	Gurase,Dobata,Simesal,Patikalna	Seri,Khadgabada	Gurase, Patikanla	10.00	0.00	0.00
8	Ghodamarche-Gaidabanjh Rural Road	3.66	3.66	3.66	Earthen	Poor	Seasoanl	Chhanna,gaidabanjh	Raniban,Kharigaira	Gaidabaj, Kholibajar		0.00	
9	Simada-Brindrabasini-Salleri Rural Road	5.00	8.49	8.49	Earthen	Poor	Seasoanl	Simada,thali,bindhyabasini	Bindhyabasini	Lohare	5.00	0.00	
10	Lohare-Badabhairab Rural Road	5.00	6.32	6.32	Earthen	Poor	Seasoanl	Lohare,khor,badabhairab	Bindhyabasini,Badabhairab	Lohare	5.00	0.00	
11	Dailekh Bazar-Bhirkhet - Kharigaira Rural Road	5.00	6.85	6.85	Earthen	Poor	Seasoanl	Bhirkhet,suntada,Kharigaira	Badakhola,Kharigaira	Kharigaira, Bhirkhet	5.00	0.00	0.00
12	Baik-Dullu Rural Road	11.00	11.00	11.00	Earthen	Fair	Fair weather	Baik,Chhiudipusakot,Satkhamma, Dullu,Dhiyatidu	Malika,Chhiudipusakot,Gamaudi, Dullu,Paduka,Badala mji	Baika, Dullu, Tallodungeswor	8.00	0.00	0.00
13	Baratadi-Riju-Pokhara-Ratimati	6.00	6.00	6.00	Earthen	Poor	Fair weather	Baratadi,Patikalna,Shantibazar	Naulekatwal,Dullu	Dullu	6.00	0.00	0.00
14	Baika-Malika -Tallo Dungeswor District Road	3.87	3.87	3.87	Earthen	Poor	Fair weather	Baik, Tallodungeswor,Malika	Khadgabada and Malik	Baika, Tallodungeswor		0.00	0.00
Total		89.17	95.83	85.36							74.88	0.00	0.00

Annex 2.6																							
Additional roads built after 1st visit																							
S.N	Road Name	Total length of road	Road status (earthen/gravel/ctopped/under construction)	Surface condition (good /fair/poor)	Serviceability (all weather/fair weather)	Settlements passed	VDCs & wards passed	Name of market centres	Population of Market Centre	Average Daily Traffic Volume (Pedestrian)	Average Daily Traffic Volume (Porter)	Average Daily Traffic Volume (Pack Animal/Mule)	Average Daily Traffic Volume (Bicycle)	Average Daily Traffic Volume (Rickshaw)	Average Daily Traffic Volume (Car/ Jeep/ Van)	Average Daily TrafficVolume, (Motorcycle)	Average Daily Traffic Volume (Carts)	Minibus	Bus	Tractor	Average Daily Traffic Volume (Light Truck)	Average Daily TrafficVolume (Truck)	Average Daily Traffic Volume (Heavy Truck)
1	Rakam-Rola-Singhasain	1.700	Earthen	Poor	Seasoanl	Rakam,Rola,Singhasain	Rakam Karnali,Singhasain	Rakam, Singasain	6591	80	30	20											
2	Rakam Karnali-Tilepata	2.000	Earthen	Poor	Seasoanl	Rakam Karnali,Tilepata	Rakam Karnali,Tilepata	Rakam, Tilepata	7063	70	11	4											
3	Ghetidu-Bhuwatakura	3.000	Earthen	Poor	Seasoanl	Ghetidu,Bhuwatakura	Badalamji	Chagatra	902	32	13												
4	Chagatra-Dhuleswor	2.000	Earthen	Poor	Seasoanl	Chagatra,Dhuleswor	Badalamji	Chagatra	902	30					1	2							
5	Chupra-Kalbhairab-Bhukaha	4.000	Earthen	Poor	Seasoanl	Chupra,Kalbhairab,Bhukaha	Belpata,kalbhairab	Chupra	2371	130	25	10									2		
6	Dullu Patangini-Khetgaun-Talipadu-Pipalgadi	4.000	Earthen	Poor	Seasoanl	Dullu,Patangini,Khetgaun,Talipadu-Pipalgadi	Dullu,Padukasthan	Dullu	1781	115	20	20								2			
7	Kafalpani-Patihalna-Shantibazar	4.000	Earthen	Poor	Seasoanl	Kafalpani,Patihalna,Shantibazar	Naulekatwal,Dullu	Dullu	1781	45	7												
8	Talodungeswor-Dhulegalba-kafalpani-Dullu	10.000	Earthen	Poor	Seasoanl	Talodungeswor,Dhulegalba,kafalpani,Dullu	Naulekatwal,Dullu	Dullu, Talodungeswor	2874	45	7				3	5		1		3			
9	Patikalla-Kafalpani-Beteni-Tariya	12.000	Earthen	Poor	Seasoanl	Patikalla,Kafalpani,Beteni,Tariya	Naulekatwal,Chhiudipusakot		0	44	10				2	3				2			
10	Chupra-Kafalsaini-Shermakot	15.500	Earthen	Poor	Seasoanl	Chupra,Kafalsaini,Shermakot	Belpata,Lakuri	Chupara, Sermakot	6069	110	20					2							
11	Ratanagla-Agodhune-Goganpani-Biurakhet		Earthen	Poor	Seasoanl	Ratanagla,Agodhune,Goganpani,Biurakhet	Goganpani,Awalparajul	Guranse	819	80	11	17				1				2			
12	Hulaktakura-Ganma-Pagnath Bagdanda		Earthen	Poor	Seasoanl	Hulaktakura,Ganma,Pagnath,Bagdanda		Hulaktakura	1309	80	10												

Annex: 3.1.1

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

Cost Estimate of Proposed District Road A for Upgrading and Under construction of Dailekh District																				
S.N	Road Name	Total length of road (GPS length)	GPS length (vehicle pliable) (Km)	Road status	Surface condition (good /fair/poor)	Required intervention(KM)			Structures			Cost(Nrs.)					Average/Km cost (Nrs.)	Total Upgrading Cost	Average Upgrading Cost/Km	
						Upgrading (Gravel)	Under construction	Maintenance	Bridge No	Culvert No	Causeway No	Upgrading (Graveling with structural works)	Ongoing work (Incomplete work)	Maintenance	Structures	Total cost				
Class A																				
1	Dailekh-Dadimadi-Hadako-Agra-Rakamkamali RR	36.000	36.000	Earthen	Poor	22.000	14.000	15.000	3	0	0	66,000,000.00	28,000,000.00	13,125,000.00	220,500,000.00	327,625,000.00	9,100,694.44			
2	Ramaghat-Singhasan-Pipalkot District Road	50.250	25.250	Earthen	Poor	25.000		15.000			1	75,000,000.00	-	13,125,000.00	4,000,000.00	92,125,000.00	1,833,333.33	79,000,000	3160000	
3	Talodungeswor-Dullu-Khambagade-Kalikot	35.000	35.000	Earthen	Poor	35.000		20.000	0	0	0	105,000,000.00	-	17,500,000.00		122,500,000.00	3,500,000.00			
4	Dharmapokhara-Mathillo Dungeswor District Road	20.000	9.870	Earthen	Poor	9.000	11.000	5.000				27,000,000.00	22,000,000.00	4,375,000.00		53,375,000.00	2,668,750.00	27,000,000	3000000	
5	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.610	19.610	Earthen	Fair	13.000	6.610	8.000				39,000,000.00	13,220,000.00	7,000,000.00		59,220,000.00	3,019,887.81	39,000,000	3000000	
6	Chupra- Mehaltoli District Road	21.900	21.900	Earthen	Poor	21.900		15.000	1			65,700,000.00	-	13,125,000.00	40,500,000.00	119,325,000.00	5,448,630.14	106,200,000	4849315	
7	Dailekh-Naumule District Road	18.020	18.020	Earthen	Poor	18.000		10.000	1			54,000,000.00	-	8,750,000.00	35,100,000.00	97,850,000.00	5,430,077.69	89,100,000	4950000	
8	Dailekh Bazar-Deshigad-Mahabu District Road	30.400	30.400	Earthen	Poor	30.400		20.000				91,200,000.00	-	17,500,000.00		108,700,000.00	3,575,657.89	91,200,000	3000000	
10	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.920	9.920	Earthen	Poor	9.920		5.000				29,760,000.00	-	4,375,000.00		34,135,000.00	3,441,028.23	29,760,000	3000000	
11	Sangetada-Badala-Budeli-Chalnechautara-Bhuwakhada Rural Road	12.440	6.000	Earthen	Poor		6.440	6.000				-	12,880,000.00	5,250,000.00		18,130,000.00	1,457,395.50	-		
12	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.600	5.480	Earthen	Poor	15.600		2.000				46,800,000.00	-	1,750,000.00		48,550,000.00	3,112,179.49	46,800,000	3000000	
13	Dailekh Bazar-Kholibazar-Geetachaur-Pali RR	12.850	12.850	Earthen	Poor	12.850		5.000				38,550,000.00	-	4,375,000.00		42,925,000.00	3,340,466.93	38,550,000	3000000	
14	Dailekh-Thandanda-Salleri-Naumule RR	7.690	7.690	Earthen	Poor	7.690			1			23,070,000.00	-	-	40,500,000.00	63,570,000.00	8,266,579.97	63,570,000	8266580	
15	Dailekh-Kharigaira - Gaidabanjh Rural Road	9.550	2.860	Earthen	Poor		9.550	5.000				-	19,100,000.00	4,375,000.00		23,475,000.00	2,458,115.18	-		
16	Banki-Matela-Bisala Rural Road	7.330	7.330	Earthen	Fair			7.330			1	-	-	6,413,750.00	6,000,000.00	12,413,750.00	1,693,553.89	6,000,000		
Total		306.560	248.180											121,038,750.00		1,223,918,750.00		-	3922590	

Annex: 3.1.2

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

S.N	Road Name	Total length of road (GPS length)	GPS length (vehicle pilable) (Km)	Road status	Surface condition (good /fair/poor)	Required intervention(KM)			Structures			Ongoing work and other construction of District			Cost(Nrs.)		Average/Km cost (Nrs.)	Total Upgrading Cost	Average Upgrading Cost/Km
						Upgrading (Gravel)	Under construction	Maintenance	Bridge No	Culvert No	Causeway No	Upgrading (Gravelling with structural works)	Ongoing work (Incomplete work)	Maintenance	Structures	Total cost			
Class B																			
1	Ghetidu-Bhajariya pokhari-Padukakhola Rural Road	14.890	14.890	Earthen	Poor	10.000		8.000				30,000,000.00	-	7,000,000.00		37,000,000.00	2,484,889.19	30,000,000	3000000
2	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road	3.760	0.000		Poor		3.760					-	7,520,000.00	-		7,520,000.00	2,000,000.00	-	
3	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	7.520	7.520	Earthen	Fair	5.000		4.000				15,000,000.00	-	3,500,000.00		18,500,000.00	2,460,106.38	15,000,000	3000000
4	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	5.000	3.000	Earthen	Poor	5.000		3.000				15,000,000.00	-	2,625,000.00		17,625,000.00	3,525,000.00	15,000,000	
5	Toraiya-Baika Rural Road	4.710	0.000	Earthen	Poor		4.710					-	9,420,000.00	-		9,420,000.00	2,000,000.00	-	
6	Toraiya-Gauri-Malika-Tolipani Rural Road	3.762	3.762	Earthen	Poor			4.000				-	-	3,500,000.00		3,500,000.00	930,356.19	-	
7	Guranse-Patikalna Rural Road	10.000	10.000	Earthen	Fair	10.000		5.000				30,000,000.00	-	4,375,000.00		34,375,000.00	3,437,500.00	30,000,000	3000000
8	Ghodamarche-Gaidabanjh Rural Road	3.660	3.660	Earthen	Poor			4.000				-	-	3,500,000.00		3,500,000.00	956,284.15	-	
9	Simada-Brindrabasini-Salleri Rural Road	8.490	8.490	Earthen	Poor	5.000		4.000				15,000,000.00	-	3,500,000.00		18,500,000.00	2,179,034.16	15,000,000	3000000
10	Lohare-Badabhairab Rural Road	6.320	6.320	Earthen	Poor	5.000		3.000				15,000,000.00	-	2,625,000.00		17,625,000.00	2,788,765.82	15,000,000	3000000
11	Dailekh-Bhirkhet - Kharigaira Rural Road	6.850	6.850	Earthen	Poor	5.000		4.000				15,000,000.00	-	3,500,000.00		18,500,000.00	2,700,729.93	15,000,000	3000000
12	Baik-Dullu Rural Road	11.000	11.000	Earthen	Fair	8.000		4.000				24,000,000.00	-	3,500,000.00		27,500,000.00	2,500,000.00	24,000,000	3000000
13	Baratadi-Riju-Pokhara-Ratimati	6.000	6.000	Earthen	Poor			6.000				-	-	5,250,000.00		5,250,000.00	875,000.00	-	
14	Baika-Malika -Tallo Dungeswor Rural Road	3.870	3.870	Earthen	Poor			4.000				-	-	3,500,000.00		3,500,000.00	904,392.76	-	
15	Naumule-Kalika Rural Road	2.370	2.370	Earthen	Poor			3.000	1			-	-	2,625,000.00	39,150,000.00	41,775,000.00	17,626,582.28	39,150,000	
Total length in the District		95.832	85.362									-	-	46,375,000.00	39,150,000.00	222,315,000.00		39,150,000	3000000

Annex: 3.1.3

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

S.N	Class	Name of Road	Tentative Length (Km)				Cost(Nrs.)			Total cost (Nrs.)	Settlements passed	VDCs passed	VDCs beyond 4 hrs walking	Remarks
			Total	A/D	Valley	Ridge	A/D	Valley	Ridge					
1	A	Dailekh Bazar-Kholibazar-Geetachaur-Pali RR	23	21	2	0	84,000,000.00	10,000,000.00	-	94,000,000.00	Basi, Dewanbada, Amrisa, Gitachaur, Gadigaun, Rachulbada, Dewal, Pali	Basi, Raniban, Kasikandh	Kasikandh	
2	B	Naumule-Rapat-Bhurunge-Dwaree-Bulbule Jharana RR	25	14	11	0	56,000,000.00	55,000,000.00	-	111,000,000.00	Naumule, Baltar, Rapat, Salleri, Bhurunge, Dwaree	Naumule, Baluwatar, Dwaree	Baluwatar, Dwaree	
3	A	Chupra- Mehaltoli DR	13	9	0	4	36,000,000.00	-	10,000,000.00	46,000,000.00	Bestada, Santada, Mehaltoli, Metalpata	Pagnath, Mehaltoli	Ruma, Mehaltoli,	
4	B	Dailekh-Thandanda-Salleri-Naumule RR	25	18	0	7	72,000,000.00	-	17,500,000.00	89,500,000.00	Bhanbhane, Jhilke, Thandada, Khatena, Malu, Paiti, Salleri	Bindrabasini, Chauratha, Salleri	Chauratha, Salleri	
5	B	Santada-Mandhar-Suyad-Jajarkot	15	15	0	0	60,000,000.00	-	-	60,000,000.00	Santada, Mandhar, Suyad	Mehaltoli, Jagannath	Jagannath	
6	B	Bestada-Katti-Thuwa-Jajarkot	21	21	0	0	84,000,000.00	-	-	84,000,000.00	Bestada, Katti, Thuwa, Kachali	Pagnath, Katti	Katti	
7	B	Dhungemela-Markhe-Rhekcha RR	5	5	0	0	20,000,000.00	-	-	20,000,000.00	Dhungemela, Markhe	Piladi, Lalikanda	Lalikanda	
8	B	Naumule-Kalika RR	10	0	10	0	-	50,000,000.00	-	50,000,000.00	Naumule, Dhandgaun, Bangebazar	Naumule, Kalika	Kalika	
9	A	Banki-Matela-Bahankot-Kalikot	30	30	0	0	120,000,000.00	-	-	120,000,000.00	Matela, Bhuwakhada, Dhamigaun, Siyal, Bahakot, Kalikot	Hadakot, Bisala	Lakandra, Bisalla	
11	A	Ramaghat-Singhasan-Pipalkot DR	25	0	0	25	-	-	62,500,000.00	62,500,000.00	Daha, Tolichaka	Singhasain, Pipalkot	Singhasain, Pipalkot	
13	B	Syaulekandh-Phulkechaur-Bistagaun-Dap	16	10	0	6	40,000,000.00	-	15,000,000.00	55,000,000.00	Syaulekandh, Tolipata, Phulkechaur, Simgau, Khambada, Bistagaun, Dap	Tilepata, Sattala		
	A	Dailekh Bazar-Deshigad-Mahabu District Road	12	5		5	20,000,000.00	-	12,500,000.00	32,500,000.00				
Total length in the District			208	148	23	47				792,000,000.00				

Annex: 3.2.1

Year -wise Sharing of Budget and target (km)

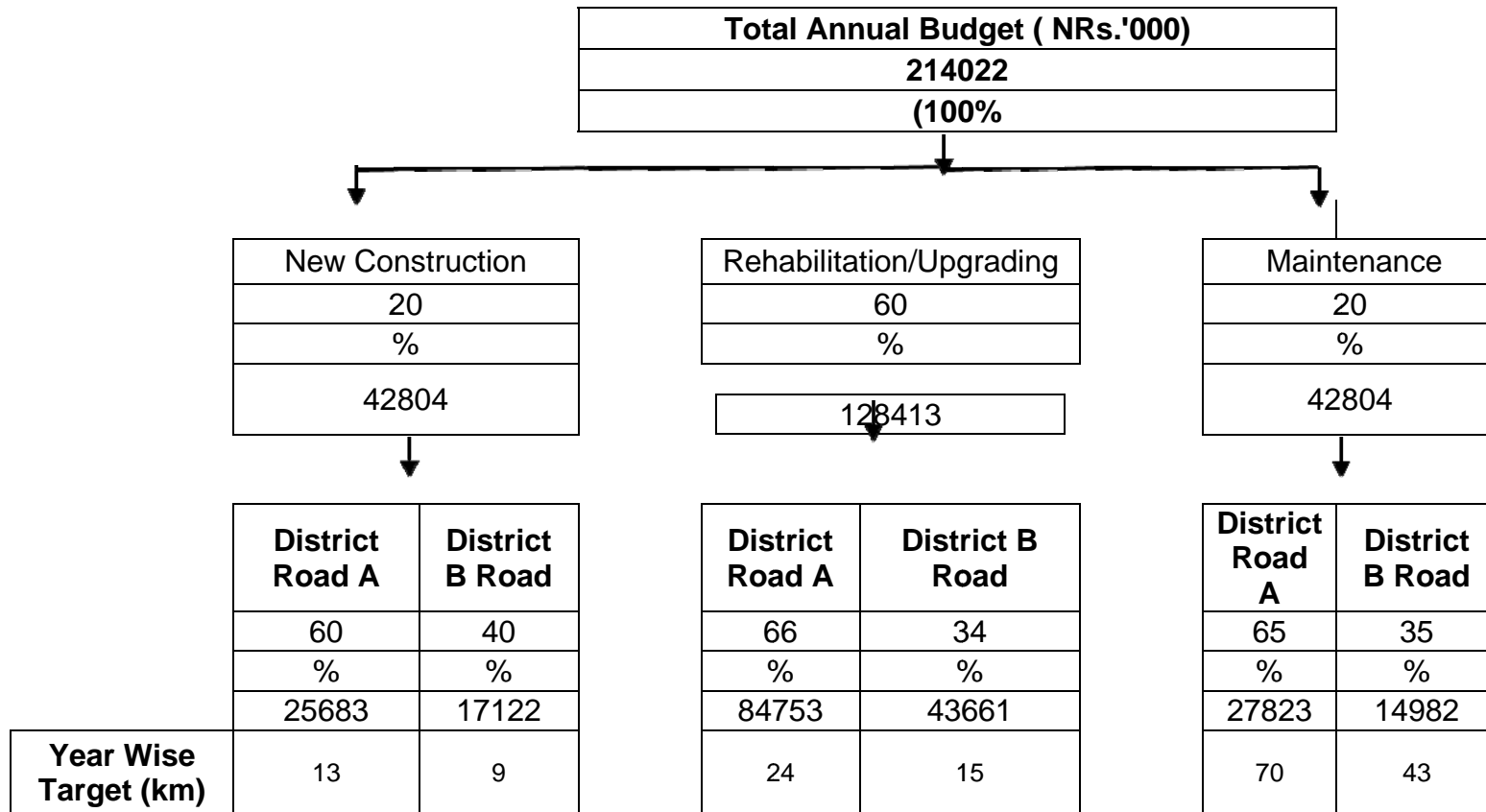
According to the projected financial plan, year-wise physical targets are set as

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	25683	13	28250	14	31075	16	31075	17	37599	19	153680	78
2	District Road B	17122	9	18833	9	20716	10	22788	11	25066	13	104525	52

S.N	Class of Transport Linkage	Rehabilitation/Upgrading										Budget ' 000	
		2065/66		2066/67		2067/68		2068/69		2069/70		Total	
		Budget	km	Budget	km	Budget	km	Budget	km	Budget	km	Budget	km
1	District A Road	84753	24	93223	27	102546	29	112800	32	124075	35	517398	148
2	District Road B	43661	15	48024	16	52827	18	58109	19	63918	21	266538	89

S.N	Class of Transport Linkage	Maintenance										Budget ' 000	
		2065/66		2066/67		2067/68		2068/69		2069/70		Total	
		Budget	km	Budget	km	Budget	km	Budget	km	Budget	km	Budget	km
1	District A Road	27823	70	30604	77	33664	84	37030	93	40732	102	169853	425
2	District Road B	14982	43	16479	47	18127	52	19939	57	21933	63	91459	261

Annex: 3.2.2
Sharing of Budget for FY 067/68



Annex: 3.2.3

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	13	24	70	9	15	43
068/69	14	27	77	9	16	47
069/70	16	29	84	10	18	52
070/71	17	32	93	11	19	57
071/72	19	35	102	13	21	63
Total (km)/no	78	148	425	52	89	261
Grand Total (km)/no	651			402		

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	214022	42804	20	128413	60	42804	20	100
2	068/69	235413	47083	20	141248	60	47083	20	100
3	069/70	258954	51791	20	155373	60	51791	20	100
4	070/71	284850	56970	20	170910	60	56970	20	100
5	071/72	313321	62664	20	187993	60	62664	20	100
	Total	1306561	261312		783936		261312		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 Updrading km	Traffic Volume	Co.efficient	Score(70)
1	Ramaghat-Singhasan-Pipalkot District Road	50.000	25.000	182	1.00	70.00
2	Dharmapokhara-Mathillo Dungeswor District Road	20.000	9.000	71.8	0.39	27.62
3	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.610	13.000	94	0.52	36.15
4	Chupra- Mehaltoli District Road	34.900	21.900	175	0.96	67.31
5	Dailekh-Naumule District Road	18.000	18.000	167	0.92	64.23
6	Dailekh Bazar-Deshigad-Mahabu District Road	30.400	30.400	130	0.71	50.00
7	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.920	9.920	77	0.42	29.62
8	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.600	15.600	42	0.23	16.15
9	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.850	12.850	83	0.46	31.92
10	Dailekh-Thandanda-Salleri-Naumule RR	32.69	7.690	105	0.58	40.38
11	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	7.520	5.000	70	0.38	26.92

Annex : 4.1.2
Prioritization of District roads A for Upgrading based on Market Centre

S.N	Growth Centre/market	Total Length of Road km	Length of Road for Updrading km	Market centre	Centrality Index	Co.efficient	Standered Score(10)
1	Ramaghat-Singhasan-Pipalkot District Road	50.000	25.000	Ramghat, Thantikandh, Thantikandh, Singasain	220	0.28	2.83
2	Dharmapokhara-Mathillo Dungeswor District Road	20.000	9.000	Dharampokhara, Mathillodungeswor	204	0.26	2.62
3	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.610	13.000	Awalaparajul, Matthillo dungeswor	185	0.24	2.38
4	Chupra- Mehaltoli District Road	34.900	21.900	Chupra, Lohare, Hulaktakura, Bestada, Santada	203	0.26	2.61
5	Dailekh-Naumule District Road	18.000	18.000	Dailekh, Naumule	778	1.00	10.00
6	Dailekh Bazar-Deshigad-Mahabu District Road	30.400	30.400	Dailekh, Vaisakhor, Chhanna, Majhgau	742	0.95	9.54
7	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.920	9.920	Dullu, Padukakhola	169	0.22	2.17
8	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.600	15.600	Dailekh	684	0.88	8.79
9	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.850	12.850	Bhikhet, Milanbazar, Kholibazar, Kotdanda	126	0.16	1.62
10	Dailekh-Thandanda-Salleri-Naumule RR	32.690	7.690	Dailekh, Thandanda	734	0.94	9.43
11	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	12.000	7.000	Chupra	80	0.10	1.03

Annex : 4.1.3

Prioritization of District roads A for Upgrading based on Cost

S.N	Code	Name of the Road	Total Planned Length km	Length of Road for Upgrading km	Upgrading Cost	Cost per km	Co.efficient	Score(20)
1	60A001R	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	79000000	3160000	0.95	18.99
2	60A002 R	Dharmapokhara-Mathillo Dungeswor District Road	20.00	9.00	27000000	3000000	1.00	20.00
3	60A003 R	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.61	13.00	39000000	3000000	1.00	20.00
4	60A004 R	Chupra- Mehaltoli District Road	34.90	21.90	106200000	4849315	0.62	12.37
5	60A005 R	Dailekh-Naumule District Road	18.00	18.00	89100000	4950000	0.61	12.12
6	60A006 R	Dailekh Bazar-Deshigad-Mahabu District Road	30.40	30.40	91200000	3000000	1.00	20.00
7	60A007 R	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.92	9.92	29760000	3000000	1.00	20.00
8	60A009 R	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.60	15.60	70440000	4515385	0.66	13.29
9	60A010R	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.85	12.85	38550000	3000000	1.00	20.00
10	60A011R	Dailekh-Thandanda-Salleri-Naumule RR	32.69	7.69	63570000	8266580	0.36	7.26
11	60A014R	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	7.520	5.000	15000000	3000000	1.00	20.00

Annex : 4.1.4
Scoring System for prioritisation of the roads for Upgrading

S.N.	Name of Road	Total Targeted Length km	Length of Road for Upgrading km	Parameter Used for the				
				Traffic volume (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	70.00	2.83	18.99	91.82	1
2	Dharmapokhara-Mathillo Dungeswor District Road	20.00	9.00	27.62	2.62	20.00	50.24	9
3	Mathillo Dungeswor-Dada Aulparajul-Chaukhada District Road	19.61	13.00	36.15	2.38	20.00	58.53	5
4	Chupra- Mehaltoli District Road	34.90	21.90	67.31	2.61	12.37	82.29	3
5	Dailekh-Naumule District Road	18.00	18.00	64.23	10.00	12.12	86.35	2
6	Dailekh Bazar-Deshigad-Mahabu District Road	30.40	30.40	50.00	9.54	20.00	79.54	4
7	Dullu(Kritikham)-Shantibazar-Sanagaun-Paligaun-Pipalghari Rural Road	9.92	9.92	29.62	2.17	20.00	51.79	8
8	Puranobazar-Shreesthan-Rajakandh-Chautara-Gamaudi Rural Road	15.60	15.60	16.15	8.79	13.29	38.23	11
9	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh DR	35.85	12.85	31.92	1.62	20.00	53.54	7
10	Dailekh-Thandanda-Salleri-Naumule RR	32.69	7.69	40.38	9.43	7.26	57.08	6
11	Chupra-Kalbhairab-Bhuka-Chhuwala-Gamaudi-Satkhamma Rural Road	7.520	5.000	26.92	1.03	20.00	47.95	10

Annex : 4.2.1

Prioritization of District roads B for Upgrading based on Traffic Unit

S.N	Name of the Road	Total Targeted Length km	Length of Road for Updrading km	Traffic Unit	Co.efficient	Score(70)
1	Ghetidu-Bhajaniya pokhari-Padukakhola Rural Road	14.890	10.000	50	0.65	45.29
2	Guranse-Patikalna Rural Road	10.000	10.000	42	0.55	38.34
3	Simada-Brindrabasini-Salleri Rural Road	8.490	5.000	50	0.65	45.75
4	Lohare-Badabhairab Rural Road	6.320	5.000	62	0.81	56.73
5	Bhikhet - Kharigaira Rural Road	6.850	5.000	77	1.00	70.00
6	Baik-Dullu Rural Road	11.000	8.000	67	0.88	61.31
7	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	5.379	5.000	29	0.38	26.54

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	Centrality Index	Co.effi cient	Standered Score(10)
1	Ghetidu-Bhajaniya pokhari-Padukakhola Rural Road	14.890	14.000	Chagatra, Padukakhola	68.0	0.10	0.99
2	Guranse-Patikalna Rural Road	10.000	10.000	Gurase, Patikanla	59.0	0.09	0.86
3	Simada-Brindrabasini-Salleri Rural Road	8.490	8.000	Lohare	19.0	0.03	0.28
4	Lohare-Badabhairab Rural Road	6.320	6.000	Lohare	19.0	0.03	0.28
5	Bhikhet - Kharigaira Rural Road	6.850	6.000	Kharigaira, Bhirkhet	75.0	0.11	1.10
6	Baik-Dullu Rural Road	18.220	18.000	Baika, Dullu, Tallodungeswor	252.0	0.37	3.68
7	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	689.000	5.000	Dailekh	684.0	1.00	10.00

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	Upgrading Cost /km		Co.efficient	Score(20)
						Max	Min		
1	Ghetidu-Bhajaniya	14.890	10.000	35000000	3500000	3800000	3000000	0.86	17.14
2	Guranse-Patikalna Rural Road	10.000	10.000	38000000	3800000	3800000	3000000	0.79	15.79
3	Simada-Brindrabasini-Salleri Rural Road	8.490	5.000	15500000	3100000	3800000	3000000	0.97	19.35
4	Lohare-Badabhairab Rural Road	6.320	5.000	15700000	3140000	3800000	3000000	0.96	19.11
5	Bhikhet - Kharigaira Rural Road	6.850	5.000	15100000	3020000	3800000	3000000	0.99	19.87
6	Baik-Dullu Rural Road	11.000	8.000	24000000	3000000	3800000	3000000	1.00	20.00
7	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	24.355	5.000	15500000	3100000	3800000	3000000	0.97	19.35

Annex : 4.2.4
Scoring System for prioritisation of the roads for Upgrading

S.N	Name of Road	Total Planned Length km	Length of Road for Updrading km	Parameter Used for the Priorisation of Road Corridors and their corresponding Scores				
				Traffic volume (70)	Market /service centre (10)	Cost (20)	Total Score (100)	Priority Rank
1	Ghetidu-Bhajaniya pokhari-Padukakhola Rural Road	14.890	10.000	45.29	0.99	17.14	63.43	5
2	Guranse-Patikalna Rural Road	10.000	10.000	38.34	0.86	15.79	54.99	7
3	Simada-Brindrabasini-Salleri Rural Road	8.490	5.000	45.75	0.28	19.35	65.38	4
4	Lohare-Badabhairab Rural Road	6.320	5.000	56.73	0.28	19.11	76.12	3
5	Bhirkhet - Kharigaira Rural Road	6.850	5.000	70.00	1.10	19.87	90.96	1
6	Baik-Dullu Rural Road	11.000	8.000	61.31	3.68	20.00	84.99	2
7	Satkhumba-Gamaudi-Navisthan-Sreesthan-Goganpani(NN-2) Rural Road	5.000	5.000	26.54	10.00	19.35	55.89	6

Annex : 4.3.1
Scoring of proposed District Roads A based on Population per unit Cost

S.N	Name of Road	Total Target Length km	Road Length for New construction Km	Population	Investment Cost	Population /cost in one lacks	co.efficient	Standard Score (55)
A	C	D	E	F	G	H	I	J
						$=(F/G)*100000$		
1	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.8500	23.0000	38525	94000000	41	0.41	22.36
2	Chupra- Mehaltoli District Road	34.9000	13.0000	46380	46000000	101	1.00	55.00
3	Banki-Matela-Bahankot-Kalikot District Road	30.0000	30.0000	33115	120000000	28	0.27	15.05
4	Ramaghat-Singhasan-Pipalkot District Road	50.0000	25.0000	35000	62500000	56	0.56	30.55
5	Khambagade-Beuli-Kalikot	25.0000	25.0000	19874	100000000	20	0.20	10.84
6	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road	34.0000	34.0000	44142	113500000	39	0.39	21.22
7	Dailekh Bazar-Deshigad-Mahabu District Road	42.4000	12.0000	15000	32500000	46	0.46	25.18
8	Dailekh-Thandanda-Salleri-Naumule District Road	25.0000	25.0000	22503	89500000	25	0.25	13.72

Annex : 4.3.2
Scoring of proposed District Roads A based on Cultivated Land

S.N	Name of Road	Total Target Length km	Road Length for New construction	Cultivated land in ha	Cultivated land in ha/km	co.efficient	Score(15)
1	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.850	23.000	6489	282	0.48	7.16
2	Chupra- Mehaltoli District Road	34.900	13.000	7688	591	1.00	15.00
3	Banki-Matela-Bahankot-Kalikot District Road	30.000	30.000	6988	233	0.39	5.91
4	Ramaghat-Singhasan-Pipalkot District Road	50.000	25.000	4775	191	0.32	4.84
5	Khambagade-Beuli-Kalikot District Road	25.000	25.000	4240	170	0.29	4.30
6	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road	34.000	34.000	8233	242	0.41	6.14
7	Dailekh Bazar-Deshigad-Mahabu District Road	42.400	12.000	3850	321	0.54	8.14
8	Dailekh-Thandanda-Salleri-Naumule District Road	25.000	25.000	3368	135	0.23	3.42

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

S.N	Name of Road	Total Target Length (km)	Road Length for New construction (km)	Population waking Hour	Pop. Walking Hour/km	Co.efficient	Score(20)
1	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.850	23.000	77050	3350	0.47	9.39
2	Chupra- Mehaltoli District Road	34.900	13.000	92760	7135	1.00	20.00
3	Banki-Matela-Bahankot-Kalikot District Road	30.000	30.000	66230	2208	0.31	6.19
4	Ramaghat-Singhasan-Pipalkot District Road	50.000	25.000	52198	2088	0.29	5.85
5	Khambagade-Beuli-Kalikot District Road	25.000	25.000	39747	1590	0.22	4.46
6	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road	34.000	34.000	88285	2597	0.36	7.28
7	Dailekh Bazar-Deshigad-Mahabu District Road	42.400	12.000	35000	2917	0.41	8.18
8	Dailekh-Thandanda-Salleri-Naumule District Road	25.000	25.000	45006	1800	0.25	5.05

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.	Name of Road	Total Target Length km	Road 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	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.85	23.00	18877	821	0.88	8.78
2	Chupra- Mehaltoli District Road	34.90	13.00	9276	714	0.76	7.63
3	Banki-Matela-Bahankot-Kalikot District Road	30.00	30.00	4500	150	0.16	1.60
4	Ramaghat-Singhasan-Pipalkot District Road	50.00	25.00	23228	929	0.99	9.94
5	Khambagade-Beuli-Kalikot District Road	25.00	25.00	12000	480	0.51	5.13
6	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road	34.00	34.00	31783	935	1.00	10.00
7	Dailekh Bazar-Deshigad-Mahabu District Road	42.40	12.00	6224	519	0.55	5.55
8	Dailekh-Thandanda-Salleri-Naumule District Road	25.00	25.00	18902	756	0.81	8.09

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

S.N	Name of Road	Total Target Length km	Road Length for New construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding					
				<i>Population served per unit cost (55)</i>	<i>Cultivated land within zone of influence (15)</i>	<i>Population * walk hour (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>Priority Rank</i>
1	Dailekh Bazar-Kholibazar-Badakhola-Basi-Kashikandh District Road	35.8500	23.0000	22.36	7.16	9.39	8.78	47.68	3
2	Chupra- Mehaltoli District Road	34.9000	13.0000	55.00	15.00	20.00	7.63	97.63	1
3	Banki-Matela-Bahankot-Kalikot District Road	30.0000	30.0000	15.05	5.91	6.19	1.60	28.75	7
4	Ramaghat-Singhasan-Pipalkot District Road	50.0000	25.0000	30.55	4.84	5.85	9.94	51.18	2
5	Khambagade-Beuli-Kalikot	25.0000	25.0000	10.84	4.30	4.46	5.13	24.73	8
6	Dandimadi-Hadako-Thantikandh-Agra-Tilepata-Rakamkarnali District Road	34.0000	34.0000	21.22	6.14	7.28	10.00	44.64	5
7	Dailekh Bazar-Deshigad-Mahabu District Road	42.4000	12.0000	25.18	8.14	8.18	5.55	47.04	4

Annex : 4.4.1

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

S.N	Name of Road	Total Targeted Length km	Road Length for New construction	Population	Investment Cost	Population /cost in one lacks	co.efficient	Standard Score (55)
A	C	D	E	F	G	H	I	J
						$=(F/G)*100000$		
1	Naumule-Rapat-Bhurunge-Dwaree-Bulbule Jharana RR	25	25	15774	111000000	14	0.21	11.64
2	Naumule-Kalika RR	10	10	30774	50000000	62	0.92	50.43
4	Santada-Mandhar-Suyad-Jajarkot	15	15	23630	60000000	39	0.59	32.27
5	Bestada-Katti-Thuwa-Jajarkot	21	21	24109	84000000	29	0.43	23.52
6	Dhungemela-Markhe-Rhekcha RR	5	5	13425	20000000	67	1.00	55.00
7	Syaulekandh-Phulkechaur-Bistagau-Dap	16	16	25499	55000000	46	0.69	37.99
8	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road	3.76	3.76	5000	7520000	66	0.99	54.48

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

S.N	Name of Road	Total Targeted Length km	Road Length for New construction	Cultivated land in ha	Cultivated land in ha/km	co-efficient	Score(15)
1	Naumule-Rapat-Bhurunge-Dwaree-Bulbule Jharana RR	25	25	2697	108	0.22	3.23
2	Naumule-Kalika RR	10	10	4425	442	0.88	13.27
4	Santada-Mandhar-Suyad-Jajarkot	15	15	3652	243	0.49	7.30
5	Bestada-Katti-Thuwa-Jajarkot	21	21	2979	142	0.28	4.25
6	Dhungemela-Markhe-Rhekcha RR	5	5	2501	500	1.00	15.00
7	Syaulekandh-Phulkechaur-Bistagau-Dap	16	16	4487	280	0.56	8.41
8	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Road	3.76	3.76	774	206	0.41	6.17

Annex : 4.4.5

Scoring System for prioritisation of the proposed District Roads B for new constructio

S.N	Name of Road	Total Targeted Length km	Length for New construction km	Parameter Used for the Priorisation of Road Corridors and their corresponding					
				<i>Population served per unit cost (55)</i>	<i>Cultivated land within zone of influence (15)</i>	<i>Population *Walk Hour (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>Priority Rank</i>
1	Naumule-Rapat-Bhurunge-Dwaree	25.000	25.000	11.64	3.23	4.10	1.79	20.77	7
2	Naumule-Kalika RR	10.000	10.000	50.43	13.27	20.00	10.00	93.70	1
4	Santada-Mandhar-Suyad-Jajarko	15.000	15.000	32.27	7.30	10.24	0.78	50.59	5
5	Bestada-Katti-Thuwa-Jajarkoi	21.000	21.000	23.52	4.25	7.46	1.13	36.37	6
6	Dhungemela-Markhe-Rhekcha RF	5.000	5.000	55.00	15.00	17.45	2.10	89.55	2
7	Syaulekandh-Phulkechaur-Bistaga Dap	16.000	16.000	37.99	8.41	10.36	1.70	58.46	4
8	Chhiudipusakot-Basnepati-Lujai-Tolipani Rural Roac	3.760	3.760	54.48	6.17	8.65	3.45	72.75	3
Total Length km		95.760	95.760						

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	Dailekh	50	57	65	73	81	326	150,000.00	171,000.00	195,000.00	219,000.00	243,000.00	978,000.00

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	Dailekh	3	2	2	1	2	10	2,400,000.00	1,600,000.00	1,600,000.00	800,000.00	1,600,000.00	8,000,000.00

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	Dailekh	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

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	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

District-wise plan - 2009/10 to 2013/14 (5 years) for Total Budget

SN	District	Total budget in NRs.
1	Dailekh	78,484,000.00

Annex: 5.2**Projected Financial Plan for Trail Bridges****NRs.**

Year	Routine Maintenance		Major Maintenance		New Construction Bridges		Total Budget NRs
	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	12,927,250.00
2011/12	65	195,000.00	1	1,600,000.00	8	12,750,000.0	14,545,000.00
2012/13	73	219,000.00	1	800,000.00	8	12,750,000.0	13,769,000.00
2013/14	81	243,000.00	2	1,600,000.00	8	12,750,000.0	14,593,000.00
2014/15	23	69,000.00	1	800,000.00	3	4,781,250.00	5,650,250.00
Total	299	897,000.00	7	6,400,000.00	34	54,187,500.0	61,484,500.00

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	171,000.00	1,600,000.00	11,156,250.0
068/69	195,000.00	1,600,000.00	12,750,000.0
069/70	219,000.00	800,000.00	12,750,000.0
070/71	243,000.00	1,600,000.00	12,750,000.0
071/72	69,247.91	647,933.63	4,517,818.46
Total	897,247.91	6,247,933.63	53,924,068.5
Grand Total	61,069,250.00		

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	2	7
068/69	65	1	8
069/70	73	1	8
070/71	81	2	8
071/72	23	1	3
Total	299	7	34

Annex: 5.5

Prospective Bridge FOR New Construction in Dailekh District

Rank	Bridge Number	VDC/Municipality		River Name	Place Name	Distance		Bridge		Prliminary Cost est NRs.	Total		Marginalized Population					
		Right Bank	Left Bank			Gained (hrs)	Roadhead (dav)	Type	Span		HH	Population	Dalit	Janajati	Minorities	other poor	Total No	%
1	61 5 049 18 06 1	Bhairavsthan	Satala	Karnali	Dab Karnali	5	0.5	SuspenNsion	150	4,770,000	3000	25000	2900	5000	0	6100	14000	56
2	61 5 048 18 06 1	Bisalla	Chamundasthan	Rama Gad	Rate Gada	2	1	SuspenDed	100	1,660,000	3000	18000	6000	3000	0	9000	18000	100
3	61 5 045 18 06 1	Lakandra	Chamundasthan	Rama Gad	Simalsera	2	1	SuspenDed	100	1,660,000	3106	18000	6000	3000	0	9000	18000	100
4	61 5 055 18 06 1	Layati	Rakam	Karnali	Bheltadi	2	0.5	SuspenNsion	300	6,540,000	4000	25000	1000	0	0	12000	13000	52
5	61 5 023 18 06 1	Baluwater	Dwari	Lohare Khola	Baltar	3	1	SuspenDed	60	996,000	1000	6011	1697	2662	0	1252	5611	93
6	61 5 008 18 06 1	Dandaparajuli	Dandaparajuli	Parajul Khola	Chaita kuna	2	0.5	SuspenDed	100	1,060,000	2500	14753	3500	2942	0	2300	8742	59
7	61 5 052 18 06 1	Tilepata	Singasain	Kane Gad	Masta	3	0.5	SuspenDed	100	1,580,000	1000	7000	1200	1390	0	1710	4300	61
8	61 5 015 18 06 1	Rum	Mehaltoli	Santada	Santada	2	2	SuspenDed	100	1,240,000	1275	8946	3150	0	0	672	3822	43
9	61 5 047 18 06 2	Bisalla	Bisalla	Bhut Gad	Moubheni Buki	2	2	SuspenDed	100	1,240,000	1002	8500	1100	800	0	4000	5900	69
10	61 5 013 18 06 3	Jaganath	Mehaltoli	Tame Khola	Tunda Khola	2	3	SuspenDed	110	1,496,000	1300	9100	480	0	0	440	920	10
11	61 5 002 18 06 1	Baraha	Bisalla	Rati Khola	Twal Twale	2	0.5	SuspenDed	80	848,000	1250	7000	1200	1390	0	1710	4300	61
12	61 5 047 18 06 3	Bisalla	Chamundasthan	Palta Khola	Maluka Khola	2	1.5	SuspenDed	80	944,000	1500	8000	2000	1000	0	4000	7000	88
13	61 5 004 18 06 1	Dandaparajuli	Goganpani	Parajul Khola	Tiliya Ghat	2	0.5	SuspenDed	70	742,000	1200	6836	1150	1580	0	485	3215	47
14	61 5 019 18 06 1	Toli	choratha	Lohare Khola	Patta Ghat	2	1	SuspenDed	80	896,000	1000	5200	1747	1800	0	835	4382	84
15	61 5 007 18 06 1	awalparajuli	piladi	Parajul Khola	Lama Tada	2	0.5	SuspenDed	70	742,000	1500	8465	2000	1900	0	2188	6088	72
16	61 5 018 18 06 1	badabhairav	Bindhyabasini	Bada Khola	Jirku	2	1	SuspenDed	80	896,000	1000	6800	400	200	0	550	1150	17
17	61 5 017 18 06 1	Toli	Salleri	Lohare Khola	Batar Ratamate	2	1	SuspenDed	52	582,400	1000	5820	1673	2841	0	684	5198	89
18	61 5 012 18 06 1	Katti	Jaganath	palta Khola	Maluka Khola	2	1	SuspenDed	100	1,120,000	1000	7000	2400	210	0	3600	6210	89
19	61 5 026 18 06 1	Rawatkot	Basi	Chham Gad	Khod Saltada	3	1	SuspenDed	90	1,008,000	400	2300	317	243	0	640	1200	52
20	61 5 026 18 06 2	Rawatkot	Basi	Chham Ghat	Simal Tada	2	2	SuspenDed	110	1,364,000	460	2700	1900	155	0	243	2298	85
21	61 5 030 18 06 1	Baluwater	Dwari	Lohare Khola	Rapat	2	1	SuspenDed	45	504,000	800	5191	859	2042	0	1400	4301	83
22	61 5 022 18 06 1	Kalika	Kalika	Lohare Khola	Dhat Gaon	2	1.5	SuspenDed	65	767,000	500	5007	1638	1880	0	666	4184	84
23	61 5 047 18 06 1	Bisalla	Bisalla	Deuti Khola	Gaira Goan	1	2	SuspenDed	80	992,000	1100	15500	2500	1000	0	4800	8300	54
24	61 5 003 18 06 1	Seri	Seri	Kune	Kune Khola	2	0.5	SuspenDed	90	954,000	950	5300	1000	1190	0	1580	3770	71
25	61 5 008 18 06 3	Dandaparajuli	Dandaparajuli	Parule Ghat	Parule Ghat	2	0.5	SuspenDed	100	1,060,000	800	4772	805	542	0	592	1939	40.633
26	61 5 048 18 06 2	Lakandra	Jambukandh	Rama Gad	Kukur Dula	3	0.5	SuspenDed	100	1,580,000	600	4000	1000	0	0	400	1400	35
27	61 5 005 18 06 1	awalparajuli	piladi	Chhota Thulo Khola	Puliyaghat	2	0.5	SuspenDed	100	1,060,000	1100	5656	690	730	0	898	2318	40.983
28	61 5 008 18 06 4	Lakuri	Dandaparajuli	Metala Khola	Kuntha Khet	2	0.5	SuspenDed	90	1,422,000	610	4635	860	950	0	1127	2937	63.366
29	61 5 050 18 06 1	Tolijaisi	Tolijaisi	Khatter Khola	Hrisiko	2	3	SuspenDed	80	1,088,000	700	4000	1000	0	0	3000	4000	100
30	61 5 027 18 06 1	Kasikandh	Raniban	Hulaki Bato Dovan	Hulaki Bato	2	1	SuspenDed	70	784,000	700	4100	650	2600	0	664	3914	95.463
31	61 5 027 18 06 3	Kasikandh	Kasikandh	Thada Khola	Thado Khola	3	2	SuspenDed	40	496,000	353	1408	197	856	0	632	1685	119.67
32	61 5 046 18 06 1	Kusapani	Kasikandh	Chham Gad	Arupate	3	1	SuspenDed	80	1,328,000	600	3500	585	510	0	426	1521	43.457
33	61 5 016 18 06 1	Badabhairav	Pagnath	Katti	Hulak Takura	2	0	SuspenDed	125	2,500,000	1200	8400	1715	0	0	1785	3500	41.667
34	61 5 007 18 06 2	awalparajuli	Lalikhanda	Haneta Khola	Haneta	2	0.5	SuspenDed	100	1,060,000	900	8108	690	650	0	676	2016	24.864
35	61 5 001 18 06 1	Narayan Municipality	Toli	Tame Khola	Tame danda	2	0.5	SuspenDed	50	560,000	500	2675	590	555	0	477	1622	60.636
36	61 5 021 18 06 1	Naumule	Naumule	Lohare Khola	Bhitri Khola	2	1	SuspenDed	55	616,000	500	2486	724	1025	0	600	2349	94.489
37	61 5 054 18 06 1	Pipalkot	Pipalkot	Bhitri Hukkana Khola	Kanma	2	1	SuspenDed	80	992,000	500	3000	700	700	0	1400	2800	93.333
38	61 5 052 18 06 2	Singasain	Tilepata	Kane Gad	Alaichi Bari	2	1.5	SuspenDed	100	1,740,000	400	3500	500	0	0	1700	2200	62.857
39	61 5 001 18 06 1	Malika	Khadkadanda	Lohare khola	Bhahade Khola	2	0.5	SuspenDed	125	2,650,000	1200	7363	1290	1698	0	1900	4888	66.386
40	61 5 023 18 06 2	Dwari	Dwari	Dwari Khola	Dwari Khola	2	2	SuspenDed	50	620,000	330	2185	634	679	0	673	1986	90.892
41	61 5 028 18 06 1	Kasikandh	Raniban	Rabat Uttisaini	Uttisaini	2	1	SuspenDed	45	747,000	190	1140	660	165	0	120	945	82.895
42	61 5 039 18 06 1	Rawatkot	Badakhola	Chham Gad	Dare Ghat	1	1	SuspenDed	120	1,992,000	1500	7500	970	1430	0	980	3380	45.067
43	61 5 012 18 06 2	Katti	Pagnath	Shakutanda	Shanku Tada	2	1.5	SuspenDed	125	2,950,000	800	4800	2500	390	0	950	3840	80
44	61 5 012 18 06 3	Katti	Katti	Ghote Khola	Ghatte Danda	2	3	SuspenDed	90	1,224,000	678	3876	516	484	0	484	1484	38.287
45	61 5 055 18 06 2	Rakam	Rakam	Kane Khola	Okhal Dhunga	1	0.5	SuspenDed	80	848,000	1000	6500	1500	0	0	2000	3500	53.846
46	61 5 039 18 06 2	Rawatkot	Badakhola	Chham Gad	Kitulla	1	1	SuspenDed	80	896,000	700	3500	430	480	0	440	1350	38.571
47	61 5 045 18 06 2	Chamundasthan	Bhairikalikathum	Gada Jiula	Gada Jiula	1	1	SuspenDed	200	4,480,000	3000	20000	1000	2000	0	7000	10000	50
48	61 5 014 18 06 1	Rum	Mehaltoli	Bhere Khola	Nimada	1	3	SuspenDed	95	1,292,000	450	2800	900	0	0	1800	2700	96.429
49	61 5 049 18 06 2	Satala	Satala	Chine Khola	Chine Jiula	2	1	SuspenDed	150	3,360,000	1000	8000	4000	0	0	2000	6000	75

Annex: 5.5

Prospective Bridge FOR New Construction in Dailekh 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)	Roadhea d (dav)	Type	Span		HH	Population	Dalit	Janajati	Minorities	other poor	Total No	%
50	61 5 008 18 06 2	Goganpani	Dandaparajuli	Chor Khola	Chor Khola	2	0.5	SuspenDed	150	3,180,000	1100	6740	670	1320	0	2008	3998	59
51	61 5 017 18 06 3	Toli	Toli	Toli Khola	Toli Khola	2	1	Truss	32	1,171,200	300	1922	635	654	0	633	1922	100
52	61 5 010 18 06 1	Badabhairav	Lakuri	Baitadi Khola	Baitadi Khola	2	0.5	SuspenDed	65	689,000	405	2351	400	68	0	460	928	39
53	61 5 050 18 06 2	Tolijaisi	Tolijaisi	Nara Khola	Ghatte Khet	1	3	SuspenDed	80	1,088,000	700	4000	800	0	0	2500	3300	83
54	61 5 001 18 06 2	Khadigaira	Narayan Municipality	Tara Ghat	Budha Gaun	2	1	SuspenDed	80	1,328,000	150	1100	111	486	0	123	720	65
55	61 5 013 18 06 2	Jaganath	Jaganath	Ghumne Khola	Ghumne Khola	1	3	SuspenDed	100	1,360,000	600	3600	550	710	0	890	2150	60
56	61 5 016 18 06 2	Katti	Pagnath	Katti	Pagnath	1	2	SuspenDed	80	1,456,000	500	3500	1450	210	0	1600	3260	93
57	61 5 030 18 06 2	Baluwater	Baluwater	Lohare Khola	Neupheri Mallal	1	2	SuspenDed	35	434,000	350	3573	925	960	0	1050	2935	82
58	61 5 028 18 06 2	Raniban	Raniban	Gitachaur	Dadi Khola	3	1	SuspenDed	40	448,000	150	900	340	27	0	175	542	60
59	61 5 027 18 06 2	Kasikandh	Kusapani	Gotri Khola	Gotri Khola	3	2	SuspenDed	35	637,000	155	930	200	472	0	40	712	77
60	61 5 022 18 06 2	Kalika	Kalika	Padam Khola	Mouri Bhir	1	2	SuspenDed	60	744,000	2500	2505	841	842	0	632	2315	92
61	61 5 020 18 06 1	Salleri	choratha	Gad Khola	Gad Khola	1	2	SuspenDed	40	496,000	315	3357	832	825	0	925	2582	77
62	61 5 002 18 06 2	Gauri	Baraha	Lohare Khola	Saltada	2	0.5	SuspenDed	125	2,650,000	850	4091	1099	990	0	1422	3511	86
63	61 5 027 18 06 5	Kusapani	Kasikandh	Chham gad	Thulo Khola	2	2	SuspenDed	70	868,000	200	1184	160	150	0	148	458	39
64	61 5 017 18 06 2	Narayan Municipality	Toli	Tame Khola	Bagh Khor	1	1	SuspenDed	50	560,000	2000	3565	605	590	0	695	1890	53
65	61 5 019 18 06 2	Salleri	choratha	Amla Chaur	Dada Khet	1	1	SuspenDed	50	560,000	250	2172	438	856	0	632	1926	89
66	61 5 017 18 06 4	Bhawani	Toli	Gopi Khola	Gopi Khola	2	1	SuspenDed	45	504,000	435	1667	295	215	0	388	898	54
67	61 5 013 18 06 1	Jaganath	Mehaltoli	Dhara Khola	Dhara Khola	1	3	SuspenDed	80	1,088,000	600	3600	950	0	0	650	1600	44
68	61 5 029 18 06 1	Bhawani	Bhawani	Tame Khola	Tame Khola	1	1	SuspenDed	45	504,000	450	2674	713	501	0	669	1883	70
69	61 5 027 18 06 4	Kasikandh	Kasikandh	Chonar Khola	Chonar Khola	2	1	SuspenDed	45	504,000	210	1056	180	330	0	195	705	67
70	61 5 048 18 06 3	Lakandra	Bisalla	Rama Gad	Dunike	1	2	SuspenDed	150	3,720,000	301	2000	300	300	0	600	1200	60
71	61 5 053 18 06 1	Pipalkot	Singasain	Khum Gad	Okhale	1	0.5	SuspenDed	80	1,264,000	250	800	200	200	0	200	600	75
72	61 5 027 18 06 6	Kasikandh	Kasikandh	Sanihu Khola	Sanihu Khola	2	2	SuspenDed	50	620,000	116	622	192	180	0	133	505	81

PHOTOGRAPHS

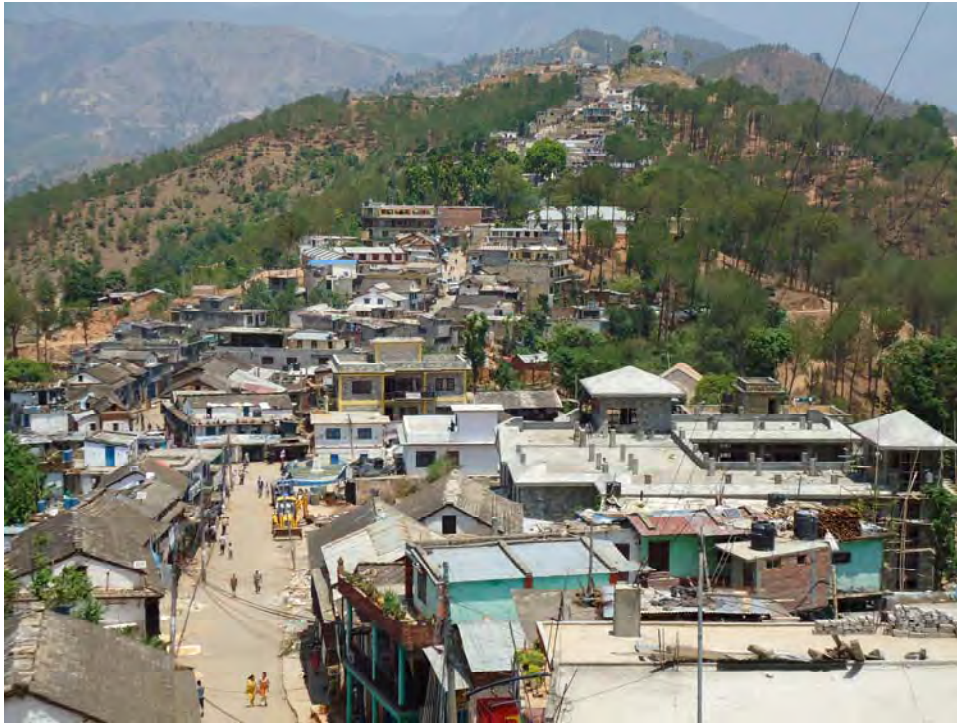


Photo 1: Dailekh Bazaar



Photo 2: District Road of Dailekh District



Photo 3: Bus in Karnali Highway



Photo 4: Karnali Highway being Blacktop



Photo 5: DTICC Meeting



Photo 6: Illaka Level Workshop, Dadimadi



Photo 7: Illaka Level Workshop at Rakam



Photo 8: Illaka Level Workshop at Dungeswor



Photo 9: Dhuleswor Temple (Religious Place)



Photo 10 : Panchdewal (Religious/Historical Place)



Photo 11: Shreesthan Jwala 1 (Religious/Historical Place)



Photo 12: Shreesthan Jwala 2 (Religious/Historical Place)