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BETTER CONNECTIVITY— IMPROVED MOBILITY

SDC SUPPORTED BRIDGES IN
RAMECHHAP, OKHALDHUNGA,
KHOTANG, SINDHULI AND
CHITWAN DISTRICTS



LOCAL ROADS BRIDGE PROGRAMME [LRBP]

GOVERNMENT OF NEPAL IN COLLABORATION WITH SWISS AGENCY FOR DEVELOPMENT AND COOPERATION (SDC)

BETTER CONNECTIVITY – IMPROVED MOBILITY

SDC supported bridges in Ramechhap, Okhaldhunga, Khotang, Sindhuli and Chitwan districts

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FOREWORD

Upon the request of Government of Nepal (GoN), the Swiss Government through Swiss Agency for Development Cooperation (SDC) initiated its Technical Assistance (TA) to the GoN in the motorable bridges sector on local road networks across the country since 2011. The main objective of this support was to improve the livelihoods of people, living around the zone of influence of these bridges through improvement of access to social services and economic opportunities. The GoN further requested SDC to construct 25 bridges in Chitwan, Sindhuli, Ramechhap, Okhaldhunga and Khotang districts to demonstrate effective transfer of Swiss knowledge and technology in bridge construction in Nepal.

After the construction of these 25 bridges, a total of 339 km of road were accessible throughout the year. This, as a result, increased the connectivity and accessibility of over 190,000 local people to services and economic opportunities in five districts. There is 9% reduction in travel costs on average on the roads after bridges were built. Traffic and freight volume increased by 25% on the roads connected through these bridges. People saved significant amount of time by 11% using buses and jeeps to travel. Over 1.6 million person days of employment were generated, mainly local disadvantaged groups including women, received employment in construction of bridges, which also empowered them socially and economically. Some of these bridges were completed within just six months of time. This is exemplary in effective management of construction contracts, which otherwise takes two years or more to complete the construction. This also demonstrates that Nepali contractors if facilitated and monitored well, can do their jobs in stipulated time without delays.

On behalf of the Government of Switzerland, I am pleased to hand over these 25 bridges to the GoN. I hope that these bridges continue to enhance connectivity through a regular maintenance for many year to come in the future.

I also reiterate that Switzerland is fully committed to support the GoN in implementing its constitution through our engagement in the bridge building sector. With this, I believe Switzerland will contribute to ensuring inclusive, resilient and accountable development at national and sub-national levels.

A handwritten signature in black ink, reading 'Elisabeth von Capeller'.

Elisabeth von Capeller
Ambassador of Switzerland to Nepal



PREFACE

I would like to express my sincere gratitude towards Government of Switzerland for providing continuous technical support in local roads bridge sector in Nepal since 2011. We are also thankful for accepting our request to fund 25 bridges in State one and three.

As a Secretary of Ministry of Federal Affairs and General Administration, I am delighted to hear that SDC has successfully completed the construction of these 25 bridges in Ramechhap, Okhaldhunga, Khotang, Sindhuli and Chitwan districts. I am confident that these bridges improve access and mobility in parts of State One and Three bringing positive impacts in the lives of local people. With this support, I feel that Swiss government has once again won the hearts of thousands of Nepalis. It has further strengthened the confidence of GoN.

On behalf of the GoN, I take this opportunity to accept the SDC supported bridges and commit to make necessary arrangements for regular maintenance and up-keep.

Once again, I express my sincere gratitude to the Embassy of Switzerland in Nepal and appreciate Swiss Government's commitment to support the capacities of National and Sub-National governments of Nepal in the implementation of the constitution of Nepal. I would like to conclude with the hope that we shall continue our good collaboration in this important sector.

Dinesh Kumar Thapaliya

Secretary

Ministry of Federal Affairs and General Administration

INTRODUCTION



Swiss Agency for Development and Cooperation (SDC) and Government of Nepal (GoN) started Local Roads Bridge Programme in the year 2011 with an objective to enhance the extent of all-weather road access into remote areas and to strengthen the institutional capacity of agencies engaged in the bridge building sector. Upon request of the GoN to meet the ever increasing demand of bridges on local roads, SDC also supported the construction of 25 bridges in 5 districts as a demonstration of technology transfer and testing of new approach in bridge building.

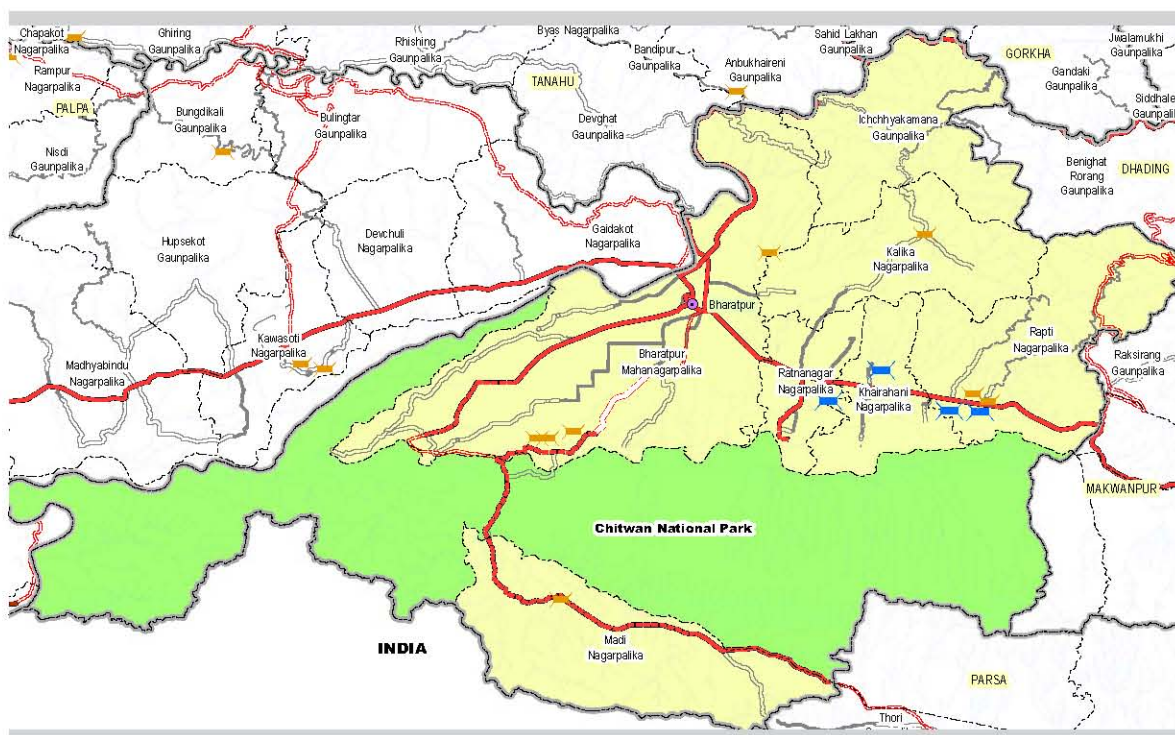
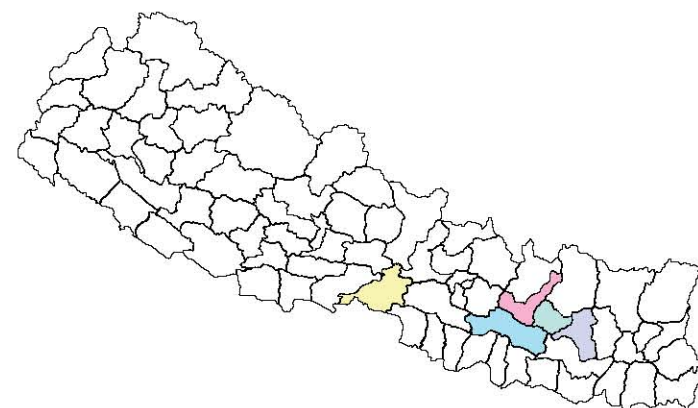
The two major learning were made from this initiative. One is effective contract management and the second is application of users committees in bridge construction. Since the contracts for construction were directly managed by LRBSU, there was a strong contract –client and monitoring mechanism. The communication and coordination between the client and the contractor was efficient, which led to timely completion of many contracts. Separate contract packages for labour intensive works were piloted successfully in these bridges with the involvement of communities as users committees. It was also to make local people own and be accountable to the bridges within their localities. The issue of gender gap that existed in the bridge building sector, was addressed during the implementation of SDC funded bridges by mandating the participation and meaningful representation of people from discriminated groups including women in the user's committees.

Over 1.6 million person days of job were created to the people living in zone of influence by the construction of 25 bridges. An additional 339 km of local road became 'all weather'. Over 190,000 local people have improved access to services and economic opportunities in five districts. There is rise in public and private vehicle movement and thereby improved the access and mobility of people to educational institutions and health posts, and has saved travel time and transport fares for people using the roads. Also, there is significant increase in the freight volume by 25% in the respective districts. This clearly indicates that the construction of these bridges has improved the local access of communities to services and opportunities for the improvement of their livelihoods.

CHITWAN, SINDHULI, RAMECHHAP, OKHALDHUNGA AND KHOTANG DISTRICTS WITH COMPLETED BRIDGE

BRIDGE IDENTIFICATION

Under the guidance of District Development Committee (DDC) / District Technical Office (DTO) and local leaders, required bridges on local roads are proposed



Legend

- | | |
|---|--------------------|
| District Headquarter | Strategic Roads |
| River/Stream | Black Top |
| Connectivity of four districts | Gravelled |
| LRBSU Bridges | Earthen |
| SDC Financed Bridges (Completed) | Under Construction |
| Other LRBP Technical Assistance Bridges | District Roads |
| Boundary | Black Top |
| International | Gravel |
| District | Earthen |
| | Under Construction |



COMPLETION OF BRIDGE

Improved access and mobility towards services and opportunity for livelihood development is observed

WALKOVER SURVEY

Team of member from District Technical Office (DTO), Local Roads Bridge Support Unit (LRBSU) and local leaders conduct a walkover survey in the proposed bridge to assess socio-technical feasibility of the project

BRIDGE INFORMATION AND MANAGEMENT SYSTEM (BIMS) / BRIDGE SCREENING AND PRIORITIZATION CRITERIA (BSPC)

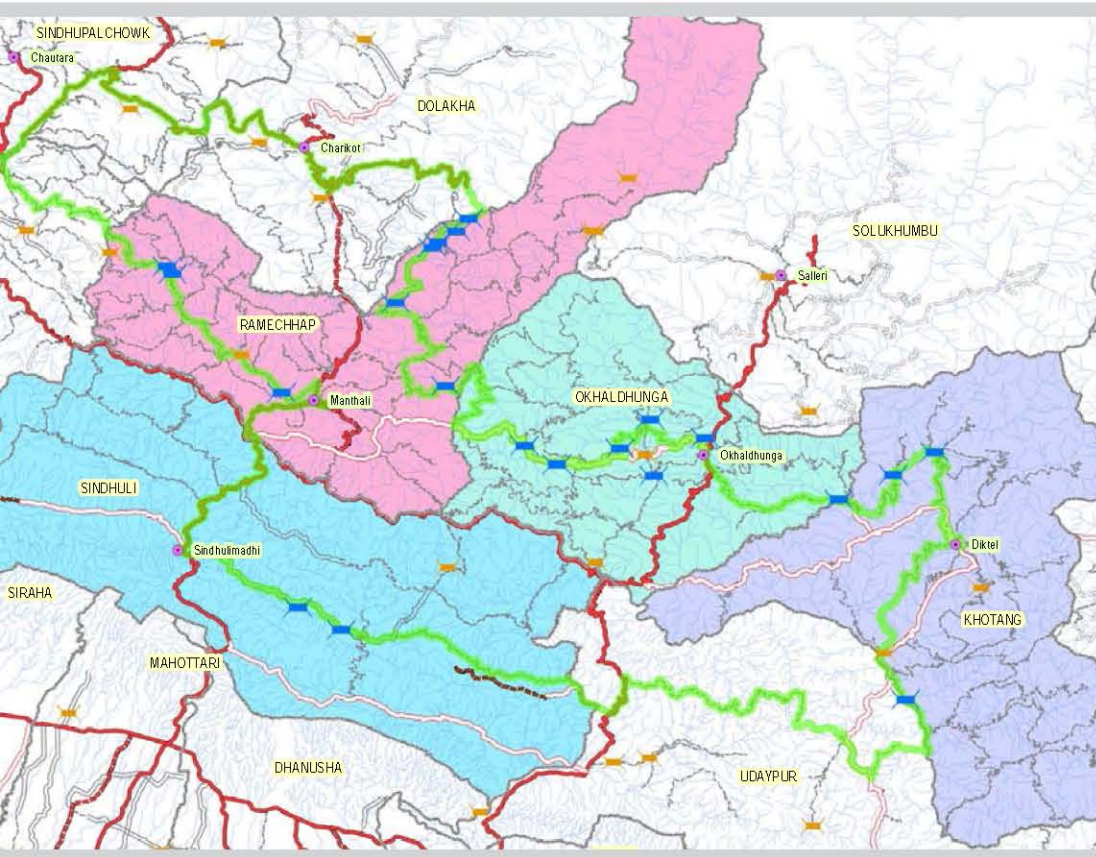
After screening the bridge demand, district-level bridge selection / prioritization is done. The selected bridge need to meet "Minimum Conditions" such as District Transport Master Plan (DTMP), Local Road Network (LRN) and the other two are "Scoring Criteria" based on broad social and economic aspects. Finally, the District Council approves the bridge requirement

DETAIL SURVEY DESIGN AND DETAILED PROJECT REPORT (DPR)

The Local Roads Bridge Support Unit LRBSU conducts a detail bridge construction survey and prepares detail project report with support from local peoples of respective districts

LINE MINISTRY BUDGET INFORMATION SYSTEM (LMBIS) / GON BUDGET ALLOCATION

Government of Nepal through Department of Local Infrastructure and Agricultural Roads allocates budget for under construction and new bridges as requested by respective districts



CONSTRUCTION SUPERVISION

Under the responsibility of cluster and central unit of Local Roads Bridge Support Unit (LRBSU), bridge building activities were implemented, supervised and monitored

Public hearing and auditing is mandatory provision in these bridges to maintain the transparency, good governance practice and accountability towards the community

TECHNICAL ASSISTANCE / FINANCIAL IMPLEMENTATION DIRECTLY THROUGH LRBSU

In response to the request by Government of Nepal (GoN) in the 3rd Programme Implementation Coordination Committee meeting in 2013, Swiss Agency for Development and Cooperation (SDC) decided to directly funding for the construction of 25 special bridges through Local Roads Bridge Support Unit (LRBSU) AF- Iteco. Thereafter, in close consultation with Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR), Swiss Agency for Development and Cooperation (SDC) piloted total 25 bridges – 9 in Ramechhap, 3 in Khotang, 7 in Okhaldhunga, 2 in Sindhuli and 4 in Chitwan districts

GAIDADHAP BRIDGE, CHITWAN

SALIENT FEATURE	
Completion Date	22 October, 2016
Access Road	Red Cross Chowk – Kathar – Piple Road
All Weather	8.00 Km
Length of Bridge	41.20 m
Span Arrangement	2 x 20
Bridge Type	Reinforced Cement Concrete T - Beam
Foundation Type	Pile
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	ANK Construction Co. Pvt. Ltd., Kathmandu
Consultant	Sworaj Consultants Pvt. Ltd., Kathmandu
User Committee	Lothar Rapti Dyke Protection Committee
Total Expenditure	NRs. 51,899,258.46
Beneficiary Household	1,796
Beneficiary Population	9,094

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



BUDHI RAPTI BRIDGE, CHITWAN

SALIENT FEATURE	
Completion Date	22 October, 2016
Access Road	Kathar – Kumroj – Bachhyoli Road
All Weather	10.00 Km
Length of Bridge	45.20 m
Span Arrangement	2 x 22
Bridge Type	Reinforced Cement Concrete T - Beam
Foundation Type	Pile
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	ANK Construction Co. Pvt. Ltd., Kathmandu
Consultant	Sworaj Consultants Pvt. Ltd., Kathmandu
User Committee	Lothar Rapti Dyke Protection Committee
Total Expenditure	NRs. 56,464,350.59
Beneficiary Household	2,765
Beneficiary Population	12,530

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



LADARA BRIDGE, CHITWAN

SALIENT FEATURE

Completion Date	18 July, 2016
Access Road	Magani chowk – Chainpur Road
All Weather	6.00 KM
Length of Bridge	45.20 m
Span Arrangement	2 x 22
Bridge Type	Reinforced Cement Concrete T - Beam
Foundation Type	Pile
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	ANK Construction Co. Pvt. Ltd., Kathmandu
Consultant	Sworaj Consultants Pvt. Ltd., Kathmandu
User Committee	Lothar Rapti Dyke Protection Committee
Total Expenditure	NRs. 59,921,549.58
Beneficiary Household	4,230
Beneficiary Population	17,857

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



PURBARI BRIDGE, CHITWAN

SALIENT FEATURE	
Completion Date	18 July, 2016
Access Road	Kathar – Bhandara – Pampa Bridge Road
All Weather	10.00 KM
Length of Bridge	41.20 m
Span Arrangement	2 x 20
Bridge Type	Reinforced Cement Concrete T - Beam
Foundation Type	Pile
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	ANK Construction Co. Pvt. Ltd., Kathmandu
Consultant	Sworaj Consultants Pvt. Ltd., Kathmandu
User Committee	Lothar Rapti Dyke Protection Committee
Total Expenditure	NRs. 54,488,858.90
Beneficiary Household	2,203
Beneficiary Population	10,414

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



CHADAHA BOX BRIDGE, SINDHULI

SALIENT FEATURE	
Completion Date	17 July, 2016
Access Road	Bhimsthan – Kumal – Belghari Road
All Weather	3.00 Km
Length of Bridge	110.10 m
Span Arrangement	17 x 6
Bridge Type	Reinforced Cement Concrete Box Bridge
Foundation Type	Mat
Deck Type	Reinforced Cement Concrete
Carriageway Width	5.00 m
Bearing Type	NA
Contractor	GM Pushpanjali Joint Venture
Steel Fabricator	NA
Work of User Group	NA
Total Expenditure	NRs. 86,644,440.48
Beneficiary Household	2,056
Beneficiary Population	11,769

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



CHADAHA-2 KHOLA BRIDGE, SINDHULI

SALIENT FEATURE	
Completion Date	29 December, 2017
Access Road	Bhimsthan – Sakhamadi Road
All Weather	5.00 Km
Length of Bridge	72.60 m
Span Arrangement	2 x 21 + 1 x 30
Bridge Type	Continuous Steel Plate Girder
Foundation Type	Open Mat
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	Pot
Contractor	ANK / GM Pushpanjali Joint Venture / Dragon Con.
Steel Fabricator	Bhagwati Steels Ind. Pvt. Ltd., Kathmandu
Work of User Group	NA
Total Expenditure	NRs. 74,773,161.41
Beneficiary Household	1,347
Beneficiary Population	7,070

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



BHATAULI KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	12 August, 2015
Access Road	Manthali – Galpa Road
All Weather	29.00 Km
Length of Bridge	40.60 m
Span Arrangement	1 x 40
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	Rocker and Roller
Contractor	Swachhanda Nirman Sewa Pvt. Ltd.
Steel Fabricator	Jalap Nepal Pvt. Ltd., Chitwan
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 41,864,308.82
Beneficiary Household	1,632
Beneficiary Population	8,453

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



KHANI KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	15 February, 2018
Access Road	Manthali – Galpa – Chauri Road
All Weather	10.00 Km
Length of Bridge	30.60 m
Span Arrangement	1 x 30
Bridge Type	Composite Fixed Bridge of Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Bearingless
Contractor	Gauri Parbati / Ashish / Nilgiri Joint Venture
Steel Fabricator	Hulas Eng. and Cons. Co. Pvt. Ltd.
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 33,519,735.30
Beneficiary Household	1,109
Beneficiary Population	8,819

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



KHAIRE KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	25 June, 2015
Access Road	Manthali – Galpa – Chauri Road
All Weather	7.00 Km
Length of Bridge	13.60 m
Span Arrangement	3 x 4
Bridge Type	Reinforced Cement Concrete Box Bridge
Foundation Type	MAT
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	NA
Contractor	Gauri Parbati / Ashish / Nilgiri Joint Venture
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 14,229,044.85
Beneficiary Household	1,109
Beneficiary Population	4,819

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



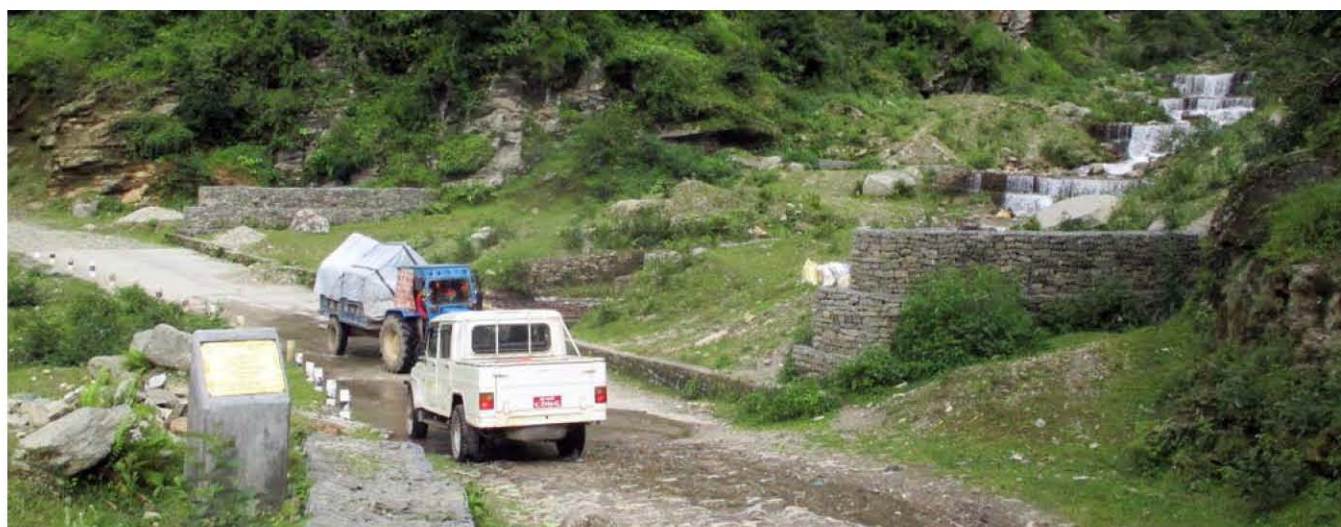
SINDHURPA KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	07 June, 2015
Access Road	Khimati – Namadi – Betali Road
All Weather	3.00 Km
Length of Bridge	37.44 m
Span Arrangement	Causeway with 4.75 Vented Clearance
Bridge Type	Vented Causeway
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	NA
Contractor	K.S. Construction Pvt. Ltd., Kailali
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 13,058,452.39
Beneficiary Household	1,445
Beneficiary Population	4,956

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



DARKHA KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	30 July, 2015
Access Road	Khimati – Namadi – Betali Road
All Weather	7.00 Km
Length of Bridge	28.19 m
Span Arrangement	Causeway with 4.75 Vented Clearance
Bridge Type	Vented Causeway
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	NA
Contractor	Lohani and Brothers Pvt. Ltd., Chitwan
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 11,373,651.96
Beneficiary Household	1,445
Beneficiary Population	4,956

BEFORE CONSTRUCTION



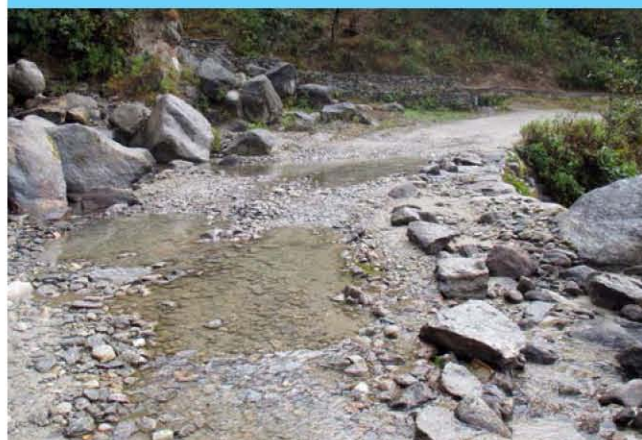
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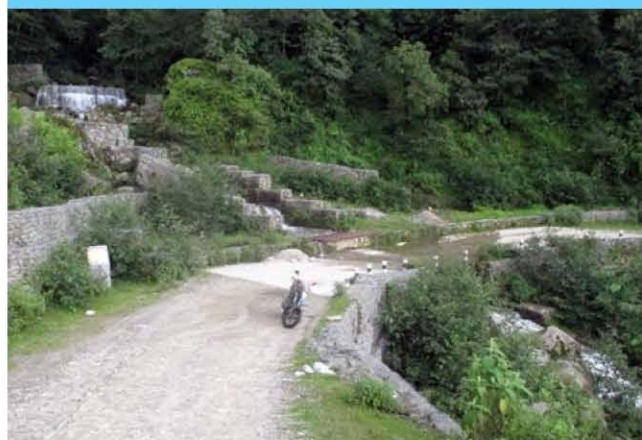
CHHAHARE KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	30 July, 2015
Access Road	Khimati – Namadi – Betali Road
All Weather	8.00 Km
Length of Bridge	23.26 m
Span Arrangement	Causeway with 4.75 Vented Clearance
Bridge Type	Vented Causeway
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	NA
Contractor	Lohani and Brothers Pvt. Ltd., Chitwan
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 12,505,174.11
Beneficiary Household	1,445
Beneficiary Population	4,956

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



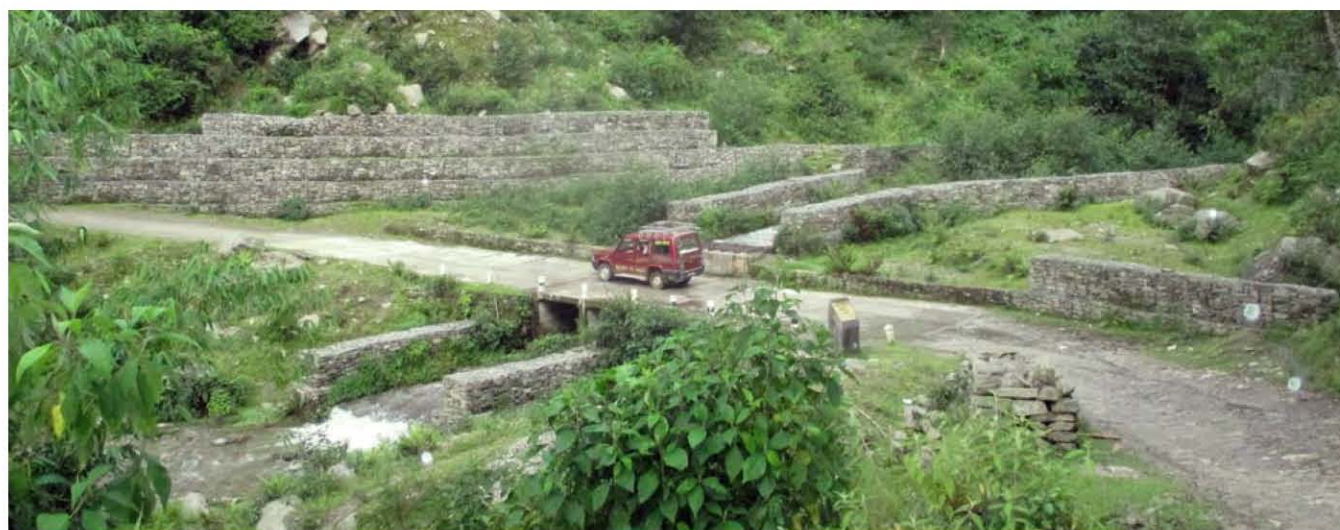
BURKHE KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	07 June, 2015
Access Road	Khimati – Namadi – Betali Road
All Weather	11.00 Km
Length of Bridge	23.26 m
Span Arrangement	Causeway with 4.75 Vented Clearance
Bridge Type	Vented Causeway
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	NA
Contractor	K.S. Construction Pvt. Ltd., Kailali
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 8,460,986.90
Beneficiary Household	1,445
Beneficiary Population	4,956

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



PHARPU KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE	
Completion Date	28 February, 2018
Access Road	Khimati – Namadi – Betali Road
All Weather	30.00 Km
Length of Bridge	30.60 m
Span Arrangement	1 x 30
Bridge Type	Steel Truss
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	Amar Construction Pvt. Ltd., Kathmandu
Steel Fabricator	Supplied by CAIP, DoLIDAR
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 41,505,524.65
Beneficiary Household	2,229
Beneficiary Population	9,762

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



LORKHU KHOLA BRIDGE, RAMECHHAP

SALIENT FEATURE

Completion Date	28 February, 2018
Access Road	Kukurkate Bhanjyang – Gothgaun- Sirise Road
All Weather	25.0 Km
Length of Bridge	16.60 m
Span Arrangement	1 x 16
Bridge Type	Simply Supported Reinforced Cement Concrete T - Beam
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	Lumbini Builders Pvt. Ltd., Kathmandu
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 17,387,265.69
Beneficiary Household	2,354
Beneficiary Population	10,710

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



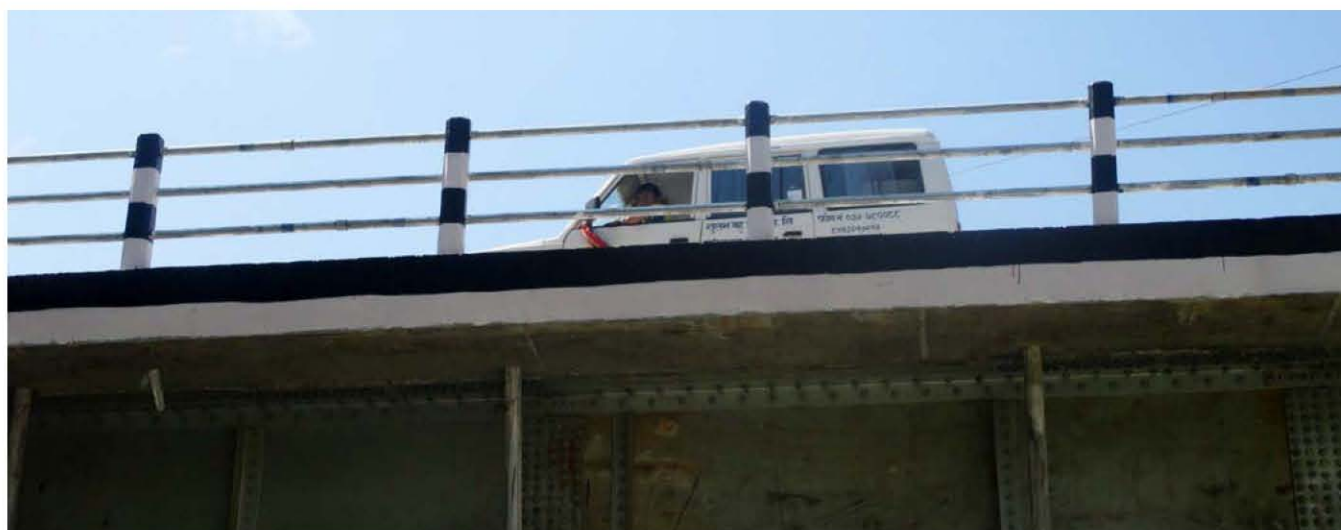
THOTNE KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE	
Completion Date	30 July, 2015
Access Road	Milan Chowk – Bhadaure – Rabhuwa Road
All Weather	30.00 Km
Length of Bridge	45.60 m
Span Arrangement	1 x 45
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Rocker and Roller
Contractor	Amar Construction Pvt. Ltd., Kathmandu
Steel Fabricator	Safe Steels Pvt. Ltd., Chitwan
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 73,471,911.51
Beneficiary Household	2,264
Beneficiary Population	10,394

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



LIPE KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE	
Completion Date	27 April, 2017
Access Road	Okhaldhunga – Rampur Road
All Weather	8.00 Km
Length of Bridge	30.60 m
Span Arrangement	1 x 30
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	Rocker and Roller
Contractor	Rasuwa Construction Co. Pvt. Ltd.
Steel Fabricator	Safe Steels Pvt. Ltd., Chitwan
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 46,150,753.38
Beneficiary Household	1,510
Beneficiary Population	6,217

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



KUL KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE	
Completion Date	14 August, 2015
Access Road	Okhaldhunga – Rampur – Prapcha Road
All Weather	10.00 Km
Length of Bridge	40.60 m
Span Arrangement	1 x 40
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Rocker and Roller
Contractor	Nepal Adarsha Nirman Co. Pvt. Ltd.
Steel Fabricator	S. K. Engg. Pvt. Ltd., Butwal
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 41,964,840.37
Beneficiary Household	1,143
Beneficiary Population	4,980

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



MOLUNG KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE

Completion Date	12 August, 2016
Access Road	Okhaldhunga – Chyanam – Phalate Road
All Weather	17.00 Km
Length of Bridge	40.60 m
Span Arrangement	1 x 40
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Rocker and Roller
Contractor	Keureni – KM Engineers Joint Venture, Kathmandu
Steel Fabricator	Safe Steels Pvt. Ltd., Chitwan
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 51,318,125.86
Beneficiary Household	2,095
Beneficiary Population	9,045

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



PHEDI KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE	
Completion Date	07 June, 2015
Access Road	Koshat – Ghorakhor – Sangutar Road
All Weather	15.00 Km
Length of Bridge	16.60 m
Span Arrangement	1 x 16
Bridge Type	Simply Supported Reinforced Cement Concrete T - Beam
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	Sapna Nirman Sewa Pvt. Ltd.
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 27,112,980.64
Beneficiary Household	1,271
Beneficiary Population	5,973

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



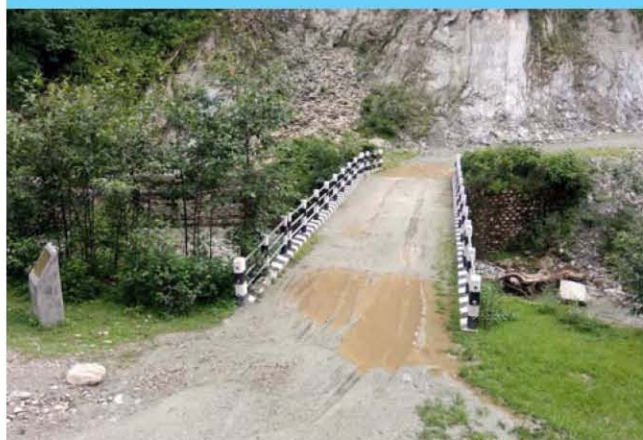
PATTALE KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE	
Completion Date	03 April, 2015
Access Road	Koshat – Ghorakhori – Sangutar Road
All Weather	5.00 Km
Length of Bridge	13.60 m
Span Arrangement	3 x 4
Bridge Type	Reinforced Cement Concrete Box Bridge
Foundation Type	Mat
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	NA
Contractor	Elite – Surya Joint Venture, Kathmandu
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 26,864,323.10
Beneficiary Household	776
Beneficiary Population	3,544

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



SHERA KHOLA BRIDGE, OKHALDHUNGA

SALIENT FEATURE	
Completion Date	09 May, 2015
Access Road	Koshat – Ghorakhor – Sangutar Road
All Weather	23.00 Km
Length of Bridge	25.60 m
Span Arrangement	1 x 25
Bridge Type	Simply Supported Reinforced Cement Concrete T - Beam
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Elastomeric
Contractor	Rautaha / Santosh Con. Pvt. Ltd.
Steel Fabricator	NA
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 27,454,697.53
Beneficiary Household	776
Beneficiary Population	3,544

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



RAWA-1 KHOLA BRIDGE, KHOTANG

SALIENT FEATURE	
Completion Date	31 December, 2018
Access Road	Hurlung – Jalpa – Aiselukharka Road
All Weather	23.00 Km
Length of Bridge	35.60 m
Span Arrangement	1 x 35
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Rocker and Roller
Contractor	Himdung & Thokar / Hira and Namita / Subedi Joint Venture
Steel Fabricator	INTER TAKE Pvt. Ltd., Butwal
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 53,203,828.10
Beneficiary Household	1,009
Beneficiary Population	3,056

BEFORE CONSTRUCTION



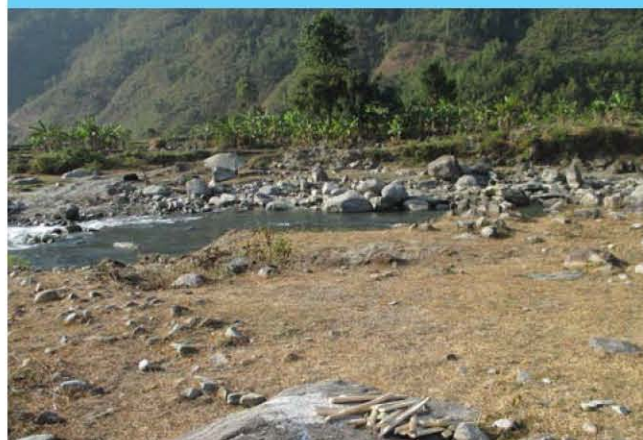
AFTER CONSTRUCTION



RAWA-2 KHOLA BRIDGE, KHOTANG

SALIENT FEATURE	
Completion Date	28 February, 2018
Access Road	Lamidada – Aiselukharka – Bakachol Road
All Weather	24.00 Km
Length of Bridge	60.60 m
Span Arrangement	2 x 17.5 + 1 x 25
Bridge Type	Continuous Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	6.00 m
Bearing Type	Pot
Contractor	Mahalaxmi – Shiva Shakti Joint Venture, Keureni KM
Steel Fabricator	Structo Nepal Pvt. Ltd., Lalitpur
Work of User Group	
Total Expenditure	NRs. 58,482,714.05
Beneficiary Household	960
Beneficiary Population	4,593

BEFORE CONSTRUCTION



AFTER CONSTRUCTION



TUWA KHOLA BRIDGE, KHOTANG

SALIENT FEATURE

Completion Date	17 July, 2015
Access Road	Mahure – Phoksingtar Road
All Weather	12.00 Km
Length of Bridge	40.60 m
Span Arrangement	1 x 40
Bridge Type	Steel Plate Girder
Foundation Type	Open
Deck Type	Reinforced Cement Concrete
Carriageway Width	4.25 m
Bearing Type	Rocker and Roller
Contractor	Rasuwa Construction Company Pvt. Ltd.
Steel Fabricator	Rasuwa Construction Company Pvt. Ltd.
Work of User Group	Approach Road and River Training Works
Total Expenditure	NRs. 62,858,043.40
Beneficiary Household	1,660
Beneficiary Population	7,991

BEFORE CONSTRUCTION



AFTER CONSTRUCTION





BRIDGE CONSTRUCTION PROVIDED JOB OPPORTUNITIES TO LOCAL WOMEN



Lungu Tamang with her daughter

"I never thought, something like this would happen to her and family", says 45 years old Lungu Tamang – a resident of Gunsir Village ward no. 9, Ramechhap district. She recalls the untimely demise of her husband due to tuberculosis, which distressed her family emotionally and financially. Ms. Tamang adds that she then had to take the sole responsibility of five young daughters and two sons. She started to work in the neighbours' farms during farming seasons. The additional income from farm wage was not sufficient to buy food, neither did she have enough land to produce enough to sustain her family. Her family constantly struggled with hunger, diseases and financial crisis. Because of poverty, her two eldest children couldn't go to school, but were married and sent off to their husbands.



Lungu Tamang, along with her women co-workers crushing aggregates in the bridge site

In 2013, when Local Roads Bridge Support Unit started to construct Khani and Khaire Bridges, the locals were invited to work in the construction of bridges. During this period, Ms. Tamang got employment in aggregate crushing and extracting sand in two working seasons. By doing this, she earned about NPR 90,000 (CHF 900). Ms. Tamang used this earning to start pig farming in an attempt to secure her family financially for the future.

Like Ms. Tamang, many other local women in the village also got opportunities to earn and improve their living condition.

EMPOWERING A USER'S COMMITTEE



Trained Local People in Painting

LRBP has socially and economically empowered local communities through their engagement in the bridge planning and building initiatives.

The SDC funded bridges in Chitwan district – Gaidadhap Khola, Dhungree Gaidadhap, Ladra Khola and Budhi Rapti Khola Bridges successfully adopted partial contracting model where labour intensive works such as river training and approach road building were done by a local users committee. Lothar Rapti Dyke Protection Committee, was formed by the late Leader, Mr. Jagrit Prasad Bhetuwal, who had lead numerous community development works in eastern Chitwan. The committee took the initiative to undertake labour intensive work packages worth of NPR 132,677,798 (CHF 1.3 million) in the construction of these four bridges. The committee ensured participation and representation of people from disadvantaged groups including women while implementing the work packages. The women were paid equally as men for same types of works.

The key members of the committee, in addition were trained on leadership and account keeping. The committee provided 15 days of bridge side walls and railing painting training to the local women. Ms. Meena Chepang, a local indigenous woman was

among the trainees. After receiving the painting training, she believes, she now has a reliable source of income through employment in painting jobs. Previously, locals used to earn Rs.400-500 a day as an unskilled worker, whereas now they earn Rs.1200-1600 /day after gaining a skill on painting.



Training to User's Committee on Account Keeping

IMPROVED ACCESSIBILITY AND CONNECTIVITY

The rugged hills and mountains, and the presence of large number of rivers and rivulets in the country poses formidable natural obstacles to mobility of people. By this, many communities – especially from rural areas remained isolated from accessibility to quality health care and education services and their participation in trade and economic activities. Still, most of the communities in the high hills and mountains rely on foot trails and must walk hours or even days to reach the nearest bus station or dirt road. The situation was not different for the people living in the Okhaldhunga-Chyanam-Phalate road before the construction of Molung Khola bridge.

Ms. Tara Dhakal, a resident of Chyanam Village Ward no. – 9 of Okhaldhunga and a participant in Gabion Box Weaving and Filling training, recalls, “It was almost impossible to take pregnant women to district hospitals or Kathmandu through road as roads are inaccessible due to rising river levels before bridge was constructed. Some pregnant women died on their ways to hospitals.”

The bridge has not only connected people but also helped them to have easy access to services and opportunities. After the construction of Molung Khola Bridge, local businesses have increased their businesses by bringing in food materials, cloths, fuel, medicines, and home accessories to the villages. Motorable access made local transportation timely and convenient with significantly low fares and costs. Around five to seven buses and eight to ten light four wheel vehicles from Koshhat to Okhaldhunga and Kathmandu, operate regularly through the road. The local peasants are encouraged to diversify their production and grow more so that they can sell their produces in the local markets with the timely availability of farm inputs. In this way, the bridge upholds a significant role in local people's day to day activities.



Freight Transport in Molung Khola Bridge



Ms. Tara Dhakal along with other participants receiving certificate on completion of Gabion Box Weaving and Filling provided by SDC/LRBSU

