



# Completion Report

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Project Number: 40554  
Grant Numbers: 0093/0094  
August 2014

## Nepal: Rural Reconstruction and Rehabilitation Sector Development Program

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Asian Development Bank

## CURRENCY EQUIVALENTS

Currency Unit – Nepalese rupee(s) (NRe/NRs)

		<b>At Appraisal</b> (11 October 2007)	<b>At Program and Project Completion</b> (30 June 2013)
NRs1.00	=	\$0.0158	\$0.0105
\$1.00	=	NRs63.20	NRs95.24

## ABBREVIATIONS

ADB	Asian Development Bank
DDC	district development committee
DFID	Department for International Development of the United Kingdom
DOLIDAR	Department of Local Infrastructure Development and Agricultural Roads
MFALD	Ministry of Federal Affairs and Local Development
MOF	Ministry of Finance
OFID	OPEC Fund for International Development
PCU	project coordination unit
SDC	Swiss Agency for Development and Cooperation
VDC	village development committee

## NOTES

- (i) The fiscal year (FY) of the Government of Nepal ends on 15 July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2009 ends on 15 July 2009.
- (ii) In this report, "\$" refers to US dollars.

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## CONTENTS

	Page
BASIC DATA	i
I. PROGRAM AND PROJECT DESCRIPTION	1
II. EVALUATION OF DESIGN AND IMPLEMENTATION	1
A. Relevance of Design and Formulation	1
B. Program and Project Outputs	3
C. Program and Project Costs	5
D. Disbursements	6
E. Program and Project Schedules	6
F. Implementation Arrangements	6
G. Conditions and Covenants	7
H. Consultant Recruitment and Procurement	7
I. Performance of Consultants, Contractors, and Suppliers	8
J. Performance of the Recipient and the Executing Agency	8
K. Performance of the Asian Development Bank	9
III. EVALUATION OF PERFORMANCE	9
A. Relevance	9
B. Effectiveness in Achieving Outcome	10
C. Efficiency in Achieving Outcome and Outputs	11
D. Preliminary Assessment of Sustainability	11
E. Institutional Development	12
F. Impact	12
IV. OVERALL ASSESSMENT AND RECOMMENDATIONS	14
A. Overall Assessment	14
B. Lessons	14
C. Recommendations	14
APPENDIXES	
1. Program Design and Monitoring Framework	16
2. Policy Matrix	32
3. Project Design and Monitoring Framework	37
4. Program Cost Breakdown by Sources	44
5. Project Cost Breakdown by Sources	45
6. Project Cost Breakdown by Components	46
7. Sourcewise Annual Project Disbursements	47
8. Project Implementation Schedule	48
9. Major Project Covenants and Compliance Status	52
10. Summary of National Competitive Bidding Contracts for Rural Roads	61
11. Summary of National Competitive Bidding Contracts for Motorable Bridges	66
12. Summary of Project Procurement	67
13. Initial Impacts of Rural Roads in Road Influence Area	68
14. Economic Analysis	69
SUPPLEMENTARY APPENDIXES	
A. Environmental Safeguards Compliance	82
B. Gender Equality and Social Inclusion Action Plan Results	85
C. Social Safeguards Compliance	95



## BASIC DATA

### A. Grant Identification

1.	Country	Nepal
2.	Grant Numbers	0093-NEP, 0094-NEP
3.	Program and Project Title	Rural Reconstruction and Rehabilitation Sector Development Program
4.	Recipient	Government of Nepal
5.	Executing Agency	Ministry of Finance (Program) Ministry of Federal Affairs and Local Development (Project)
6.	Amount of ADB Grant	\$50 million Program; and \$50 million (Project)
7.	Amount of DFID Grant	\$20.0 million
8.	Amount of OFID Loan	\$10.0 million
9.	Amount of SDC Grant	\$1.5 million
10.	Program and Project Completion Report Number	PCR:NEP 1458

### B. Grant Data

1.	Appraisal	
	– Date Started	2 October 2007
	– Date Completed	11 October 2007
2.	Loan Negotiations	
	– Date Started	7 November 2007
	– Date Completed	8 November 2007
3.	Date of Board Approval	12 December 2007
4.	Date of Grant Agreement	14 January 2008
5.	Date of Grant Effectiveness	
	– In Grant Agreement	13 April 2008
	– Actual	1 February 2008
	– Number of Extensions	0
6.	Closing Date	
	Program Grant	
	– In Grant Agreement	31 December 2011
	– Actual	26 January 2012
	– Number of Extensions	0
	Project Grant	
	– In Loan Agreement	30 June 2012
	– Actual	23 June 2014
	– Number of Extensions	1

## 7. Disbursements

## a. Dates

## (i) Program Grant

<b>Initial Disbursement</b>	<b>Final Disbursement</b>	<b>Time Interval</b>
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15 Feb 2008	4 Mar 2008	0 month
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<b>Effective Date</b>	<b>Original Closing Date</b>	<b>Time Interval</b>
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1 Feb 2008	31 Dec 2011	47 months
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## (ii) Project Grant

<b>Initial Disbursement</b>	<b>Final Disbursement</b>	<b>Time Interval</b>
-----------------------------	---------------------------	----------------------

18 Sep 2008	13 Nov 2013	61.87 months
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<b>Effective Date</b>	<b>Original Closing Date</b>	<b>Time Interval</b>
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1 Feb 2008	30 Jun 2012	53 months
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## b. Amount (\$ million)

## (i) Program Grant

<b>Tranche Number</b>	<b>Amount Disbursed</b>
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Single Tranche	50.00
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## (ii) Project Grant

CAT	Category	Original Allocation	Last Revised Allocation	Amount Cancelled	Net Amount Available	Amount Disbursed	Undisbursed Balance
1600	Miscellaneous grant, administration, and support (ADB)		5.63	5.63			
3101	Central consulting services (ADB)	2.70	1.60	0.37	1.23	1.23	
3102	International consultants (DFID)	0.28	0.20	(0.78)	0.98	0.43	0.55
3103	Domestic consultants (DFID)	0.82	0.59	0.28	0.31	0.23	0.08
3201	Civil work rural roads	18.43	13.38	(1.57)	14.95	13.94	1.01
3202	Civil work supplementary infrastructure	8.76	12.78	(0.24)	13.02	12.80	0.22
3203	Rural roads by communities (DFID)	9.58	6.89	3.06	3.83	3.16	0.67
3204	Rural roads by contractors (DFID)	9.32	6.69	(9.97)	16.66	15.97	0.69
3301	Survey, design, and preparatory works	1.72	2.60	1.57	1.03	0.83	0.20
3601	Land acquisition and resettlement	3.49	5.30	2.78	2.52	2.36	0.16
3602	Vehicles and motorcycles	1.10	0.94	0.01	0.93	0.91	0.02
3603	Equipment	0.76	0.76	(0.32)	1.08	1.06	0.02
3801	Training, studies, and workshops	1.05	1.05	(0.09)	1.14	0.98	0.16
3901	Incremental operating expenses	4.14	3.99	(0.77)	4.76	4.50	0.26
3902	Rural road operation and maintenance	0.48	0.73	(0.09)	0.82	0.67	0.15
4801	District technical services	5.84	5.36	0.99	4.37	4.28	0.09
4901	Unallocated	1.53	1.51	1.36	0.15		0.15
	<b>Total</b>	<b>70.00</b>	<b>70.00</b>	<b>2.22</b>	<b>67.78</b>	<b>63.35</b>	<b>4.43</b>

ADB = Asian Development Bank, CAT = Category, DFID = Department for International Development of the United Kingdom.

8.	Local Costs (Financed)	
	<b>Program Grant</b>	
-	Amount (\$ million)	50
-	Percent of Local Costs	0
-	Percent of Total Cost	60.6
	<b>Project Grant</b>	
-	Amount (\$ million)	43.56
-	Percent of Local Costs	44.88
-	Percent of Total Cost	44.88

### C. Program and Project Data

#### 1. Program and Project Cost (\$ million)

Cost	Appraisal Estimate	Actual
(i) Program Grant		
Local Currency Cost	82.80	82.80
(ii) Project Grant		
Foreign Exchange Cost		
Local Currency Cost	78.40	97.05

#### 2. Financing Plan (\$ million)

Source	Appraisal Estimate	Actual
<b>Program Grant</b>		
ADB Financed	50.00	50.00
Government of Nepal	32.80	32.80
<b>Total</b>	<b>82.80</b>	<b>82.80</b>
<b>Project Grant</b>		
ADB Financed	50.00	43.56
OFID Financed	10.00	9.06
DFID Financed	0.00	19.79
SDC Financed	0.00	3.00
Government of Nepal	15.70	18.24
Beneficiary Financed	2.70	3.40
<b>Total</b>	<b>78.40</b>	<b>97.05</b>

ADB = Asian Development Bank, DFID = Department for International Development of the United Kingdom, OFID = OPEC Fund for International Development, SDC = Swiss Agency for Development and Cooperation.

#### 3. Cost Breakdown by Project Component (\$ million)

Component	Appraisal Estimate	Actual
<b>A. Base Costs</b>		
<b>Program Grant</b>		
Enhance poverty reduction and inclusive development	35.50	35.50
Improve inclusive governance and decentralization	11.50	11.50
Support rural infrastructure development	35.80	38.80
<b>Total</b>	<b>82.80</b>	<b>82.80</b>
<b>Project Grant</b>		
Rural Roads	45.00	63.41

Supplementary infrastructure	18.00	21.34
Community empowerment	3.20	2.48
Institutional capacity development	0.30	0.50
Project management and services	7.80	9.02
<b>Subtotal A</b>	<b>74.30</b>	<b>96.75</b>
<b>B. Contingencies</b>	<b>3.80</b>	<b>0.00</b>
<b>C. Interest during Construction</b>	<b>0.30</b>	<b>0.30</b>
<b>Total (A+B+C)</b>	<b>78.40</b>	<b>97.05</b>

## 4. Project Schedule

Item	Appraisal Estimate	Actual
Dates of Contracts with Consultants		
SKAT Consulting and JV	Jul 2008	24 Nov 2008
East Consulting-Sitara-PARD JV	Jul 2008	5 Feb 2009
GOEC-Inclusive Consultant JV	Jul 2008	8 Feb 2009
CEMACA Consultant	Jul 2008	10 Feb 2009
BDA Nepal	Jul 2008	12 Feb 2009
GIDA Nepal	Jul 2008	16 Feb 2009
CEMACA Consultant	Jul 2008	20 Feb 2009
HERD Consultants	Jul 2008	22 Feb 2009
East Consulting-BN-Sitara-PARD JV	Jul 2008	22 Feb 2009
BDA Nepal	Jul 2008	24 Feb 2009
HERD Consultants	Jul 2008	25 Feb 2009
GOEC Nepal	Jul 2008	27 Feb 2009
RECON Nepal	Jul 2008	4 Mar 2009
GIDA Nepal	Jul 2008	2 Mar 2009
Masina Engineering Management Consultants	Jul 2008	12 May 2009
Everest Eng-Inclusive Consultants JV	Jul 2008	28 May 2009
Completion of Engineering Designs	Dec 2008	26 Jul 2010
Civil Works Contract		
Date of Award	Sep 2008	22 Sep 2009
Completion of Work	Jul 2008	31 Dec 2012
Equipment and Supplies		
Dates		
First Procurement	Jul 2008	30 Sep 2008
Last Procurement	Jul 2009	30 Sep 2011
Other Milestones		
Extension of Grant Closing Date		31 Dec 2012
Partial Cancellation (\$4.0 million)		23 Oct 2013

## 5. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
As of 31 Dec 2007	Satisfactory	Satisfactory
From 1 Jan 2008 to 31 Dec 2008	Satisfactory	Satisfactory
From 1 Jan 2009 to 31 Dec 2009	Satisfactory	Satisfactory
From 1 Jan 2010 to 30 Jun 2010	Satisfactory	Highly Satisfactory
From 1 Jul 2010 to 31 Dec 2010	Satisfactory	Highly Satisfactory
From 1 Jan 2011 to 31 Mar 2011	On Track	On Track
From 1 Apr 2011 to 30 Sep 2011	Potential Problem	Potential Problem
From 1 Oct 2011 to 31 Dec 2011	On Track	On Track

From 1 Jan 2012 to 31 Dec 2012	On Track	On Track
From 1 Jan 2013 to 31 Dec 2013	On Track	On Track

#### D. Data on Asian Development Bank Missions

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of Members
Program and project fact-finding	7–22 Aug 2007	12	192	b, c, d, e, g, h, j, o, p, r
Program and project appraisal	2–11 Oct 2007	14	140	a, b, c, d, e, g, h, j, o, p, r
Program and project inception	21 Jan–7 Feb 2008	8	144	d, e, h, l, j, k, l
Program and project review 1	22 Aug–8 Sep 2008	4	64	h, i, k, l
Program and project review 2	17 Mar–7 Apr 2009	2	24	h, l
Program and project review 3	3–20 Nov 2009	5	80	h, k, l, m, q
Program and project midterm review	10–31 May 2010	7	105	g, h, e, k, l, m, n
Program and project review 4	16 Nov–Dec 2010	4	48	h, k, l, q
Program and project review 5	12 May–8 Jun 2011	5	110	e, h, k, m, t
Program and project review 6	28 Nov–15 Dec 2011	4	48	h, k, m, q
Program and project review 7	24 Apr–13 May 2012	4	85	h, k, m, q
Program and project review 8	20 Nov–11 Dec 2012	5	70	h, m, k, o, l
Program and project review 9	25 Jul–20 Aug 2013	5	30	h, m, k, o, l
Project/program completion review	27 Apr–6 May 2014	5	27	h, k, l, m, q

a = engineer cum transport specialist, b = financial specialist, c = counsel, d = economist, e = procurement specialist, g = programs officer or specialist, h = project implementation officer, i = portfolio management officer, j = governance cum capacity building officer, k = gender and social development consultant, l = project analyst, m = environment officer, n = peace building consultant, o = rural infrastructure consultant, p = natural resource management specialist, q = social safeguard officer, and r = program/project management specialist.

## I. PROGRAM AND PROJECT DESCRIPTION

1. The Asian Development Bank (ADB) approved the Rural Reconstruction and Rehabilitation Sector Development Program on 28 November 2007. The program aimed to support the Government of Nepal's key agenda of achieving inclusive growth for sustainable poverty reduction.<sup>1</sup> The program consisted of a policy component (the program) for \$50 million and an investment component (the project) for \$50 million. The respective objectives of the program and project components were to assist the government in (i) improving the policy environment for inclusive growth, and (ii) reconstructing and rehabilitating rural infrastructures. Both objectives were critical to attaining sustainable peace and development. The program component focused on greater economic and social inclusion, good governance, and accelerated service delivery in rural infrastructure through improved policies, regulations, and institutions. The project component was intended to invest into improved connectivity, achieve enhanced economic and employment opportunities, and attain greater access to markets and social services for rural communities. Total cost of the program component was \$82.8 million. The project component's cost was \$78.4 million at appraisal but, in recognition of the sector's importance, was boosted to \$108.6 million through additional financing by other development partners.

2. The program component had three key outputs: (i) enhanced poverty reduction and inclusive development, (ii) improved and inclusive governance and decentralization, and (iii) strengthened support for rural infrastructure development. The project component had five key outputs: (i) improved rural roads; (ii) developed and improved community-based supplementary rural infrastructure; (iii) enhanced equity, employment, and income opportunities for the poor and disadvantaged; (iv) strengthened institutional capacity of the Ministry of Federal Affairs and Local Development (MFALD), Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR), district development committees (DDCs), and communities; and (v) improved project management.

3. The project component was implemented in 20 districts not receiving support for rural infrastructure development from any major development partner.<sup>2</sup> The project component also supported construction of rural community water supply schemes in an additional 18 districts covered by the ADB-financed Decentralized Rural Infrastructure and Livelihood Project.<sup>3</sup>

## II. EVALUATION OF DESIGN AND IMPLEMENTATION

### A. Relevance of Design and Formulation

4. The program and project design were rated *relevant*. These were, and still are, relevant in terms of the country context and consistent with the government's policies and priorities.

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<sup>1</sup> ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Fund Grants to Nepal for the Rural Reconstruction and Rehabilitation Sector Development Program*. Manila (Grants 0094-NEP and 0093-NEP).

<sup>2</sup> The core districts included Dadeldhura from the far-western region; Rolpa and Rukum from the mid-western region; Manang, Mustang, and Parbat from the western region; Bhaktapur, Chitwan, Dolakha, Kathmandu, Kavre, Lalitpur, Sindhuli, and Sindhupalchowk from the central region; and Dhankuta, Ilam, Jhapa, Morang, Panchthar, and Sunsari from the eastern region. The noncore districts were Baitadi, Bajhang, Bajura, and Darchula from the far-western region; Dolpa, Humla, Jajarkot, Kalikot, and Mugu from the mid-western region; Baglung, Goraka, Lamjung, and Myagdi from the western region; Ramechhap from the central region; and Okhaldhunga, Solukhumbu, and Taplejung from the eastern region.

<sup>3</sup> ADB. 2004. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Nepal for the Decentralized Rural Infrastructure and Livelihood Project*. Manila (Loan 2092-NEP).

These were designed following cessation of a 10-year long conflict with an aim of directly supporting the government in addressing root causes of that conflict: poverty and perceived social and economic exclusion. The choice of rural infrastructures with focus on rural roads for project investment was pertinent, as it served the twin objectives of (i) providing much-needed sustainable road access in rural areas, the lack of which was considered a critical constraint upon rural economic growth, poverty reduction, and inclusiveness;<sup>4</sup> and (ii) generating quick income opportunity for the rural poor households which suffered most during the conflict. The program and projects were in line with the government's Three-Year Interim Plan (2008–2010), a framework to address the country's development challenges during the political transition and which emphasized increased rural investment, improved connectivity and social inclusion, and broadening income and employment opportunities.<sup>5</sup> It accorded high priority to agriculture and rural development, including through constructing and improving rural roads to enhance rural communities' access to markets and related services.

5. The program and project were designed in close consultations with the government and key development partners involved in rural infrastructure development, and it was based on lessons learned from similar, earlier interventions. The designs were consistent with the thrust of ADB's country strategy and program (2005–2009) for Nepal.<sup>6</sup> The 2005–2009 strategy and program had emphasized inclusive development as its cornerstone for addressing root causes of the conflict. This could only be achieved by supporting broad-based growth, inclusive development, and good governance. Although the country strategy and program was prepared in 2004, before the political changes in Nepal, the midterm review of the strategy and program in 2008 reconfirmed the continued validity of a strategic pillar of the 2005–2009 strategy and program in the changed context.<sup>7</sup> As one of the strategies adopted to address exclusion issues, while supporting the government's decentralization initiatives, the strategy and program had emphasized the need to invest in rural infrastructure in a decentralized fashion. The program component provided the government much-needed resources for state-building and to cover immediate costs of reforms. It helped mitigate the budgetary burden for implementing the policy measures and rural investments. As designed, the program and project components were relevant from the gender and social inclusion perspective. They emphasized empowerment of women, castes, ethnic groups, and minorities through proper representation in the country's politics; civil service; and infrastructure planning, implementation, and management.

6. Despite strong demand for infrastructure, investment had decreased during the conflict period. Although investment increased following the conflict's cessation, simultaneous interventions at policy and investment levels were deemed necessary for sustainable rural infrastructure development. The country demonstrated commitment to reforms for addressing the root causes of conflict by placing inclusion at the center of key legislative enactments. Hence, the program and project designs constituting a sector development program supporting key policy reforms and rural infrastructure investment were timely and relevant. The government adopted almost all the policy actions agreed during the program's preparation. Nevertheless, the program design could have been more coherent with the policy and institutional reforms of the relevant sector and the design and monitoring framework more specific, clearer, and with measurable indicators. The project could have ensured more poor and disadvantaged people's inclusion with market and social services if all the project districts had been from remote regions.

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<sup>4</sup> These needs are confirmed by a number of studies, such as ADB. 2009. *Sector Assessment Program Evaluation: Agriculture and Natural Resources Sector in Nepal*. Manila; ADB, DFID and International Labor Organization. 2010. *Country Diagnostics Studies Highlights, Nepal: Critical Development Constraints*. Manila.

<sup>5</sup> Government of Nepal. 2007. *Three-Year Interim Plan*. Kathmandu.

<sup>6</sup> ADB. 2004. *Country Strategy and Program: Nepal, 2005–2009*. Manila.

<sup>7</sup> ADB. 2008. *Country Partnership Strategy Midterm Review: Nepal, 2005–2009*. Manila.

## B. Program and Project Outputs

### 1. Program Outputs

7. The program envisaged 29 actions related to policy and institutional reforms. Mainly, the program (i) supported rural infrastructure development, (ii) promoted public procurement and financial management reforms, (iii) updated policy measures for strengthening decentralization and local governance, and (iv) partially funded the reforms' costs. It also supported government policy initiatives to promote economic and social inclusion and to encourage private sector participation in infrastructure development. Details are in Appendix 1. Although all the policy milestones were complied with, approval of a national resettlement policy and issuance of separate regulatory norms for establishing an infrastructure development bank were not fully accomplished during the program period. Drafting of policy and regulatory frameworks on resettlement is nevertheless underway with ADB support.<sup>8</sup> The aim is to make them compatible with international best practices and consistent with the government's existing policies. The government is in the process of enacting a national resettlement policy during 2014. Although the Nepal Rastra Bank approved the Monetary Policy, 2008, it could not facilitate issuance of separate regulatory norms for establishing an infrastructure development bank because the policy provisions contradicted with the existing legal and regulatory frameworks and changes in the provisions required revisions to the Bank and Financial Institution Act, 2006. Preparation of a bill to update that act in 2014 through parliamentary approval is underway, however, and this is expected to facilitate establishment of an infrastructure development bank.

8. The program succeeded in improving the rural infrastructure sector by (i) implementing the 3-year strategic action plan for rural infrastructure, (ii) updating DOLIDAR's manual for constructing rural and agriculture roads, (iii) legislating and operationalizing the Local Body Financial Administration Rules and the Public Procurement Act and Regulations, (iv) approving and adopting the minimum conditions and performance measures manual, and (v) filling vacant technical staff positions in all 75 district technical offices under DDCs. It also supported the legislative process for the Nonresident Nepali Act and Regulations, which has helped in accessing much-needed resources from nonresident Nepalese for investment into rural infrastructure.<sup>9</sup>

9. Although the policy reforms were at different stages at the time of program approval, the achievements were sufficient for receiving the grant. Twenty-four of the 29 actions in the policy matrix were completed by the grant's effectiveness date of 2 February 2008, thereby fulfilling conditions for the grant's release in a single tranche. Implementation of an additional 3 actions was completed during the program period. Implementation of the remaining 2 actions was commenced during the program period for completion by 2014. Details are in Appendix 2.

### 2. Project Outputs

10. **Rural roads.** The project has constructed or upgraded 43 rural roads with total length of 826 kilometers (km), which is about 96% of the original target of 859 km.<sup>10</sup> Of the total, 288 km

<sup>8</sup> ADB. 2012. *Subproject Proposal: Strengthening and Use of Country Safeguard Systems (NEP: Strengthening Involuntary Resettlement Safeguard Systems in Nepal)*. Manila.

<sup>9</sup> MOF. 2011. *Completion Report: Rural Reconstruction and Rehabilitation Sector Development Program in Nepal*. Kathmandu (September).

<sup>10</sup> DOLIDAR. 2014. *Completion Report of the Rural Reconstruction and Rehabilitation Sector Development Project*. Kathmandu (March).

is to earthen standard, 338 km to gravel standard, and 199 km to bituminous standard.<sup>11</sup> A total of 15 motorable bridges (405 meters) were constructed on 11 roads to ensure all-weather connectivity. The original target of 50 motorable bridges of 1,319 meters had been overestimated, as the actual bridges requirement for the selected roads was much lower. Detailed achievements against the project output indicators are in the design and monitoring framework in Appendix 3. An annual road operation and maintenance plan was prepared and funds established in all the project districts.

11. **Supplementary infrastructure.** The project had a target to construct 591 rural water supply schemes. It actually constructed just 364 schemes, representing 62% of the target. The main reasons for not meeting the target were cost increase in water supply schemes due to escalation of prices for construction materials, labor, and transportation to remote districts; a relatively large share of new schemes as opposed to upgrading of existing schemes; and the project criteria of selecting supplementary infrastructure after selection of roads (which left limited time for design and implementation of supplementary infrastructure). The project has constructed 524 other supplementary infrastructures, which is 71% of the targeted amount. The achievement include 288 trail bridges, 81 market centers and community buildings, 61 primary schools, 31 health posts, 30 foot trails, 21 microirrigation subprojects, and 12 others. The project could not meet the target due to higher costs of constructing the water supply schemes for reasons described above and limited time for their identification, design, and implementation.

12. **Community empowerment.** The project formed and oriented 611 road building groups and 588 village infrastructure user committees. Women representation was 52% in at least 75% of the groups and committees, which is higher than the targeted 50%. A total of 170 self-help groups were formed with 69% representation of women, 15% *dalits*, and 46% *janjatis*. The project provided awareness training and orientation to 22,614 beneficiaries, of which 44% were women and 58% were (combined) *dalits*, *janjatis*, and *madhesis*. The project also provided livelihood enhancement skills training to 2,912 poor, disadvantaged, and affected people, constituting 51% women and 49.4% men.<sup>12</sup>

13. **Institutional capacity development.** The project strengthened institutional capacity of MFALD, DOLIDAR, DDCs, and communities. Relevant staff of DOLIDAR and DDCs were provided technical, social, financial, and safeguard training. The skills are currently being applied in planning and constructing similar rural roads. Moreover, knowledge gained by relevant staff from observation visits to some Southeast and South Asian countries on construction technologies and institutional arrangements are being applied to ensure construction quality and sustainable operation and maintenance of rural roads. The project provided regional orientation and follow-up training on procurement and financial management to district staffs, thereby improving their efficiency. Construction quality testing laboratories established in selected project districts and requisite equipment and vehicles provided under the project have improved efficiency in project implementation, quality assurance, and monitoring by MFALD, DOLIDAR, and DDCs. A study covering 19 thematic and operational areas carried out to develop a sector-wide approach for rural transport infrastructure provided a basis to begin applying an approach for “rural road maintenance” in seven districts on a pilot basis. That has been replicated to 25 districts based on lessons learned.

<sup>11</sup> About 20% of civil work for 8 roads and 7 bridges was completed by 15 June 2014 after project closing due to longer time taken in recruiting design consultants, and district consultants had inadequate capacity to supervise civil works. The government allocated \$1.5 million equivalent to complete the works utilizing its own resources.

<sup>12</sup> The training was from 5 days to 3 months in duration and covering 20 areas, including tailoring, driving, cooking, mobile phone repair, beautician services, carpentry, masonry, cash crop cultivation, and hotel management.



14. **Project management services.** Consulting services were provided at central and district levels to meet the project's technical and social planning, design, and implementation requirements. A total of 24 person-months of international and 777 person-months of national consultant services were provided at the center to improve project management.<sup>13</sup> The consultant services covered project management, procurement, civil engineering (design and supervision), environment, resettlement, gender and social inclusion, and financial management. Implementation support consultants were also provided in project districts. A total of 612 person-months of national consultant inputs on civil engineering (design and supervision), environment, resettlement, and gender and social inclusion were provided for districts (277 consultants including 66 women). The central consultants prepared 20 manuals and implementation guidelines on rural roads, accounting, initial environmental examination, and resettlement planning.

### C. Program and Project Costs

15. The estimated and actual cost of the program was \$82.8 million. ADB provided a \$50 million grant covering 61% of the cost. Details are in Appendix 4. The total appraisal cost of the project was \$78.4 million, to be covered by a \$50 million grant from ADB, a \$10 million loan from OPEC Fund for International Development (OFID), plus \$15.7 million and \$2.7 million equivalent contributions from the government and communities, respectively. To support meeting the sector demand, the Department for International Development of the United Kingdom (DFID) and Swiss Agency for Development and Cooperation (SDC), respectively, provided additional grant financing of £10 million (equivalent to \$20 million at the time of approval) and \$1.5 million. With the proportionate increase in the government (\$5.6 million) and community (\$1.3 million) contributions,<sup>14</sup> the revised estimated cost of the project rose to \$106.8 million.<sup>15</sup> The cost further increased by \$1.8 million to \$108.6 million after DFID agreed to provide an additional £4.18 million in cofinancing to meet its original commitment of \$20 million. This was because the DFID commitment in dollar terms decreased to \$14.5 million during project implementation due to the pound's depreciation against the dollar. By the time of DFID's approval of the additional cofinancing, however, the pound had slightly appreciated against the dollar and DFID's commitment increased to \$21.8 million. At that time, the estimated total cost of the project increased to \$108.6 million.<sup>16</sup> The actual project cost ultimately fell to \$97.05 million. Details on appraisal and revised cost estimates by sources are provided in Appendix 5.

16. The project could not fully utilize the available funds due to a lack of project readiness. Fully establishing the project structure; procuring central and district consultants; and carrying out feasibility studies, safeguard planning, and detailed design of rural roads and supplementary infrastructure took an initial two years. The specific reasons for lower utilization of the project funds were steep devaluation of the Nepalese rupee against the US dollar during project implementation; voluntary donation of land by most of the affected people; low costs for survey, design, and district consultants; and government financing of the unfinished works of some

<sup>13</sup> DOLIDAR. 2014 (March). *Completion Report of Rural Reconstruction and Rehabilitation Sector Development Project*. Kathmandu.

<sup>14</sup> The DFID cofinanced grant was for partially financing rural roads and central consultants, while the OFID loan was to partially finance rural roads. The SDC grant was to partially finance construction materials for trail bridges and cover costs of district consultants in four project districts (Dolakha, Kavre, Sindhuli, and Sindhupalchowk).

<sup>15</sup> The increased project cost was to finance additionally about 300 km of rural roads, 200 water supply schemes, and 250 small-scale community infrastructures. The changes were affected through ADB Board of Directors' approval on 19 September 2008 of a major change in scope, financing plan, and partial administration of grant cofinancing.

<sup>16</sup> The SDC's \$1.5 million cofinancing was for 3 years until the original project closing date of 31 December 2011. Through an arrangement with the government, however, SDC provided an additional \$1.5 million grant to cover costs for the project's extended 1-year period until 31 December 2012.

roads and motorable bridges after completion of the project (footnote 11). Component-wise appraisal estimates, revised estimates, and actual utilization are in Appendix 6.

#### **D. Disbursements**

17. The \$50 million ADB grant for the program was disbursed in a single tranche on 15 February 2008, and its account was closed on 26 January 2012. Out of the total project cost, ADB administered \$81.8 million: the \$50 million grant of ADB, \$10 million loan of OFID, and \$21.8 million grant of DFID. A total of \$72.44 million (88.6%) of the ADB-administered grants and loan were disbursed, consisting of \$43.56 million (87.2%) of the ADB grant, \$9.06 million (90.6%) of the OFID loan, and \$19.7 million (90.2%) of the DFID grant. The SDC-administered \$3.0 million grant was fully disbursed.<sup>17</sup> Of the estimated \$25.3 million equivalent government and beneficiary contributions, \$21.66 million (85.6%) was utilized. Quarterly and annual disbursements by sources are provided in Appendix 7. The project account was closed on 23 June 2014.

18. The appraisal disbursement schedule could not be followed due to initial delays in project implementation. Disbursement significantly improved after civil works contracts were awarded, however, and construction commenced during the second half of the project. An imprest fund was established for the project to ease liquidity possession for timely payments, and statement of expenditure procedure was used for claims up to \$100,000. These mechanisms significantly helped liquidity management for payment of project expenditures, as well as timely settlement of small expenditures and claims reimbursed from ADB.

#### **E. Program and Project Schedules**

19. The program component was implemented as per appraisal within 4 years, from 1 January 2008 to 31 December 2011. The implementation period of the project component, however, was extended by 1 year, from 31 December 2011 to 31 December 2012, due to lack of project readiness and the low capacity of district project offices and consultants for technical design and social planning and implementation. The original schedule of 4 years had been ambitious for implementing a project covering more than 50% of the districts in the country, having project districts scattered across all five development regions (thus posing management and logistic challenges), and needing to meet conditions and requirements of four cofinancing development partners. In many cases, implementation of rural roads lagged behind due to suboptimal performance of district consultants and contractors. As in accordance with the project criteria selection of supplementary infrastructure had to follow selection of roads, some delays were also observed in implementation of the supplementary infrastructure and some feasible infrastructure subprojects were not taken up due to shortage of time. Original and actual project implementation schedules are in Appendix 8.

#### **F. Implementation Arrangements**

20. The Ministry of Finance (MOF) was the executing agency for the program with responsibility to coordinate and comply with implementation of the policy actions. MFALD was the executing agency for the project while DOLIDAR was the central implementing agency and DDCs the district implementing agencies. A project coordination unit was established in DOLIDAR and was led by a deputy director general as project coordinator. District project offices were established in 20 core districts and were led by chiefs of the district technical

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<sup>17</sup> The SDC's additional \$1.5 million grant for the extended project period is included in the actual project cost.

offices under the DDCs as district project managers. To provide overall guidance in the project's implementation, a project steering committee was established. It was chaired by the Secretary of MFALD, included joint secretaries from six related ministries, and had the project coordinator as its member secretary. The provision of central and district consulting services helped meet capacity gaps at DOLIDAR and DDCs, although the consultants' recruitment took longer than expected. The implementation arrangements for both the program and project were adequate, and they were able significantly to deliver the envisaged outputs and outcomes.

## **G. Conditions and Covenants**

21. A total of 29 policy actions were included in the program's policy matrix. All the actions were taken, and implementation of 24 actions was commenced before the effectiveness of the program on 2 February 2008. An additional 3 actions were completed during the program period. Implementation of the remaining 2 actions was commenced during the program period for completion by 2014. There were 39 major covenants to the project, including 2 related to the sector, 6 financial, 1 environmental, 16 social, and 14 others. All the covenants, including the financial ones, were complied with. All the covenants were relevant for improved project implementation and sector performance. The executing agency submitted the financial reports generally on time and the annual audited project financial statements were submitted within the deadlines. Detail on the status of compliance with covenants is in Appendix 9.

## **H. Consultant Recruitment and Procurement**

22. No consultants were recruited for the program. Central and district consultants were recruited for the project following ADB's guidelines on the use of consultants. The central consultants supported the project coordination unit for project implementation. Swiss Resource Centre and Consultancies for Development, Switzerland, an international consultant, in association with ERM C P. Ltd. and MULTI Disciplinary Consultants P. Ltd, Nepal, were recruited in November 2008 by quality- and cost-based selection for 36 months until December 2011. That was later extended by 1 year until December 2012. The original contract included services for 24 person-months of international and 620 person-months of national consultants. The national consultant services were later boosted by 13 person-months to 633 person-months. Four individual consultants were recruited for 36 person-months each to support the project coordination unit. DFID recruited and provided 7 person-months of international and 10 person-months of national consultant services to assess the feasibility of a sector-wide approach for the rural transport subsector, and it provided an additional 3 person-months of international and 35 person-months of national consultant services to support quality assurance of rural roads.

23. District project offices recruited district consultants for 16 of the 20 project districts using consultants' qualification selection method under ADB's guidelines on the use of consultants. SDC directly recruited and provided about 150 person-months of consultant services for four project districts. Road building groups were also engaged through the community participation method for constructing rural roads. Procurement of district consultants took nearly 9 months, and that delayed identification of roads and preparation of detailed project reports. A total of 275 consultants for 612 person-months were mobilized to support implementation of project activities in districts. An additional 90 consultants recruited following the individual consultant selection method were fielded for 210 person-months to support implementing water supply schemes in the 18 noncore districts (footnote 2). Procuring and managing the large numbers of consultants by district project offices and packaging of numerous small civil works contracts for rural roads proved quite challenging. This required substantial backstopping from the project coordination unit and the central consultants. The project procured 124 civil works contracts

through national competitive bidding and shopping methods under ADB's procurement guidelines. It also procured 27 vehicles, 158 motorcycles, computers, generators, and other office equipment for use at the center and districts while following ADB's procurement guidelines. Procurement details are in Appendixes 10 to 12.

### **I. Performance of Consultants, Contractors, and Suppliers**

24. The consultants for the implementing agency at central level were well qualified and provided sound technical services. Their inputs covered expertise in rural infrastructure, motorable and trail bridges, rural water supply, social development, environment, resettlement, procurement, and financial management. However, performance of the district-level consultants remained below expectations. There was high turnover of consultants, particularly in remote districts, and that negatively impacted timely design, implementation, and construction quality. Following the project's midterm review in May 2010, however, these issues were mitigated by forming a separate team from the central consultants comprising rural infrastructure engineers and social development specialists. The team was stationed in Jhapa to backstop district consultants in the nearby six districts. The remaining districts were backstopped directly from the center. Further, to avoid delays in project implementation, individual consultants were also mobilized for selected project districts to supplement district consultants' services on survey, design, and supervision of rural roads and supplementary infrastructure.

25. A total of 124 civil work contracts were procured for rural roads and motorable bridges by national competitive bidding. The threshold of \$1 million only for national competitive bidding for Nepal resulted in a number of small contract packages. Qualified contractors participated in the bidding process despite the low threshold. Most contract packages were completed on time and with expected quality standard. However, some contractors were less motivated by the small packages even after winning the bid and hence subcontracted unofficially to less qualified contractors. The small national competitive bidding thresholds also to some extent promoted the practice of bidding in joint ventures with large contractors while the actual construction works were carried out by the less competent ones. The issue was significantly mitigated by (i) holding monthly meetings with the principal contractors of slowly progressing contract packages, (ii) informing them about the consequences of not completing the contracts on time, and (iii) significantly increasing subproject site visits by ADB, the central project staff and consultants. Suppliers delivered vehicles, equipment, office supplies, and construction materials for community infrastructures of specified quality generally on time. Overall, the performance of the consultants, contractors, and suppliers was satisfactory.

### **J. Performance of the Recipient and the Executing Agency**

26. The performance of the recipient and of MOF and MFALD as executing agencies of the program and project was *satisfactory*. The government and MOF had full ownership of the program, as demonstrated by legislating policies and formulating procedures for inclusive development, implementing 27 of the 29 policy actions, advancing implementation of the remaining 2 actions, achieving the intended outcomes, and submitting progress reports (including the program completion) report on time. The project remained high among the government's priorities throughout its implementation, as it supported rehabilitation of infrastructure in the post-conflict situation as a peace dividend. The government allocated adequate budget and provided counterpart funds for project implementation. Following initial delays, the government deputed a senior deputy director general of DOLIDAR to lead the project. This change in leadership significantly contributed to expediting implementation. The government also provided competent staff to the central and district project offices and retained

most of them until the end of the project. Despite the short implementation period and cofinancing by four development partners, the project significantly achieved the targeted outputs and all of its expected outcomes. The executing agency submitted the periodic progress reports and audited project financial statements on time. These indicate that the assessment of the executing agency's capacity at appraisal was reasonably accurate.

27. DOLIDAR's institutional capacity has improved due to the project's support. It is now capable of designing and managing bigger and complex rural roads within and outside the project districts that are financed through other development partners and the government. Given the increasing demand for rural infrastructure and the key roles to be played by DOLIDAR and DDCs, however, their capacity needs to be further enhanced in technical design and supervision, procurement, financial management and reporting, and planning and implementation of environment and social safeguards.

#### **K. Performance of the Asian Development Bank**

28. The performance of the Asian Development Bank (ADB) was *satisfactory*. The program and project were delegated to the Nepal Resident Mission for direct administration immediately after their approval. ADB engaged in policy dialogue with the government directly as well as on relevant platforms and provided appropriate advice to facilitate timely implementation of the policy actions. ADB reviewed the program and project biannually throughout the period and closely followed up and facilitated the executing agency to implement the policy actions. ADB also closely monitored the project's central- and district-level planning and implementation of rural roads, supplementary infrastructure, and social development while demonstrating flexibility. A total of 10 review missions were fielded, meeting the government agencies concerned, central and district implementing agencies, cofinancing development partners, contractors, consultants, and community groups, as well as visiting project sites. ADB promptly approved bid documents and took full initiatives for timely disbursement to expedite project implementation. ADB provided technical, financial, and safeguard management orientation, training, and onsite coaching to the project staff from the central and district project offices. Establishing a regional consultant team to backstop district project staff and consultants to a large extent addressed capacity constraints in many districts and expedited project implementation. ADB effectively coordinated with cofinancing development partners, liaised with them for timely reimbursement of project expenditures, and helped mobilize additional grant funding from DFID to meet the potential funding gap. ADB approved to extend the project implementation period by 1 year from 1 January to 31 December 2012.

### **III. EVALUATION OF PERFORMANCE**

#### **A. Relevance**

29. The program and project were *relevant*. Their designs were relevant at the time of appraisal and remained so during implementation. The program provided a much-needed resource to the government to initiate policy reforms for broad-based, inclusive development that catered to the peace process and responded urgently to the new political situation. There was government ownership in the policy reforms, as they were relevant to the country context and were well formulated. The project component was designed with the overall goal of poverty reduction, mainly through developing connectivity by addressing the deep-rooted social exclusion in remote areas and reconstructing the infrastructure that had been destroyed or left in disrepair by the conflict. The main interventions were designed to connect remote rural areas with market centers and the road network, provide support for supplementary infrastructure,

empower local communities, and achieve institutional development. The project was able to address the access problem that limited the market integration of poor farmers in remote areas, and especially in the hill and mountain districts. During the 10-year conflict period, development of the rural infrastructure sector had suffered greatly due to the limited resources available for investment. The project helped address the unfulfilled demand that existed for constructing, upgrading, and maintaining rural infrastructure in the post-conflict situation.

## **B. Effectiveness in Achieving Outcome**

30. The program's outcomes have been achieved and are rated *effective*. It succeeded in improving the rural infrastructure by (i) implementing the 3-year strategic action plan for rural infrastructure development, (ii) revising the DOLIDAR manual on approach for development of rural roads, (iii) legislating and operationalizing Local Body Financial Administration Rules and the Public Procurement Act and Regulations, (iv) adopting a minimum conditions and performance measures manual, and (v) filling vacant technical staff positions at DDCs. Legislating the Nonresident Nepali Act and Regulations helped to access external resources for investment into rural infrastructure. The Elections to the Members of Constituent Assembly Act, 2007 was enacted and the Civil Service Act, 1993 was amended with inclusive provisions for increased representation of women and disadvantaged groups in state institutions. The first Constituent Assembly saw 33% women members, 33% *janjatis*, 34% *madhesis*, 8% *dalits*, and 4% from backward regions. The share of female employees in civil service grew to 15% in 2012 from 11% in 2008. Funding for rural infrastructure increased significantly, with corresponding expansion and rehabilitation of rural infrastructure. Enactment of the Public Procurement Act and Regulations and Local Body Financial Administration Regulations provided frameworks for improved public procurement and financial management.

31. The project outcomes are also rated *effective*. The major change in scope approved in 2008 supported achieving the project outcome. Construction of roads has significantly improved conditions for people in project districts. Based on a study of 7 districts, the proportion of population who had to walk for 4 hours in the hills and 2 hours in the Terai to reach a road head has decreased to less than 20% of the total population. Average travel time to market from the road influence area (1.5 km on either side of road) has decreased by nearly 50% from 7.3 hours to 3.7 hours. Average annual household trips to markets have doubled from 5 trips to 10. Traffic volume has been growing on the upgraded roads, and passenger travel by vehicles has increased by over 30%. These achievements exceed the project targets.

32. Farm gate prices of vegetables and fruits have risen by 70% in the road influence area. This significantly benefitted farmers and provided incentives to produce cash crops on a commercial scale. Transportation costs for food, clothing, consumables, and agricultural inputs from the nearest market have come down by 65%. Prices of such essentials as food, clothes, and medicines have declined by 33%. Time spent to access health services from nearest health centers has dropped by 75%, particularly for women, children, and emergency cases. Detail is provided in Appendix 13. The project provided assured and clean drinking water to 36,583 households—exceeding the project target of 30,000 households. Average time needed to access water fell by 70%, from 35 minutes to 10 minutes, and the water supply almost doubled. The incidence of gastrointestinal-related diseases has diminished by about 50%.

33. The project provided 15.8 million person-days of employment from the construction works to poor, disadvantaged, and affected people against the targeted 24.2 million person-days. This shortfall was due to the need for using selected machines for rural roads, as upgrading of existing roads was not possible using labor only. There were shortages of laborers

in the mountain and emerging urban districts. Nevertheless, those involved in construction works obtained employment for 3 months on average and could earn NRs300 to NRs500 per day. This enhanced their disposable incomes for food, health care, education, assets, durables, and savings. About 50% of the participants in the livelihood enhancement skills training have either established their own businesses or are employed elsewhere. A majority of the remaining participants have foreign employment, as the training helped them to get better jobs abroad.

34. DOLIDAR's capacity improved for the design, procurement, implementation, and supervision of roads and community infrastructures. This was evident from the timely and better planning, detailed design, and implementation of the project's second and last batches of rural roads and supplementary infrastructures. The quality of periodic physical and financial reporting improved over the project period. Although the sector-wide approach for rural transport infrastructure could not be fully adopted, it was piloted for rural roads maintenance in 7 districts during 2010. With the positive lessons learned, the approach has been replicated to 25 districts and with a plan to eventually cover all 75 districts.

### **C. Efficiency in Achieving Outcome and Outputs**

35. The program was *efficient* in achieving the outcomes and outputs. Almost all the policy milestones of the program were achieved as planned, and reforms are institutionalized in the government system. The project component was also *efficient* in achieving its outcome and outputs. The project faced startup problems in its intended expeditious preparation to meet the immediate reconstruction requirements after the peace accord. Nevertheless, it took effective countermeasures to address the problems. In particular, there were some difficulties with the quality of district consultants and civil works, but these were mitigated by stationing central consultants closer to the project districts for technical backstopping and improved supervision. Eventually, the project extended its implementation period by 1 year, which was justified to deliver the intended outcome and outputs while overcoming the challenges encountered. Overall, the project substantially achieved the intended outcome and outputs targets, and in particular its primary infrastructure outputs (rural roads). About 88% of the estimated project cost was utilized. This was possible through ADB's close monitoring and supervision and the executing and implementing agencies' prompt actions.

36. The studied rural roads demonstrated economic viability and benefitted rural communities with economic internal rates of return (EIRRs) ranging from 13.6% to 24.4%. These values are similar to those estimated at appraisal for roads, which ranged from 13% to 27%. The EIRR for a water supply scheme estimated at 22.8% is slightly higher than the 21% at appraisal. Three sensitivity test scenarios were considered: 20% increase in costs, 20% decline in benefits, and the combined case of 20% increase in costs together with 20% drop in benefits. The results of the economic analysis and sensitivity tests are in Appendix 14. An assessment of distributional impacts for the road subprojects indicates their relevance for poverty reduction. The water supply scheme, however, showed relatively lower poverty impact.<sup>18</sup>

### **D. Preliminary Assessment of Sustainability**

37. The program outcomes are *likely* to be sustainable. Key policy reforms implemented under the program have been institutionalized, such as (i) higher representation of women and disadvantaged groups in parliament and the civil service and prioritization of programs directed

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<sup>18</sup> The community served by the water supply scheme is in an emerging rural market, which may be the reason for its lower poverty impact.

to them; (ii) decentralization and governance, including steps taken to strengthening public financial management and public procurement; and (iii) strengthening of rural infrastructure programs in terms of inclusiveness and private sector participation. Building on the policy actions under the program, these provide a basis for further enhancing the reforms, such as by introducing block grants to local bodies for women and disadvantaged groups and initiating a fiduciary risks-reduction action plan and e-procurement. Sustainability is also deemed *likely* for the project outcomes. Specifically, the capacities of DOLIDAR and DDCs have been strengthened to support this end. They have established a district roads inventory while preparing and implementing the annual roads maintenance plan. The availability of government budget for maintenance of rural roads has almost doubled from 2013. The government's assigning high priority and increased budgetary allocation for rural connectivity development will also contribute to sustainability of the project outcomes.<sup>19</sup> Further institutionalization of the system, including increased budget allocation for maintenance is also being pursued under the ongoing ADB-supported additional financing to the Decentralized Rural Infrastructure and Livelihood Project.<sup>20</sup> Rural water supply schemes and other supplementary infrastructure have established a system of operation and maintenance by user committees with strong local ownership, which will contribute to sustainability of their outcomes.<sup>21</sup>

## E. Institutional Development

38. The program and project contribution to institutional development was *significant*. A sound policy framework was established under the program for inclusive development with higher participation by and impacts on gender and disadvantaged groups and reduction of fiduciary risks associated with public financial management in the rural infrastructure and other sectors at central and district levels. Capacities at MFALD and DOLIDAR have been improved for planning and executing large multi-component projects supported by multiple development partners. The district technical offices have strengthened their technical and managerial capacities in executing rural roads. Despite the institutional shortcomings in the beginning, DOLIDAR successfully implemented the identified rural roads and supplementary infrastructure within 5 years. The community groups formed during project implementation have emerged as strong local institutions capable of planning, implementing, and managing local infrastructure.

## F. Impact

39. **Poverty.** The program's and project's poverty impacts are assessed *significant*, as the proportion of rural population below the poverty line decreased to 27% in 2011, thus indicating the possibility of achieving the 25% target for 2020. The program created a policy environment for the poor and disadvantaged to play a key role in national politics, civil service, and local resource mobilization. The project helped create opportunities for enhanced economic activities. Integration of production clusters with markets due to road connectivity will boost production of high-value commercial crops. This outweighs the immediate gains from employment during construction of rural roads. Many of the rural roads have connected remote areas and the poor and disadvantaged people living there (such as the Kham Magars of Rukum and Rolpa and the

<sup>19</sup> Thirteen roads (225 km) costing \$25 million equivalent were under construction in the project districts using government funds. These roads were initially identified for financing under the project but could not be financed due to funds shortage. This shows the high priority assigned by the government to improving rural connectivity.

<sup>20</sup> ADB. 2011. *Report and Recommendation of the President to the Board of Directors on Proposed Asian Development Fund Loan and Grant for Additional Financing to Nepal for the Decentralized Rural Infrastructure and Livelihood Project*. Manila (Loan 2796-NEP and Grant 0267-NEP).

<sup>21</sup> The creation of a maintenance fund out of the collected tariff by users of the Chapjhari Drinking Water Project (Sindhupalchowk) is an encouraging example in support of sustainability for infrastructure.



highly marginalized Chepangs of Chitwan) with emerging market centers and district headquarters. This will contribute to poverty reduction at the project's full development.<sup>22</sup>

40. **Economic.** The economic impacts of the roads are observed to be *positive* given the various types of economic activities that have taken place along the road corridors. The emergence of small market centers with retail shops, tea shops, hotels and lodges, and vehicle repair services will impact the local economies at the roads' full development. Local people along the road corridors are beginning to take advantage of market access by expanding cultivation of high-value crops, the reduced cost of consumables, and much better prices for local production. There will be increased opportunities for employment and self-employment locally, which are likely to reduce the outmigration of youth to urban areas and abroad.

41. **Environmental.** There are no major negative environmental impacts of the project. All the 43 project-financed roads were screened for environmental impacts. Adequate budget was allocated to mitigate environmental losses. Environmentally friendly construction practices were adopted with rationale use of machines, prohibition of downhill spoil disposal, and compensatory plantation. Roads in conservation areas have adopted controlled operation of roads by forming environmental conservation committees. An independent external monitor reported in June 2013 that the project has implemented the environment management plans satisfactorily. Details on environment management are in Supplementary Appendix A.

42. **Social.** Social and economic inclusion constituted the key focus of policy reform, which aimed to improve access for the poor and disadvantaged to politics, civil service, and benefits. The project's impacts on local people, especially women and disadvantaged groups, were encouraging. They have been able to benefit from the mandated proportional representation in the village infrastructure committees and user and building groups. Awareness-raising and orientation training have empowered local communities. Formation of self-help groups created a base upon which to initiate social development of the poor in remote villages. The skills-based training to self-help groups contributed to raising socioeconomic status of women and the disadvantaged. Over the longer term, that will be significant as improved connectivity and supplementary infrastructure will bring better access to services including for health, sanitation, maternity, and birthing. Supplementary Appendix B provides more detail.

43. **Social safeguards.** Social safeguards were implemented satisfactorily by following requisite processes. Of the 43 road subprojects, 36 were of involuntary resettlement category B and 4 were category C for which short resettlement plans and due diligence reports were prepared. Indigenous people were present on 11 roads, for which indigenous people's development plans were prepared and negative impacts mitigated. A total of 10,447 households, comprising 61,300 persons were affected from roads for which \$1.67 million was paid in compensation for loss of land, structures, trees, and crops. The lack of a national resettlement policy created confusion as to stakeholders' roles, however, and processes for planning and limited knowledge of project staff contributed to delays in implementing involuntary resettlement. Lack of a dedicated budget heading for payment of involuntary resettlement remained one of the challenges for timely compensation payment. Details on compliance status of social safeguards are in Supplementary Appendix C.

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<sup>22</sup> Harihar Acharya. 2014. *Study on Rural Roads' Contribution to Inclusion (with reference to Rural Reconstruction and Rehabilitation Sector Development Project)*. Kathmandu (February).

## IV. OVERALL ASSESSMENT AND RECOMMENDATIONS

### A. Overall Assessment

44. Overall, the program and project are rated *successful*. The program and project are both rated *relevant* from the design phase to completion. The program and project were both *effective* in the delivery of target outcomes. These were achieved despite the protracted political transition, unstable governments, and weak institutional capacity that led to some delays in project implementation. It is rated *efficient* in terms of economic efficiency of the infrastructure subprojects and the roles of the government and ADB. Sustainability of the program and project outcomes are *likely* due to institutionalization of policy reforms, the government's according high priority to this area, and the community ownership of the infrastructure items. The program's institutional development impacts are assessed *significant*.

### B. Lessons

45. Reforms with broad-based consultations reflecting country needs and context have better chances to succeed. Much of the program's success can be attributed to participation and ownership of stakeholders during formulation and implementation of the policy reforms, as well as to alignment of the policies with the prevailing political and economic situation.

46. Funding is necessary but not in itself sufficient for improved decentralization and local governance. Strengthening of regulatory arrangements and institutional capacity of central and local agencies for technical, procurement, financial, and safeguards management can play important roles in improving the quality of project implementation and achieving intended objectives.

47. Lack of project readiness leads to project implementation delays. Completing requisite preparatory works prior to project approval maximizes the possibility of timely project implementation by giving adequate attention to construction quality and sustainability of facilities. Proper provisioning and implementation of advance procurement and retroactive financing can also minimize implementation delays.

48. Packaging of numerous small civil work contracts and consultants to be procured in a decentralized manner poses procurement risks and creates challenges for timely procurement and proper management of contractors and consultants.

49. Proper legislation and project design can ensure social inclusion and easy access of women, socially disadvantaged groups, and minorities to national politics, civil service, and leadership in local infrastructure development and management.

### C. Recommendations

#### 1. Program and Project Related

50. **Future action or follow-up.** Formulation and enactment of a national resettlement policy is critical to address compensation for lands acquired for development projects. ADB should follow up on progress of policy formulation and approval through dialogue with the government and as part of a review mission for the ongoing ADB-financed rural infrastructure project.

51. ADB should also follow up with the government to issue regulatory norms for establishment of an infrastructure development bank (for which preparation of a bill to update the Bank and Financing Institutions Act, 2006 is underway).

52. **Future monitoring.** ADB should monitor implementation and effectiveness of policy reforms to ensure that the government is committed to sustain program benefits. Monitoring is also needed to ascertain that there are mechanisms with adequate budgetary allocation for maintenance of the rural roads and supplementary infrastructures constructed under the project.

53. **Covenants.** The sector, social, and environmental covenants should be maintained for the next 3 years, because these are relevant for the ongoing ADB-financed rural infrastructure project to be completed in 2017. However, the project's specific financial and other covenants should be waived.

54. **Additional assistance.** Given that rural roads are greatly in demand by DDCs and local communities, there is a need for additional investments in rural roads to broaden connectivity and manage and sustain project benefits. The government and development partners should continue to explore the possibility for future investment in rural infrastructure and ways to overcome potential funding gaps.

55. **Timing of the program and project performance evaluation report.** The program and project performance evaluation report preparation is suggested for the fourth quarter of 2016.

## 2. General

56. Programs for policy reforms should be prepared by carefully assessing the policy environment and providing support needed to implement the policies and prepare clear roadmaps for sustaining them.

57. Given the high priority of rural infrastructure development, the capacities of sector departments should be objectively assessed during project preparation and there should be provision of capacity building to meet gaps.

58. Establishment of a functional project performance monitoring system should be mandatory right at the beginning to ensure that technical, economic, and social data on projects are collected, maintained, and reported in periodic and closing reports. This will facilitate understanding progress during implementation and preparing an objective impact evaluation.

59. Project financing and implementation plans should be realistic while taking into account the nature and location of a project, capacities of executing and implementing agencies, and the overall country context.

60. The transition of a labor-based and environmentally friendly approach to a selected machine-supported approach for construction of rural roads needs to be assessed by the government from the viewpoint of its economic, social, and environmental costs and benefits and the timeliness of completing construction. This will help in designing more viable rural roads projects in the future.

## PROGRAM DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Achievements	Remarks
<p><b>Impact</b> Reduce rural poverty in hill, mountain, and terai districts where isolation and hardship are common</p>	<p>Proportion of rural population living below poverty line decreases from current 34.6% to 25% by 2020</p>	<p>Headcount rural poverty rate declined from 34.6% to 27.4% between 2004 and 2010 (sources: Nepal Living Standard Survey III, Central Bureau of Statistics)</p>	<p>The Thirteenth Plan Approach Paper estimates the national absolute poverty (% of population) to have decreased from 25.4% in 2010 to 23.8% in 2013.</p>
<p><b>Outcome</b> Greater economic and social inclusion, good governance, and improved service delivery in rural infrastructure</p>	<p>Improved inclusion and participation of disadvantaged groups in the constituent assembly and government bureaucracy, International Labor Organization (ILO) Convention 169-driven institutional legislation</p>	<p>With membership including 33.2% women, 33.4% <i>janjatis</i>, 34.1% <i>madhesis</i>, 8.2% <i>dalits</i>, and 4% from backward regions, the first Constituent Assembly was inclusive and representative. Women representatives and those from disadvantaged communities and backward regions participated in both the constitutional assembly and legislature. A women's caucus (197 members) and indigenous peoples' caucus (219 members), formed in 2009 across political parties, actively pursued a common stance on their respective rights and claims for incorporation in a new constitution. Though not translated into a new constitution and associated legislation, inclusive representation has left its footprints in a majority of the documents prepared by the 11 thematic committees of the Constituent Assembly, including the concept paper and preliminary draft proposal of the "Committee for Protection of Fundamental Rights of Minority and Marginalized Communities".</p>	<p>As compared to the first, the second Constituent Assembly has been less inclusive. The women and marginalized groups did not fare well in either the direct or proportional electoral system. The poor showing of female candidates in the direct election indicates the need to groom political leadership from the local level capable of rising to the highest echelons of political power and policy making. The reduced representation of the identity groups under the proportional representation procedures is generally due to the presence of a large number of small parties, which are excluded by strict adherence to the quota rule.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
		<p>With implementation of the amended Civil Service Act, 1993, inclusion of women and other disadvantaged groups has noticeably improved in the government bureaucracy. Women have benefitted most relative to other subgroups. Five years after the introduction of affirmative action (2008–2012), successful women candidates exceeded the allotted percentage while the corresponding figures for <i>medhesi</i>, disabled, and backward regions were less relative to their respective quotas. Comparatively, women are more attracted to civil services. The number of applicants per post was two times higher for women, and that increased their chances of being selected. The number of women in senior positions (class 1 and above) has not perceptibly changed. The share of female employees in civil service grew from 11.1% in 2008 to 14.7% in 2012.</p> <p>Ratification of the ILO Convention 169 brought the rights of indigenous communities into the country's agenda and provided a framework for national dialogue. The Convention 169 greatly influenced and guided the debates in constitution-drafting, particularly on state restructuring and indigenous people's prior rights over traditional lands and local natural resources. But, it did not lead to any related legislation (out of 63 such bills registered, 15 were passed by the last legislature). Notwithstanding that, implementation</p>	<p>Despite the encouraging trend, female quota performance is still not sufficient, as the successful women candidates mostly have come from the upper castes. To correct this unintended outcome, a bill was registered in the last dissolved parliament that seeks to disaggregate the gender quota into distinct shares for women from marginal subgroups. At a broader level, a more serious issue is the unavailability of qualified candidates from the marginal groups. For example, of the 116 posts advertised in 2010 and 2011 under inclusive categories, 81 (<i>madhesis</i> 39, <i>dalits</i> 18, women 18, and disabled 6) remained unfulfilled for lack of suitable candidates passing the recruitment examination. Coaching classes were run for potential candidates to enable them to enter the civil service, but such initiatives remained inadequate and urban-centered.</p> <p>The government submitted its first progress report to ILO in September 2009, but it has not yet submitted a national action plan on implementing ILO Convention 169, which is overdue. Among the reasons why implementation has not been smooth were insufficient preparation, debate, and understanding of the provisions and implications of the convention within the country. Also, the country's capacity for implementation was not properly assessed prior to its ratification.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p data-bbox="520 354 884 444">Vacancies filled to enhance institutional capacity of district technical offices (DTOs)</p> <p data-bbox="520 548 869 639">Sector coverage of public expenditure tracking surveys (PETS) increased</p> <p data-bbox="520 951 940 1192">Gazetted Procurement Act and Regulations and Local Body Financial Administration Regulations (LBFAR) to strengthen financial and procurement management, including district development committee (DDC) procurement authority</p>	<p data-bbox="963 224 1409 347">of the convention requires amendments to several existing laws (such as the Lands Act, 1964) and formulation of new laws.</p> <p data-bbox="963 354 1419 535">DTO vacant positions have been filled through the Public Service Commission's regular process. For instance, 53 vacant positions of senior divisional engineers and engineers in DTOs were filled in 3013.</p> <p data-bbox="963 542 1415 938">FCGO conducted PETS in health and education on a sample basis but did not provide continuity for the PETS process, which has since been picked up by NPC and other agencies. NPC conducted PETS in primary education in 2012; MOE did it for the School Sector Reform Program (2012) and MFALD for LGCDP, both in 2013. Department for International Development of the United Kingdom carried out PETS to analyze school grants in 2013.</p> <p data-bbox="963 945 1430 1312">Enactment of a new Public Procurement Act (PPA) and Public Procurement Rules (PPR) provided the much-needed comprehensive legal framework to manage and regulate public procurement. This single legislative instrument governs the procurement of works, goods, and services (including consulting services) by all public entities, including central government agencies, local bodies, and public enterprises.</p> <p data-bbox="963 1318 1394 1416">In addition to laying a legal basis for sound financial management, the LBFAR, 2007 strengthened local</p>	<p data-bbox="1453 542 1908 724">FCGO is tracking public expenditure online for MOF's use, and line ministries report expenditure data annually to the Auditor General Office. This database provides an essential input to PETS activities.</p> <p data-bbox="1453 945 1881 1159">Despite the enactment of PPA and PPR, the public procurement environment continues to suffer due to weak compliance with PPA and PPR and the low enforcement capacity of the Public Procurement Monitoring Office.</p> <p data-bbox="1453 1318 1896 1416">To improve value for money in local government funding, the government is now implementing an elaborate</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p data-bbox="520 813 930 902">Public procurement monitoring office (PPMO) effectively monitors all public procurement</p> <p data-bbox="520 1157 930 1308">Government officials' exposure to managing for development results (MfDR) concepts and practices increased through institutionalized public training programs</p>	<p data-bbox="963 228 1430 802">financial autonomy, streamlined financial administration procedures, and raised approval authority thresholds of officeholders (for instance, the VDC chairperson's approval authority for consultancy services increased from NRs10,000 to NRs25,000). In practice, however, and notwithstanding local body capacity enhancing measures implemented under LGCDP and other local governance programs, compliance with the LBFAR requirements for accounting, auditing and reporting has been inadequate; local bodies' accountability has been steadily weakened; and fiduciary risk is emerging (for a number of reasons) as a major issue in local governance.</p> <p data-bbox="963 813 1430 1024">Procurement monitoring by PPMO is limited and, due to budgetary and staff constraints, covers only a small segment of central-level procurement. For example, field-based monitoring of procurement entities in 2012 took in only 24 such entities in 9 districts.</p> <p data-bbox="963 1157 1430 1369">Government officials have been exposed to MfDR concepts through NASC's regular training program. NASC has incorporated MfDR concepts into its core competency regular training for class II and III government officers.</p>	<p data-bbox="1451 228 1917 496">fiduciary risks-reduction action plan under LGCDP II (2014–2017) with ADB's support in strengthening public sector management. This action plan is complimentary to the government's broader public financial management reform efforts underway in cooperation with support from multiple development partners.</p> <p data-bbox="1451 813 1917 1146">Despite support from ADB and other development partners, PPMO is not adequately resourced and capacitated to effectively deliver its mandates. To address these weaknesses and strengthen the public procurement system, PPMO has recently developed the NRs1.13 billion phase II program for the period 2014–2016, which is being approved by the government.</p> <p data-bbox="1451 1157 1917 1398">NPC institutionalized outcome-based monitoring by streamlining its monitoring and evaluation process. It issued a national monitoring and evaluation directive in June 2013 for adoption by all ministries and agencies. This built on its guidelines for results-based monitoring and its</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	Financial and institutional support provided to private sector investment in infrastructure development	Financial and institutional support to the private sector for investment in infrastructure development is limited, although the government is continuing efforts in this direction. Enactment of an NRN law was a step toward creating an NRN-friendly policy environment to encourage investment. To that end, an NRN Board, chaired by Vice Chairman of NPC, advises the government on formulating NRN policies and working procedures and the Ministry of Foreign Affairs is coordinating the delivery of government facilities and assistance to NRNs. The newly created Investment Board Nepal, headed by the Prime Minister, is engaged in activities to promote and facilitate infrastructure investment while also providing investment incentives. The private sector will get further policy and institutional support when the government's ongoing efforts to establish a coherent and comprehensive PPP policy framework come to fruition. MOF is now formulating a PPP policy, an enabling legal framework, institutional arrangements (i.e., institutionalization of the existing PPP cell), and, with ADB's technical support (Grant 0252-NEP), a set of demonstration projects to show value for money from PPP. Similarly, the government is trying to provide financial support to private sector investment by (i) developing a bond market (underway with ADB	<p>2010 evaluation report.</p> <p>An increasing number of NRNs are gradually responding to the investment opportunities open to them. NRNs have started investing in the hydropower (i.e., the 27-megawatt Dordi Khola Hydro Project in Lamjung), telecommunication, and tourism sectors. NRN investment to date is around NRs30 billion. This investment will be facilitated further if appropriate amendments are made in the existing Foreign Investment and Technology Transfer Act, 1992.</p> <p>Nepal's PPP achievements thus far have been limited. One mega project, the Kathmandu–Hetauda Tunnel Highway, is now reaching the development stage. Another, the Kathmandu–Terai Fast Track Road Project is stuck at the stage of expression of interest by bidders. However, the Investment Board of Nepal is engaged in talks with potential power developers for three export-oriented hydropower projects. There have been a few small PPP projects emerging under the Electricity Act, 1992, and several small PPP schemes, like foot-bridges and a bus park, were completed at the local level. The lack of comprehensive PPP policy and legislation has contributed to the limited success of PPP initiatives.</p>



Design Summary	Performance Targets/Indicators	Achievements	Remarks
	Rural infrastructure significantly rehabilitated and reconstructed	<p>support), (ii) permitting IFC and ADB to float local currency bonds (the government issued guidelines in October 2013 on local currency bonds for AAA-rated international financial institutions), and (iii) establishing long-term financing (also equity) agencies like the recently established government-owned hydroelectricity investment and development company.</p> <p>Under the Rural Infrastructure Development Strategic Action Plan (2008–2010), the government allocated NRs21,605 million through annual budgets to various rural infrastructure projects and programs, including the Rural Reconstruction and Rehabilitation Sector Development Program. Of that amount, 70% was spent. In addition, about 60% of block grants received by local bodies from the central government and their own-source revenues were invested in local infrastructure. This excludes direct implementation and funding by development partners, a financing mechanism outside the government budgetary system. In implementing these projects and programs, impressive achievements were made in rural roads and rural water supply. Progress lagged, however, in such social infrastructure as health posts and school buildings. Public properties destroyed during the decade-long conflict were also rehabilitated and reconstructed. Out of 3,647 structures destroyed, 2,980 were rehabilitated</p>	

Design Summary	Performance Targets/Indicators	Achievements	Remarks
		and reconstructed by 2013 at a total cost of NRs7,606 million.	
<p><b>Outputs</b> 1. Enhanced poverty reduction and inclusive development</p>	<p>Gazetted Interim Constitution and Constituent Assembly Member Electoral Act includes proportional representation provisions for women, vulnerable and marginalized groups</p> <p>Ratified ILO Convention on Indigenous Nationalities by Interim Parliament</p> <p>Gazetted Civil Service Act and Regulations include social inclusion provisions</p> <p>Approved Approach Paper of the Three-Year Interim Plan (TYIP)</p>	<p>The Interim Constitution of Nepal 2007 guaranteed proportional representation to women (at least 33% of total candidates nominated) and marginalized groups. Following promulgation of the Interim Constitution, the Election to the Members of Constituent Assembly Act, 2007 was enacted in June 2007. This specified the percentages of candidates to be included from various social groups in the nomination of candidates and filling the seats after election under the proportional representation system. The specified percentages are 50% for women, 37.8% for <i>janjatis</i>, 31.2% for <i>madhesis</i>, 13% for <i>dalits</i>, and 4% for backward regions.</p> <p>The government ratified the ILO Convention 169 on indigenous and tribal peoples in 2007.</p> <p>The government amended the Civil Service Act, 1993 in 2007 while incorporating inclusive provisions. Accordingly, of the vacant posts to be filled by open competition, 45% were set aside for separate competitions among candidates from women (33%), <i>adivasi janjats</i> (27%), <i>madhesis</i> (22%), <i>dalits</i> (9%), the disabled (5%), and people from backward regions (4%).</p> <p>The approach paper to the Three-Year Interim Plan (TYIP), 2008–2010 was</p>	<p>This quota rule helped in producing an inclusive and representative (fairly proportionate) Constituent Assembly</p> <p><i>Adivasi janjatis</i>, who constitute around 37% of the population, are considered to comprise one of the disadvantaged communities in Nepal.</p> <p>The civil service is becoming fairer and more representative, albeit at a modest but steady pace.</p> <p>TYIP's seven strategies broadly guided annual budget allocations</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p>Gazetted Citizenship Act includes provisions for granting citizenship through mothers</p>	<p>approved by the Cabinet as envisaged under the program. It was later expanded to a full-fledged TYIP in 2007, which, in effect, was an extension of the Tenth Five-Year Plan (2003–2007), also known as Nepal’s poverty reduction strategy paper. As a post-conflict plan, TYIP focused on poverty and exclusion as the root causes of conflict while giving continuity to the reform initiatives (Millennium Development Goals, poverty reduction strategy paper, and World Trade Organization) adopted during the Tenth Plan.</p> <p>The Citizenship Act was amended in 2006 by incorporating a provision for granting citizenship through mothers. This was to enable a segment of the stateless Nepali (estimated to exceed 2 million), a majority of whom are poor and deprived, to gain access to services, benefits, and opportunities. Confusion prevails, however, as to granting citizenship in the name of a mother. That is despite a landmark decision of the Supreme Court in February 2011 to grant citizenship to a child born from a Nepali mother or father. It is therefore not known how many individuals obtained citizenship by descent through their mothers, but the actual figure is likely to be very low.</p>	<p>while seeking to target an increasing proportion of resources to women and disadvantaged social groups. Consequently, budgets for targeted programs benefitting women and the disadvantaged increased from NRs4,502 million in 2007 to NRs30,030 million in 2010, and for governance and service delivery, which includes community and local development programs, these increased from NRs8,397 million in 2007 to NRs18,437 million in 2010.</p> <p>It can be inferred from the draft citizenship law prepared by the dissolved Constituent Assembly that in the future citizenship provisions will be stricter and more regressive. If this happens, a sizeable population will continue to be denied basic rights to employment, education, and health care.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p>Approved action plan for strengthening universal vital events registration system</p> <p>Approved guidelines for enhancing poverty reduction impact of road projects.</p> <p>Task force established for review of project prioritization criteria</p>	<p>The government approved an action plan for strengthening the universal vital events registration system, but implementation of the action plan did not proceed for lack of budget and logistics. To accelerate implementation, the government received capacity building support from the Government of Japan through ADB in April 2010 for promoting legal identities among the poor. Implementation of that assistance began only in 2013, and work is underway on statutory amendments, organization audit, awareness training, and procurement (for computerization of civil registration offices in 10 pilot districts). The government started a civil registration system in 1977 under the Birth, Death and Other Personal Incident Act, 1976, and Regulations, 1977.</p> <p>The government approved the interim guidelines for enhancing poverty reduction impact of road projects prepared with ADB assistance (TA 4760-NEP). The guidelines sensitized road officials to understand direct and indirect poverty linkages of road investment, and consultants are referring to these guidelines in conjunction with the government's Environmental and Social Management Framework, 2007 while carrying out initial environmental examination and environment impact assessment.</p> <p>NPC had established a task force to</p>	<p>With introduction of the Public Procurement Act, 2007 replacing the Financial Administration Rule 1999, a need has been felt to update the guidelines for enhancing the poverty reduction impact of road projects because the guidelines, which are aligned with Public Works Directives 2002, is based on the now defunct Financial Administration Regulations, 1999.</p> <p>The agencies participating in the medium term expenditure framework</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p>Approved gender strategies in the Ministry of General Administration (MOGA), Ministry of Education (MOE), and Ministry of Agriculture and Cooperatives (MOAC)</p>	<p>review the existing seven criteria, and, based on its recommendations, had adopted a revised set of criteria. The nine revised prioritization criteria are well defined, internally consistent, and easy to operationalize. Addition of contributions to Millennium Development Goals as a criterion helped to align development projects with the national strategy. A separate criterion added for inclusiveness and gender balance reflects the national importance attached to inclusion. Similarly, an environmental sustainability criterion has been introduced with climate change as a subcriterion to integrate pro-poor climate change and environmental concerns into development planning. The revised criteria guided project prioritization and were reflected in the Medium Term Expenditure Framework 2013–2014, which provided a link between the annual budget and periodic development plan.</p> <p>Gender strategies were approved for MOAC, MOE, and MOGA, and the strategies were implemented to varying degrees in an unplanned way. In part, this reflected a lack of associated technical assistance for their implementation. Nevertheless, the level of sensitization and consultations during preparation of the strategies and the continuous dialogue between ADB and other development partners resulted in an inclusion-friendly political environment which, in turn, gave rise to major policy initiatives in the area of</p>	<p>found the criteria to be overly general, and some national pride projects were not prioritized. NPC is preparing a proposal to further review and refine the criteria while combining general and sector-specific criteria.</p> <p>Of the three ministries, MOE is at the forefront for institutional responses and gender mainstreaming. MOE mainstreamed gender through its School Sector Reform Program using the Gender and Vulnerable Communities Framework, and gender parity was achieved in both primary and lower secondary school education. Similarly, MOGA made notable achievements toward promoting gender-responsive civil service (affirmative action, coaching classes for women, and NASC</p>

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		gender equality and social inclusion.	curriculum changes) as part of the support from the ADB-assisted Governance Reform Program. At MOAC, the Gender Equity and Environment Division is leading the gender mainstreaming agenda but the actual performance has been below expectations. Institutional, budgetary, and policy constraints that stood in the way of gender mainstreaming are expected to be addressed by the Agricultural Development Strategy prepared with the support of 13 development partners led by ADB.
2. Improved and inclusive governance and decentralization	<p>Constitutional provision approved with establishment of state restructuring committee</p> <p>The Public Service Commission's recruitment advertisement on technical positions of DTOs</p> <p>MOF directive on public expenditure tracking survey (PETS)</p> <p>MfDR training modules developed and adopted in government training</p>	<p>After initial confusion, the State Restructuring Commission was established in November 2011. The Commission failed to arrive at a consensus, however, and ended up producing two separate reports with different restructuring proposals.</p> <p>The Public Service Commission has been regularly publishing recruitment advertisements for technical positions at DTOs. It advertises once a year and as per demand of MFALD and DOLIDAR through MOGA.</p> <p>MOF issued a directive to FCGO to undertake PETS in two sectors per year.</p> <p>With ADB support (TA 7158-NEP, approved in 2008), a 7-day specialized MfDR training course was designed together with a comprehensive training manual for mainstreaming MfDR within</p>	<p>The Constituent Assembly's inability to resolve the contentious issue of state restructuring was largely responsible for dissolution of the first Constituent Assembly in May 2012 without promulgating a new constitution.</p> <p>That PETS are undertaken in an ad hoc manner by various agencies for different sectors or subsectors is deemed risky. A mechanism is needed for management review of survey findings.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p data-bbox="520 386 892 443">Gazetted Procurement Act and Regulations</p> <p data-bbox="520 516 913 605">Gazetted LBFAR that is compatible with procurement act and regulations</p> <p data-bbox="520 889 840 946">Functional and adequately resourced PPMO</p> <p data-bbox="520 1328 924 1417">Training plans for the Department of Local Infrastructure Development and Agricultural</p>	<p data-bbox="963 232 1423 378">the government. A course session on MfDR concepts has been adopted in government training and is regularly provided through Nepal Administrative Staff College.</p> <p data-bbox="963 394 1423 508">A PPA was promulgated in January 2007. This was followed by the PPR in September 2007. The PPR was amended twice, in 2008 and 2011.</p> <p data-bbox="963 524 1423 881">The government gazetted LBFAR, 2007 in December 2007 by replacing the existing Local Body (Financial Administration) Rules, 1999. The new rules laid down a legal basis for sound financial management, specified detailed procedures and format for financial transactions and reporting by local bodies, raised approval authority thresholds of officeholders, and ensured procedural compatibility with the PPA and PPR.</p> <p data-bbox="963 898 1423 1320">PPMO was established in August 2007 under the Prime Minister's Office. PPMO implemented the Nepal Public Procurement Strategic Framework (Phase I) during 2011–2013 to carry out its functions in a planned manner. Important initiatives like electronic bid submission have been taken, and development of a full-fledged e-procurement system is now in progress. Notwithstanding these initiatives, PPMO is not adequately resourced and capacitated to effectively deliver its mandates.</p> <p data-bbox="963 1336 1423 1417">MFALD prepared a time-bound training plan to familiarize DOLIDAR and DDC staff with the newly enacted LBFAR,</p>	<p data-bbox="1455 889 1911 1101">Being a national priority and owned by the government and other stakeholders, the public procurement reform process is underway and the impediments arising in the way of implementing the PPA and PPR are being addressed.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p>Roads (DOLIDAR) and DDCs on LBFAR and procurement</p> <p>Computerized DDC accounts and electronic networking between MFALD and DDCs</p> <p>Approved manual with minimum conditions and performance measures for budget release and resource allocation to the DDCs</p>	<p>DOLIDAR also prepared training programs to orient its staff on procurement and financial management, and a series of training events was organized. Though actual information on the number of staff trained is not available, financial and procurement training to DDC account officers and DTO staff is an ongoing activity under various programs. For example, DDC account officers are given refresher training beginning every fiscal year at MFALD.</p> <p>Computerization of DDC accounts was undertaken using accounting software based on LBFAR. To date, all 75 districts have been computerized and 62 are operational. This indicates that computer software has been institutionalized by 83% DDCs. The DDCs are yet to be electronically connected with MFALD, however.</p> <p>MFALD developed and approved detailed minimum conditions and performance measures manual in June 2008 to guide performance assessment. The manual's revised version is currently in use. The resulting framework has been applied to all DDCs since 2009 and to municipalities and VDCs since 2010. From that time, all unconditional grants from the government to DDCs and municipalities are performance-based. VDCs, however, receive performance-based capital grants under LGCDP. Performance-based grants to DDCs increased from NRs1,397 million in 2010 to NRs1,690 million in 2012 and</p>	<p>At the VDC level, computerization and training is low. Only 150 out of 3,915 VDCs are computerized, and only a limited number of VDCs have trained staff on accounting and computer use.</p> <p>While the performance-based grants system has contributed to enforce accountability in the local bodies, six DDCs (all underdeveloped districts) failed to meet the minimum conditions. Such districts should not be deprived of the capital grant and so a separate formula may be needed.</p>



Design Summary	Performance Targets/Indicators	Achievements	Remarks
		accounted for 73.5% of all capital grants to DDCs.	
3. Strengthened support for rural infrastructure development	<p data-bbox="520 302 909 386">Approved monetary policy to facilitate establishment of an infrastructure development bank</p> <p data-bbox="520 792 867 876">Task force on public–private partnership (PPP) policy and regulations established</p> <p data-bbox="520 1317 867 1401">Gazetted Nonresident Nepali (NRN) Act; draft regulations prepared</p>	<p data-bbox="961 302 1432 776">The Nepal Rastra Bank (NRB, the central bank of Nepal) approved its Monetary Policy, 2008. However, the policy could not facilitate issuance of separate regulatory norms for establishing an infrastructure development bank because the policy provisions contradicted with the existing legal and regulatory frameworks and required changes in the Bank and Financial Institutions Act, 2006. Preparation of a bill to update the Act through parliamentary approval is underway, and this is expected to facilitate establishment of an infrastructure development bank.</p> <p data-bbox="961 792 1432 1308">In April 2010, NPC constituted a task force led by one of its members to prepare policies for PPP. A series of stakeholder consultations on PPP experiences culminated in the task force’s producing PPP policy documents in 2011. These laid down a roadmap to developing an enabling environment for PPP. Subsequently, a PPP cell headed by the NPC member for infrastructure was established with representation from key ministries, NRB and three PPP experts. The ongoing ADB-assisted Capital Market and Infrastructure Capacity Support Project (Grant 0252-NEP) is currently supporting the government initiatives.</p> <p data-bbox="961 1317 1432 1401">The government gazetted the NRN Act on 26 August 2008 by simplifying the regulatory procedures for NRN</p>	<p data-bbox="1453 792 1908 967">The government created the Nepal Investment Board in December 2011 under the Investment Board Act, 2010. Its objective is to facilitate development of national pride projects by mobilizing and managing PPP.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p data-bbox="520 570 911 626">Approved 3-year strategic action plan for rural infrastructure</p> <p data-bbox="520 883 911 971">Revised DOLIDAR manual on approach for the development of rural and agriculture roads</p>	<p data-bbox="963 228 1423 557">investment. Subsequently, on 25 March 2009, the Cabinet approved NRN regulations for implementing the Act. The NRN law is under preparation. An NRN Board, chaired by Vice Chairman of NPC, has been established in NPC to advise the government on formulating NRN policies and working procedures. The Ministry of Foreign Affairs has been designated as a focal agency on NRN.</p> <p data-bbox="963 570 1423 867">The government approved the Rural Infrastructure Development Strategic Action Plan in October 2007. This action plan is intended for investing NRs59,475 million in seven infrastructure subsectors during 2008–2010. The action plan gave added vigor to post-conflict reconstruction and rehabilitation of infrastructure in rural areas.</p> <p data-bbox="963 883 1423 1305">The DOLIDAR manual toward developing rural and agriculture roads was revised in 2007. The manual provides criteria for selecting agriculture and local roads that directly benefit and provide employment to women, <i>dalits</i>, and disadvantaged indigenous groups. The development partner-supported rural road projects had adopted a provision in this regard for project planning and design and adhered to it in varying degrees. A recent study has shown that rural roads have contributed to inclusion.</p>	<p data-bbox="1453 883 1911 1398">The manual was replaced by the interim District Transport Master Plan Guidelines, 2010. The new guidelines have simplified and improved the rural road classification and ranking criteria, but in the process they seem to have diluted the inclusive agenda. For instance, the concentrated approach to rural roads construction (focusing on the district road core network) and change in focus from access (2 or 4 hours of walking distance) to all-weather roads may inadvertently weaken the concept of inclusiveness. Hence, more care needs to be exercised in prioritizing district roads to serve the target beneficiaries.</p>

Design Summary	Performance Targets/Indicators	Achievements	Remarks
	<p>Approved MFALD guidelines for infrastructure projects on resettlement, social mobilization, gender sensitization, and community development</p> <p>NPC has submitted revised resettlement policy to Cabinet for approval</p>	<p>MFALD has been approving and issuing project-specific guidelines on social mobilization, gender sensitization, and community development. All development partner-financed rural infrastructure projects have been using such guidelines, but there are no common guidelines applied to all projects.</p> <p>NPC drafted a national resettlement policy with ADB support (TA 4422-NEP) and submitted it to the Cabinet in 2007. Given the complexity and far-reaching implications of the policy, it has not yet been approved. There is consensus, however, that a comprehensive policy with legal instruments is needed to address the land acquisition, resettlement, and social safeguards issues and that the policy needs to be designed while taking into account financial implications of government-funded projects. Efforts are underway to develop a pragmatic policy compatible with international best practices. A committee representing seven key ministries and the Nepal Investment Board under NPC's leadership is working to finalize the policy.</p>	<p>The government is gradually moving toward a sector-wide approach to the rural transport infrastructure subsector (as currently applied to rural road maintenance). A government-led common policy and guidelines for rural transport infrastructure development are under preparation.</p> <p>ADB TA 7566-REG is providing technical support to the committee in assessing financial affordability, asset valuation methodology, and development of institutional capacity. Preparation of the policy document is progressing well along with efforts to build political understanding.</p>

ADB = Asian Development Bank, DDC = district development committee, DOLIDAR = Department of Local Infrastructure Development and Agricultural Roads, DTO = district technical office, FCGO = Financial Comptroller General Office, IFC = International Finance Corporation, ILO = International Labor Organization, LBFAR = Local Body Financial Administration Rules, LGCDP = Local Governance and Community Development Program, MFALD = Ministry of Federal Affairs and Local Development, MfDR = management for development results, MOAC = Ministry of Agriculture and Cooperatives, MOE = Ministry of Education, MOF = Ministry of Finance, MOGA = Ministry of General Administration, NASC = National Administrative Staff College, NEP = Nepal, NPC = National Planning Commission, NRB = Nepal Rastra Bank, NRN = Nonresident Nepalese, PETS = public expenditure tracking system, PPA = Public Procurement Act, PPMO = Public Procurement Management Office, PPP = public-private partnership, PPR = Public Procurement Rules, TA = technical assistance, TYIP = Three-Year Interim Plan, VDC = village development committee.

## POLICY MATRIX

Policy Objectives	Policy Conditions Fulfilled for Disbursal in Single Tranche	Remarks
<b>Enhance Poverty Reduction and Inclusive Development</b>		
To ensure political representation of women and excluded groups	<p>The Parliament promulgated the Interim Constitution guaranteeing inclusiveness in the selection of candidates for the Constituent Assembly.</p> <p>The government gazetted the Constituent Assembly Member Electoral Act, 2007, which includes provisions on the allocation of seats to women, <i>dalits</i>, <i>madhesis</i>, <i>janjatis</i>, and other disadvantaged groups for 240 electoral seats under the proportional electoral system.</p> <p>The Interim Parliament ratified the ILO Convention on Indigenous and Tribal Peoples (No. 169).</p>	<p>The Interim Constitution was amended several times but the inclusiveness provision remains unchanged.</p> <p>After dissolution of the first Constituent Assembly in May 2012, issues were raised as to the size of the assembly and the minimum threshold of votes for seats under the proportional representation system. Changes were drafted to amend the Interim Constitution for election of the second Constituent Assembly. But with political pressure in favor of status quo on grounds that introducing a threshold and reducing the assembly's strength would adversely affect the political representation of disadvantaged groups and small political parties (a point validated later by the election results), the election was conducted following the same original quota provisions. Doing so restored the principle of inclusiveness.</p> <p>The government submitted its first progress report to ILO in September 2009 and submission of a national action plan on the implementation of ILO Convention 169 is overdue.</p>
To make civil service more representative of the country's gender and social profile	<p>The government gazetted the amended Civil Service Act, 1993, securing increased representation for women, <i>dalits</i>, <i>madhesis</i>, <i>janjatis</i>, and backward regions.</p> <p>The Cabinet approved the Civil Service Regulations, 2007.</p>	There are proposals to address quotas for women from marginal subgroups and enable potential candidates from disadvantaged groups to join the civil service.
To improve inclusiveness and equal access to benefits and opportunities	At its 2-day meeting held 24–25 June 2007, the National Development Council (NDC) endorsed the Approach Paper to the Three-Year Interim Plan with specific directives related to inclusive development and reconstruction and rehabilitation of rural infrastructure. The Approach Paper was revised in accordance with the NDC suggestions and published following the Cabinet's approval.	The Cabinet had reconstituted the NDC to include members from among women, <i>dalits</i> , <i>janjatis</i> , persons with disabilities, social workers, and intellectuals.

Policy Objectives	Policy Conditions Fulfilled for Disbursal in Single Tranche	Remarks
	<p>The National Planning Commission (NPC) submitted the Three-Year Interim Plan (2008–2010) to the Cabinet for its approval.</p> <p>The government gazetted the amended Citizenship Act, conferring citizenship through the mother's citizenship.</p> <p>The Ministry of Federal Affairs and Local Development approved a time-bound action plan for strengthening the universal vital events registration system.</p> <p>The Ministry of Physical Planning and Works approved the Interim Guidelines for Enhancing Poverty Reduction Impacts of Road Projects</p>	<p>After completing the Three-Year Interim Plan, Nepal implemented the Three-Year Plan from 2011 to 2013. It is now preparing the Thirteenth Plan (2014–2016) following government approval of an approach paper. A common thread to these plans is inclusiveness to provide access to benefits and opportunities for the deprived, which also is one of the key themes of the program.</p> <p>Despite the provision in the Act, confusion prevails as to its implementation. Hence, citizenship granted in the name of the mother's citizenship is limited.</p> <p>The significance and urgency of having a complete and up-to-date vital statistics registry have increased greatly since the government announced introducing the national identify card.</p> <p>The Geo-environment and Social Unit of the Department of Roads widely circulated the guidelines to road projects and field offices, and the road staff and consultants are using the guidelines. However, there has been no review as to the relevance of the guidelines in the changed context. Updating of the guidelines is needed to make them consistent with the Public Procurement Act and Rules.</p>
To ensure development programs reach to disadvantaged communities and the poor	NPC established a task force with terms of reference to review and refine its prioritization criteria for development programs.	Improvement in budgetary practices and prioritization criteria, which is a key element of the medium term expenditure framework, has improved the government's portfolio mix and quality. The pro-poor budget that directly helps poverty reduction has reached 50% (2014). Directly gender-responsive allocation increased from 11.3% in 2008 to 21.7% in 2014. The share of high priority (P1) projects has been maintained at around 85% of total budget allocation. This level is considered optimal to ensure secured funding for the national priorities in the event of a revenue shortfall. Budget-release mechanisms for P1 projects have been streamlined and made more transparent and predictable. Initiatives are underway to create performance-based trimestral budget releases. But multidistrict projects in sectors like agriculture and health have encountered difficulties in assessing and timely reporting of physical progress. The P1 projects are monitored by multiple oversight

Policy Objectives	Policy Conditions Fulfilled for Disbursal in Single Tranche	Remarks
		agencies and NPC, but the quality of monitoring needs improvement to facilitate effective budget utilization.
To mainstream gender issues	The ministries of General Administration, Education and Sports, and Agriculture Development approved their gender strategies.	Gender mainstreaming is constrained by lack of budgets, human skills, and institutional controls.
<b>Improving Inclusive Governance and Decentralization</b>		
To support the decentralization for inclusiveness	The Interim Constitution provided for establishment of the State Restructuring Commission.	The State Restructuring Commission produced two separate state restructuring proposals but the second Constituent Assembly may not be guided by those proposals.
To enhance implementation capacity of district technical offices	The Public Service Commission advertised vacancies for the technical staffs in all the district technical offices.	This is a regular activity of the Public Service Commission.
To enhance capacity for output, outcome and impact monitoring.	The Ministry of Finance issued a directive to the Financial Comptroller General Office to undertake public expenditure tracking surveys, on a sample basis, for two sectors a year.  Nepal Administrative Staff College approved inclusion of management for development result concepts in its public sector training programs.	Public expenditure tracking surveys are being carried out by various agencies but are yet to be fully institutionalized.  Only a “course session” on management for development result concepts has been adopted in government training provided regularly through Nepal Administrative Staff College.
To improve procurement and financial management	The government gazetted the Procurement Act, 2007.  The Cabinet approved the Procurement Regulations, 2007.  The government established the Public Procurement Monitoring Office.  The Cabinet approved the Local Bodies Financial Administration Regulations (LBFAR), including provisions for higher level of authorization for spending at the district level.  MFALD finalized a time-bound training plan, with budget allocation, on procurement and LBFAR for DDCs and DOLIDAR. MFALD finalized computerization of all DDC accounts and established a network between	Major efforts are underway to strengthen the regulatory role of oversight agencies (such as by granting enforcement authority to the Public Procurement Monitoring Office regarding the Public Procurement Act and Public Procurement Regulations) and the organizational capacity of procurement entities for the conduct and management of procurement.  With the revision already two times of the Public Procurement Regulations and steady erosion of the financial authority thresholds of officeholders, revision to the LBFAR is needed.  Training is an ongoing process.  Computerization of local bodies including village development committees is ongoing under various programs. MFALD is also working to establish its network connection with DDCs.

Policy Objectives	Policy Conditions Fulfilled for Disbursal in Single Tranche	Remarks
	<p>MFALD and DDCs.</p> <p>MFALD (i) established minimum conditions and performance measures for budget release and resource allocation to DDCs, (ii) approved its district manual, (iii) undertook orientation programs, and (iv) prepared baseline data to monitor progress.</p>	<p>Minimum conditions and performance measures have come to constitute a major framework for transferring funds from the central government to local bodies. Five rounds of nationwide performance assessment of DDCs have thus far been completed, and the outcome of each assessment guided adjustments in grants to local bodies.</p>
<b>Supporting Rural Infrastructure Development</b>		
<p>To support private sector participation in infrastructure development</p>	<p>The Nepal Rastra Bank approved its monetary policy committing to issue separate regulatory norms for the establishment of an Infrastructure Development Bank.</p> <p>NPC established a Task Force with terms of reference to formulate a comprehensive public-private partnership policy and legislation.</p>	<p>Although the Nepal Rastra Bank approved its Monetary Policy, 2008, no infrastructure development bank could be established because the policy provisions contradicted existing legal and regulatory frameworks. The latter required changes in the Bank and Financial Institutions Act, 2006. Preparation of a bill to update that Act through parliamentary approval is underway, and this is expected to facilitate establishment of an infrastructure development bank.</p> <p>Preparation of a comprehensive public-private partnership policy is in process.</p>
<p>To improve investment opportunities for Nonresident Nepalis (NRNs)</p>	<p>The government gazetted the NRN Act, 2007, providing investment opportunities, including in infrastructure, for NRNs.</p> <p>The government approved the regulations for implementing the NRN Act, 2007.</p>	<p>Implementation of the NRN Act and regulations is now picking up.</p>
<p>To support rural infrastructure development for disadvantaged communities</p>	<p>MFALD approved the Interim Three-Year Strategic Action Plan for Rural Infrastructure.</p> <p>DOLIDAR revised “The Approach for the Development of Rural and Agriculture Roads” manual to incorporate poverty and social inclusion issues.</p> <p>MFALD issued a directive to DDCs to use guidelines for all its infrastructure projects, including on social mobilization and participatory approach, gender sensitization, safeguard policies for indigenous communities and vulnerable groups,</p>	<p>Currently, rural infrastructure sector allocations are guided by sectoral or subsectoral business plans and a periodic development plan. The Thirteenth Plan is under preparation.</p> <p>At present, the district transport master plan guidelines, 2012 are in use that seek to achieve all-weather road access for all village development committees through a core network of district roads.</p> <p>As the government is moving toward a sector-wide approach to the rural transport infrastructure subsector, a government-led common policy and guidelines infrastructure projects are under preparation.</p>

<b>Policy Objectives</b>	<b>Policy Conditions Fulfilled for Disbursal in Single Tranche</b>	<b>Remarks</b>
	and environment. NPC submitted the revised draft National Resettlement Policy to the Cabinet for its approval.	Preparation of the Resettlement Policy is in progress, and it is expected to be approved shortly.

DDC = district development committee, DOLIDAR = Department of Local Infrastructure Development and Agricultural Roads, ILO = International Labor Organization, LBFAR = Local Body Financial Administration Regulations, MFALD = Ministry of Federal Affairs and Local Development, NDC = National Development Council, NPC = National Planning Commission, NRN = Nonresident Nepalese.



## PROJECT DESIGN AND MONITORING FRAMEWORK

<b>Design Summary</b>	<b>Performance Indicators/Targets</b>	<b>Achievements</b>	<b>Remarks</b>
<p><b>Impact</b> Reduce rural poverty in hill, mountain, and terai districts where isolation and hardship are common</p>	<p>Proportion of rural population living below poverty line decreases from current 34.6% to 25% by 2020.</p>	<p>According to the Nepal Living Standards Survey 2011, the proportion of the rural population living below the poverty line decreased from 34.6% in 2004 to 27.4% in 2011.</p>	<p>The extent to which the program and project have contributed to the decline in the proportion of rural poor is difficult to ascertain, but improved rural connectivity would have contributed significantly toward achieving the overall impact on poverty reduction.</p>
<p><b>Outcome</b> Improved connectivity, enhanced economic and employment opportunities, and increased access to market and social services of rural communities</p>	<p>Proportion of population in project districts that have to walk 4 hours in hills and 2 hours in terai to reach the road head reduced from about 36% to less than 25%</p> <p>Average household travel time to market centers in road-influence area (RIA) reduced by 50%</p> <p>Average number of annual household trips to market centers in RIA doubled</p> <p>Traffic counts and/or passenger in RIA increased by at least 30%</p>	<p>The travel time for the population within the zone of influence has been reduced substantially.</p> <p>Average travel time has been reduced by about 50% (from 7.3 hours to 3.7 hours) across the 40 rural roads.</p> <p>The number of annual household trips to market centers has doubled from about 5 trips to 10 trips per year in those districts surveyed.</p> <p>Traffic volume is gradually rising after roads upgrading. Passengers travelling by motorized vehicles have grown by more than 30%.</p>	<p>Nationally, only 18.5% and 7.3% of households report having to spend 3 hours or more to reach the nearest paved road and (motorable) earthen road, respectively.<sup>a</sup> This indicates that the targeted outcome reduced travel time to the nearest road has been achieved.</p> <p>Growth in road traffic is constrained by several factors, including low demand for passenger and freight services, high cost of vehicles (high import duties), and low purchasing power that inhibits motorized vehicle ownership. Vehicle operating costs in the remote mountain districts are also relatively high due to high fuel costs and poor</p>

Design Summary	Performance Indicators/Targets	Achievements	Remarks
	<p>Access to assured supply of drinking water increased for about 30,000 households</p> <p>Average time for accessing water reduced by 50%; household supplies increased by 100%; household incidence of gastrointestinal-related disease reduced by 30%</p> <p>About 3.3 million people directly benefited.</p> <p>Employment of 24.2 million person-days in civil works provided, at least 70% of which will be for poor and disadvantaged groups; and income and skills of people from district road corridors improved</p>	<p>Access to an assured supply of drinking water was increased for 36,582 households.</p> <p>Average time for accessing water was cut from 35 minutes to less than 10 minutes (by 71%). Household supplies have almost doubled. Household incidence of gastrointestinal-related disease was reduced by more than 50%. A study of a sample of completed water supply schemes indicated that time required to fetch water had been reduced by 83%.</p> <p>About 2.4 million people have directly benefited from the project activities.</p> <p>The project generated total employment of 15.8 million person-days, of which nearly 66% went to people from poor and disadvantaged groups. Skills training (LEST) helped increase earnings of local people.</p>	<p>condition of roads.</p> <p>The number of people directly benefiting from the project remained low due to the need for using certain machines in rehabilitating rural roads. That was contrary to the magnitude of labor use envisaged at project design.</p> <p>Employment generation fell short of target because less work was allocated to road building groups than anticipated. Most roads involved rehabilitation rather than new construction. Rehabilitation limited the scope for human labor absorption, as most of the work was done by contractors using machines which were more cost-effective (by 30–40%) over similar work employing human labor. In cases of new roads constructed through groups, almost solely poor people benefited. Even for national competitive bidding contracts,</p>

Design Summary	Performance Indicators/Targets	Achievements	Remarks
	<p>Proportional representation of women and minorities in governing bodies increased</p> <p>Development expenditure efficiency and quantum increased</p> <p>Village social capital increased</p>	<p>Women's representation was 28.2% in VICCCs, 38.37% in VIUGs, and 38.86% in RBGs. Disadvantaged and/or ethnic groups' representation was 54.8% in VICCCs, 64.2% in VIUGs, and 65% in RBGs.</p> <p>DOLIDAR capacity has been enhanced to efficiently utilize development expenditure in creating rural infrastructure.</p> <p>Beneficiaries gained knowledge and experience in road construction by participating as members of RBGs and managing the local infrastructure.</p>	<p>contractors hired local people. A total of 2,912 members of self-help groups received livelihood enhancement skills training in 20 trades that increased income options for the poor and disadvantaged.</p> <p>Development spending on rural roads has risen significantly. Districts had originally identified 56 roads with total length 1,200 km. The project funded 43 roads with total length 836 km. The government allocated an additional NRs2 billion (\$25 million) to construct the remaining 13 roads, which are targeted to be completed in 2014.</p> <p>Beneficiaries worked through a total of 611 RBGs. User committees were formed to construct (and are now managing) about 600 rural water supply schemes and supplementary infrastructure. Local people's capacity was built through awareness and orientation training. Beneficiaries are able to manage the local infrastructure, including its operation and maintenance.</p>
<p><b>Outputs</b> 1. Improved rural roads</p>	<p>Improvement of 859 km of rural roads</p>	<p>The project constructed, upgraded, and rehabilitated 43 roads with total combined length of 826 km.</p>	<p>About 20% of construction work on 8 rural roads and 7 motorable bridges was completed after project closure. The government utilized its own funds</p>

Design Summary	Performance Indicators/Targets	Achievements	Remarks
	Construction of 1,319 meters of bridges	The construction of 15 bridges with combined length of 405 meters was either completed or in an advanced stage of completion.	(\$1.5 million) to complete the work. The original target for motorable bridges had been overestimated. Actual demand during construction was only 405 meters.
2. Developed and improved community-based supplementary rural infrastructure	735 supplementary infrastructure (village trails, trail bridges, microirrigation, market buildings, primary schools, and health posts) undertaken based on community demands  591 water supply subprojects constructed, rehabilitated, and functional	Completed were 514 supplementary infrastructure subprojects (village trails, trail bridges, microirrigation, market buildings, primary schools, and health posts).  A total of 364 rural water supply schemes were constructed or rehabilitated and made functional.	The higher costs associated with projects selected in remote districts and relatively large share of new construction rather than upgrading of existing schemes led to fewer schemes being constructed.
3. Enhanced equity, employment, and income opportunities for the poor and disadvantaged	At least 75% of the district infrastructure coordination committee, village infrastructure user groups, and building groups are formed with at least 50% women and proportionate representation of major disadvantaged groups  At least 75% of the self-help groups (SHGs) with at least 70% women and proportionate	Representation of women in at least 75% of RBGs, RBICs, and VIUGs met the target of 50%. Out of 611 RBGs, 86 RBICs, and 588 VIUGs formed, women represent 52%, 49% and 52%, respectively. Women's representation in 75% of user committees and coordination committees have met the target of 33% (38% was achieved in VICCCs) but this remained lower (at 26%) for DPCCs.  A total of 170 SHGs were formed in 20 districts. Representation of women in SHGs was 68.81% ( <i>dalits</i> )	Women's representation in DPCCs and VICCCs has been low. This is due to a lack of functioning elected bodies at village and district levels. Women are poorly represented in the political parties at village and district levels, and so their representation in DPCCs and VICCCs from the parties is low. The situation is similar with respect to the <i>dalits</i> , who also are poorly represented in local political parties.  Relative weak social mobilization and lack of women's preparedness to go for work to distant road sections was one of the reasons for the shortfalls.  Overall, representation of women in SHGs is close to the targeted 70% for most of those groups formed.

Design Summary	Performance Indicators/Targets	Achievements	Remarks
	<p>representation of major disadvantaged groups formed.</p> <p>Members of building groups receive full wages within 30 days of completed works; members of building groups are all insured</p> <p>Men and women receive equal wages for work of equal value</p> <p>Members of SHGs receive demand-driven skill training (600 training programs) with 50% female representation and at least proportionate representation from disadvantaged caste and ethnic groups</p> <p>50% representation of women in building groups, user groups, and coordination committees; and proportionate representation of disadvantaged, castes, and ethnic groups to their population in the project areas, with preference given to the poorest of the poor</p>	<p>14.6%, <i>janjatis</i> 45.8% and <i>madhesis</i> 0.2%).</p> <p>Wages were received in full within 30 days of work completion. All building group members were insured.</p> <p>Men and women received equal pay for similar work in the road projects.</p> <p>Livelihood enhancement skills training (LEST) was provided to 2,912 SHG members, of which 43% were women. Almost 60% of trainees were <i>dalits</i>, <i>janjatis</i>, and <i>madhesis</i>.</p> <p>Women representation in building groups was 38.8%. The overall representation of women in all committees and RBGs was 41.25% and that of disadvantaged and ethnic groups 63.48% in the subprojects.</p>	<p>The LEST training provided to SHG members was considered useful by 82% of respondents in a survey conducted in eight districts. Average monthly income grew from a pretraining level of NRs3,172 to NRs6,824.<sup>b</sup> In Panchthar District, beneficiaries along the Jorpokhari–Ektin–Oyam road received training on vegetable cultivation and reported earning NRs20,000 to NRs80,000 from seasonal and off-season vegetable growing.<sup>c</sup></p>
<p>4. Strengthened institutional capacity of the Ministry of Federal Affairs and Local Development (MFALD), Department of Local</p>	<p>20 DDC training in project orientation and awareness in year 1</p>	<p>All 20 DDCs received project orientation and awareness training in 2008. This provided clarity on objectives and procedures for project implementation.</p>	

<b>Design Summary</b>	<b>Performance Indicators/Targets</b>	<b>Achievements</b>	<b>Remarks</b>
<p>Infrastructure and Agricultural Roads, (DOLIDAR), DDCs, and communities</p>	<p>Five regional workshops held for DDCs on standards, requirements, and procedures for financial management, procurement, resettlement, environment, and social inclusion</p> <p>Five regional workshops held on strengthening quality control and operation and maintenance</p> <p>Progress made toward sector/subsector integration (to program-based approaches)</p>	<p>Five regional workshops were completed on standards, requirements, and procedures for financial management, procurement, resettlement, environment, and social inclusion. Refresher training and workshops were also provided.</p> <p>Three training programs on water quality testing were implemented and regular site visits undertaken for strengthening quality control and operation and maintenance.</p> <p>Potentiality of program-based approaches for rural transport was assessed, piloted for road maintenance in seven districts, then replicated to 25 districts following good lessons learned. There is a plan to replicate to all 75 districts.</p>	<p>The workshops improved skills of MFALD, DOLIDAR, and DDC staff in planning and implementing rural roads. The skills are being applied in roads being constructed in other parts of the country that are financed using government funds.</p> <p>This approach has enhanced planning, implementation, and resource availability for road maintenance in the districts.</p>
<p>5. Improved project management</p>	<p>Advanced procurement action (from October 2007) initiated for five individual start-up consultants; same fielded by January 2008; manuals, updating and training delivered to DDCs by individual consultants by March 2008</p> <p>Central implementation support consultants (CISC) under DOLIDAR fielded by April 2008 (advanced procurement action started from October 2007)</p>	<p>Four individual consultants were recruited and provided assistance to project coordination unit (PCU) and district technical offices from April 2008.</p> <p>CISC were mobilized with full team (22 consultants) until the extended closing date of 31 December 2012. During the last quarter of project completion, the Department for International Development of the United Kingdom provided 1</p>	

Design Summary	Performance Indicators/Targets	Achievements	Remarks
	<p>DISTs with 33% women recruited (from February–May 2008) in 20 districts; additional 18 water supply scheme engineers fielded in Decentralized Rural Infrastructure and Livelihood Project (DRILP) districts</p> <p>CISC prepares project procedures and guidelines for project implementation, supervision, and monitoring by May 2008</p> <p>Regular PCU/CISC and DPO/DIST supervision, monitoring, and guidance activities</p> <p>The public audits of all completed works under subprojects carried out by December 2011</p>	<p>international and 6 national consultants to control roads quality.</p> <p>Women constituted 24.68% of staff in 20 DISTs and DPOs. Similarly, women constituted 24.65% of the water supply scheme engineers and social mobilizers fielded in DRILP districts.</p> <p>Twenty manuals and sets of guidelines on accounting, rural roads, environmental screening, initial environmental examination, and resettlement were prepared.</p> <p>Regular coordination was maintained among PCU/CISC and DPO/DIST for proper supervision, monitoring, and guidance.</p> <p>The public audits of all completed works under subprojects were completed by December 2012.</p>	<p>The RBICs and VIUGs conducted public audits of all roads, water supply schemes, and other supplementary infrastructure by involving the local beneficiaries. This helped maintain transparency and promoted good governance at local level in executing infrastructure projects.</p>

CISC = central implementation support consultants, DDC = district development committee, DIST = district implementation support team, DOLIDAR = Department of Local Infrastructure Development and Agricultural Roads, DPCC = district project coordination committee, DPO = district project office, DRILP = Decentralized Rural Infrastructure and Livelihood Project, LEST = livelihood enhancement skills training, MFALD = Ministry of Federal Affairs and Local Development, PCU = project coordination unit, RBG = road building group, RBIC = road building implementation committee, RIA = road influence area, SHG = self-help group, VICCC = village infrastructure construction coordination committee, VIUG = village infrastructure user group.

<sup>a</sup> Central Bureau of Statistics, National Planning Commission Secretariat, Government of Nepal. 2011. *Nepal Living Standards Survey 2010/2011, Statistical Report Volume One*. Kathmandu (October).

<sup>b</sup> PCU. 2012. *Tracer Study of Livelihood Enhancement Skill Based Training Program*. Kathmandu (December).

<sup>c</sup> Information collected through meetings with beneficiaries.

**PROGRAM COST BREAKDOWN BY SOURCES**  
(\$ million)

<b>Source</b>	<b>Appraisal Estimate</b>	<b>Actual</b>
Asian Development Bank financed	50.00	50.00
Government of Nepal	32.80	32.80
<b>Total</b>	<b>82.80</b>	<b>82.80</b>

Source: Asian Development Bank.



**PROJECT COST BREAKDOWN BY SOURCES**  
(\$ million)

<b>Source</b>	<b>Appraisal Estimate</b>	<b>Revised Estimate</b>	<b>Actual</b>
ADB financed	50.00	50.00	43.56
OFID financed	10.00	10.00	9.06
DFID financed	0.00	21.80	19.79
SDC financed	0.00	1.50	3.00
Government of Nepal	15.70	21.30	18.24
Beneficiary financed	2.70	4.00	3.40
<b>Total</b>	<b>78.40</b>	<b>108.60</b>	<b>97.05</b>

ADB = Asian Development Bank, DFID = Department for International Development of the United Kingdom, OFID = OPEC Fund for International Development, SDC = Swiss Agency for Development and Cooperation.  
Source: Asian Development Bank.

**PROJECT COST BREAKDOWN BY COMPONENTS**  
(\$ million)

<b>Component</b>	<b>Appraisal Estimate</b>	<b>Revised Estimate</b>	<b>Actual</b>
Rural roads	45.00	65.00	63.41
Supplementary infrastructure	18.00	26.40	21.34
Community empowerment	3.20	3.20	2.48
Institutional capacity development	0.30	0.30	0.50
Project management and services	7.80	8.10	9.02
Contingencies	3.80	5.30	0.00
Interest during construction	0.30	0.30	0.30
<b>Total</b>	<b>78.40</b>	<b>108.60</b>	<b>97.05</b>

Source: Asian Development Bank.

## SOURCEWISE ANNUAL PROJECT DISBURSEMENTS

Year	Quarter	Disbursement (\$ million)				Government and Others
		ADB	OFID	DFID	SDC	
2008	3	0.175			0.025	0.052
	4	0.192			0.020	0.057
2009	1	0.433			0.020	0.129
	2	0.139			0.008	0.042
	3	0.680			0.033	0.203
	4	1.373			0.055	0.410
2010	1	0.000		0.194	0.020	0.058
	2	0.258		0.061	0.025	0.095
	3	1.329			0.030	0.019
	4	4.458			0.230	1.710
2011	1	0.000		0.622	0.025	0.186
	2	1.846		0.797	0.106	0.789
	3	4.080		0.896	0.200	1.486
	4	7.513	1.066	2.433	0.487	3.626
2012	1	1.182	1.709	1.227	0.120	0.893
	2	4.379	0.652		0.202	1.502
	3	0.671	0.451	4.585	0.229	1.705
	4	7.683	2.465	2.452	0.506	3.764
2013	1	0.000	0.831	1.338	0.087	0.648
	2	3.097	0.519	0.510	0.166	1.232
	3	1.678	0.655	0.847	0.128	0.950
	4	2.391	0.497		0.126	0.937
2014	1	0.000	0.211	3.827	0.154	1.143
<b>Total</b>		<b>43.557</b>	<b>9.056</b>	<b>19.789</b>	<b>3.000</b>	<b>21.636</b>

ADB = Asian Development Bank, DFID = Department for International Development of the United Kingdom, OFID = OPEC Fund for International Development, SDC = Swiss Agency for Development and Cooperation.

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank.

## PROJECT IMPLEMENTATION SCHEDULE

Items	2007		2008				2009				2010				2011				2012					
	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
<b>Rural Roads</b>																								
Prioritize rural roads for participation based on selection criteria	■																							
Open district maintenance fund and use for operations and maintenance of district's infrastructure			■				■																	
Subproject survey and design (social, environmental, technical, and financial)					■																			
Formation of village infrastructure construction coordination committee						■		■																
Preparation of resettlement plan						■		■																
Packaging of construction works								■		■														
Implementation of resettlement plan (land acquisition and compensation)								■		■														
Procurement of gabion wire and tools (direct purchase and national competitive bidding)						■		■																
Construction of works through building groups								■		■		■		■		■		■						
Contracting of skilled works for local contractors								■		■		■												
Construction of works through local contractors									■				■				■							
Bioengineering works on subprojects										■		■		■		■								
<b>Supplementary Infrastructure</b>																								
Community mobilization along the road alignments						■		■																
Formation of village infrastructure user groups					■		■																	
Stocktaking of existing community support programs						■		■																
Demands collections through VDCs						■		■																

Items	2007		2008				2009				2010				2011				2012				
	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Prioritization of demands for supplementary infrastructure and select supplementary infrastructure for RRRSDP						—					—	—											
Mobilization of communities and users of selected supplementary infrastructure							—					—	—										
Survey and design selected supplementary infrastructure (social, environmental, technical, and financial)							—					—	—										
Implementation of selected supplementary infrastructure							—	—	—	—					—	—	—	—					
<b>DRILP Subprojects</b>																							
Community mobilization along the road alignments (done under DRILP)																							
Formation of village infrastructure user groups (done under DRILP)																							
Demands collections through VDCs		—																					
Stocktaking of existing community support programs		—																					
Prioritization of demands for supplementary infrastructure and select supplementary infrastructure for RRRSDP			—																				
Engage individual consultants to support supplementary infrastructure planning, design, and implementation			—	—																			
Mobilization of community regarding supplementary infrastructure for RRRSDP				—																			
Survey and design of selected supplementary infrastructure (social, environmental, technical, and financial)				—	—																		
Implementation of supplementary infrastructure					—	—	—	—															
<b>Community Empowerment</b>																							
Raising awareness of the project and opportunities			—	—	—	—	—	—															
Raising awareness on equal wage payment, gender, pro-poor strategy			—	—	—	—	—																
Inventorying of community groups or organizations in subproject area			—	—						—													
Formation of building groups				—	—	—	—																



Items	2007		2008				2009				2010				2011				2012				
	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
District technical support teams named and mobilized				—																			
DOLIDAR call for central implementation support consultants			—																				
Central consulting services tendered and evaluated																							
Central consulting services awarded and mobilized				—																			
Review workshops to share experience																							
Annual work programming (loan disbursement projects and fiscal year budgeting)			—	—																			
Progress reporting																							
Monitoring progress and performance , technical, social mobilization, safeguards																							
Community-based auditing																							
Impact evaluation surveys																							
Special evaluation studies																							
Resettlement evaluation																							
Review																							

**Legend** : Projected ————  
: Actual ————

1: January, February, March  
2: April, May, June  
3: July, August, September  
4: October, November, December

DDC = district development committee, DOLIDAR = Department of Local Infrastructure Development and Agricultural Roads, DRILP = Decentralized Rural Infrastructure and Livelihood Project, MFALD = Ministry of Federal Affairs and Local Development, RRRSDP = Rural Reconstruction and Rehabilitation Sector Development Program, VDC= village development committee.

## MAJOR PROJECT COVENANTS AND COMPLIANCE STATUS

Covenants	Reference in Project Grant Agreement	Remarks/Issues
<b>Sector Covenants</b>		
1. Within eighteen (18) months of the Effective Date, Ministry of Federal Affairs and Local Development (MFALD) shall approve a national strategy for local transport. MFALD shall ensure that the strategy shall be developed in close consultation with stakeholders at all levels. The strategy shall include a detailed and time-bound plan, with budget projection, on harmonization of technical, managerial, and administrative issues in local transport.	Schedule 4, para. 17	Complied. A national strategy for local transport has been developed. However, MFALD has already approved the Interim Three-Year Strategic Action Plan for seven sectors identified as rural infrastructure. Guidelines have also been developed for a rural transport infrastructure sector-wide approach with initial piloting through this modality on maintenance of rural roads.
2. The Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR) shall ensure that there shall be no geographical overlap between Project-funded subprojects and projects funded by other development partners.	Schedule 4, para. 20	Complied.
<b>Financial Covenants</b>		
1. The Recipient shall (i) maintain, or cause to be maintained, separate accounts for the Project; (ii) have such accounts and related financial statements audited annually, in accordance with appropriate auditing standards by qualified independent auditors acceptable to ADB; (iii) furnish to ADB as soon as available but in any event not later than 9 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the report of the auditors relating thereto (including the auditors' opinion on the use of the grant proceeds and compliance with the grant covenants of this Grant Agreement, as well as on the use of the procedures for the imprest account and statement of expenditures) in the English language; and (iv) furnish to ADB other information concerning such accounts and financial statements.	Article VI, Section 2	Complied.
2. Immediately after the Effective Date, the Recipient shall establish an imprest account at Nepal Rastra Bank. The imprest account shall be separate from all the imprest accounts established for purposes of the OFID Loan and shall be established, managed, replenished and liquidated in accordance with ADB's Loan Disbursement	Schedule 2, para. 5a	Complied.



Covenants	Reference in Project Grant Agreement	Remarks/Issues
Handbook and any detailed arrangements agreed.		
3. All funding into the imprest account shall be channeled to either of (and no other than) the following accounts: (i) PCU Project operating account to be established at the central level, or (ii) DPO Project operating accounts established in each district, in accordance with the budgetary allocation agreed between each of these entities and the Recipient and subject to the provisions of ADB's Loan Disbursement Handbook.	Schedule 2, para. 5b	Complied.
4. The Ministry of Finance (MOF) shall ensure that the approved annual budget allocations for the Project shall be sufficient to cover all required counterpart funding, including, but not limited to: (a) resettlement related payments; and (b) land surveys and cadastral mapping.	Schedule 4, para.15	Complied.
5. Prior to the commencement of any Project activities in a District, DOLIDAR and the DDC of such District shall have entered into a Memorandum of Understanding, the format of which has be approved by ADB, which regulates: (a) the terms and conditions for releasing funds from the DDC to the building groups—including conditions relating to the DDC contributions; (b) the auditing and reporting mechanism from the DDC to the PCU; and (c) coordination mechanisms with similar activities under other projects in the district.	Schedule 4, para. 22	Complied.
6. DOLIDAR and DDCs of districts in the Project area shall take all appropriate and necessary measures to increase rural road maintenance funding to a sustainable level. This shall include the establishment of District Roads Maintenance Funds	Schedule 4, para. 30	Complied. Maintenance of rural roads is through the annual road maintenance plan. A sector-wide approach mechanism for maintenance of rural infrastructure already has been adopted on a pilot basis.
<b>Environmental Covenants</b>		
1. DOLIDAR shall ensure that all subprojects shall be identified, selected, implemented, and reported in accordance with (a) the environmental procedures and requirements specified in the Environmental Assessment and Review Procedure; (b) the initial environmental examination (IEE) of each subproject; (c) the ADB's Environmental Policy, 2002; and (d) relevant national and local environmental laws and regulations. DOLIDAR shall ensure that each IEE shall include provisions regarding compensatory	Schedule 4, para. 32	Complied. IEEs for all 43 project supported were approved and subsequently disclosed on the project website. The IEEs were late in being disclosed on ADB's website, however. Compensatory tree plantations were created along selected roads with

Covenants	Reference in Project Grant Agreement	Remarks/Issues
reforestation programs.		25 trees planted for each tree cut down during construction.
<b>Social Covenants</b>		
1. The Recipient shall ensure that a village infrastructure construction coordination committee (VICCC) shall be constituted in each VDC area where Project activities are planned. The VICCC shall be formed prior to the commencement of any Project activities and shall include representatives of political parties, non-government organizations active in the VDC area, women, dalits and other disadvantaged groups. The members shall be selected through a mass meeting of beneficiaries, facilitated by the district project office (DPO). All efforts shall be made to ensure participation of 33% women as well as a due representation of various ethnic groups and castes.	Schedule 4, para. 12	Complied. Representation of women was below the targeted 33%, however, due to a lack of elected local bodies and low representation of women in local and district units of the political parties. <i>Dalits, janjatis, and madhesis</i> were fairly represented.
2. DOLIDAR shall ensure that all DDCs and DPOs shall involve the communities and villages in identifying and selecting supplementary infrastructure. Proposals from the communities and villages shall be evaluated by the respective DPO and approved by the respective DDC	Schedule 4, para.19	Complied.
3. DOLIDAR shall ensure that the design of each and every subproject shall be developed in the consultation with the communities, and in close coordination between the engineering team, the resettlement team, and the environmental team.	Schedule 4, para. 21	Complied.
4. DOLIDAR shall ensure that prior to any civil works for a rural road (a) feasibility study and detailed design for such road shall have been completed; (b) all environmental and social safeguard clearances shall have been obtained; and (c) all resettlement activities and compensation payment shall have been completed in accordance with the resettlement plan for the road.	Schedule 4, para. 25	Complied. In most cases the initiation of civil works and compensation payments had to occur simultaneously because of the longer time taken in identification and negotiations.
5. DOLIDAR shall ensure that, to the extent feasible, all civil works shall use the full labor-based, environment friendly, and participatory (LEP) approach, which includes (a) employing unskilled labor instead of heavy construction equipment; (b) applying design and construction methods that protect the physical environment; and (c) incorporation local interests and opinions in the planning, design, and implementation of the works. DOLIDAR shall provide adequate technical assistance to ensure that the integrity of the approach is maintained in all districts and throughout the entire implementation period.	Schedule 4, para. 26	Partially complied. As most of the selected road subprojects consisted of existing roads requiring upgrading work, the scope for application of LEP approach was limited. Nevertheless, the project adopted LEP wherever feasible and engaged local road building groups.

Covenants	Reference in Project Grant Agreement	Remarks/Issues
6. DOLIDAR shall ensure that unskilled employment in the subproject shall be reserved for beneficiaries living within the influence area of the infrastructure to be constructed. Priority shall be given to poor and disadvantaged groups and castes, as well as households affected by the acquisition of land and assets. DOLIDAR shall ensure that workers shall be paid in full, on a fortnightly basis.	Schedule 4, para. 27	Complied. Payment was, however, on a monthly basis.
7. The Recipient shall ensure that civil works contractors comply with all applicable labor legislation. Bidding documents shall include a clause on the prohibition of child labor, as defined in the Recipient's legislation, for construction and maintenance activities as well as a clause stipulating equal pay for men and women for work of equal value. Compliance with these provisions shall be strictly monitored during Project implementation.	Schedule 4, para. 28	Complied.
8. DOLIDAR shall ensure that recruitment or remobilization as the case may be, training, and deployment of social mobilizers to villages, shall be done on a priority basis at the outset of the Project, prior to the commencement of any construction activities.	Schedule 4, para. 31	Complied.
9. MLD shall ensure that all necessary measures shall be taken to implement all provisions of the Resettlement Framework agreed upon between MLD and ADB and of the resettlement plans prepared under the Resettlement Framework.	Schedule 4, para. 33	Complied.
10. DOLIDAR shall ensure that no voluntary land donation shall take place if such donation would result in the household falling below the poverty line, as defined in the Resettlement Framework. Any other land donation shall be done in strict compliance with the procedures set forth in the Resettlement Framework agreed upon between MLD and ADB.	Schedule 4, para. 34	Complied.
11. DOLIDAR shall ensure that no land acquisition, either through eminent domain or through land donation, shall be required for subprojects other than rural roads. If involuntary resettlement and land or asset acquisition are required for any of the subprojects, a resettlement plan, based on the detailed subproject design, shall be prepared in accordance with the ADB's Policy on Involuntary Resettlement, 1995, and the Resettlement Framework. The concerned DDC shall publicly disclose the resettlement plan, in places and using language accessible to all affected people. The	Schedule 4, paras. 35–36	Complied.

Covenants	Reference in Project Grant Agreement	Remarks/Issues
resettlement plan shall include a complete census and inventory of losses.		
12. DOLIDAR shall ensure not to approve any construction unless a resettlement plan, in form and substance acceptable to ADB, shall have been submitted to and approved by DOLIDAR, the Project Coordination Unit (PCU), and ADB. All activities related to land acquisition, including compensation payment, shall be completed prior to possession of land and other assets, and before award of civil works contracts. DOLIDAR shall ensure to initiate compensation the process simultaneously with the start of the bidding process.	Schedule 4, para. 37	Complied. Due to time constraints, compensation payments and civil works were carried out simultaneously.
13. Within twelve (12) months of the Effective Date, DOLIDAR shall hire an external monitoring agency to conduct annual monitoring of the implementation of and compliance within the Resettlement Framework and resettlement plans.	Schedule 4, para. 38	Complied. Third-party monitoring was completed, albeit with some delay due to late initiation of activities.
14. DOLIDAR shall ensure that the Project shall be implemented in full compliance with the Indigenous Peoples Development Framework agreed between MLD and ADB, as well as the Indigenous and Ethnic Peoples Development Plan for the subproject, if required.	Schedule 4, para. 39	Complied.
15. DOLIDAR shall take all necessary measures to ensure full implementation of the Gender Action Plan (RRP, Appendix 16). Gender issues shall be duly considered in respect of Project beneficiaries, staff recruited by DOLIDAR, district technical offices (DTOs), and consulting firms.	Schedule 4, para. 40	Complied. Gender and social action plans were prepared and implemented for 40 rural road subprojects. Priority was given to recruit women candidates at the central as well as district level.
16. Within nine months of the Effective Date, the PCU shall have conducted initial gender and ethnicity segregated baseline physical and socioeconomic surveys, and shall have submitted a detailed Project implementation-monitoring plan for ADB's review and concurrence. The data shall include income and expenditure data, livelihoods data, demographic trends, gender issues, information on ethnic and minority groups. After the initial survey, the PCU shall conduct and DOLIDAR shall submit to ADB, and OFID annual benefit monitoring reports.	Schedule 4, para. 44	Complied. Baseline surveys with disaggregated data were prepared. Annual benefit monitoring reports were not submitted separately but reported in periodic and annual reports.
<b>Other Covenants</b>		
1. Established, Staffed, and Operating PMU/PIU Within one month of the Effective Date, DOLIDAR shall have fully staffed the PCU. The PCU shall at all times during Project implementation be headed	Schedule 4, para. 6	Complied.

Covenants	Reference in Project Grant Agreement	Remarks/Issues
<p>by a full-time Project Coordinator who shall be a class one officer, and who shall report to the Secretary of the MLD through the Director General of DOLIDAR. The PCU shall include at least the following fulltime staff: two senior divisional engineers, five engineers, one environmental engineer, one senior resettlement officer, one sociologist, one senior accountant, two accountants, one computer operator and sufficient support staff. The PCU shall be supported by consultants.</p>		
2. Fielding of consultants on time.		Complied.
3. MLD shall be the Project Executing Agency, responsible for overall Project management and implementation	Schedule 4, para. 1	Complied.
4. DOLIDAR shall be the Project Implementing Agency at the central level.	Schedule 4, para. 2	Complied.
5. Within one month of the Effective Date, MLD shall have established the PMC. The PMC shall be chaired by the Joint Secretary of the MLD and comprise the Director General of DOLIDAR, the Project Coordinator, and the respective heads of the MLD Financial Administration Section, the MLD Planning and Foreign Aid Coordination Section, the MLD Monitoring Section, and representatives from MOF and National Planning Commission. The PMC shall be responsible for (a) monitoring overall Project implementation; (b) resolving policy issues; (c) guiding the PCU; and (d) facilitating interministerial coordination. The PMC shall meet whenever necessary, but not less than once every six months. The Project Coordinator shall be its member-secretary.	Schedule 4, para. 3	Complied. In addition to the PMC's being established and meeting regularly, an interministerial coordination committee was established to resolve related issues. It was comprised of MFALD, National Planning Commission, and MOF.
6. Within one month of the Effective Date, DOLIDAR shall have established the PICC. The PICC shall be chaired by the Director General of DOLIDAR and comprise a representative from the MLD Financial Administration Section, a representation from the MLD Monitoring Section, a representative from the MLD Planning and Foreign Aid Coordination Section and five (5) representatives from Project districts on a rotating basis. ADB and other co-financiers may participate as observers to the PICC. The PCU shall be the secretariat for the PICC. The Project Coordinator shall be its member-secretary. The PICC shall meet whenever necessary, but not less than once every four months. The PICC shall be responsible for (a) supervising day-to-day Project implementation; (b) reviewing Project progress; and (c) coordinating	Schedule 4, paras. 4–5	Complied.

Covenants	Reference in Project Grant Agreement	Remarks/Issues
between DOLIDAR and DDCs		
7. The DDCs shall be the Project Implementing Agencies at the district level, responsible for overall coordination, monitoring and facilitating of Project activities. The DTO of each respective DDC shall be responsible for technical and Project management matters. Each DDC shall establish and chair a District Project Coordination Committee to (i) coordinate with all relevant line agencies; (ii) issue District policy guidelines; (iii) resolve District implementation issues; and (iv) hear complaints against the Project, if any.	Schedule 4, para. 8	Complied.
8. Within one month of the Effective Date, each DDC shall have established and staffed a DPO within DTO. The head of the DTO of each respective DDC shall also head the DPO in that District. In addition, each DPO shall comprise the following full-time DTO staff, one rural infrastructure engineer, one sub-engineer, two assistant sub-engineers, one accountant, one administrative staff, one computer operator, and sufficient support staff. The DPO shall be supported by the DIST, which shall be engaged as a firm and shall include engineering, safeguards, and social mobilization staff. DOLIDAR shall ensure that DISTs shall engage equally qualified local engineers and other staff on a priority basis, provided such engineers and local staff shall be equally qualified as candidates from outside the District. MLD shall ensure that all vacancies in the DTOs filled as a result of the Project, shall remain filled throughout the duration of the Project implementation. Any Project activities to be implemented in the DRILP Districts, shall be implemented through the DRILP District implementing agencies.	Schedule 6, paras. 9 and 11	Complied.
9. MLD shall, for the purposes of the Project, strictly implement the provisions of the Civil Service Act, 2007, that deal with the transfer of civil servants	Schedule 6, para. 16	Complied.
10. DOLIDAR shall ensure that the selection and approval of all subprojects shall be in accordance with the criteria agreed upon between MLD and DOLIDAR on the one hand and ADB on the other hand and as set forth in Appendix 11 of the RRP. All selected subprojects shall be technically suited for construction using the LEP approach. DPOs shall assess short-listed projects in respect of social, technical, economic, environment, and resettlement aspects, and shall score and qualify proposed subprojects for final selection. The responsible DIST shall undertake a feasibility	Schedule 6, para. 18	Complied.

Covenants	Reference in Project Grant Agreement	Remarks/Issues
study and detailed design for the highest-ranked subprojects, including a detailed technical design, drawings, quantity and cost estimate, and environment, resettlement and social requirements and plans.		
11. Prior to the commencement of any road construction works in a village or community, the DDC, the relevant VDC, and the BGs shall have entered into a Memorandum of Understanding, in form and substance acceptable to ADB, regulating: (a) the in-kind beneficiaries' contribution; (b) minimum specifications and standards of construction works to be performed by the BGs; (c) minimum specifications and standards for the operation of the works to be performed by the BGs; (d) environmental standards applicable to the design, construction, and operation and maintenance of the works; and (e) employment terms and conditions for BG-members, including wage rate and frequency of pay.	Schedule 6, para. 23	Complied. Memoranda of understanding were signed between the DTOs on behalf of DDCs and BGs in form and substance acceptable to ADB for road construction works.
12. Prior to the commencement of any supplementary infrastructure works in a village or community, the DDC, the relevant VDC, and the VIUGs shall have entered into a Memorandum of Understanding, in form and substance acceptable to ADB, regulating: (a) the in-kind beneficiaries' contribution; (b) minimum specifications and standards of construction works to be performed by the VIUGs; (c) minimum specifications and standards for the operation of the works to be performed by the VIUGs; and (d) environmental standards applicable to the design, construction, and operation and maintenance of the works.	Schedule 6, para. 24	Complied. Memoranda of understanding were signed between the DTOs on behalf of DDCs and BGs in form and substance acceptable to ADB for supplementary infrastructure works.
13. Before 30 April of each year during Project implementation, DOLIDAR and ADB shall agree on the annual maintenance program for rural roads in the Project districts for the following year. DOLIDAR shall submit to ADB, for its review, the proposed maintenance budget by 31 March of each year.	Schedule 6, para. 29	Complied.
14. Within nine months of the Effective Date, the PCU shall have established a PPMS to monitor whether Project inputs and activities deliver the expected outputs and benefits to the intended beneficiaries.	Schedule 6, para. 43	Complied.

ADB = Asian Development Bank, BG = building group, DDC = district development committee, DIST = district implementation support team, DOLIDAR = Department of Local Infrastructure Development and Agricultural Roads, DPO = district project office, DRILP = Decentralized Rural Infrastructure and Livelihood Project, DTO = district technical office, IEE = initial environmental examination, LEP = labor-based, environment friendly, and participatory, MFALD = Ministry of Federal Affairs and Local Development, MLD = Ministry of Local Development, MOF = Ministry of Finance, OFID = OPEC Fund for

International Development, PCU = project coordination unit, PICC = project implementation coordination committee, PMC = project management committee, PPMS = project performance monitoring system, VDC = village development committee, VICCC = village infrastructure construction and coordination committee, VIUG = village infrastructure user group.



**SUMMARY OF NATIONAL COMPETITIVE BIDDING CONTRACTS FOR RURAL ROADS**

<b>District</b>	<b>Name of Road</b>	<b>Contract No.</b>	<b>Name of Contractor</b>	<b>Contract Amount (\$)</b>
Dadeldhura	Bagbazaar–Bagarkot road	RRRSDP/Dadeldhura/RR/NCB/001	Lumbini-YP JV	155,841.98
		RRRSDP/Dadeldhura/RR/NCB/002	Rajendra Nirman Sewa Pvt. Ltd.	206,170.78
	Budar–Jogabuda road	RRRSDP/Dadeldhura/RR/NCB/003	Sharma-Rajendra JV	300,078.81
		RRRSDP/Dadeldhura/RR/NCB/004	Sharma-Rajendra Thegim JV	236,766.03
		RRRSDP/Dadeldhura/RR/NCB/005	Ashish Nirman Sewa Pvt. Ltd	358,462.55
	Jobura–Lipna road	RRRSDP/Dadeldhura/RR/NCB/006	Mainachuli-BKOl JV	390,138.72
		RRRSDP/Dadeldhura/RR/NCB/007	Rasuwa-Chandra-KS JV	427,018.31
Rolpa	Mijhing–Runibang–Gam road	RRRSDP/Rolpa/RR/NCB/001	Bajra Guru Construction Pvt. Ltd.	112,423.46
		RRRSDP/Rolpa/RR/NCB/002	Bajra Guru Construction Pvt. Ltd.	519,503.17
Mustang	Kagbeni–Jaite Rural road	RRRSDP/ Mustang/RR/NCB/001	Mahalaxmi-Pacific JV	472,948.94
		RRRSDP/ Mustang/RR/NCB/002	Lama Construction Co. Pvt. Ltd.	770,372.82
		RRRSDP/ Mustang/RR/NCB/003	Lumbini-ApexJV	544,709.81
		RRRSDP/ Mustang/RR/NCB/004	Sunaulo-Khimti- Dhruvatara JV	393,650.33
		RRRSDP/ Mustang/RR/NCB/005	Lama Construction Pvt. Ltd.	567,391.70
Parbat	Dobilla–Phalebas road	RRRSDP/Parvat/RR/NCB/001	Lama Construction Company	434,804.13
		RRRSDP/Parvat/RR/NCB/002	Nepal Adarsh Nirman Company	470,556.79
	Karkineta–Lunkhu road	RRRSDP/Parvat/RR/NCB/004	Ashish-Raman-Nayabatao JV	414,544.12
		RRRSDP/Parvat/RR/NCB/005	Mrit Sanjabini-Shrestha JV	372,612.93
		RRRSDP/Parvat/RR/NCB/006	Kalika-Pacific JV	644,015.15
	Chisapani–Hawas road	RRRSDP/Parvat/RR/NCB/007	Lumbini-Gajendra-Shree Gita JV	625,476.18
		RRRSDP/Parvat/RR/NCB/008	Mahadev- Khimti Nirman Sewa	723,653.30
	Kusma–Durlung– Shalija road	RRRSDP/Parvat/RR/NCB/009	Lama Builders-Surya Jeewan Sundari JV	160,508.26
		RRRSDP/Parvat/RR/NCB/009	Lama Builders-Surya Jeewan Sundari JV	160,508.26
Manang	Chame–Tanki Mnanag road	RRRSDP/Manang/RR/NCB/001	Kalika Pacific JV-New Colony	447,603.11
		RRRSDP/Manang/RR/NCB/002	Gauri Parbati N.S. Pvt. Ltd.	501,829.70

District	Name of Road	Contract No.	Name of Contractor	Contract Amount (\$)
		RRRSDP/Manang/RR/NCB/003	Lama-Chagmila JV	293,831.13
		RRRSDP/Manang/RR/NCB/004	Dhulikhel Nirman Sewa	149,498.59
		RRRSDP/Manang/RR/NCB/005	Jayee Construction Pvt. Ltd.	263,806.38
Kathmandu	Kalanki–Ghampedol– Badhbhanjang road	RRRSDP/KTM/RR/NCB/001	Biruwa Chyangmila Kashyap JV	320,803.43
		RRRSDP/KTM/RR/NCB/002	United Builders-Kanchharam Construction JV	346,686.02
	Sankhu–Jarshingpauwa– Fatkeshor Rural road	RRRSDP/KTM/RR/NCB/003	Amar construction and Kharudhunga JV	258,409.04
		RRRSDP/KTM/RR/NCB/004	Lohani and Brothers Pvt. Ltd.	322,459.77
		RRRSDP/KTM/RR/NCB/005	Mahalaxmi-Berdevi JV	301,046.33
	Kageshori–Ring road	RRRSDP/KTM/RR/NCB/006	Amar Construction-Kharudhunga JV	446,867.46
		RRRSDP/KTM/RR/NCB/007	Sunaulakhimti-Dhruba & Tara JV	408,921.74
Lalitpur	Lele–Chandanpur road	RRRSDP/Lalitpur/RR/NCB/001	Kankai-Shailung JV	423,174.55
		RRRSDP/Lalitpur/RR/NCB/002	M.K. Nirman Sewa	404,098.84
		RRRSDP/Lalitpur/RR/NCB/003	Himdung and Thokar Construction P. Ltd.	314,079.09
		RRRSDP/Lalitpur/RR/NCB/004	Sunaula Khimti-Dhukuchu-Bandan Bhagawati JV	341,852.20
		RRRSDP/Lalitpur/RR/NCB/005	Koshi & Neupane-SAP JV	332,957.07
Bhaktapur	Bhatkekopati–Jitpur– Mahamanjushree– Chareli–Kalamasi– Nagarkot Rural road,	RRRSDP/BKT/RR/NCB/001	Himdung & Thokar Construction Pvt. Ltd.	401,030.16
		RRRSDP/BKT/RR/NCB/002	Bajraguru-Dhukuchhu-Sunaula Khimti JV	440,883.23
	Chyamsasingh–Amadol– Nala road	RRRSDP/BKT/RR/NCB/004	Sunaula Khimti-Shyam Sundar- Dhukuchhu JV	964,465.01
Chitwan	Bankatta–Bagaee road Subproject	RRRSDP/ Chitwan/RR/NCB/BB/001	Kalika Construction	299,762.13
		RRRSDP/ Chitwan/RR/NCB/BB/002	Kalika Construction	297,403.23
		RRRSDP/ Chitwan/RR/NCB/BB/003	Mahalaxmi-Pacific-Nana JV	307,092.20
		RRRSDP/ Chitwan/RR/NCB/BB/004	Himdung & Thoker Pvt. Ltd.	287,947.51
	Shaktikhor–Darechowk road Subproject	RRRSDP/Chitwan/RR/NCB/SD-005	Lohani & Brothers-Pasupati JV	315,066.56
		RRRSDP/Chitwan/RR/NCB/SD-006	Swachhanda-BP JV	324,944.67

<b>District</b>	<b>Name of Road</b>	<b>Contract No.</b>	<b>Name of Contractor</b>	<b>Contract Amount (\$)</b>
Kavre	Khopasi–Taldhunga road	RRRSDP/Kavre/RR/NCB/001	YP-Kusheshowr JV	353,770.00
		RRRSDP/Kavre/RR/NCB/002	Lokbir Khani-Budha & Phurba-Kalika JV	366,217.30
		RRRSDP/KTRR/NCB/001	Khani-Khuseshowr JV	180,755.43
		RRRSDP/KTRR/NCB/002	Dapcha-Friends-MM-Buddha Phurwa JV	179,773.08
		RRRSDP/KTRR/NCB/003	SAP-Lokpriya JV	192,352.41
		RRRSDP/KTRR/NCB/006	Contech-Jayee JV	531,693.47
		RRRSDP/KTRR/NCB/007	SBA-Elite JV	428,456.34
		RRRSDP/KTRR/NCB/008	Diwa-Birwa JV	441,153.05
		RRRSDP/KTRR/NCB/009	Ashish-Rautaha-Sagarmatha Ghimire JV	373,851.48
Sindhuli	Khaniyakharka– Kamarebhanjyang road	RRRSDP/Sindhuli/RR/NCB/001	Oasis Engg. and Builders-Atreya NS JV	255,638.37
		RRRSDP/Sindhuli/RR/NCB/002	Rautaha Construction Pvt. Ltd.	255,785.42
		RRRSDP/Sindhuli/RR/NCB/003	Gauri Parbati-Sunaula Khimti JV	303,970.14
		RRRSDP/Sindhuli/RR/NCB/004	SAP-Sidhababa Construction JV	281,170.04
Dolakha	Sunkhani–Kanpa road	RRRSDP/Dolakha/RR/NCB/001	Sunaula Khimti-Bandan Bhagwati JV	234,827.35
		RRRSDP/Dolakha/RR/NCB/002	Lumbini Builders Pvt Ltd.	255,852.67
		RRRSDP/Dolakha/RR/NCB/003	Rautaha Construction Pvt. Ltd.	222,162.45
		RRRSDP/Dolakha/RR/NCB/004	Lok Bir & Betali-Nepal Pragati JV	213,271.52
		RRRSDP/Dolakha/RR/NCB/005	SAP-Dapcha JV	203,408.77
	Virkot–Sahare–Hawa road	RRRSDP/Dolakha/RR/NCB/007	Kanchanjunga-Thodung-Suruchi JV	850,462.74
		RRRSDP/Dolakha/RR/NCB/008	Lumbini-Khani JV	591,377.02
		RRRSDP/Dolakha/RR/NCB/009	Mahalaxmi Construction Pvt. Ltd.	499,660.03
	Namdu–Marbu–Chhap road	RRRSDP/Dolakha/RR/NCB/010	Lohani-Thodung-Suruchi JV	256,185.20
	Sindhupalch owk	Sildhunga–Jethal– Tauthali–Tekanpur road	RRRSDP/Sindhu/NCB/001	Sunaula Khimti-Bhandari Builders-Shanti Devi JV
RRRSDP/Sindhu/NCB/002			Bajraguru Construction Company Pvt. Ltd.	323,924.81
RRRSDP/Sindhu/NCB/003			Sunaula Khimti-Sobarna-Dhruba Tara JV	346,913.58

District	Name of Road	Contract No.	Name of Contractor	Contract Amount (\$)
	Naubise–Chautara road	RRRSDP/Sindhu/NCB/004	Sunaula Khimti-Sobarna-Lama JV	712,457.79
		RRRSDP/Sindhu/NCB/005	Bajraguru-Kharidhunga Shantidevi JV	598,745.46
Morang	Pathari–Dainia–Sikati road	RRRSDP/Morang/RR/NCB/001	Mahalaxmi-Pacific Builder- Nilgiri JV)	298,008.39
		RRRSDP/Morang/RR/NCB/002	Mahalaxmi-Pacific Builder- Nilgiri JV)	320,886.80
		RRRSDP/Morang/RR/NCB/003	Lama Construction-Mainachuli Nirman JV	302,789.04
		RRRSDP/Morang/RR/NCB/004	M.K. Nirman Sewa	347,170.51
	Letang–6 No Budhabare road	RRRSDP/Morang/RR/NCB/005	Lohani Brothers-Mritasanjabani JV	437,376.36
		RRRSDP/Morang/RR/NCB/006	B.T Nirman-Kunsaling Construction JV	353,778.71
		RRRSDP/Morang/RR/NCB/007	The kanchanjungha-Suruchi-Jagriti JV	362,675.94
Sunsari	Pakali–Chatara road	RRRSDP/Sunsari/RR/NCB/001	Mahalaxmi-Roshan JV	349,011.17
		RRRSDP/Sunsari/RR/NCB/002	Swachanda Nirman Sewa Pvt. Ltd.	324,977.32
		RRRSDP/Sunsari/RR/NCB/003	Apex-Geetanjali-Bright Bull JV	320,192.07
		RRRSDP/Sunsari/RR/NCB/004	Mainachuli-Khusbu JV	231,209.52
	Sunsari (Koshi flood-damaged roads)	RRRSDP/Sunsari/RR/NCB/005	Mahalaxmi-Roshan JV, Janakpur	162,989.53
		RRRSDP/Sunsari/RR/NCB/006	Mahalaxmi-Roshan JV, Janakpur	78,038.22
		RRRSDP/Sunsari/RR/NCB/007	Swachanda-R.K. Nirman JV	64,278.40
Dhankuta	Rajarani–6 No Budhabare road	RRRSDP/Dhankuta/RR/NCB/001	Rauta Sagarmatha Nirman Sewa	281,395.65
		RRRSDP/Dhankuta/RR/NCB/002	Bokhim and Sons Construction	345,466.36
		RRRSDP/Dhankuta/RR/NCB/003	Kanchanjunga-Yakthumhung JV Phidim	466,124.88
	Hile Utterpani–Chhintang–Jyamire road	RRRSDP/Dhankuta/RR/NCB/004	Koshi and Neupane-SAP JV	279,213.09
		RRRSDP/Dhankuta/RR/NCB/005	Diwa Nirman Sewa	421,322.97
		RRRSDP/Dhankuta/RR/NCB/006	M/S Surya and Sons Pvt. Ltd.	156,011.04
Ilam	Ilam Na. Pa.–Soyang–Nayabazar road, Rajduwali–Chisapani–Danabari road	RRRSDP/Ilam/RR/NCB/001	Siddisai Prakash-Rafina-Galwa J/V	463,508.80
		RRRSDP/Ilam/RR/NCB/002	Himdung and Thokar Construction Pvt. Ltd.	451,581.57
		RRRSDP/Ilam/RR/NCB/003	Lama-Tamang J/V	392,620.08

District	Name of Road	Contract No.	Name of Contractor	Contract Amount (\$)
		RRRSDP/Ilam/RR/NCB/004	Y.P. Dev and Sayar JV	222,137.12
Panchthar	Jorpokhari–Ahaldanda–Charibhanjyang–Oyam road	RRRSDP/Panchthar/RR/NCB/001	Khani-Sagarmatha Ghimire JV	114,048.78
		RRRSDP/Panchthar/RR/NCB/002	Gajurmukhi Nirman Sewa	153,648.17
		RRRSDP/Panchthar/RR/NCB/003	Khani-Sagarmatha Ghimire JV	118,752.44
		RRRSDP/Panchthar/RR/NCB/004	Pacific-Nilgiri	187,243.84
		RRRSDP/Panchthar/RR/NCB/005	Mainachuli Nirman Sewa	170,180.11
	Phidim–Ranigaun–Yasok road	RRRSDP/Panchthar/RR/NCB/007	Kalika-Yakthumhang JV	927,273.20
	Jhapa	Surunga–Saranamati–Taghandhubba–Digalbank road,	RRRSDP/Jhapa/RR/NCB/001	Swachanda-Roshan JV
RRRSDP/Jhapa/RR/NCB/002			Lama-Nagarjun JV	520,719.17
Dudhe–Shivajung–Mahabhara–Kungibari–Birpur–Korobari–Bagha Chaudhari road,		RRRSDP/Jhapa/RR/NCB/003	Lama-Mainachuli-Apex JV	822,531.67
		RRRSDP/Jhapa/RR/NCB/004	Kankai-Mainachuli-Sanaula Khimti JV	808,481.01
Shadutar–Madanpur–Laxmipur–Gherabari road		RRRSDP/Jhapa/RR/NCB/005	Mahalaxmi-Jyoti J/V	434,538.19
		RRRSDP/Jhapa/RR/NCB/006	Amar-Mrit Sanjivini J/V	400,596.66

Sources: DOLIDAR. 2014. *Completion Report of the Rural Reconstruction and Rehabilitation Sector Development Project*. Kathmandu (March); Asian Development Bank.

## SUMMARY OF NATIONAL COMPETITIVE BIDDING CONTRACTS FOR MOTORABLE BRIDGES

District	Bridge Name	Contract No.	Name of Contractor	Contract Amount (\$)
Rolpa	Lungrikhola	RRRSDP/Rolpa/Lungri Bridge/NCB/003	Jagat-Rapti JV	298,866
	Bojyan Khola	RRRSDP/Rolpa/BajoyanBridge/NCB /004	Kankai International Builders Pvt. Ltd.	395,309
Parbat	Malaynagdi	RRRSDP/Parvat/Malayangadi Bridge/NCB/003	Lama Construction Company Pvt. Ltd.	125,722
	Seti	RRRSDP/Parvat/Seti Bridge /NCB/010	Muktinath-Suyan Builders JV	137,144
Lalitpur	Khanikhola	RRRSDP/Khanikhola Bridge/Lalitpur/NCB/006	Shailung Construction Company Pvt. Ltd.	510,538
Bhaktapur	Mulsanghu	RRRSDP/BKT/Mulsanghu Bridge/NCB/003	Himdung and Thokar Construction Pvt. Ltd.	132,634
Kavre	Ladkhu Khola	RRRSDP/KT/Ladkhu Khola/Bridge/NCB/03	SAP-Bandhan Bhagawati JV	300,525
Dolakha	Gumu Lapse	RRRSDP/Dolakha/RR/NCB/006	Lokpriya-Shankarmali JV	228,141
Sindhupalchowk	Balefi	RRRSDP/Sindhu/Balephi Bridge /NCB/006	Sunaula Khimti-Bajra Guru-Sobarna-Santidevi-Lama JV	459,010
Manang	Chame Motorable Truss;	RRRSDP/Manang/Chame Bridge/NCB/006	Lumbini Builder-Khani Nirman Sewa	384,176
	Sworgadwari Motorable Truss	RRRSDP/Manang/Swargadwari Bridge/NCB/007	Lumbini Builder-Khani Nirman Sewa	333,074
Sunsari	Karamkhola	RRRSDP/Sunsari/Karam BridgeRR/NCB/009	Kankai International Builder Pvt. Ltd.	195,642
Panchthar	Siwa Khola	RRRSDP/Panchthar/Siwa Khola/NCB/006	Yakthumhang-Pathivara-Phidim-Panchayakanya JV	233,583

Sources: DOLIDAR. 2014. *Completion Report of the Rural Reconstruction and Rehabilitation Sector Development Project*. Kathmandu (March); Asian Development Bank.

### SUMMARY OF PROJECT PROCUREMENT

Description	Packages/Nos.	Amount (\$)
Civil works by contractors (rural roads)	111	41,120,732
Civil works by contractors (motorable bridges)	13	3,782,603
Civil works by building groups	326	6,416,984
Civil works by shopping	101	3,676,460
Equipment and/or supplies by shopping	34	1,061,453
Supplementary infrastructures		
Rural water supply and sanitation	550	13,291,156
Trail bridges	436	7,717,090
Others	223	1,753,905
Vehicles	27	710,790
Motorcycles	158	230,333
Equipment (computer, laptops, printers, photocopiers, mobiles, cameras)	35	1,160,218

Sources: DOLIDAR. 2014. *Completion Report of the Rural Reconstruction and Rehabilitation Sector Development Project*. Kathmandu (March); Asian Development Bank.

### INITIAL IMPACTS OF RURAL ROADS IN ROAD INFLUENCE AREA<sup>a</sup>

Description	Changes	Remarks
Increase in farm gate prices of agricultural produce	About 75% for vegetables and 65% for fruits	Price increases have occurred, mainly for off-season vegetables (such as cauliflower, cabbage, carrot, potato, bitter gourd, okra, and spinach) and of certain fruits (such as banana, orange, apple, pineapple, and lemon). All the beneficiary farmers met by the mission indicated that they would increase the scale of their production from next season to obtain higher benefits.
Decrease in transportation cost for consumable goods	About 65% for food, clothing, consumables, and agricultural inputs	The figure represents average decrease in transportation cost. In addition, time required for transportation of these items has come down more significantly.
Decrease in prices of essential items	33%, mainly due to lower transportation cost	Prices of essential items such as food, clothes, and medicine have diminished. Prices of children's education materials and fuel have also come down significantly.
Decrease in time spent to access health services	75%	In addition to reduced time to access health services, that access has been made easier and more reliable. Major positive impacts have been observed for treatment of women, children, and emergency cases.

<sup>a</sup> Road influence area covers 1.5 kilometer on either side along the full stretch of a road. People residing there are the primary beneficiaries.

Source: Estimates by the project completion review mission (April and May 2014), based on consultations with beneficiary groups, representatives of key political parties, traders, retailers, local transport operators, and related stakeholders from the five roads visited by the mission, namely Bankatta–Bagai road in Chitwan, Chame–Khangsar road in Manang, Hile–Chhintang road in Dhankuta, Khaniyakharka–Kamare Bhanjyang road in Sindhuli, and Pathari–Dianiya road in Morang.



## Economic Analysis

1. The economic analysis of the project is intended to measure the project's efficiency. The analysis follows the same approach and methodology as used in the project appraisal. It examines four representative rural roads and one drinking water supply scheme. The representative infrastructure subprojects selected for the economic analysis and their main attributes are provided in tables A14.1 and A14.2.

**Table A14.1: Selected Attributes of Sample Rural Roads Subprojects**

Subproject	District	Length (km)	Description	Households Served <sup>a</sup>	Population <sup>a</sup>
1. Sildhunga–Tauthali–Tekanpur road	Sindhupalchowk	22.9	Upgraded (ER+GR)	1,326	7,666
2. Surunga–Sarnamati–Digalbank road	Jhapa	23.8	Upgraded (BT)	2,012	10,060
3. Kakri–Kol–Taksera road	Rukum	28.0	New (ER)	1,308	5,757
4. Jorpokhari–Ektin–Oyam road	Panchthar	22.8	Upgraded (ER+GR)	748	3,740

km = kilometer, ER = earthen, GR = gravel, BT = blacktopped.

Household and population values are for the zone of influence (i.e., within 1.5 hours kilometers either side of road).

Source: Project completion review mission estimates.

**Table A14.2: Selected Attributes of Sample Water Supply Subproject (Chapjhari Water Supply Scheme)**

Location	Storage Capacity (liters)	Settlement Served	Households Served	Population Served	Number of Private Taps	Number of Community Taps
Jethal VDC-8, Sindhupalchowk	32,000	Mudhe	120	700	60	7

VDC = village development committee

Source: Project completion review mission estimates.

2. The economic analysis utilizes a similar number of representative subprojects as at appraisal.<sup>1</sup> The selected road subprojects are each less than 30 kilometers (km) in length, and the number of households in the zone of influence (i.e., within 1.5 hours walking distance from the road) ranged from 748 to 2,012. The maximum population size served within the zone of influence is in excess of 10,060 along the Surunga–Sarnamati–Digalbank road (Jhapa District). The selected (Chapjhari) rural water supply scheme under the Jethal village development committee of Sindhupalchowk District serves 120 households with approximately 700 users.

### A. Investment Analysis

#### 1. Benefits

3. Economic evaluation of rural roads is difficult inasmuch as conventional models do not adequately capture the benefits of low-traffic roads. The World Bank's Highway Development and Maintenance Standards Model (HDM III) and the forthcoming HDM-IV present a good framework for economic evaluation of road investments, but these are not particularly

<sup>1</sup> The project appraisal had assessed four rural roads and one water supply scheme.

customized for low-volume roads with traffic less than 200 vehicles per day.<sup>2</sup> Most of the rural roads have much lower traffic counts that scarcely yield the returns to support economic viability of these roads. The Roads Economic Decision (RED) Model, however, presents a customized framework applicable to low-volume roads. The present analysis uses projections of traffic volume and other technical parameters based on the RED Model to evaluate the road subprojects undertaken by the project. It also uses additional data collected during field surveys.

**4. Rural road—new track opening.** One of the four selected rural roads (Kakri–Kol–Taksera) is a representative rural road with completely new track opening. It had no motorized traffic count prior to its opening. Three main benefits accrue to beneficiaries in the case of new construction:

- (i) Person trip savings arise as travel by vehicles replaces pedestrian trips that are frequently made to market centers or district headquarters. The benefits in terms of value of time savings occur as travel by vehicles is less time-consuming and relatively lower-cost compared to pedestrian trips. The number of passenger trips is expected to increase as travel becomes less costly, although the cost magnitude depends on the price elasticity of demand for travel. The users' benefits generated are taken at half their value in order to conservatively capture the consumers' surplus at reduced travel costs.
- (ii) Savings in cargo movement arise as cargo transport by vehicles replaces that by porters, which is relatively expensive. Cargo handling cost savings occur as freight movement by truck is less costly than transporting goods by porters or mules on a per ton/km basis.<sup>3</sup> It is assumed that per capita imports of nonagricultural goods will increase from 25 kg to 50 kg. Similarly, the movement of agricultural inputs is estimated to increase from the pre-project level of 200 kg/hectare to 400 kg/hectare.
- (iii) Producers' surpluses are gained by farmers obtaining access to markets as they shift to cultivating market-oriented crops. It is assumed that after the road's construction there will be annual shifts in the production mix toward cultivating high-value crops to cover an incremental 5% of cultivated land in an already commercialized area (Sindhupalchowk) and to a higher 10% in a less-commercialized area (Rukum) over a 3-year period.

**5. Rural road—upgraded.** Most of the rural roads supported under the project fall into the category of upgraded roads. This involved upgrading of earthen roads to partially gravel standard, including some track openings as needed, and upgrading to all weather (bitumen surface) standard. Sildhunga–Tauthali–Tekanpur road in Sindhupalchowk District involved 2.7 km of new track opening. The upgraded roads had limited vehicular traffic before the upgrading.<sup>4</sup> The benefits mostly consist of savings in vehicle operating costs and the value of generated trips. The project has upgraded roads to enable year-round vehicle movement, thus helping to generate additional trips. In cases of upgraded rural roads that have improved year-round connectivity, there will be an impact on crops productivity, too, as the crop mix changes (with likely shifts to such high-value crops as potato, vegetables, and ginger) due to better access to input and output markets. In such cases, producers' surplus has been accounted for in estimating benefits. In the case of Surunga–Sarnamati–Digalbank road, which was upgraded from gravel standard to bitumen surface, such changes in crop mix are least likely to occur with the road's upgrading, so the producers' surplus will likely be minimal and can be ignored. The

<sup>2</sup> World Bank. 2011. *Roads Economic Decision Model (RED)—Economic Evaluation of Low Volume Roads*. Washington DC.

<sup>3</sup> The estimated "with-project" cost of cargo movement (75% by truck and 25% by mule) is NRs21/ton/km, which is much lower than the cost of cargo movement by a combination of porter and mule in the "without-project" situation (NRs318.6/ton/km) in economic prices.

<sup>4</sup> Before its upgrading by the project the Jorpokhari–Ektin–Oyam road was only operational for a small segment of its total length. Hence, for the economic analysis it was considered as a new road without initial traffic count.

analysis uses the available data on vehicular traffic, projected traffic volumes, and other parameters available from the project. Field observations and data from local sources were used for obtaining reliable estimates of current-year traffic counts.<sup>5</sup>

6. **Rural water supply scheme.** The Chapjhari drinking water scheme under the Jethal village development committee of Sindhupalchowk District serves the settlement of Mudhe, an emerging rural market. In Jethal, there was an old scheme which had been constructed 30 years earlier. It could not meet the water demand for the rural market. Mudhe has more than 40 small restaurants. Hence, it is not strictly a rural water supply scheme. A total of 60 households are provided private taps and there are 7 community taps. The scheme is serving 120 households with about 700 people. The water source has a capacity of 0.27 liter per second, which means 23,040 liters per day. The project constructed two reservoirs with 32,000 liters combined capacity and brought water from a source located at Chapjhari, about 3 km away.

7. The main quantified benefit of the water supply scheme is the saving in time to fetch water. In the selected water supply scheme, the average time spent by a household to fetch water in the pre-project situation was 35 minutes. That has decreased to about 10 minutes. Consumption of water per household per day ranges from 60 liters to more than 500 liters with average consumption of 90 liters. On a per capita basis, water consumption is estimated at 15 liters per day. The main quantifiable benefit that is included into the analysis is the households' time savings valued in terms of the estimated opportunity cost of time (hourly earnings) of the beneficiary households. The other benefits of the drinking water scheme that are quantified include savings in medical expenses from reduced incidence of waterborne diseases, including diarrhea, dysentery and typhoid. Reduction in work days lost due to illness from waterborne diseases is also included as a benefit. Evaluation of water supply and sanitation projects in Nepal by the Department for International Development of the United Kingdom considered three main benefits, assumed to account for over 90% of the benefits. These included reductions in the mortality rate for children under 5 years of age child due to diarrhea (as a result of water and sanitation interventions), reduction in lost education days for primary school children, and time savings from water collection as a result of water supply interventions.<sup>6</sup>

## 2. Benefits Not Quantified

8. There are several benefits of rural roads that are not fully quantifiable. Rural roads improve rural people's access to health services and educational facilities, enhance employment opportunities, and contribute to positive social changes through improved social connectivity. Small market centers tend to develop along the road corridors, leading to significant appreciation in land values. The changes observed during field visits included the construction of new buildings and appreciation in land values by two- to threefold along the road corridors at the emerging market centers. The complementary investments undertaken by the project, such as livelihood enhancement skill training, have helped to create microenterprises such as tailoring, computer operation, and beautician services that have provided additional benefits to the local people. The rural water supply schemes have incorporated sanitation awareness programs and provided grants to beneficiaries for constructing toilets. These

<sup>5</sup> These include the specific road project economic analysis reports and baseline reports generated by the project coordination unit from the project.

<sup>6</sup> Department for International Development of the United Kingdom. 2012. *Nepal Rural Water and Sanitation Programme Business Case and Summary, Intervention Summary*. <http://devtracker.dfid.gov.uk/projects/GB-1-203187/documents/>

measures have contributed to overall improvement in awareness of health and hygiene and contributed toward reaching the national goal of making communities free of open defecation.

### 3. Subproject Benefits

9. The subproject benefits are disaggregated into savings over existing usage, generated usage value, and producers' surplus. The savings over existing usage outweigh the generated usage value. Even at modest levels of change in crop-mix, producers' surplus has been a significant contribution from the rural road subprojects (Table A14.3).

**Table A14.3: Rural Roads Subproject Benefits**  
(NRs'000)

<b>Subproject</b>	<b>Savings over Existing Usage</b>	<b>Generated Usage Value</b>	<b>Producer Surplus or Health Benefits</b>	<b>Total</b>
1. Sildhunga–Tauthali–Tekanpur road	31,960	31,255	123,392	<b>186,607</b>
2. Surunga–Sarnamati–Digalbank road	122,524	72,830		<b>195,354</b>
3. Kakri–Kol–Taksera road	20,228	9,420	157,103	<b>186,751</b>
4. Jorpokhari–Ektin–Oyam road	16,859	8,844	119,891	<b>145,594</b>
5. Chapjhari water supply scheme	3,195	1,597	224	<b>5,016</b>

Note: Benefits are discounted to the present at a 12% rate.

Source: Project completion review mission estimates.

### 4. Costs

10. The project costs include preparation (survey, feasibility study, and detailed project reports preparation), construction costs, and costs related to social (resettlement) and environmental safeguarding (including bioengineering works and tree plantations). Provisions for regular and periodic maintenance have been made to ensure anticipated benefits are sustained over the economic life of the selected subprojects. The annual road maintenance costs based on the accepted conventional norms are NRs40,000 per km for regular maintenance and NRs300,000 per km for periodic maintenance to be carried out every fifth year. In case of road upgraded to bitumen surface, the periodic maintenance cost is applied at the higher rate of NRs600,000 per km.<sup>7</sup> Regular maintenance is also a major problem of rural water schemes. Many poorly operating water supply schemes are found in rural areas. These have reduced efficiency to serve the communities. The analysis has factored in regular maintenance at 2% of the investment cost and also provisioned for periodic major maintenance to sustain benefits.

11. Table A14.4 shows that the road subproject cost per km ranged from NRs3.6 million to NRs6.6 million. The per-person cost of rural roads ranged from NRs8,643 to NRs39,923. The per-kilometer cost of new construction (Kakri–Kol–Taksera) is highest, at NRs6.6 million. This compares favorably with the average cost of the rural roads constructed by the project (NRs7.81 million per km) as well as the Department of Road's thumb rule of about NRs10 million per km for the identical situation. The total cost of the selected water supply scheme was NRs2.84 million. The cost per beneficiary was NRs4,059, which is considerably lower than the average

<sup>7</sup> No provision for a so-called "holding maintenance" allowance was considered given the low traffic volume in the "without-project" situation and the absence of regular maintenance work.

cost of water supply scheme under the project (NRs6,553 per beneficiary). Remote locations of several water supply schemes increased the average cost of the subprojects.

**Table A14.4: Subprojects Costs**

<b>Subproject</b>	<b>Total Costs (NRs million)</b>	<b>Cost per Kilometer (NRs'000)</b>	<b>Cost per Household (NRs)</b>	<b>Cost per Person (NRs)</b>
1. Sildhunga–Tauthali–Tekanpur road	125.93	5,499	94,970	16,427
2. Surunga–Sarnamati–Digalbank road	86.95	3,653	43,216	8,643
3. Kakri–Kol–Taksera road	186.19	6,650	142,347	32,341
4. Jorpokhari–Ektin–Oyam road	149.31	6,549	199,616	39,923
5. Chapjhari water supply scheme	2.84		23,679	4,059

Source: Project completion review mission estimates.

## 5. Investment Return and Assessment

12. The following main assumptions are used in calculating the investment return:
1. The opportunity cost of unskilled labor is assumed to be 70% that of the prevailing wage rate of labor.
  2. The standard conversion factor (0.9) is applied to convert the local financial prices to economic prices.
  3. A shadow exchange rate factor of 1.12 is used to convert dollar-denominated funds to local currency.
  4. The rural roads and drinking water schemes are assumed to have useful lives of 20 years (i.e., the period for which cash flows are forecast and discounted), excluding the construction phase.
13. The economic analysis of road subprojects shows that the representative road subprojects are economically viable, as their economic internal rates of return (EIRRs) ranging from 12.6% to 24.4% in the base cases. The EIRR of the selected water supply scheme is estimated at 22.8%. Three scenarios are considered for sensitivity testing: 20% increase in costs, 20% decrease in benefits, and the combined case of 20% increase in costs and 20% decline in benefits. In two cases, EIRRs for the selected roads fall below the cutoff rate of 12% in the sensitivity tests (Table A14.5). The Kakri–Kol–Taksera road passes the economic viability test in the base case scenario, but either the assumed increase in cost or reduction in benefits would push its EIRR below the cutoff rate. Under these scenarios, its EIRR drops to the levels of 11.1% (20% cost increase), 10.5% (benefits assumed to decline by 20%), and 8.2% (combined case of 20% cost increase and 20% benefit reduction). Similarly, in the case of the Jorpokhari–Ektin–Oyam road, the EIRR falls below 12% in all of the three sensitivity tests. The switching values, which indicate the percentage changes in cost and benefit streams that will reduce EIRR to the critical 12% level also support the robustness of economic viability of the subprojects other than the Kankri–Kol–Taksera and Jorpokhari–Ektin–Oyam road subprojects, which indicate low switching values.

**Table 14.5: Subproject Returns**

Subproject	Base Case		EIRR (%)			Switching Value (%)	
	NPV (NRs'000)	EIRR (%)	Costs (+20%)	Benefits (-20%)	Combined Case	Cost	Benefit
1. Sildhunga-Tautali-Tekanpur road	66,831	18.00	15.41	14.86	12.48	56	36
2. Surunga-Sarnamati-Digalbank road	106,372	24.44	21.14	20.45	17.49	120	54
3. Kakri-Kol-Taksera road	20,132	13.60	11.08	10.54	8.22	12	11
4. Jorpokhari-Ektin-Oyam road	6,572	12.61	10.26	9.75	7.57	5	5
5. Chapjhari water supply scheme	2,054	22.83	18.67	17.81	14.26	69	41

EIRR = economic internal rate of return, NPV = net present value.

Source: Project completion review mission estimates.

14. The results are consistent with the appraisal estimates, in which road subprojects had estimated EIRRs ranging from 13% to 27%. The estimated EIRR of the rural water supply scheme is 22.8%, which is slightly higher than the appraisal estimate of 21%.<sup>8</sup> In the case of rural roads with low traffic volumes, it is clear that for projects to be economically viable the expected producers' benefits are crucial. That may not be the case for roads with relatively heavy traffic under upgrading, where significant benefits are realized from savings in vehicle operating costs and in travel time due to improved road conditions.

## B. Household Income, Employment, and Production Gains

15. Household incomes of beneficiaries have increased due to improved access to inputs and markets and change in crop mix. Community participation during the construction phase provided significant opportunities for increased household income. On average, each participating household earned more than NRs30,000 during the construction as members of road building groups. On a more sustained basis, farm incomes will rise by at least NRs20,567 per farm household in Sindhupalchowk to NRs26,547 per farm household in Rukum District on the basis of the anticipated changes in crop mix. The increased access to production inputs (improved seeds, fertilizers, and plant protection chemicals) will also lead to productivity gains in cereal crops and additional increase in farm income.

16. Rural roads have contributed to employment generation with the emergence along the road corridors of market centers providing markets and other services. On average, it has been estimated that 4 jobs per km were created in the hills and 7 jobs per km in the terai by the rural roads. Business enterprises including retail shops, pharmacies, veterinarians, restaurants and hotels, tailoring, and mobile telephone repair services have created employment opportunities in the rural areas along the corridors.

<sup>8</sup> ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Grants to Nepal for the Rural Reconstruction and Rehabilitation Sector Development Program*. Manila (Grants 0094-NEP and 0093-NEP).

### C. Distribution of Subproject Benefits

17. A distribution analysis of the four road subprojects and one water supply scheme is presented in Table A14.6. The Kakri–Kol–Taksera road in the remote Rukum District demonstrates significant impact on poverty with an estimated poverty impact ratio of 1.81. This indicates that the share of benefit going to the poor out of the net economic benefit is proportionately higher than the poor's percentage of the population. The project thus supports the poverty reduction target. The same could not be found in the case of the water supply scheme, however, which is due in part to its location.<sup>9</sup>

**Table A14.6: Summary of Distribution Analysis**  
(NRs'000)

Item	Unskilled Labor	Vehicle Owners	Farmers, Passengers, Villagers	Government, Economy	Total
<b>Kakri–Kol–Taksera Road</b>					
Net economic effects	5,738	13,389	167,626	(166,621)	20,132
Economic effects to the poor	2,869		50,288	(16,662)	36,495
Poverty impact ratio					1.81
<b>Chapjhari Water Supply Scheme</b>					
Net economic effects	1,003		4,013	(2,962)	2,054
Economic effects to the poor	502		1,204	(296)	1,409
Poverty impact ratio					0.7

Note: Economic effects are discounted to the present at a 12% rate.

Source: Project completion review mission estimates.

### D. Maintenance and Financial Capacity

18. Given an insufficiency of resources, maintenance of roads under both the strategic and local roads networks is an issue.<sup>10</sup> A significant step in improving the flow of financial resources to road maintenance came with the establishment in 2002 of Roads Board Nepal (RBN) under the Roads Board Act, 2002. Its aim is to provide sustainable funds for planned road maintenance. At present, the RBN's fund meets about one-third of the total maintenance requirements. Approximately 70% of the RBN's revenues are allocated for maintenance of the strategic roads and 30% for local roads.<sup>11</sup> The Department of Roads is responsible for maintaining strategic roads and the Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR) has responsibility for maintaining rural roads through district development committees (DDCs). RBN provides financial support based on annual road maintenance programs submitted by DOLIDAR and DDCs. Its revenue sources are limited at present and consist of a fuel levy on diesel and gasoline for vehicles, road user taxes, and vehicle registration fees.

19. The operation and maintenance (O&M) requirements of subprojects are presented in Table A14.7. Districts have limited capacity to maintain the existing and rapidly expanding rural roads. Only limited funds are allocated for regular maintenance of rural roads. This is despite the fact that roads have already started to degenerate, and in particular the side drains and

<sup>9</sup> With regard to roads, 30% of the benefits of cargo movement are assigned to unskilled labor, whereas 20% of overall benefits are allocated to unskilled workers in the case of the water supply scheme. It is further assumed that 50% of unskilled labor and 30% of farmers, villagers, and passengers are poor. The poor are assumed to have a 10% stake in the government and economy.

<sup>10</sup> Nepal has a total local road network of 50,944 km consisting of earthen (34,766 km), gravel (14,602 km), and bitumen (1,576 km) surfaces. Source: DOLIDAR. <http://www.dolidar.gov.np/>

<sup>11</sup> World Bank. <http://web.worldbank.org/>

gravel works. Hence, concern is rising about fully meeting the O&M requirements of rural roads. The DDCs need to optimize potentially available funds by prioritizing the roads for regular and periodic maintenance. The O&M requirement of the water supply scheme is being met through user-tariff revenues, so sustainability of benefits is likely.

**Table A14.7: Operation and Maintenance Requirement of Subprojects**

<b>Road and Supplementary Infrastructure</b>	<b>Total Cost (NRs million)</b>	<b>Annual O&amp;M Required (NRs million)<sup>a</sup></b>	<b>Possible Source of Funds</b>	<b>Relative Impact</b>
Sildhunga–Tauthali–Tekanpur road	125.93	0.916	RBN annual road maintenance budget allocation to the district for 2012 was NRs1.95 million.	DDC received block grant of NRs29.7 million in 2012 <sup>b</sup>
Surunga–Sarnamati–Digalbank road	86.95	0.952	RBN annual road maintenance budget allocation to the district for 2012 was NRs3.6 million.	DDC received block grant of NRs81.5 million in 2012 <sup>b</sup>
Kakri–Kol–Taksera road	186.19	1.120	RBN annual road maintenance budget allocation to the district for 2012 was NRs1.95 million.	DDC received block grant of NRs49 million in 2012 <sup>b</sup>
Jorpokhari–Ektin–Oyam road	149.31	0.912	RBN annual road maintenance budget allocation to the district for 2012 was NRs1.95 million.	DDC received block grant of NRs41.5 million in 2012 <sup>b</sup>
Chapjhari water supply scheme, Jethal VDC, Sindhupalchowk	2.84	0.056	Revenue from tariff amounts to NRs32,700 per year. A reserve fund of NRs28,000 has been created.	Jethal VDC received block grant of NRs2.27 million in 2012.
Community building, Sarnamati VDC, Jhapa	1.00	Estimated in range of NRs12,000–15,000.	Management Committee is considering to raise necessary funds by renting out facility for seminars, trainings, and social functions.	VDC contributed 15% of the total cost of the community building. Sarnamati VDC received block grant of NRs3.2 million in 2012 from MFALD.

DDC = district development committee, MFALD = Ministry of Federal Affairs and Local Development, O&M = operation and maintenance, RBN = Roads Board Nepal, VDC = village development committee.

Note: Block grants refer to grants allocated by the Local Governance and Community Development Program, a program of the Government of Nepal which is supported by a broad group of international development partners.

<sup>a</sup> Based on the estimated regular maintenance cost of NRs40,000/kilometer.

<sup>b</sup> Includes recurrent and capital expenditure.

Sources: Roads Board Nepal. <http://roadsboardnepal.org/>; Local Governance and Community Development Program. <http://lgcdp.gov.np/>



**Table A14.8: Economic Analysis of Sildhunga-Tauthali-Tekanpur Rural Road**  
(NRs'000)

Fiscal Year	Investment Cost a	O&M Cost b	Total Cost c=(a+b)	Total Benefit d	Net Benefit e=(d-c)	Discounted Cost f	Discounted Benefit g	Discounted Net Benefit h=(g-f)
2011	60,196		60,196		(60,196)	53,747		(53,747)
2012	49,486		49,486		(49,486)	39,450		(39,450)
2013	24,873		24,873		(24,873)	17,704		(17,704)
2014		825	825	13,116	12,291	524	8,335	7,811
2015		825	825	21,727	20,902	468	12,329	11,860
2016		825	825	35,828	35,003	418	18,152	17,734
2017		825	825	36,332	35,506	373	16,435	16,061
2018		6,188	6,188	36,877	30,689	2,499	14,894	12,395
2019		825	825	37,470	36,645	298	13,512	13,215
2020		825	825	38,115	37,290	266	12,272	12,006
2021		825	825	38,817	37,992	237	11,159	10,922
2022		825	825	39,584	38,759	212	10,160	9,949
2023		6,188	6,188	40,503	34,314	1,418	9,282	7,864
2024		825	825	41,503	40,678	169	8,492	8,324
2025		825	825	42,594	41,768	151	7,782	7,631
2026		825	825	43,783	42,957	135	7,142	7,007
2027		825	825	45,079	44,254	120	6,566	6,445
2028		6,188	6,188	46,495	40,306	805	6,046	5,241
2029		825	825	48,039	47,214	96	5,578	5,482
2030		825	825	49,726	48,900	86	5,155	5,069
2031		825	825	51,568	50,742	76	4,773	4,697
2032		825	825	53,580	52,755	68	4,428	4,360
2033		6,188	6,188	55,780	49,591	457	4,116	3,659
<b>Total</b>	<b>134,556</b>	<b>37,956</b>	<b>172,511</b>	<b>816,515</b>	<b>644,004</b>	<b>119,776</b>	<b>186,607</b>	<b>66,831</b>
<b>Net present value at 12% discount rate</b>					<b>66,831</b>			
<b>Benefit–cost ratio at 12% discount rate</b>					<b>1.56</b>			
<b>Economic internal rate of return</b>					<b>18.00%</b>			

O&M = operation and maintenance.

Note: Numbers may not sum precisely because of rounding.

Source: Project completion review mission estimates.

**Table A14.9: Economic Analysis of Surunga-Sarnamati-Digalbank Rural Road**  
(NRs'000)

Fiscal Year	Investment Cost a	O&M Cost b	Total Cost c=(a+b)	Total Benefit d	Net Benefit e=(d-c)	Discounted Cost f	Discounted Benefit g	Discounted Net Benefit h=(g-f)
2011	33,354		33,354		(33,354)	29,780		(29,780)
2012	39,966		39,966		(39,966)	31,860		(31,860)
2013	17,909		17,909		(17,909)	12,747		(12,747)
2014		857	857	26,063	25,206	545	16,563	16,019
2015		857	857	26,783	25,926	486	15,197	14,711
2016		857	857	27,675	26,819	434	14,021	13,587
2017		857	857	28,781	27,924	388	13,019	12,632
2018		12,852	12,852	30,151	17,299	5,191	12,177	6,987
2019		857	857	31,848	30,991	309	11,485	11,176
2020		857	857	33,950	33,093	276	10,931	10,655
2021		857	857	36,554	35,698	246	10,508	10,262
2022		857	857	39,781	38,924	220	10,211	9,991
2023		12,852	12,852	41,713	28,861	2,945	9,560	6,614
2024		857	857	43,868	43,012	175	8,976	8,801
2025		857	857	46,273	45,416	157	8,454	8,297
2026		857	857	48,955	48,098	140	7,986	7,846
2027		857	857	51,946	51,089	125	7,566	7,441
2028		12,852	12,852	55,283	42,431	1,671	7,189	5,518
2029		857	857	59,005	58,149	99	6,851	6,751
2030		857	857	63,157	62,301	89	6,547	6,459
2031		857	857	67,789	66,932	79	6,275	6,195
2032		857	857	72,955	72,098	71	6,029	5,958
2033		12,852	12,852	78,718	65,866	948	5,808	4,860
<b>Total</b>	<b>91,229</b>	<b>65,117</b>	<b>156,345</b>	<b>911,249</b>	<b>754,904</b>	<b>88,981</b>	<b>195,354</b>	<b>106,372</b>
<b>Net present value at 12% discount rate</b>					106,372			
<b>Benefit-cost ratio at 12% discount rate</b>					2.20			
<b>Economic internal rate of return</b>					24.44%			

O&M = operation and maintenance.

Note: Numbers may not sum precisely because of rounding.

Source: Project completion review mission estimates.

**Table A14.10: Economic Analysis of Kankri–Kol–Taksera Rural Road**

(NRs'000)

<b>Fiscal Year</b>	<b>Investment Cost</b>	<b>O&amp;M Cost</b>	<b>Total Cost</b>	<b>Total Benefit</b>	<b>Net Benefit</b>	<b>Discounted Cost</b>	<b>Discounted Benefit</b>	<b>Discounted Net Benefit</b>
	<b>a</b>	<b>b</b>	<b>c=(a+b)</b>	<b>d</b>	<b>e=(d-c)</b>	<b>f</b>	<b>g</b>	<b>h=(g-f)</b>
2011	20,541		20,541		(20,541)	18,340		(18,340)
2012	101,793		101,793		(101,793)	81,149		(81,149)
2013	79,083		79,083		(79,083)	56,290		(56,290)
2014		1,008	1,008	11,592	10,584	641	7,367	6,726
2015		1,008	1,008	22,098	21,090	572	12,539	11,967
2016		1,008	1,008	39,558	38,550	511	20,041	19,531
2017		1,008	1,008	39,668	38,660	456	17,944	17,488
2018		7,560	7,560	39,790	32,230	3,053	16,070	13,017
2019		1,008	1,008	39,926	38,918	363	14,398	14,034
2020		1,008	1,008	40,077	39,069	325	12,904	12,579
2021		1,008	1,008	40,245	39,237	290	11,570	11,280
2022		1,008	1,008	40,429	39,421	259	10,377	10,118
2023		7,560	7,560	40,619	33,059	1,733	9,309	7,576
2024		1,008	1,008	40,828	39,820	206	8,354	8,148
2025		1,008	1,008	41,058	40,050	184	7,501	7,317
2026		1,008	1,008	41,311	40,303	164	6,739	6,574
2027		1,008	1,008	41,589	40,581	147	6,057	5,910
2028		7,560	7,560	41,895	34,335	983	5,448	4,465
2029		1,008	1,008	42,232	41,224	117	4,903	4,786
2030		1,008	1,008	42,602	41,594	104	4,416	4,312
2031		1,008	1,008	43,010	42,002	93	3,981	3,888
2032		1,008	1,008	43,464	42,456	83	3,592	3,509
2033		7,560	7,560	43,958	36,398	558	3,244	2,686
<b>Total</b>	<b>201,417</b>	<b>46,368</b>	<b>247,785</b>	<b>775,946</b>	<b>528,161</b>	<b>166,621</b>	<b>186,753</b>	<b>20,132</b>
<b>Net present value at 12% discount rate</b>					<b>20,132</b>			
<b>Benefit–cost ratio at 12% discount rate</b>					<b>1.12</b>			
<b>Economic internal rate of return</b>					<b>13.60%</b>			

O&amp;M = operation and maintenance.

Note: Numbers may not sum precisely because of rounding.

Source: Project completion review mission estimates.

**Table A14.11: Economic Analysis of Jorpokhari–Ektin–Oyam Rural Road**  
(NRs'000)

Fiscal Year	Investment Cost	O&M Cost	Total Cost	Total Benefit	Net Benefit	Discounted Cost	Discounted Benefit	Discounted Net Benefit
	a	b	c=(a+b)	d	e=(d-c)	f	g	h=(g-f)
2011	54,204		54,204		(54,204)	48,396		(48,396)
2012	63,476		63,476		(63,476)	50,603		(50,603)
2013	43,826		43,826		(43,826)	31,194		(31,194)
2014		821	821	9,322	8,501	522	5,924	5,403
2015		821	821	17,352	16,531	466	9,846	9,380
2016		821	821	30,689	29,869	416	15,548	15,132
2017		821	821	30,786	29,965	371	13,926	13,555
2018		6,156	6,156	30,892	24,736	2,486	12,477	9,991
2019		821	821	31,009	30,188	296	11,182	10,886
2020		821	821	31,137	30,316	264	10,025	9,761
2022		821	821	31,277	30,456	236	8,991	8,755
2023		821	821	31,431	30,610	211	8,068	7,857
2024		6,156	6,156	31,600	25,444	1,411	7,242	5,831
2025		821	821	31,786	30,965	168	6,504	6,336
2026		821	821	31,989	31,169	150	5,844	5,694
2027		821	821	32,213	31,393	134	5,255	5,121
2028		821	821	32,459	31,638	120	4,727	4,608
2029		6,156	6,156	32,729	26,573	801	4,256	3,456
2030		821	821	33,026	32,205	95	3,835	3,739
2031		821	821	33,351	32,531	85	3,457	3,372
2032		821	821	33,709	32,888	76	3,120	3,044
2033		821	821	34,102	33,281	68	2,818	2,750
2034		6,156	6,156	34,534	28,378	454	2,548	2,094
<b>Total</b>	<b>161,506</b>	<b>37,757</b>	<b>199,263</b>	<b>605,394</b>	<b>406,131</b>	<b>139,022</b>	<b>145,595</b>	<b>6,572</b>
<b>Net present value at 12% discount rate</b>					<b>6,572</b>			
<b>Benefit–cost ratio at 12% discount rate</b>					<b>1.05</b>			
<b>Economic internal rate of return</b>					<b>12.61%</b>			

O&M = operation and maintenance.

Note: Numbers may not sum precisely because of rounding.

Source: Project completion review mission estimates.

**Table A14.12: Economic Analysis of Chapjhari Rural Water Supply Scheme**  
(NRs'000)

Fiscal Year	Investment Cost a	O&M Cost b	Total Cost c=(a+b)	Total Benefit D	Net Benefit e=(d-c)	Discounted Cost f	Discounted Benefit g	Discounted Net Benefit h=(g-f)
2010	1,337		1,337		(1,337)	1,194		(1,194)
2011	1,720		1,720		(1,720)	1,371		(1,371)
2012		51	51	842	791	36	600	563
2013		51	51	842	791	33	535	503
2014		51	51	842	791	29	478	449
2015		51	51	842	791	26	427	401
2016		51	51	842	791	23	381	358
2017		51	51	842	791	21	340	320
2018		51	51	842	791	18	304	285
2019		256	256	842	587	82	271	189
2020		51	51	842	791	15	242	227
2021		51	51	842	791	13	216	203
2022		51	51	842	791	12	193	181
2023		51	51	842	791	10	172	162
2024		51	51	842	791	9	154	145
2025		51	51	842	791	8	137	129
2026		51	51	842	791	7	123	115
2027		256	256	842	587	33	110	76
2028		51	51	842	791	6	98	92
2029		51	51	842	791	5	87	82
2030		51	51	842	791	5	78	73
2031		51	51	842	791	4	70	65
<b>Total</b>	<b>3,057</b>	<b>1,432</b>	<b>4,489</b>	<b>16,850</b>	<b>12,360</b>	<b>2,962</b>	<b>5,017</b>	<b>2,054</b>
<b>Net present value at 12% discount rate</b>					<b>2,054</b>			
<b>Benefit-cost ratio at 12% discount rate</b>					<b>1.69</b>			
<b>Economic internal rate of return</b>					<b>22.83%</b>			

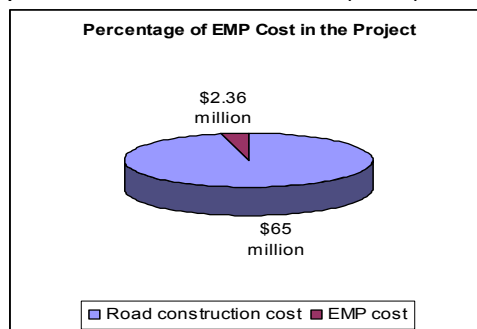
O&M = operation and maintenance.

Note: Numbers may not sum precisely because of rounding.

Source: Project completion review mission estimates.

## ENVIRONMENTAL SAFEGUARDS COMPLIANCE

1. **Background.** The Rural Reconstruction and Rehabilitation Sector Development Program was environment category B for both the program and project components. For the project component, rural roads were identified based on selection criteria, which required road alignments to incur minimal environmental impacts; no encroachment on critical habitats; and follow labor-based, environment-friendly, and participatory approach as much as feasible. Initial environmental examinations (IEE) were prepared for 54 long listed road subprojects and the environmental safeguards requirements were mainstreamed in the design and implementation of 43 subprojects selected for implementation under the project. Special mitigation measures were adopted in the two roads constructed within the Annapurna Conservation Area (ACA), and the one existing road upgraded to blacktop surface in the buffer zone of the Chitwan National Park. The roads were constructed after ADB's thorough due diligence and approval from its Regional and Sustainable Development Department. The remaining roads do not pass through any environmentally, ecologically, and archeologically sensitive areas. The roads were constructed in ACA passed through intensive habitation zone, ensuring minimal adverse impact on the ecological setting and biodiversity of the area. Environmental management plans (EMP) were prepared for all the project roads as integral part of IEE to address any residual adverse impacts. Environmental statements were prepared for all supplementary infrastructures with independent report prepared for relatively bigger size water supply schemes and trail bridges.



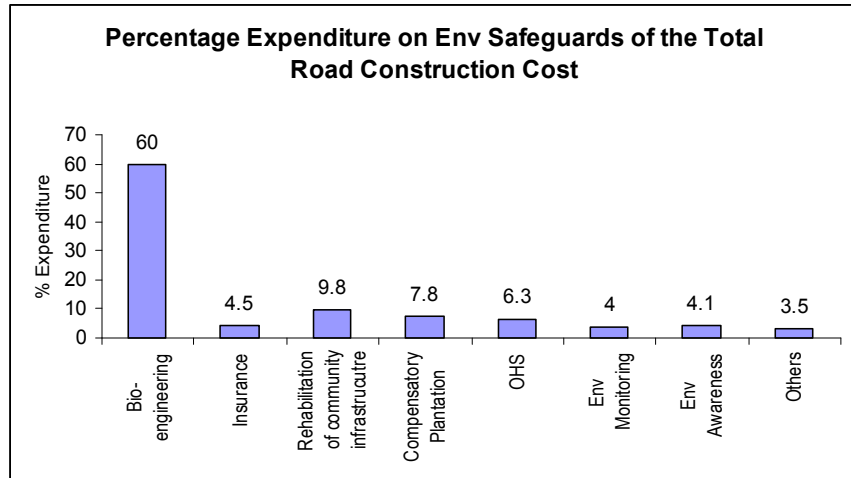
2. **Institutional arrangements:** The project did not have institutional arrangements for safeguards assurance mechanism, except for limited and intermittent inputs of an environmental consultant. Following ADB recommendations, the executing agency provisioned for fulltime engagement of a consultant. A safeguard desk was established in all the district project offices (DPOs) with a focal person to monitor EMP compliance, coordinate with technical team to develop corrective measures, and report to the district and central agencies. The environmental specialist hired by the project coordination unit organized regular supervision and guidance to the safeguard desks in DPOs in applying mitigation measures. Environmental compliance was also monitored by using a safeguard monitoring software piloted by the Nepal Resident Mission (NRM). The safeguards officer at NRM provided need-based inputs for review of subprojects and guided for applying corrective measures on time.

3. **Compliance with statutory environmental regulations.** IEE of all the road subprojects were prepared following the project's environmental assessment and review procedure (EARP),<sup>34</sup> ADB's environment assessment guideline 2003, and the government environment protection act 1996 and regulation 1997. All the required environmental clearances were obtained, and all covenants were complied with. Stakeholder consultations were organized during various stages of the project cycle, although the frequency of consultation was not adequate and required improvement. Grievance redress mechanism was established, although the mechanism did not demonstrate improved accessibility and efficiency in grievance resolution.

<sup>34</sup> The EARP was prepared outlining subproject eligibility criteria, environmental assessment approach, and approval procedure for subprojects to be identified during the project implementation. The EARP was included in the RRP as Supplementary Appendix F.

4. **EMP Compliance.** Compliance monitoring was conducted at subprojects, and data were filled in the NRM piloted automated safeguard monitoring software. The result of compliance monitoring indicated satisfactory environmental safeguard performance of the project achieving 90% in overall compliance rating. In total, \$2.36 million (3.6% of the total road construction cost of \$65 million) was allocated for EMP, which is a good indicator of importance given by the project for ensuring safeguards in their activity.

5. Percentage of cost spent on various environmental safeguard activities is presented in the following chart.



6. An estimated 3.9 million cubic meter spoil was generated in the project, a proper management of which was a challenge. Management of spoil was found satisfactory. An innovative mechanism of implementing safeguard

measures through a safeguard desk was introduced in the project for systematic and coordinated safeguard monitoring, taking timely corrective actions, documenting results, and reporting. The contribution of the safeguard desk remained partial in systematic operation of safeguards in the project. The weaknesses in safeguards compliance were a result of inadequate orientation to road building groups on environment friendly construction practices, use of machine in construction, inadequate scale of bio-engineering for stabilization of slopes, and inadequate compensatory plantation.

7. Roadside compensatory tree plantation was undertaken in 6 roads. The plantation remained weak as only 24,000 trees were planted by the project, whose survival rate was only 30% due to absence of establishing a proper mechanism to guard them. Bio-engineering for slope stabilization was carried out in the roads of 15 districts. However, the work was constrained by lack of planning and allocation of 3% of total budget of a road instead of need based allocation. Community infrastructures were properly reinstated in all the subprojects.

8. An independent external environmental monitoring of the project was carried out in June 2013. The report informs that most of the EMP measures have been implemented satisfactorily in the project. The report also suggests that the labor-based, environment-friendly and participatory approach of construction could not be fully followed by the project as planned due to scarcity of local labors and pressure of local people to expedite road construction by combining with machine. Blasting was avoided except controlled blasting in one road (Khopasi-Taldhunga road in Kavre district).

9. On the recommendation of ADB, local stakeholders of Manang and Mustang districts formed a committee for controlled operation of road within the conservation area. The district development committee chairman led the committee. The committee is responsible to manage speed limit, prohibit use of horn at sensitive wildlife areas, maintain wildlife crossings, control open defecation by maintaining public toilets constructed by the project, and organize

conservation awareness program. For sustainable operation of the roads, the committee is planning to raise environment conservation fee from passengers using the roads. The arrangement is a unique example of local ownership of rural infrastructure for nature conservation.

10. **Recommendations.** The following are the lessons learned from the project and recommendations for future similar investments:

- (i) There are many environmental guidelines and manuals prepared in the past for rural infrastructure development but lack government endorsements. Hence, these guidelines and manuals need to be consolidated and updated in the form of new sector guidelines endorsed by the government.
- (ii) Bio-engineering, spoil and drainage management are key factors for sustainable operation of rural roads. Hence, a bio-engineering unit is required in the Department of Local Infrastructure and Agricultural Roads to institutionalize bio-engineering technology and capacity.
- (iii) Transition of environment friendly approach to machine-supported approach requires a comprehensive assessment considering economic and environmental costs, and an appropriate approach.
- (iv) The existing rural road design standard needs an update to integrate roadside plantation and their management as a part of design requirement.
- (v) Compensatory plantation needs to be institutionalized with proper maintenance mechanisms. Such plan should be a part of detail project report.
- (vi) Dedicated environment experts are required for proper monitoring, reporting and capacity building of executing agency for improved safeguard management. Timely recruitment of environment consultant with required inputs (at least three person-months a year) could help effectively implement EMP.
- (vii) Safeguard desk at district level with trained focal person will ensure effective compliance monitoring, timely corrective actions, and reporting. The desk will orient user groups and contractors on safeguards requirements and maintain linkage with the safeguard unit at district, department and ministry levels.
- (viii) An e-documentation center at department level is required to keep safeguards reports and information on best practices for use as a reference for future.



## GENDER EQUALITY AND SOCIAL INCLUSION ACTION PLAN RESULTS

### A. Narrative Analysis

1. The project's Gender Equality and Social Inclusion Action Plan (GESI AP) was intended to address gender inequality and social exclusion in voice and decision making, employment and income opportunities and skills development of women, *dalits*, *janajatis* and other disadvantaged groups. The GESI AP focused on providing opportunities for women, poor and disadvantaged groups by ensuring their participation and representation in committees, promotion in leadership positions, enhancing their capacity through awareness raising and other capacity development activities, promoting equal employment opportunities in construction works, and enhancing their skills through training for better livelihood options and increased income. The project addressed the gaps by mandating (i) 50% participation of women from all caste, ethnic, and minority groups in road building groups (RBGs), village infrastructure users groups (VIUGs), self-help groups (SHGs), and in VIUG leadership, (ii) 33% participation in RBG leadership, (iii) 50% women and proportionate representation from all caste, ethnic and minority groups in the selection, planning, management, public auditing of rural infrastructures, and in capacity development events, (iv) 50% women out of the 70% RBG members in demand-based special livelihood enhancement skills training (LEST), and (vi) 33% women in professional levels staff, consultants and technicians and 50% as social mobilisers. The design of the GESI AP was highly relevant as it was based on equity, pro-poor, participatory, demand driven, and community empowerment approaches that addressed the immediate needs of rural community in the "post-conflict" situation by enhancing economic and employment opportunities through increased access to market and social services. In line with the project's GESI AP, a separate Social and Gender Action Plan (SAP and GAP) and Indigenous People Development Plan (IPDP, where IPs were found) were prepared with specific targets and indicators for each road subproject based on the zone of influence (ZOI) social survey data and was implemented. Sex, caste and ethnicity disaggregated data were collected and reported periodically.

2. A fulltime assignment of the Department of Local Infrastructure Development and Agricultural Roads' (DOLIDAR) social development officer and regional social development coordinators at the project coordination unit (PCU) and one social development specialist and four social mobilizers deployed in each district was found to be effective arrangements to support implementation and monitoring of the GESI AP. The project was able to complete all GESI AP activities and achieved almost all the targets. Challenges encountered and lessons learned are discussed below.

### B. Gender Equality and Social Inclusion Action Plan Achievements and Outcome

3. The project was successful in achieving GESI AP targets and outputs. The poverty mapping and the GAP and SAP carried out for each road subproject led to the identification of target groups<sup>35</sup> and their key issues including socio-economic status, specific constraints and barriers and capacity needs. The SAP and GAP reports were prepared for 40 roads and IPDPs were developed for 11 roads where indigenous people present. The plans prioritized the activities to be addressed for social mobilization and empowerment of disadvantaged groups in project areas. The awareness and orientation training on project approaches, planning and management, group mobilization, leadership and sensitization on good governance and GESI

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<sup>35</sup> The project carried out focus group discussions and mass consultations with the community and identified poor and socially excluded groups as women, Dalits, Janajatis, women headed households, wage laborers, landless, and food deficit households.

were the key activities performed for social mobilization and community empowerment. A total of 22,614 persons, out of which 44% women (against the target of 50%) and 56% disadvantaged groups (proportional to their population) participated in the events. The sessions were useful in strengthening women and disadvantaged people's capacity to understand the project scope and objectives; maintain transparency; help mobilize poor, women and disadvantaged groups; and engage them in community development through participation in RBGs, VICCCs, and VIUGs, and skills training.

4. The project was successful in achieving most of the gender and social development targets. Different levels of committees were formed for effective community mobilization and participation of local beneficiaries in rural road and other supplementary infrastructure development. DPCCCs and VICCCs were formed in all project districts to coordinate with local stakeholders during subproject project planning, implementation and monitoring. The project's targets of meeting 50% women and proportional representation of major disadvantaged groups in at least 75% of DPCCCs and VICCCs were almost met. In at least 75% of the total 20 DPCCCs (470 members) and 157 VICCCs formed (2,168 members), women's representation was 26% and 38% (target 50%), respectively. *Dalit* representation was 13% in DPCC and 12% in VICCCs. *Janajati* representation ranged from 36-50%, which is proportional to their population.

5. The low participation of women and *dalits* was because most members in the DPCCs and VICCCs come from political parties at district and village levels where women and *dalit* representation is low. The project met the target of 50% representation of women and proportional representation for *dalits*, *janajatis* and other disadvantaged groups in at least 75% of the RBGs. Of the total 611 RBGs formed with 20,942 members, in 75% of RBGs, women's representation was 52%, *dalits* 16%, *janajati* 71% and others 46%.<sup>36</sup> Similarly, the target of 33% of women as RBG leaders or supervisors has been met and it is encouraging to learn that *janajati* women constituted the highest of 48% and *dalits* 12%. In 75% of the total 170 SHGs formed, the project met the 70% women and proportional representation of disadvantaged group targets. Women represented 92% (target 70%), *dalit* 20% and *janajati* 65%, which was proportional to their population.

6. Representation of women, *dalits* and other disadvantaged groups was significant that empowered them and enabled to access equitable project benefits. Women took key positions (as chair, secretary, treasurers) and fulfilled their responsibilities in a significant number of committees and groups. Women led committees showed greater motivation, cohesiveness and eagerness to link with other development opportunities and resources. Representation of *janajati* and *dalit* women in leadership positions was noteworthy.<sup>37</sup> This generated gender based social roles and relations and acceptance of their roles by males. Women's voices were heard and their needs were acknowledged.

7. Participation of women, *dalits* and *janajatis* was encouraging in VIUGs of water supply schemes, other supplementary infrastructure and self-help groups (SHGs). In at least 75% of the total of 588 VIUGs formed with 5,918 members, women's representation was 52% (2,308), *dalits* (21%), *janajati* 64%, and others 48%. In 75% of the VIUG leadership, women were 50% with *janajati* women taking the lead in most VIUGs, showing their increased leadership capacity. Training were provided to VIUGs, including women members, on operation, maintenance, and health and sanitation of related to WSS for sustainability of the infrastructure. Selected women

<sup>36</sup> Others include Brahmin, Chettri, Thakuri, and other caste groups.

<sup>37</sup> Of the total women in leadership positions, *janajati* had the largest share (49%), *dalits* (9%), others (41%).

members were involved in maintenance works. All DPCC, VICCC, RBGs, RBICs, and VIUGs members received project awareness and orientation training, including GESI sensitization.

8. The project generated a total of 15.8 million person-days of employment of which women's contribution was 25%, and nearly 66% of disadvantaged groups. Women's share was higher in RBGs and users groups (34%) than in contractor packages (20%).<sup>38</sup> The skills based training contributed to enhancing skills, opened opportunities for skilled labors and generated increased household income. Of the total 2,912 persons who received 20 different types of training under LEST, 44% was women (target 50%). *Janajatis* constituted 49%, *dalits* 9.1%, *madhesis* 2%, and others 41%. Except for *madhesis* (20%), all other caste and ethnic groups had over 40% women participants. Results of a tracer study carried out on 24 women trainees from 7 districts showed 18 (75%) were involved in income generation activities mostly as self-employed in vegetable, horticulture, livestock, and in small enterprises. Women participation in non-traditional skills training such as for electronic repairing, technicians, carpentry, and masonry was not encouraging due to socio-cultural reasons and lack of acceptance by community. Women trainees reported an average increase in income from NRs1,606/month before training to NRs5,559/month after training (an increase of 246%),<sup>39</sup> which they are using for child education, increase agriculture production, purchase of assets, and debt repayment.

9. The project significantly contributed to meeting the strategic benefits for women. The numbers of women leaders developed by the project were taking important roles in other local user groups (water, forest, agriculture), political committees and actively engaged in community development, voicing their concerns, and getting recognized. The rural roads enabled women and disadvantaged communities get connected to market centers in reduced time, costs and decreased vulnerability. The saved time and money are being used for increasing production of vegetables and cash crops,<sup>40</sup> enhancing business opportunities along the road corridor such as tea stalls, grocery store. The road connectivity increased access to social services such as health posts, hospitals, and medical shops resulting in a significant decrease in maternal and child mortality during pregnancy and child birth.<sup>41</sup> Easy access to schools and colleges from their homes encouraged more parents to send their girls to private schools and colleges. Easy access to agriculture extension services and market centers encouraged more women and disadvantaged groups to take off-seasonal vegetables and fruits farming. Women have been the main beneficiaries of the drinking water schemes. With an average saving of approximately 2 hours per day, women saved time almost by half in fetching water that resulted in reduction of workload and reduced drudgery of women and girls. The saved time is being utilized for child care and for farm and off-farm activities like vegetable gardening, livestock and small enterprises, which has made positive contributions to household income and nutrition. Access to clean water reduced water borne diseases and thus improved the overall quality of life.

<sup>38</sup> *Dalit* engagement was 18% (dalit female 18% of the total female); *janajati* 49% (*janajati* female 48% of the total female).

<sup>39</sup> RRRSDP. 2012 (December). Tracer Study of Livelihood Enhancement Skills-Based Training Program. Kathmandu.

<sup>40</sup> The disadvantaged and marginalized Chepang communities in Chandibhanjyang, Kaule and Darechok village development committees of Chitwan district have benefited by starting production of beans, and vegetables for markets after road connectivity was established (Source: Acharya, Harihar. 2014 (February). *Study on Rural Roads' Contribution to Inclusion with reference to the Rural Reconstruction and Rehabilitation Sector Development Project*. Kathmandu).

<sup>41</sup> The female health volunteers of the Hile-Chintang road corridor of Dhankuta district reported a decrease in maternal mortality during child birth to 2 persons per year.

10. Overall, the project can be rated as successful from GESI perspective and can be considered for replication with minor adjustments in project components, quantitative targets and implementation arrangements.

### **C. Lessons Learned**

11. Despite a high number of women participating in different groups and committees, their meaningful participation in decision making is yet to be fully realized. Quantitative targets have been met but qualitative engagement needs strengthening for their enhanced performance and sustaining them as community leaders.

12. Women have demonstrated in road construction works that they can earn same wages as men for same type of work. This has contributed positively to the social status of women and gained acceptance from males and other community members even in most remote villages where traditionally women's role has been limited to household activities.

13. Engagement of RBGs in construction of rural roads needs to be continued to meet the overarching goal of poverty reduction. The RBG approach have greater scope of generating employment and meeting the needed income to the ultra-poor and disadvantaged population with visible impact on their economic status and social wellbeing.

14. Some skills training were found less effective due to inadequate training needs assessment, their less relevance and long duration and training organized in distance locations (partly due to difficulties in getting training halls and facilities). Lack of access to finance to meet investment requirement for business was another factor for lack of interest of women and poor.

15. Geographical targeting of infrastructure development can enhance social inclusion as demonstrated by roads constructed in remote Rukum and Rolpa districts inhabited by the ethnic Kham Magar, and the interior parts of Chitwan district inhabited by the marginalized Chepang.

16. There has to be a clear approach with adequate resources built into the project for sustainability of SHGs such as linking them to cooperatives or other agencies for institutional growth and empowerment of its members. Leadership generated by the project (particularly women leaders) can be better sustained if SHGs are linked with existing local women's groups, cooperatives, and institutions for their continued engagement in community works.

17. Engagement of local communities, especially women and disadvantaged groups, in operation and maintenance of rural road and supplementary infrastructure adds to their ownership and sustainability. Adequate resource for maintenance needs to be provisioned during design of the subprojects.

### **D. Recommendations**

18. Capacity building of women leaders is essential for meaningful participation in groups and committees. Capacity building could include functional literacy, knowledge on basic record keeping and institutional governance.

19. Targeting for women, poor and socially excluded groups should continue and well reflected in the GESI AP as without such targeting equity in access to project benefits such as employment and income generation opportunities, participation and representation in committees, and skills training is difficult to achieve.

20. DOLIDAR’s monitoring system should be strengthened to adequately cover gender and social inclusion indicators. It should develop a robust monitoring system such as management information system with sex, caste, and ethnicity-disaggregated data, and ensure that it is fully operational.

21. Greater rigor is needed in carrying out training needs assessment for developing skills development training packages in subproject areas. Identification of target groups (affected people, poor, women, and disadvantaged) needs to be carried out carefully and the identified training matches local needs, utilizes local resources and has greater market scope. The skill training should be of longer duration, and accredited by the Center for Technical Education and Vocational Training. Post training support (tools, equipment, access to revolving fund, and linkage with financing institutions and technical service agencies) are recommended for gainful employment for the trainees.

22. Engagement of user groups in maintenance of rural roads such as in bioengineering and as length persons not only provides alternative income opportunities but also contributes to the ownership and sustainability of the infrastructure.

23. For projects classified as effective gender mainstreaming, a full time social development specialist with additional specialists at the district level is recommended for effective implementation and monitoring of GESI AP.

24. To address GESI more effectively in rural infrastructure sector, capacity and institutional mechanism within DOLIDAR need to be strengthened through the establishment of a GESI unit.

**E. Gender Equality and Social Inclusion Matrix**

**Gender Action Plan<sup>42</sup>**

Activity/Measure	Indicators and Targets	Achievements at Project Completion
<b>Rural Roads: Women from all caste, ethnicity, and minority groups have equal access to project resources and services</b>		
Conduct a baseline survey to collect disaggregated data on gender, caste, ethnicity, and minority groups in the project districts. Conduct poverty mapping and gender assessment to identify the most vulnerable and the excluded. The mapping should include indicators to measure the differential socioeconomic situation of women from different caste, ethnic, and minority groups. The gender assessment should identify specific constraints and barriers to their participation in	Updated data disaggregated by gender, caste, ethnicity, and minority groups is obtained within nine months of the start of the project. The most vulnerable groups are identified.	<ul style="list-style-type: none"> <li>• Household surveys conducted in the zone of influence (ZOI) with sex, caste and ethnicity disaggregated database.</li> <li>• Out of 43 road subprojects, 40 developed SPDRs that included SAP and GAP. IPDP developed for 11 relevant subprojects where IPs existed.</li> <li>• Baseline survey was completed and data analysis and report prepared for 40 rural roads.</li> <li>• As per the ZOI HH survey, and community consultations,</li> </ul>

<sup>42</sup> ADB. 2007. *Report and Recommendation of the President to the Board of Directors on Proposed Grants to Nepal for the Rural Reconstruction and Rehabilitation Sector Development Program. Manila (Grants 0094-NEP and 0093-NEP).*

Activity/Measure	Indicators and Targets	Achievements at Project Completion
project activities.		<p>women, <i>dalits</i>, <i>janajatis</i>, women headed households, wage laborers, landless and food deficit households were identified as poor and socially excluded groups for their special attention and inclusion in project activities.</p> <ul style="list-style-type: none"> <li>• GESI assessment was carried out for GAPS of each road subproject to identify key issues related to women and excluded including their socio-economic status, specific constraints and barriers.</li> <li>• SAPs identified training needs on capacity building that included leadership development, account keeping and management, good governance, participatory learning, and organizational development.</li> </ul>
Ensure participation and representation of women from all caste, ethnic, and minority groups in project orientation, planning, management, and public and social auditing of rural road subprojects.	Women comprise 50% of total participants with proportionate representation from all caste, ethnic, and minority groups as per their population share in the village development committee.	<p>Women, caste, ethnic and minority groups were well represented in the meetings including project orientation, planning, management, and public, and social auditing of the road subprojects.</p> <p>22,614 participants out of which 9,867 (44%) women (target 50%) and 56% from disadvantaged groups (proportional to their populations) participated.</p>
Ensure participation and representation of women from all caste, ethnic, and minority groups in village infrastructure construction coordination committees (VICCCs), road building groups (RBG), and road maintenance committees.	<p>In at least 75% VICCCs: 33% women representation and proportionate representation from disadvantaged caste, ethnic and minority groups.</p> <p>RBG: 50% women representation.</p> <p>RBG leadership: 33% women from all caste, ethnic, and minority groups.</p>	<ul style="list-style-type: none"> <li>• DPCC: 20, Total members: 470. In 75% of the DPCCs, female 26%, <i>dalit</i> 13%, <i>janajati</i> 36% <i>madhesi</i> 4.5%, and others 78%.</li> <li>• VICCC: 157, Total members 2,168. In 75% of VICCCs, female 38%, <i>dalit</i> 12%, <i>janajati</i> 50% and <i>madhesi</i> 11.1%, and others 60.3%.</li> <li>• RBGs: 611, Total members 20,942. In 75% RBGs, female 52%, <i>dalit</i> 12.3%, <i>janajati</i> 71%, and others 46%.</li> <li>• RBICs: 86, Total members 787. In 75% RBICs, female 49%, <i>dalit</i> 13%, <i>janajati</i> 72%, and others 48%.</li> </ul>

Activity/Measure	Indicators and Targets	Achievements at Project Completion
		<ul style="list-style-type: none"> <li>• SHGs: 170, Total members 3,963. In 75% of SHGs, female 92%, <i>dalit</i> 20%, <i>janajati</i> 61%, <i>madheshi</i> 0.2%, and others 531%.</li> <li>• Target met for RBG leadership of 33% of which <i>janjati</i> women constituted 48%, <i>dalits</i> 12% and others 40%.</li> </ul>
Apply the policy of equal pay for work of equal value in employment for rural roads.	Women and men RBG members receive equal payment for work of equal value.	Labor laws were complied with and the policy of equal pay for work of equal value was followed.
<b>Supplementary Infrastructure: The supplementary infrastructure (water supply and sanitation, school toilets, microirrigation, trails, micro hydropower) have reduced women's drudgery and increased their involvement in economically productive activities.</b>		
Identify and select supplementary infrastructure subprojects in a participatory manner based on community demand.	Out of total consulted for identification of subprojects, 50% are women. Women from all caste, ethnic, and minority groups are proportionately represented.	<ul style="list-style-type: none"> <li>• Local people including 50-60% women (from all caste, ethnic groups), 60-80% <i>dalits</i>, <i>janajatis</i> and other minority groups were consulted in the identification and selection of subprojects.</li> </ul>
Ensure participation of women in village infrastructure building groups (VIBG)	Women make up 50% of the VIBG and the leadership positions. Representation from caste, ethnic, minority groups is proportionate.	<ul style="list-style-type: none"> <li>• Of the total 588 VIBGs formed having 5,918 members in 38 project districts, in 75% VIBGs, women's participation was 3,030 or 51%, <i>dalits</i> 21%, <i>janajati</i> 64%, <i>madhesi</i> 0.4%, and others 48%.</li> <li>• In VIBG for water supply and other supplementary infrastructures leadership, women represented 50%. Of the total women in leadership positions, <i>janjati</i> women had the largest share of 50% followed by <i>dalits</i> 9% and others 41%.</li> </ul>
Provide supplementary infrastructure operation and maintenance training	Women make up 50% of those trained and 33% of maintenance committees. All caste, ethnic, and minority groups must be proportionately represented.	<ul style="list-style-type: none"> <li>• All VIBGs were transformed into maintenance committees. Female representation was 38% in the maintenance committees.</li> <li>• Women made 38% of the total trained (target 33%) and other members from caste, ethnicity made 64% of the total trained (proportionate to their population).</li> <li>• Three types of training (pre-</li> </ul>

Activity/Measure	Indicators and Targets	Achievements at Project Completion
		construction, construction and post-construction) targeting VIBG members were provided on operation and maintenance.
<b>Community Empowerment: Poor and disadvantaged, and particularly women from these groups, have increasing ability to speak out and influence decisions.</b>		
Ensure participation of women in all district, village, and group training and orientation programs on project approaches including gender action plan.	At least 50% of the total participants in all training are women with proportionate representation from all caste and ethnic groups.	<ul style="list-style-type: none"> <li>• Of the total 22,614 persons that received awareness and orientation training on various topics including leadership capacity building, gender and social inclusion, 43.6% were women, out of that 1,554 <i>dalit</i> female, 3,868 <i>janajati</i> female and 4,445 female from others.</li> </ul>
Develop and deliver special livelihood enhancement skill training in the areas of agriculture, livestock, forestry, soil conservation, microenterprise, health, literacy, and legal rights specific to the poor and disadvantaged. Incorporate gender section in each training package focusing on women's needs and priorities.	At least 70% of building group members are targeted in the empowerment package of which at least 50% are women. Proportionate percentage of women from all groups is represented.	<ul style="list-style-type: none"> <li>• Total 2,912 participants (building group members and affected persons) received 20 different types of livelihood enhancement skills training.</li> <li>• Out of total that received training, women were 50.62%, <i>dalits</i> 9.17% ), <i>janajatis</i> 48.56%, and 1.89% <i>madhesis</i>, and 40.38% other.</li> <li>• Except for <i>madhesis</i> 20%, all other caste and ethnic groups had over 40% women participants.</li> <li>• 43.63% women from different committees received training on GESI, leadership, health and sanitation, saving and credit, and group management.</li> <li>• 24 women trainees of the sample 7 districts, 75% were involved in income generation activities, mostly on self-employment basis.</li> </ul>
Promote self-help group mobilization by developing special social mobilization package and tools (group mobilization, saving and credit, group management, project identification and proposal development, linkage, record keeping).	Training curriculum and manuals for specific sectors are available. Women are at least 50% of self-help group (SHG) members, and representation from all groups is proportionate.	<ul style="list-style-type: none"> <li>• Curriculum and manuals were developed for training to SHG members on various topics.</li> <li>• In 75% of total 170 SHGs formed having 3,963 members, female constituted 92%, <i>dalits</i> 20%, and <i>janajatis</i> and <i>madhesis</i> 65%.</li> </ul>
To create enabling working environment for women, provide	At least one child care center is operating in each project district	<ul style="list-style-type: none"> <li>• In roads constructed by RBGs toilets were constructed but</li> </ul>



Activity/Measure	Indicators and Targets	Achievements at Project Completion
child care facilities, separate toilets for women and men, and first-aid facilities at the work place.	during the working season.	no provision was made for separate toilets for women. As women worked in areas close to their homes the need for child care centers was not critically felt. A child care center was operated in Ilam districts as per the need of labors.
Sensitize VICCC on gender equality, and economic and social inclusion.	At least 70% of the VICCC members are oriented on gender equality and social inclusion.	<ul style="list-style-type: none"> <li>All VICCC members (100%) were provided orientation on gender equality and social inclusion.</li> </ul>
<b>Project Management Services: The project coordination unit (PCU) CISC, DPO, and DIST are responsive to gender issues and promote gender equality.</b>		
Adopt gender action plan and formulate annual program for implementation. Instruct and orient DDC/DPO to prepare annual program and implement accordingly	Annual district gender action plans are developed and implemented.	<ul style="list-style-type: none"> <li>GESI action plan based on project GESI AP matrix was prepared for each road subproject. DDC/DPOs followed the GESI action plan to prepare and implement annual programs and monitored and reported.</li> </ul>
Orient DDC/DPO and DIST on gender mainstreaming tools and gender action plan.	DPO and DIST are equipped with gender mainstreaming tools and are effectively implementing district-specific gender action plans.	<ul style="list-style-type: none"> <li>GESI mainstreaming tools including training curriculum and manuals were provided by PCU/CISC to implement GESI action plans.</li> </ul>
Integrate gender and social inclusion concerns in all project events (training, review, periodic meetings) for its stakeholders.	All stakeholders are aware of gender and social inclusion concerns and are implementing activities to address them	<ul style="list-style-type: none"> <li>Stakeholders of the district women development section, cottage industry office, representatives of political parties were made aware of the GESI issues and concerns and encouraged to incorporate these in development planning and implementation.</li> </ul>
Establish monitoring system with gender, caste, ethnicity, and minority group disaggregated data.	Output and impact data disaggregated by gender, caste, ethnicity, and minority groups are available.	<ul style="list-style-type: none"> <li>The monitoring system collected and maintained output and impact data disaggregated by gender, caste, ethnicity, and minority groups.</li> </ul>
Integrate gender equality measures and monitoring indicators in project operating guidelines, I and subsector strategies	Project design and monitoring framework, guidelines, and strategies incorporate gender indicators and equality measures	<ul style="list-style-type: none"> <li>SDPRs that included SAP and GAP were prepared for 40 roads. Similarly, IPDP were prepared for 11 roads. These plans helped the project to prioritize activities for the GESI indicators and equality measures.</li> </ul>
Hire social mobilizers and	At least 50% of social mobilizers	A total of 112 social mobilizers

Activity/Measure	Indicators and Targets	Achievements at Project Completion
community facilitators locally.	and community facilitators are women and represent all caste/ethnic groups in the district.	were hired by the project of which more than 50% were women hired locally. Each district had at least two out of the four social mobilizers with some like Rukum having all four women social mobilizers.
Select junior technicians and road supervisors.	At least 33% are women	The share of women junior technicians (assistant sub-engineers) was nearly 30% of the total (84), which is encouraging given the difficulty in recruiting mid-level women technicians.
Hire consultants for district and central implementation support team.	The teams have at least 33% women professional staff from diverse caste and ethnic groups	Of the total CISC staff, 32% were women. Of the 277 DIST staff 22% were women and 41% belonged to <i>dalits</i> , <i>janjatis</i> , and <i>madhesis</i> . About 30% of individual consultants in non-core districts were women.

CISC = central implementation support consultant, DDC = district development committee, DIST = district implementation support team, DPO = district project office, GAP = gender action plan, IPDP = indigenous people development plan, OSI = other supplementary infrastructure, PCU = project coordination unit, RBG = road building group, SAP = social action plan, SHG = self-help group, VIBG = village infrastructure building group, VICCC = village infrastructure construction coordination committee, WSS = water supply scheme, ZOI = zone of influence.

## SOCIAL SAFEGUARDS COMPLIANCE

1. The overall implementation of social safeguards was satisfactory. The process required for safeguards planning and implementation was duly followed with a few exceptions for delays in compensation payment. Out of 43 road subproject implemented, 36 were of involuntary resettlement category B and four were category C. As required by project resettlement framework, short resettlement plans were prepared for all category B subprojects and due diligence report was prepared for category C subprojects. However, the supplementary infrastructure subprojects were designed and implemented either in the existing right of way of the road subprojects or in public land to avoid involuntary resettlement. The presence of indigenous people in 11 road subprojects were reported and indigenous peoples development plans (IPDP) were prepared to mitigate any negative impact, and enhancement measures for positive impacts. The IPDPs intended to capacitate the indigenous people to better capture the project benefits. The IPDPs were successfully implemented. The executing agency disclosed the resettlement plan and IPDPs in its website upon the government and ADB approval, although resettlement plan and IPDPs have been disclosed in ADB website lately.

2. A total of 10,447 households, comprising 61,300 affected persons, were recorded as affected households from rural roads subprojects, and 7,723 households were found residing in the project area. Due to outmigration of rural to urban areas and youths' short to medium-term migration for employment, member of 2,724 (26%) households were not found in the project area. The project could not trace those affected people despite several efforts. They were counted as unidentified landowners. A total of 1,307 (16%) households have either legal problems, disputes or are absentee. The compensation amount for these plots has been deposited in a special account under the district administration office for payment after the absentees come with credible evidences. A total of 6,416 households (without any problem) received \$1.67 million compensation for loss of land, structure, trees, and crops. The cadastral survey has identified 15,000 plots affected by the road. However, only 10,994 plots were recognized with landowner, and ownership has been transferred for 9,163 plots (83% progress). Owners of 3,794 were not identified. The executing agency is making every effort to identify the unidentified owners for which adequate budget has been allocated.

3. The project faced staff transfer, fund deficit, and coordination challenges during involuntary resettlement planning and implementation. Less number of technical staff in district land survey offices was the main reason for the challenge. The limited capacity of the executing and implementing agencies on resettlement planning and implementation also contributed to delays in compensation payment and deed transfer. The outdated land acquisition act and lack of umbrella policy on resettlement and rehabilitation also caused implementation ambiguity, especially on deed transfer of voluntarily donated lands, replacement cost and resettlement assistances. Weak performance of the central and district consultants also contributed to delays in resettlement planning. ADB increased its oversight to address knowledge gap in government counterpart staff, and mobilized consultants in field. ADB also organized orientation programs for the central and district project staff and consultants.

4. As a community demand based project and district development committees' ongoing practice of receiving voluntary land donation for community infrastructure, the project also adopted the practice of voluntary land donation. However, a set of eligibility criteria were developed and applied on voluntary land donation to safeguard affected people's right to refuse voluntary donations. However, in a few cases, limited information disclosure regarding donation criteria was reported. Corrective measures were agreed with the grievance redress committee and corrective measures were taken for enforcement. The measures were implemented by

updating resettlement plans. The project prepared 26 updated resettlement plans to include corrective measures. The limited information disclosure contributed to implementation delays during initial years. The external monitor has reported that the project has complied with the involuntary resettlement related covenants with the corrective measures.

5. Therefore, establishment of a special budget heading for land compensation at the Ministry of Federal Affairs and Local Development and the Department of Local Infrastructure Development and Agricultural Roads is needed to complete compensation payment and deed transfer in the absence of specific project.

6. ADB financed compensation payments under the project, which helped achieve intended outcomes of the resettlement plans. Continuation of ADB funding is recommended, particularly in projects that have provisions for voluntary donation.

7. Although the resettlement planning and compensation payments were satisfactory, capacity of the executing and implementing agencies remained a challenge during implementation. Hence, there should be capacity development component in future projects of similar nature.