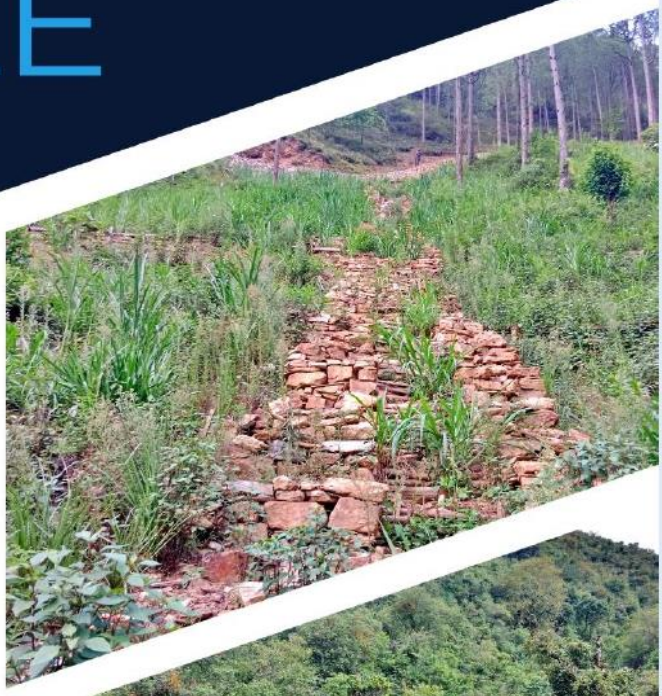
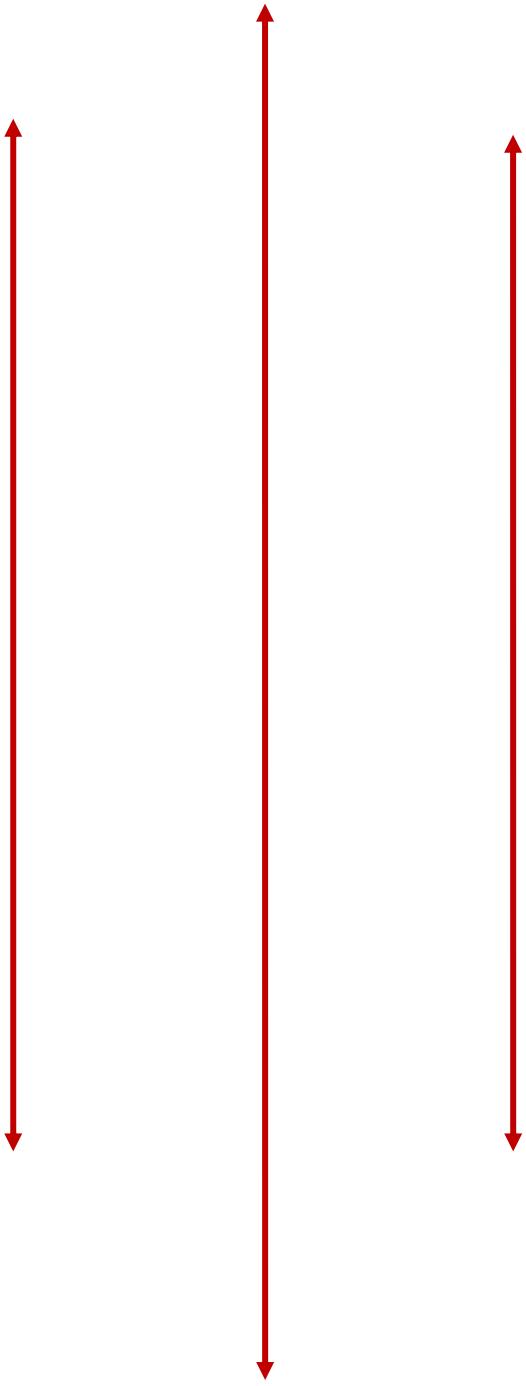
ACTIVITY PROFILE

079/80



SOIL AND WATERSHED MANAGEMENT OFFICE, ROLPA

ACTIVITY PROFILE
(079/80)



LUMBINI STATE GOVERNMENT

MINISTRY OF FORESTS AND ENVIRONMENT

SOIL AND WATERSHED MANAGEMENT OFFICE

MULPANI, ROLPA

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Robert Mahara
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MINISTRY OF FORESTS AND ENVIRONMENT
SOIL AND WATERSHED MANAGEMENT OFFICE
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FOREWORD

Watershed management is aimed at management of land and water resources, and is applied to an area of land that drains to a defined location along a stream or river. It also aims to take care of natural resources in a way that supports human needs for water, food, fibre, energy and habitat. Each watershed is unique in terms of physiography, ecology, climate, water quality, land use and human culture. Therefore any generalized approach to watershed management must be customized to each setting at the time of practice and implementation. Watershed management requires a long-term commitment that adapts in population change, climate, culture and resource-use demands. These issues are unique to each watershed.

Watershed degradation is common problem and consequences in Nepal, mainly caused by surface erosion, slope failure, landslides, debris flows and riverbank cuttings. Soil fertility or productivity is deteriorating due to accelerated surface soil erosion. Main reasons behind critical conditions of watersheds are the fragile and the youngest landform, unwise use of land resource without conservation practices, and destruction of forest and other natural resources for the driving of expanded population and their pressure on natural resources. SWMO Rolpa is a responsible government organization for soil conservation and watershed management in Rolpa, Pyuthan, and Rukum East districts of Lumbini province on behalf of the Province Government.

SWMO Rolpa has implemented watershed management activities (62 locations) in its working area in this fiscal year 079/80. It is very difficult to address public demands and requirements for watershed management throughout each district at once from a limited allocated budget. We have expended almost all allocated budget, mobilized peoples participation and tried to do better from limited financial and human resources, and finally achieved almost 100 percent physical and financial progress. This activity profile includes the summarized form of the implemented activities in working districts with photographs which will be useful to all stakeholders for learning and monitoring / evaluation purposes.

I would like to thanks Mr. Rakesh Shahi (Assistant Soil Conservation Officer) and all other staff for their contribution to the publication of this Activity Profile.

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ACRONYMS AND ABBREVIATIONS

ASCO: Assistant Soil Conservation Officer

BMC: Basin Management Centre

Cum: Cubic meter

DAGs: Dis-advantaged Groups

DSCO: District Soil Conservation Officer

DSCOs: District Soil Conservation Offices

DSCWM: Department of Soil Conservation and Watershed Management

Ha: Hectar

HHs: Households

IGAs: Income-Generating Activities

Km: Kilo-meter

M: Meter

Md: Man-days

MoFE: Ministry of Forest and Environment

MoFESC: Ministry of Forest, Environment and Soil Conservation

MoITFE: Ministry of Industry, Tourism, Forest and Environment

Nos.: Numbers

Sqm:Square meter

SCWM: Soil Conservation and Watershed Management

SWMO: Soil and Watershed Management Office

WMO: Watershed Management Officer

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SECTION 1: INTRODUCTION

1.1 BACKGROUND

The geologically unstable, rugged, and steep mountain topography of Nepal makes the country prone to high soil erosion rates. Natural calamities like soil erosion, floods, landslide, etc. occur naturally here due to weak geological conditions, seismic sensitivity, and intense monsoon rainfall. In addition, human activities like improper land use, unscientific cultivation practices, deforestation, overgrazing, and construction of development infrastructures without integrating conservation measures have also exacerbated the problems of soil erosion, landslide, flooding, and environmental degradation. The impact of climate change further aggravates the high erosion rates in Nepal causing huge loss of life and property and environmental degradation. These detrimental factors are destroying our arable land by reducing land productivity and food production, consequently affecting the socio-economic conditions of most of the Nepalese people who depend upon those resources for their livelihood.

However, soil and watershed management has a significant role to play in solving such problems created by soil erosion, floods, landslides, etc. The Soil Conservation and Watershed Management (SCWM) programs help to prevent the loss of soil fertility, balance the interaction of watershed resources (water, soil, forest, people, animals), and improve the living standards of the people by making wise use of these resources. Sustainable and balanced economic development is, therefore, possible through the rational utilization of these watershed resources.

In this context, the SCWM program was for the first time recognized as an important program by the Government of Nepal in 1974 A.D. (2031 B.S.) when a new department, the Department of Soil and Water Conservation, was established under the umbrella of the Ministry of Forest. Later the name of the department was changed to the Department of Soil Conservation and Watershed Management (DSCWM). After that 61 Soil Conservation Offices were established on a district basis to provide SCWM services. In the present context of Federal System and Reconstructing Nepal, the role and responsibility of the District Soil Conservation Office (DSCO) have been reorganized, restructured, and transformed into Basin Management Centre (BMC) (in Federal Government) and Soil and Watershed Management Offices (SWMOs) (in State Governement) to deliver various SCWM programs through integrated and adaptive watershed (Basin) resource management approach from the existing political boundary approach.

Presently, there is one Watershed and Landslide Division and 5 BMCs under the Ministry of Forest and Environment (MoFE) of Federal Government System and 16 SWMOs with 5 temporary offices under the MoITFE and MoFE of State Government System, to address the burning issues of soil erosion, mass movement, land degradation and desertification in 77 districts of Nepal. Accordingly, SWMO, Liwang, Rolpa was established temporarily under MoFE of Lumbini Province in 2078 B.S.

1.2 WORKING AREA

The SWMO, Rolpa is the office with manpower related to different thematic areas. The office, including technicians from the forest, agriculture, and engineering sector, has been trying to address the problem of soil erosion and land degradation through various integrated SCWM activities. The office covers three districts of Lumbini Province as shown in the figure below:

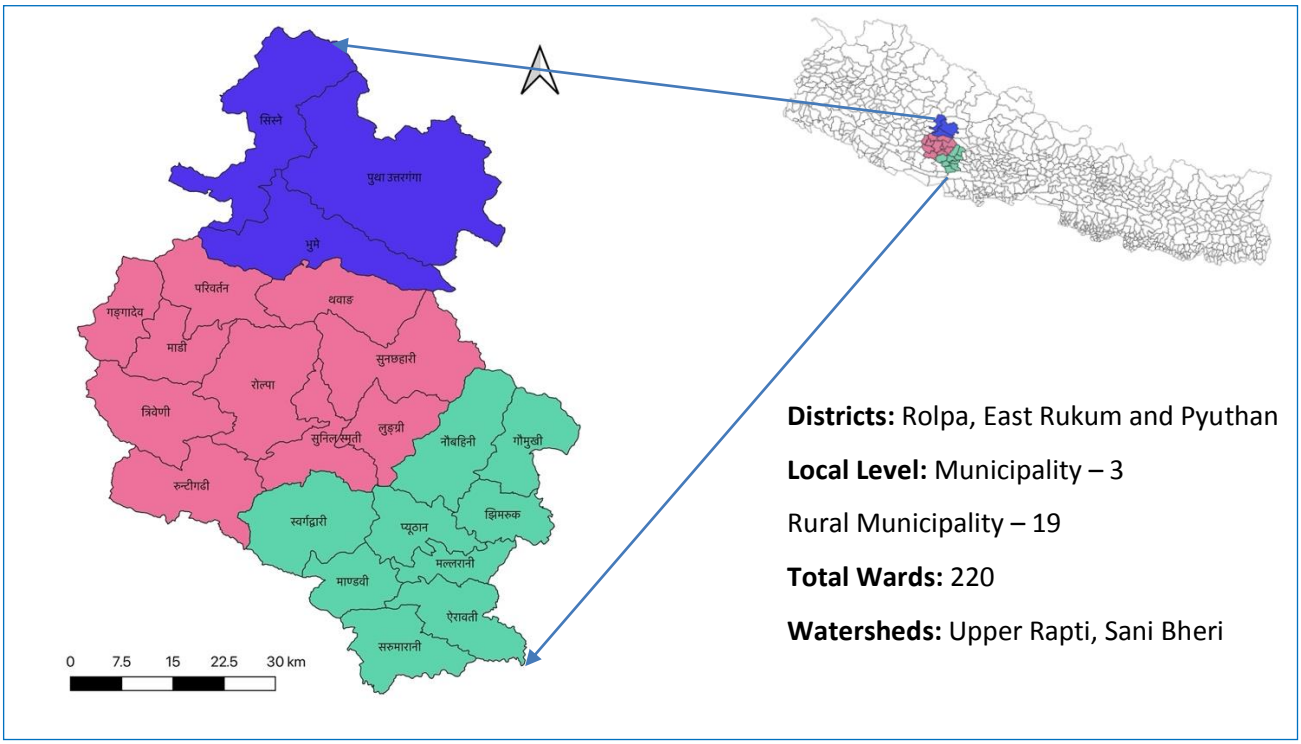


Figure 1: Working Area

1.3 WATERSHED CONDITION OF THE WORKING AREAS

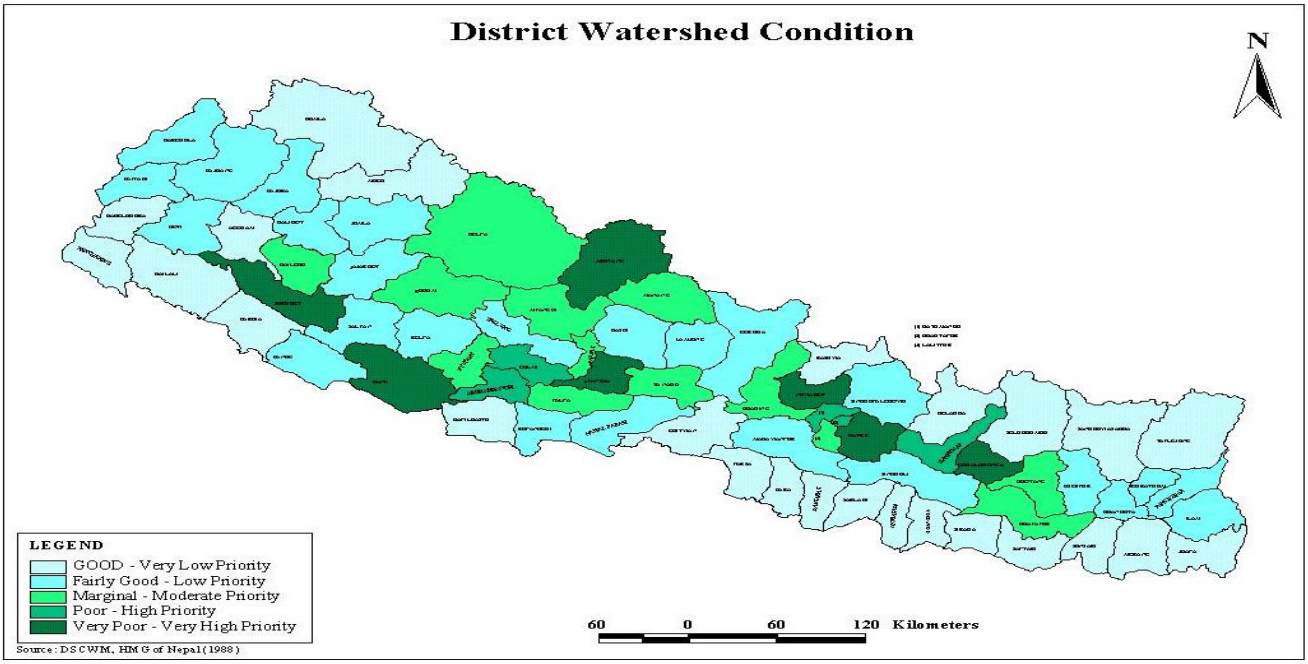


Figure 2: District Watershed Condition (Source:DSCWM)

It was found that the watershed condition of working areas of SWMO, Rolpa are as follows;

- Pyuthan----Marginal Rolpa-------Fairly Good Rukum East----Marginal

The marginal and fairly good watershed conditions of the Pyuthan, Rolpa and Rukum East districts respectively, are also on the verge of rapid deterioration due to the over-exploitation of watershed resources and construction of development infrastructures mainly roads without integrating conservation measures.

1.4 VISION, GOAL, OBJECTIVES, STRATEGIES, WORKING STRATEGIES, AND ACTIVITIES

1.4.1 VISION

To support building a climate-friendly and prosperous society through integrated and sustainable management of watershed resources based on river systems.

1.4.2 GOAL

To help in improving the living standards of the people by reducing natural disasters, adapting to climate change, enhancing productivity, and balancing the interdependence of watershed resources through integrated and adaptive watershed management.

1.4.3 OBJECTIVES

- To mitigate the risk of loss of life, property, and development infrastructure through integrated management of geo-environmentally sensitive, important, and priority watersheds.
- To contribute to the socio-economic prosperity of the people by enhancing the availabililty of water and increasing the land productivity quantitatively and qualitatively through rational utilization of watershed resources.
- To develop and expand the appropriate technology by assessing the impact of climate change through study and research.
- To provide watershed management services in a smooth, simple, and transparent manner following the principles of good governance, inclusiveness, and participation.
- To improve water regime & reduce silt load in rivers.
- To raise awareness about different aspects of SCWM activities among local people.

1.4.4 STRATEGIES

- To make River System and Watershed Area a planning and management unit.
- To formulate and implement the plan by adopting an integrated and adaptive approach.
- To conduct programs in a participatory, cooperative, and coordinated manner.
- To adopt people-centred (service, production, environment friendly, ritual) concept in watershed management.
- To promote watershed good governance (such as the utilization of resources based on land capability, landslide area, water source, etc.)
- To ensure the upstream and downstream linkage for the management and utilization of watershed resources.

1.4.5 WORKING STRATEGIES

- To identify, classify and prioritize watersheds according to different levels of watersheds (Watershed/Basin, Sub-watershed, Micro-watershed)
- To make and implement various watershed management plans (Provincial, Local) based on the classification of watersheds.
- To adopt multiple uses of one watershed with integrated, adaptive, and participatory watershed management approaches.
- To conduct conservation work in a productive, income-generating, and market-oriented manner.
- To provide integrated management services by establishing coordination and partnership with green agencies related to the green sector (forest, agriculture, animal husbandry, and water resources).
- To expand and improve the institutional/organizational structure for basin management.

- To give special priority to watershed management of Chure area.
- To disseminate and coordinate various aspects of watershed management.
- To conduct necessary and appropriate adaptation and disaster management programs at the watershed level by assessing the risks created due to climate change.
- To give special emphasis on programs that support the storage, renewal, and sustainable use of Too Little Water (especially during winter season) in line with the Too Much Water –Too Little Water Management concept.
- To carry out all conservation works and efforts in the upper watershed and lower watershed areas of the district in an integrated, adaptive, and participatory way with the scientific belief that the conservation of the upstream will benefit the downstream areas.
- To develop and implement an appropriate system of Payment for Environment Services (PES).

1.4.6 ACTIVITIES

The following are the programs currently being implemented by SWMO, Rolpa under the watershed management program;

- Watershed/Sub-watershed Prioritization and Management Plan Preparation
- Planning, Capacity Building, and Coordination Workshops
- Hot Spot Identification/Hazard Zoning/Prioritization/Mapping
- Mapping of Local Levels Based on the Watershed/Sub-watershed/River System
- Watershed Management for Eco-tourism
- Landslide/Gully/Torrent Control/ Emergency Landslide Control
- Bio-engineering River/Stream Bank Protection
- Soil Conservation along the Road (Road Slope Stabilization)
- Water Source Protection/Conservation Pond/ Wetland Identification and Management
- Sensitive Watershed Area Protection
- Partnership Soil Conservation
- Fruit Tree/Fodder/Grass Plantation/Bio-Engineering
- Nursery Establishment/Seedling Production
- Conservation Extension Material Production/ Co-ordination Workshop and Meeting
- Monitoring/Joint Monitoring/Evaluation

1.5 ORGANIZATIONAL STRUCTURE

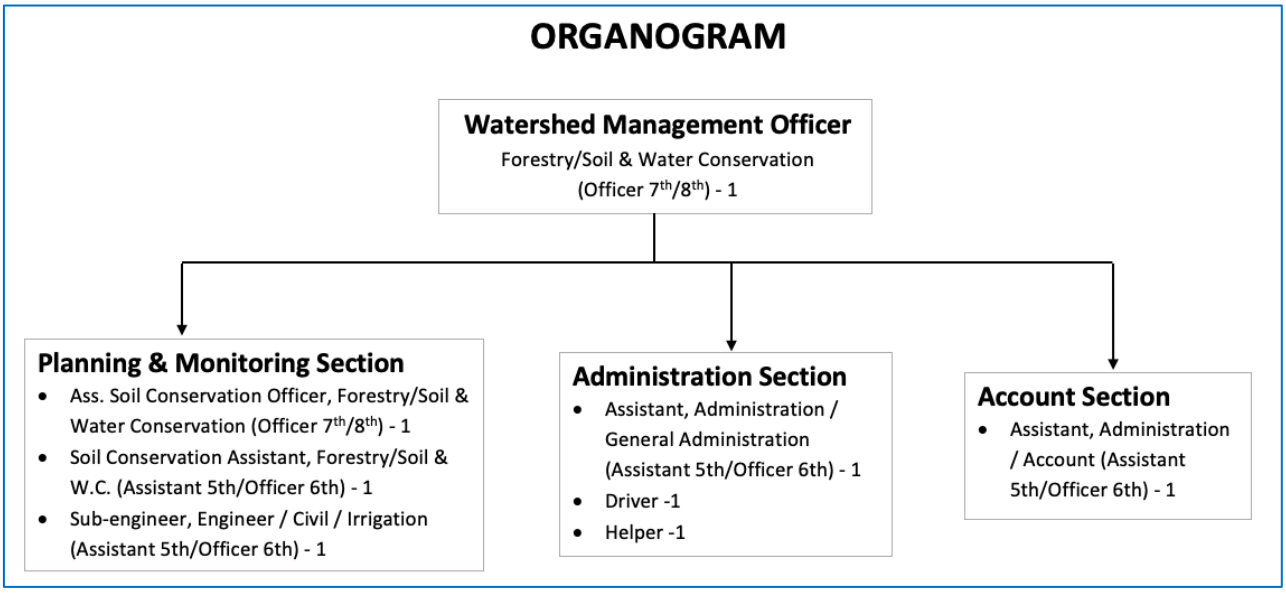


Figure 3: Organizational Chart

1.6 RECRUITMENT STATUS

Table 1: Recruitment Status

S. N.	Post	Service	Group/Sub-Groups	Class/Level	Total No. of Post	Recruitment Status		Vacant
						Permanent	Temporary	
1	Watershed Management Officer	Forest	Soil and Water Conservation	Officer Level 8th/7th	1	1		
2	Assistant Soil Conservation Officer	Forest	Soil and Water Conservation	Officer Level 8th/7th	1	1		
3	Soil Conservation Assistant	Forest	Soil and Water Conservation	Assistant Level 5th/Officer Level 6th	1			1
4	Sub-Engineer	Engineering	Civil/Irrigation	Assistant Level 5th/Officer Level 6th	1			1
5	Accountant	Administration	Account	Assistant Level 5th/Officer Level 6th	1			1
6	Nayab Subba	Administration	General Administration	Assistant Level 5th/Officer Level 6th	1			1
7	Driver	Administration	General Administration		1		1	
10	Office Helper	Administration	General Administration		1		1	

1.7 ALLOCATED PROGRAM AND BUDGET

The following annual program is formulated by MoFE, Lumbini Province for the execution of SCWM activities in the working areas of the SWMO, Rolpa:

1.7.1 SOIL AND WATERSHED MANAGEMENT PROGRAM (Budget in Rs Lakh)

Table 2: Allocated Budget & Program (Province Government)

S.No.	Program	Unit	Rolpa	
			Qty	Budget
Programme under Capital Heading				
1	Emergency Landslide Control	Nos	4	54
2	Gully, Landslide & Torrent Control	Nos	10	112
3	Sensitive Watershed Area Protection	Nos	3	32
4	River/Stream Bank Protection	K.m.	0.4	23
5	Soil Conservation along Rural Road	K.m.	0.45	30
6	Fruit/Fodder Tree, Grass Plantation	Ha.	15	8
7	Seedling Production (Fodder/Bio-engineering Species)	No.	1	3
8	Soil Conservation through Brush Layering, Fascine, Palisade	No.	1	5
9	Soil Conservation Work through Bamboo Crib Wall Construction	No.	1	5
10	Office Periphery Beutification	No.	1	1
11	Pahiro Niyantran, Gangadev Ga.Pa. 2, Jinawang, Rolpa	No.	1	15
12	Pahiro Niyantran, Gangadev Ga.Pa. 7, Raank, Rolpa	No.	1	15
13	Recharge Pond Construction, Gangadev Ga.Pa. 4, Pakhapani, Rolpa	No.	1	8
14	Darekhola Tatbandhan, Rolpa Na. Pa. 5, Bajhawang, Rolpa	No.	1	20
15	Baghthala Jalasaya Nirman, Rolpa Na.Pa. 6, Rolpa	No.	1	10
16	Puranogaun Nadi Tatbandhan, Rolpa Na.Pa. 5, Rolpa	No.	1	10
17	Panighat Tatbandhan, Rolpa Na. Pa. 5, Bajhawang, Rolpa	No.	1	15
18	Satdobato Jalasaya Nirman, Rolpa Na.Pa 3, Rolpa	No.	1	10
19	Jedwang Tatbandhan Tatha Pahiro Niyantran, Rpa Na Pa. 5, Rolpa	No.	1	5
20	Jutung Khola Tatbandhan, Lungri Ga. Pa 03, Chiurafed, Rolpa	No.	1	10
21	Siundada Pahiro Niyantran, Airawati Ga. Pa. 5, Pyuthan	No.	1	7

22	Jhimrukh Jaladhaar Kashetra Wyawasthaapan Tatha Sanrakshan, Pyuthan	No.	1	15
23	Dhamche Pahiro Niyantran, Naubahini Ga.Pa. 3, Pyuthan	No.	1	5
24	Chhatipata Lankuri Kha Nadi Niyantran, Jhimrukh Ga.Pa. 7, Pyuthan	No.	1	10
25	Daringe Dalit Basti Pahiro Niyantran, Naubahini Ga.Pa. 7, Pyuthan	No.	1	8
26	Kaprakhola Simpani Motorbatoma Bhu-Sanrakshan, Jhimrukh Ga.Pa. 7, Pyuthan	No.	1	8
27	Tusarekhola Chhipchhipe Pahiro Niyantran, Jhimrukh Ga. Pa.7, Pyuthan	No.	1	10
28	Jugekholla Pahiro Niyantran, Naubahini Ga.Pa. 2, Pyuthan	No.	1	5
29	Lungkhla Jaladhaar Kshetra Sanrakshan, Naubahini Ga. Pa. 1, Pyuthan	No.	1	15
30	Tiwachuli khanepani Mul Sanrakshan, Bhume Ga.Pa.5, Rukum Purba	No.	1	5
31	Ratdaha Boksodaha Sanrakshan, Putha Uttarganga Ga Pa. 9, Rukum Purba	No.	1	8
A	**Total Program Cost Under Capital Heading**			**487**
Programme under Current Heading				
1	Conservation Extension Material Production / Co-ordinationWorkshop / Meeting / Training / Activity Profile Publication	No.	1	3
2	Field Gear Management	No.	1	0.21
B	**Total Program Cost Under Current Heading**			**3.21**
C	**Total Program Cost (A+B)**			**490.21**
D	**Administrative (Utilization & Operational Cost)**			**63.91**
E	**Grand Total (C+D)**			**554.12**

1.7.2 CONTINGENT GRANT PROGRAM TRANSFERRED BY FEDERAL GOVERNMENT(Budget in Rs Lakh)

Table 3: Allocated Budget & Program (Federal Government)

S.No.	Program	Unit	Rolpa	
			Qty	Budget
Programme under Capital Heading				
1	Jaljala Jalasaya Nirman, Thawang Ga.Pa., Rolpa	No.	1	10
2	Fagam, Fuliban, Seram & Gaam Pahiro Niyantran, Sunchhahari Ga.Pa., Rolpa	No.	1	15
3	Puwakhola Pahiro Niyantran, Pariwartan Ga.Pa. 2, Rangsi, Rolpa	No.	1	10
4	Tarikhola Tatbandhan, Gangadev Ga.Pa. 6, Rolpa	No.	1	10
5	Pahiro Niyantran Tatha Wyawasthapan, Jawune Panipokhari Sadak, Jhimrukh Ga.Pa. 1, Pyuthan	No.	1	15
6	Pahiro Niyantran Tatha Wyawasthapan, Ghatachaur Khel Maidaan, Jhimrukh Ga.Pa. 1, Pyuthan	No.	1	15
7	Water Source Protection, Rukum Purba	No.	1	10
A	**Total Program Cost Under Capital Heading**			**85**

1.8 ANNUAL BUDGET AND EXPENDITURE

1.8.1 SOIL AND WATERSHED MANAGEMENT PROGRAM (Budget in Rs Lakh)

Table 4: Annual Budget & Expenditure (Province Government)

S. N.	Program	Unit	Annual Target			Annual Physical Progress			Annual Expenditure	
			Qty	Wtg	Budget	Qty	Wtg	%	Amount	%
Program Under Current Heading										
1	Emergency Landslide Control	Nos	4	11.02	54	34	11.02	100	53.79	99.61
2	Gully, Landslide & Torrent Control	Nos	10	22.85	112	15	22.85	100	111.44	99.50
3	Sensitive Watershed Area Protection	Nos	3	6.53	32	5	6.53	100	32	99.99
4	River/Stream Bank Protection	K.m	0.4	4.69	23	0.4	4.69	100	22.97	99.88
5	Soil Conservation along Rural Road	K.m	0.45	6.12	30	0.45	6.12	100	29.93	99.76
6	Fruit/Fodder Tree, Grass Plantation	Ha.	15	1.63	8	15	1.63	100	8	100
7	Seedling Production (Fodder/Bio-engineering Species)	No.	120 00	0.61	3	120 00	0.61	100	2.96	98.83
8	Soil Conservation through Brush Layering, Fascine, Palisade	No.	1	1.02	5	1	1.02	100	5	99.96
9	Soil Conservation Work through Bamboo Crib Wall Construction	No.	1	1.02	5	1	1.02	100	4.99	99.84
10	Office Periphery Beutification	No.	1	0.20	1	1	0.20	100	0.96	96.00

11	Pahiro Niyantran, Gangadev Ga.Pa. 2, Jinawang, Rolpa	No.	1	3.06	15	1	3.06	100	14.98	99.87
12	Pahiro Niyantran, Gangadev Ga.Pa. 7, Raank, Rolpa	No.	1	3.06	15	1	3.06	100	14.70	98
13	Recharge Pond Construction, Gangadev Ga.Pa. 4, Pakhapani, Rolpa	No.	1	1.63	8	1	1.63	100	7.97	99.66
14	Darekhola Tatbandhan, Rolpa Na. Pa. 5, Bajhawang, Rolpa	No.	1	4.08	20	1	4.08	100	19.88	99.38
15	Baghthala Jalasaya Nirman, Rolpa Na.Pa. 6, Rolpa	No.	1	2.04	10	1	2.04	100	9.69	96.92
16	Puranogaun Nadi Tatbandhan, Rolpa Na.Pa. 5, Rolpa	No.	1	2.04	10	1	2.04	100	9.97	99.68
17	Panighat Tatbandhan, Rolpa Na. Pa. 5, Bajhawang, Rolpa	No.	1	3.06	15	1	3.06	100	14.91	99.40
18	Satdobato Jalasaya Nirman, Rolpa Na.Pa 3, Rolpa	No.	1	2.04	10	1	2.04	100	9.99	99.91
19	Jedwang Tatbandhan Tatha Pahiro Niyantran, Rpa Na Pa. 5, Rolpa	No.	1	1.02	5	1	1.02	100	4.98	99.66
20	Jutung Khola Tatbandhan, Lungri Ga. Pa 03, Chiurafed, Rolpa	No.	1	2.04	10	1	2.04	100	9.97	99.70
21	Siundada Pahiro Niyantran, Airawati Ga. Pa. 5, Pyuthan	No.	1	1.43	7	1	1.43	100	6.93	99.98
22	Jhimrukh Jaladhaar Kashetra Wyawasthaapan Tatha Sanrakshan, Pyuthan	No.	1	3.06	15	1	3.06	100	14.95	99.67
23	Dhamche Pahiro Niyantran, Naubahini Ga.Pa. 3, Pyuthan	No.	1	1.02	5	1	1.02	100	4.99	99.89
24	Chhatipata Lankuri Kha Nadi Niyantran, Jhimrukh Ga.Pa. 7, Pyuthan	No.	1	2.04	10	1	2.04	100	10	99.99
25	Daringe Dalit Basti Pahiro Niyantran, Naubahini Ga.Pa. 7, Pyuthan	No.	1	1.63	8	1	1.63	100	8	99.99
26	Kaprakhola Simpani Motorbatoma Bhu-Sanrakshan, Jhimrukh Ga.Pa. 7, Pyuthan	No.	1	1.63	8	1	1.63	100	7.94	99.28
27	Tusarekhola Chhipchhipe Pahiro Niyantran, Jhimrukh Ga. Pa.7, Pyuthan	No.	1	2.04	10	1	2.04	100	10	100
28	Jugekholla Pahiro Niyantran, Naubahini Ga.Pa. 2, Pyuthan	No.	1	1.02	5	1	1.02	100	5	99.99
29	Lungkhla Jaladhaar Kshetra Sanrakshan, Naubahini Ga. Pa. 1, Pyuthan	No.	1	3.06	15	1	3.06	100	14.93	99.56
30	Tiwachuli khanepani Mul Sanrakshan, Bhume Ga.Pa.5, Rukum Purba	No.	1	1.02	5	1	1.02	100	5	99.91
31	Ratdaha Boksodaha Sanrakshan, Putha Uttarganga Ga Pa. 9, Rukum Purba	No.	1	1.63	8	1	1.63	100	7.82	97.76
A	**Total Program Cost Under Capital Heading**			**99.35**	**487**		**99.35**	**100**	**484.65**	**99.52**
Program Under Current Heading										
1	Conservation Extension Material Production/CoordinationWorkshop/Meeting /Training/Activity Profile	No.	1	0.61	3	1	0.61	100	2.99	99.82
2	Field Gear Management	No.	1	0.04	0.21	1	0.04	100	0.21	100
B	**Total Program Cost Under Current Heading**			**0.65**	**3.21**		**0.14**	**100**	**3.20**	**99.83**
C	**Total Program Cost (A+B)**			**100.00**	**490.21**		**100**	**100**	**487.85**	**99.52**
D	**Administrative (Utilization & Operat. Cost)**				**63.91**				**39.22**	**61.38**
E	**Grand Total (C+D)**				**554.12**				**527.08**	**95.12**

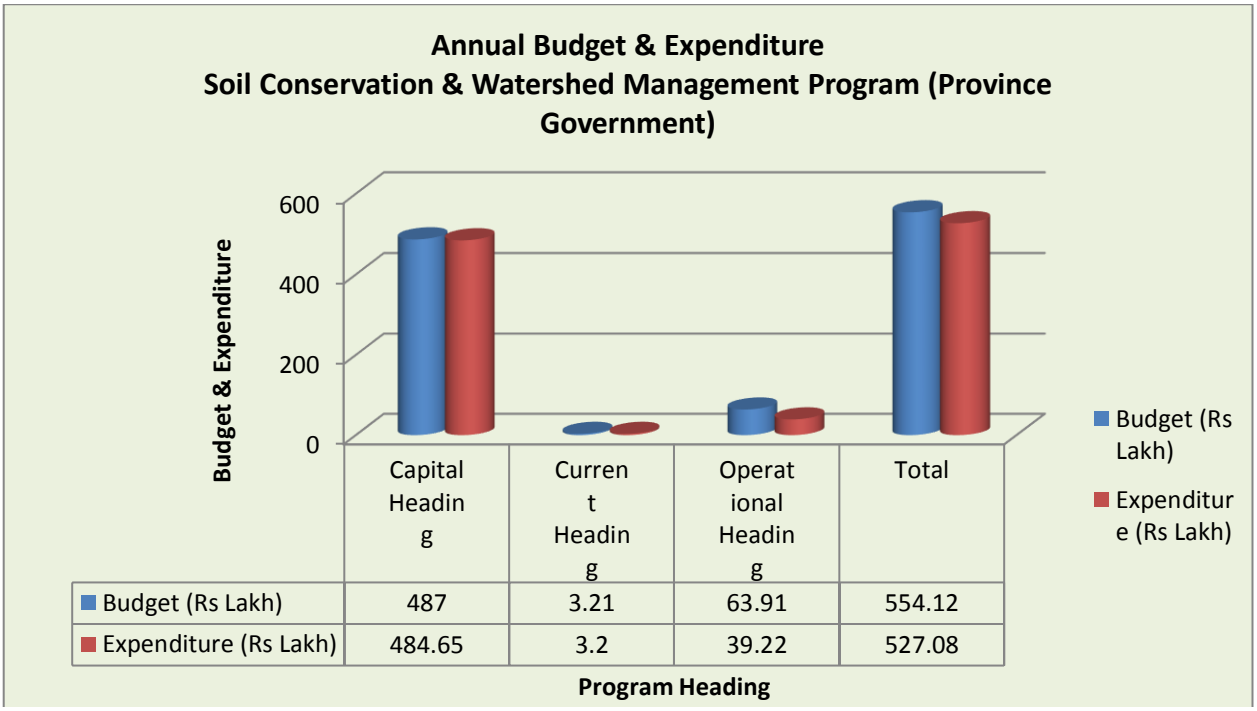


Figure 4: Annual Budget& Expenditure

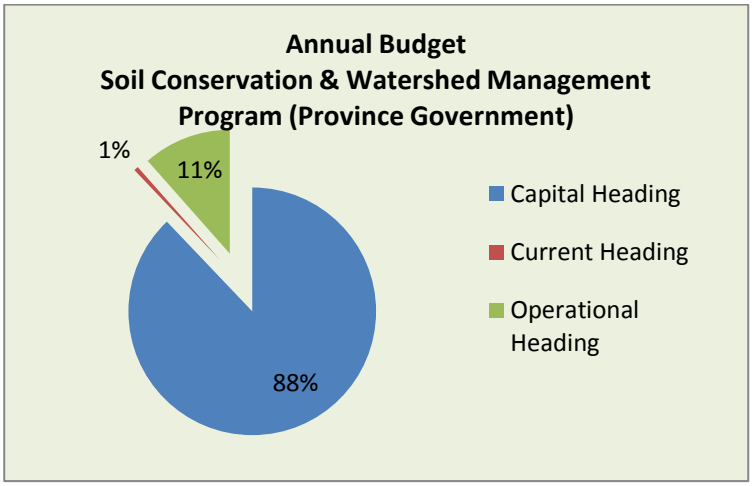


Figure 5: Annual Budget

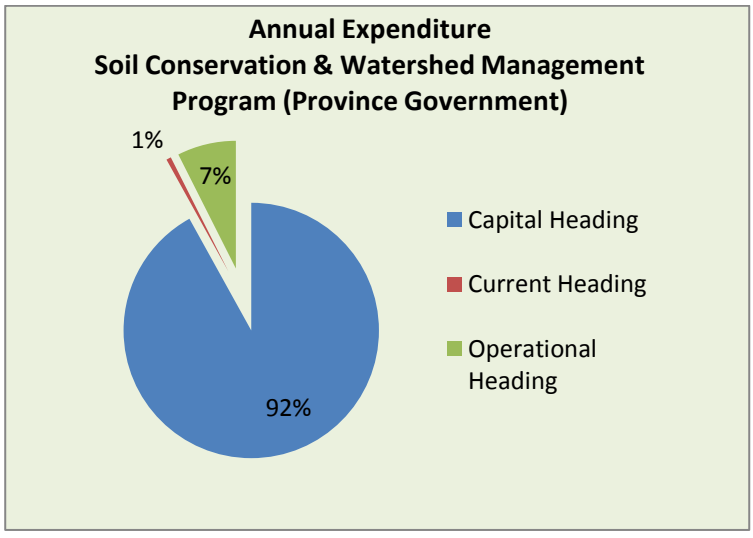


Figure 5: Annual Expenditure

In this Fiscal Year, about Five Crore Fifty Four Lakh Tweve Thusand Rupees, as an annual budget, has been allocated by Province Government to implement the soil conservation and watershed management activities in three working areas (districts) of SWMO, Rolpa . Analyzing the allocated budget, about 88% of the total budget was allocated under the capital program heading, 1% was allocated under the current program heading and 11% under the utilization and operation heading.

It was found that about Five Crore Twenty Seven Lakh Eight Thousand Rupees has been expended to complete the given targets of which 8% of the approved budget was expended for activity profile publication, salary, utilization & office operational cost while the rest of the budget, i.e. 92%, was expended on the implementation of different soil conservation and watershed management activities through different user groups in the 3 working areas of SWMO, Rolpa.

1.8.2 CONTINGENT GRANT PROGRAM TRANSFERRED BY FEDERAL GOVERNMENT (Budget in Rs Lakh)

Table 5: Annual Budget & Expenditure (Federal Government)

S. N.	Program	Unit	Annual Target			Annual Physical Progress			Annual Expenditure	
			Qty	Wtg	Budget	Qty	Wtg	%	Amount	%
Program Under Current Heading										
1	Jaljala Jalasaya Nirman, Thawang Ga.Pa., Rolpa	No.	1	11.76	10	1	11.76	100	9.58	95.80
2	Fagam, Fuliban, Seram & Gaam Pahiro Niyantran, Sunchhahari Ga.Pa., Rolpa	No.	1	1765	15	2	1765	100	15	99.97
3	Puwakhola Pahiro Niyantran, Pariwartan Ga.Pa. 2, Rangsi, Rolpa	No.	1	11.76	10	1	11.76	100	10	100
4	Tarikhola Tatbandhan, Gangadev Ga.Pa. 6, Rolpa	No.	1	11.76	10	1	11.76	100	10	99.95
5	Pahiro Niyantran Tatha Wyawasthapan, Jawune Panipokhari Sadak, Jhimrukh Ga.Pa. 1, Pyuthan	No.	1	17.65	15	1	17.65	100	15	99.97
6	Pahiro Niyantran Tatha Wyawasthapan, Ghatachaur Khel Maidaan, Jhimrukh Ga.Pa. 1, Pyuthan	No.	1	17.65	15	1	17.65	100	15	100
7	Water Source Protection, Rukum Purba	No.	1	11.76	10	2	11.76	100	9.80	98.05
A	**Total Program Cost Under Capital Heading**			**100**	**85**		**100**	**100**	**84.37**	**99.26**

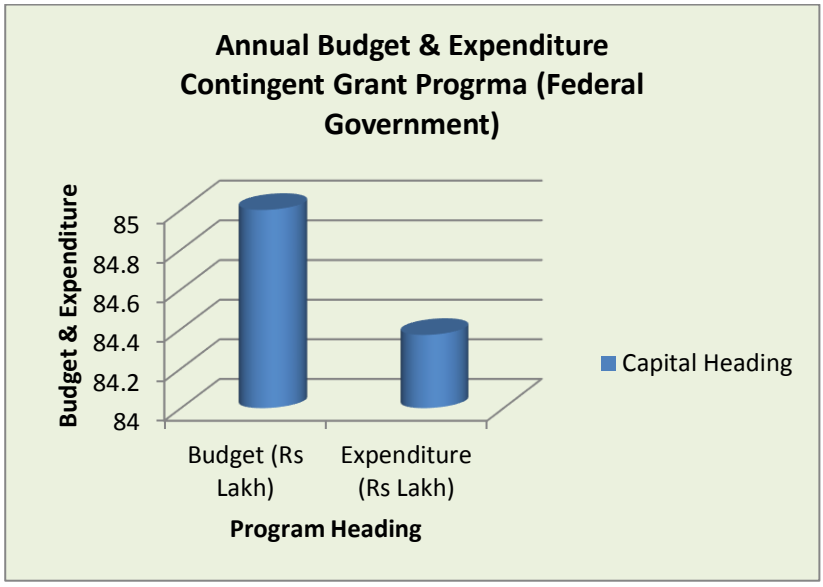


Figure 7: Annual Budget & Expenditure

In this Fiscal Year, about Eighty Five Lakh Rupees, as an annual budget, has been allocated by Province Government as Contingent Grant Program Transferred by Federal Government to implement the soil conservation and watershed management activities in three working areas (districts) of SWMO, Rolpa . Analyzing the allocated budget, about 100% of the total budget was allocated under the capital program heading.

It was found that about Eighty Four Lakh Thirty Seven Thousand Rupees has been expended to complete the given targets of which 99.26% of the approved budget was expended for the implementation of different soil conservation and watershed management activities through different user groups in the 3 working areas of SWMO, Rolpa.

SECTION 2: ACTIVITY PROFILE

2.1 ACTIVITY PROFILE OF ROLPA DISTRICT

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Rolpa/Rolpa	**Ward No:** 10	**Place:** Bhanbhane	**F/Y:** 079/80	
	Co-ordinates:	Latitude: 28.327837	Longitude: 82.665396		
3	**Existing Site Problem:** The landslide behind the School possess a risk of damage to the school Building				
4	**Cost:**				
a	**Estimated**	**Total:** 1153892.85	**Office:** 999942.15	**Users:** 153950.70	**Others:**
b	**Actual Expenditure**	**Total:** 1186148.99	**Office:** 983585.69	**Users:** 203363.30	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce the risk of damage to the school building			
6	**Technique Applied:**	**a) Structural:** Stone Masonary Retaining Wall Construction (39.35m*0.67m*2.35m)			
7	**Implementation Process:**	Co-ordination with Local Representatives, School Management Committee, User Group and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	684 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the school building; Approximately 0.7 ha of School area has been conserved			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 30	**Janajati:** 30	**Others:** 40
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support.			
15	**Others; Name of:**	**User Group:** Janta Aa.Bi. Bhanbhane Wall Nirman Upabhokta Samiti			
		Chair Person: Bal Bdr. Mahara			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 8: Bhanbhane Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Rolpa/Rolpa		**Ward No:** 10	**Place:** Bhoksiwang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.371679		Longitude: 82.6646	
3	**Existing Site Problem:** The torrent possess a risk of damage to the nearby settlement & agricultural land by bank cutting				
4	**Cost:**				
a	**Estimated**	**Total:** 891771.43	**Office:** 799956.10	**Users:** 91815.33	**Others:**
b	**Actual Expenditure**	**Total:** 887378.49	**Office:** 796239.27	**Users:** 91139.23	**Others:**
5	**Objectives:**	a) to reduce torrent bank cutting b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 90 Nos; Box size Box size 2m*1m*1m=30 Nos.; Box size 1.5m*1m*1m=60 Nos. were used to construct 60m long Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour Cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	553 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, torrent bank cutting has been controlled; Reduce the risk of damage to the nearby settlement & surrounding area; Approximately 0.5 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 70	**Dalit:** 30	**Janajati:** 40	**Others:**
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Dhangsi Khola Pedi Tatbandhan Upabhokta Samiti			
		Chair Person: Govinda Budha Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 9: Bhoksiwang Dhangsi Khola Torrent Control

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Rolpa/Rolpa		**Ward No:** 10	**Place:** Munwang, Tapakhola	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.351219, 28.35763		Longitude: 82.673082, 82.66944	
3	**Existing Site Problem:** The Munwang & Tapakhola Torrent possess a risk of damage to the nearby settlement and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1114535.08	**Office:** 999995.47	**Users:** 114539.61	**Others:**
b	**Actual Expenditure**	**Total:** 1105988.80	**Office:** 992441.83	**Users:** 113546.98	**Others:**
5	**Objectives:**	a) to reduce torrent bank cutting b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 116 Nos; Box size 1.5m*1m*0.5m=26 Nos.; Box size 1.5m*1m*1m=90 Nos. were used to construct 54m long Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	690 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, torrent bank cutting has been controlled; Reduce the risk of damage to the nearby settlement and agricultural land; Approximately 0.65 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 70	**Dalit:** 30	**Janajati:** 30	**Others:** 10
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Munwang Tapakhla Khahare Niyantran Upabhokta Samiti			
		Chair Person: Dhanmaya Budha			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

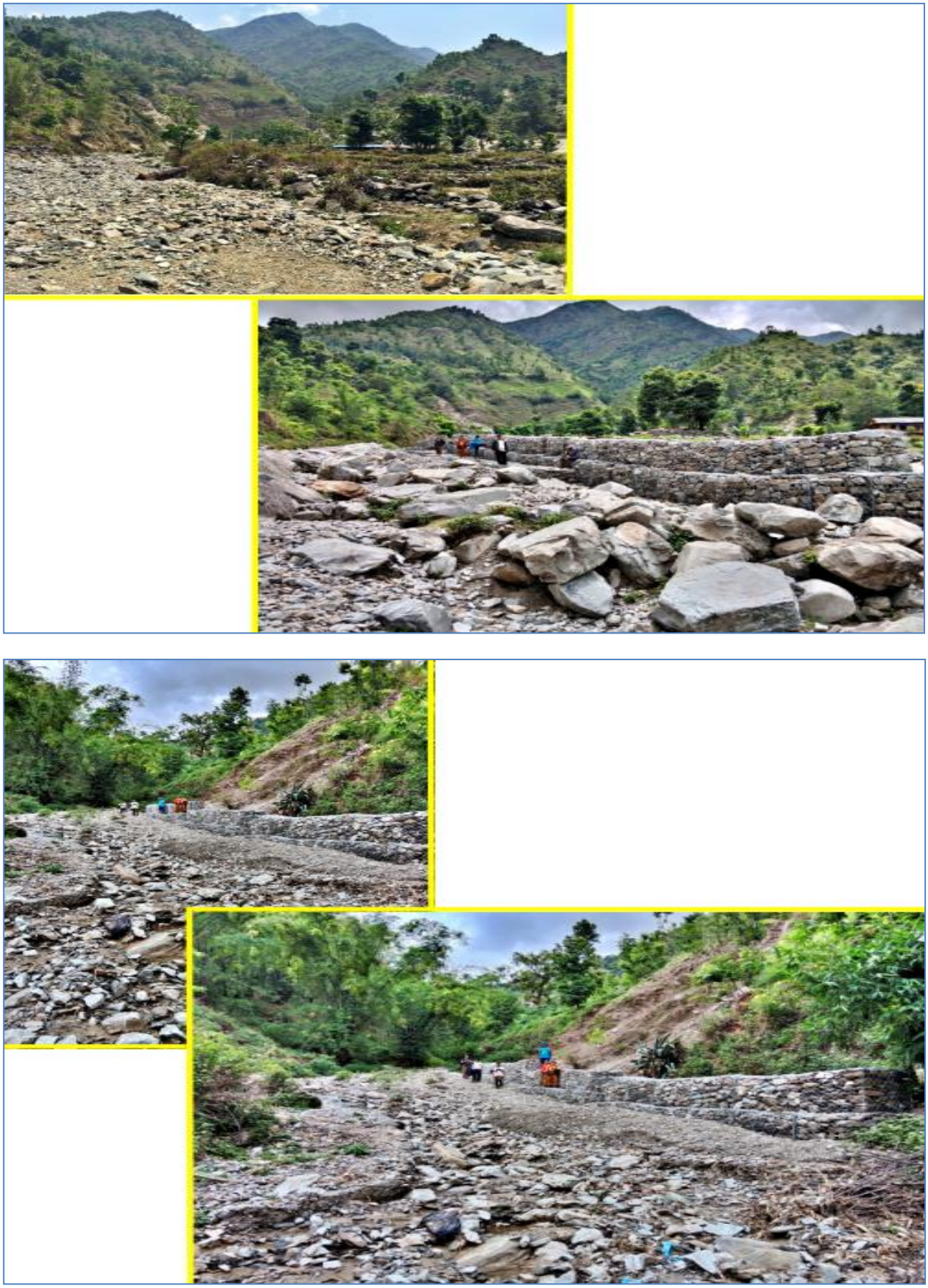


Figure 10: Munwang Tapakhola Torrent Control

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Rolpa/Rolpa		**Ward No:** 1	**Place:** Laharikhola	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.289346, 28.293964		Longitude: 82.658796, 82.646463	
3	**Existing Site Problem:** The Laharikhola Torrent possess a risk of damage to the rural road, nearby settlement, playground and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 2265058.14	**Office:** 1999984.16	**Users:** 265073.98	**Others:**
b	**Actual Expenditure**	**Total:** 2259121.31	**Office:** 1995061.09	**Users:** 264060.22	**Others:**
5	**Objectives:**	a) to reduce torrent bank cutting b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 184 Nos; Box size 2m*1m*1m=102 Nos.; Box size 1.5m*1m*1m=82 Nos. were used to construct 82m long embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	1387 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, torrent bank cutting has been controlled; Reduce the risk of damage to the rural road, playground and nearby settlement; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 59	**Dalit:** 17	**Janajati:** 22	**Others:** 20
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Lahari Khola Khahare Niyantran Upabhokta Samiti			
		Chair Person: Lokendra Sen			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 11: Laharikhola Torrent Control

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 4	**Place:** Runtawang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.3035		Longitude: 82.645267	
3	**Existing Site Problem:** The landslide and gully formation caused by the newly constructed road possess a risk of damage to the settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 545966.51	**Office:** 499933.08	**Users:** 46033.44	**Others:**
b	**Actual Expenditure**	**Total:** 542910.32	**Office:** 498815.57	**Users:** 44094.75	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Stone Masonary Retaining Wall Construction (altogether 5 nos. of wall =37.8m long)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction materials Skilled labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	347md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.3 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 16	**Dalit:** 1	**Janajati:** 8	**Others:** 7
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Runtawang Dekhi Sunilmarg Motorbato Upabhokta Samiti			
		Chair Person: Bhawana Thapa			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 12: Runtawang Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 5	**Place:** Jedwang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.25299		Longitude: 82.583614	
3	**Existing Site Problem:** The Landslide infront of the Ward office possess a risk of damage to the settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 567219.97	**Office:** 499986.01	**Users:** 67233.96	**Others:**
b	**Actual Expenditure**	**Total:** 567219.97	**Office:** 499986.01	**Users:** 67233.96	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 48 Nos; Box size 2m*1m*1m=16 Nos. 1.5m*1m*1m=32 Nos.; were used to construct 16m long & 4m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	348 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.1 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 25	**Dalit:** 10	**Janajati:** 8	**Others:** 17
12	**Problem/Obstacles Faced:**	Transportational difficulties; Stones needed for packing work have to be collected and transported from far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Jedwang Tatbandhzn Tatha Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Bir Bdr. B.K.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 13: Jedwang Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Pariwartan		**Ward No:** 2	**Place:** Simarangsi	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.433256		Longitude: 82.54132	
3	**Existing Site Problem:** The Landslide behind the school possess a high risk of damage to the Schol Building				
4	**Cost:**				
a	**Estimated**	**Total:** 1090936.57	**Office:** 999975.59	**Users:** 90960.99	**Others:**
b	**Actual Expenditure**	**Total:** 1087791.39	**Office:** 999012.57	**Users:** 88778.82	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Stone Masonary Retaining Wall Construction (21.02m*0.70m*3.20m)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	694 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.5 ha of school area has been conserved			
11	**Benefitted HH:**	**Total:** 50	**Dalit:** 10	**Janajati:** 20	**Others:** 30
12	**Problem/Obstacles Faced:**	Transportational difficulties; Stone, sand & aggregates needed for construction work have to be collected and transported from very far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Shree Bishwamitra Aa.Bi., Bidhyalaya Byawasthapan Samiti			
		Chair Person: Tek Bdr. Gharti			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 14: Simarangsi Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Pariwartan		**Ward No:** 2	**Place:** Puwakhola, Rangsi	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.451916		Longitude: 82.551748	
3	**Existing Site Problem:** The Landslide caused bythe torrent baak cutting possess a risk of damage to the settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1128919.02	**Office:** 999966.90	**Users:** 128952.11	**Others:**
b	**Actual Expenditure**	**Total:** 1128919.02	**Office:** 999966.90	**Users:** 128952.11	**Others:**
5	**Objectives:**	a) to reduce soil erosion, mass movement & torrent bank cutting b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall & Check-dam Construction (Gabion Box 111 Nos; Box size 2m*1m*1m=48 Nos., 1.5m*1m*1m=47 Nos. 3m*1m*0.50m=3 Nos. & 3m*1.5m*0.50m=13 Nos.; were used to construct 30m long Gabion Retaining Wall & 9m long Check-dam)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	695 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion, mass movement & torrent bank cutting has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.7 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 25	**Dalit:**	**Janajati:**	**Others:** 25
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Puwakhola Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Laaikram Oli			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 15: Puwakhola Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Gangadev		**Ward No:** 2	**Place:** Jinawang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.430878		Longitude: 82.397371	
3	**Existing Site Problem:** The Landslide infront of the school building possess a risk of damage to the school building & rural road				
4	**Cost:**				
a	**Estimated**	**Total:** 1661949.38	**Office:** 1499988.13	**Users:** 161961.25	**Others:**
b	**Actual Expenditure**	**Total:** 1661949.38	**Office:** 1499988.13	**Users:** 161961.25	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 152 Nos; Box size 2m*1m*1m=76 Nos. 1.5m*1m*1m=76 Nos.; were used to construct 38m long & 4m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, School Management Committee and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	1043 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the school building & rural road; Approximately 0.65 ha of school area has been conserved			
11	**Benefitted HH:**	**Total:** 65	**Dalit:** 9	**Janajati:** 56	**Others:**
12	**Problem/Obstacles Faced:**	Transportational difficulties; Stones needed for packing work have to be collected and transported from far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Krishna Aa.Bi., Bidhyalaya Byawasthapan Samiti			
		Chair Person: Tara Prasad Gharti Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

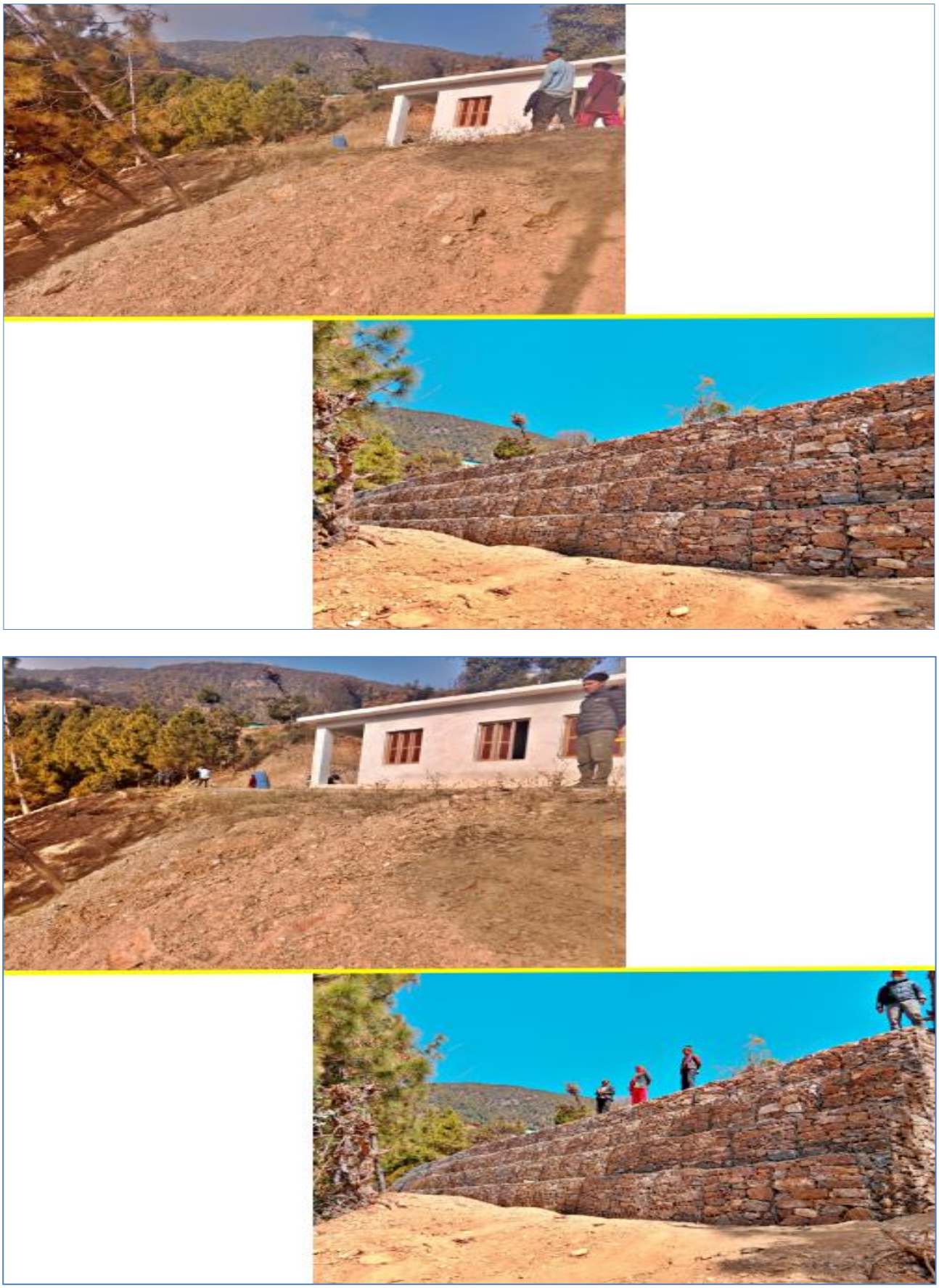


Figure 16: Jinawang Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Gangadev		**Ward No:** 7	**Place:** Sandada, Raank	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.45197		Longitude: 82.459883	
3	**Existing Site Problem:** The Landslide possess a risk of damage to the settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1661586.06	**Office:** 1499989.70	**Users:** 161596.36	**Others:**
b	**Actual Expenditure**	**Total:** 1630569.11	**Office:** 1469983.03	**Users:** 160586.08	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 144 Nos; Box size 2m*1m*1m=77 Nos. 1.5m*1m*1m=67 Nos.; were used to construct 42m long Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	1022 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.7 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 28	**Dalit:**	**Janajati:** 13	**Others:** 15
12	**Problem/Obstacles Faced:**	Transportational difficulties;			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Sandada Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Suwash Chandra Pun			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

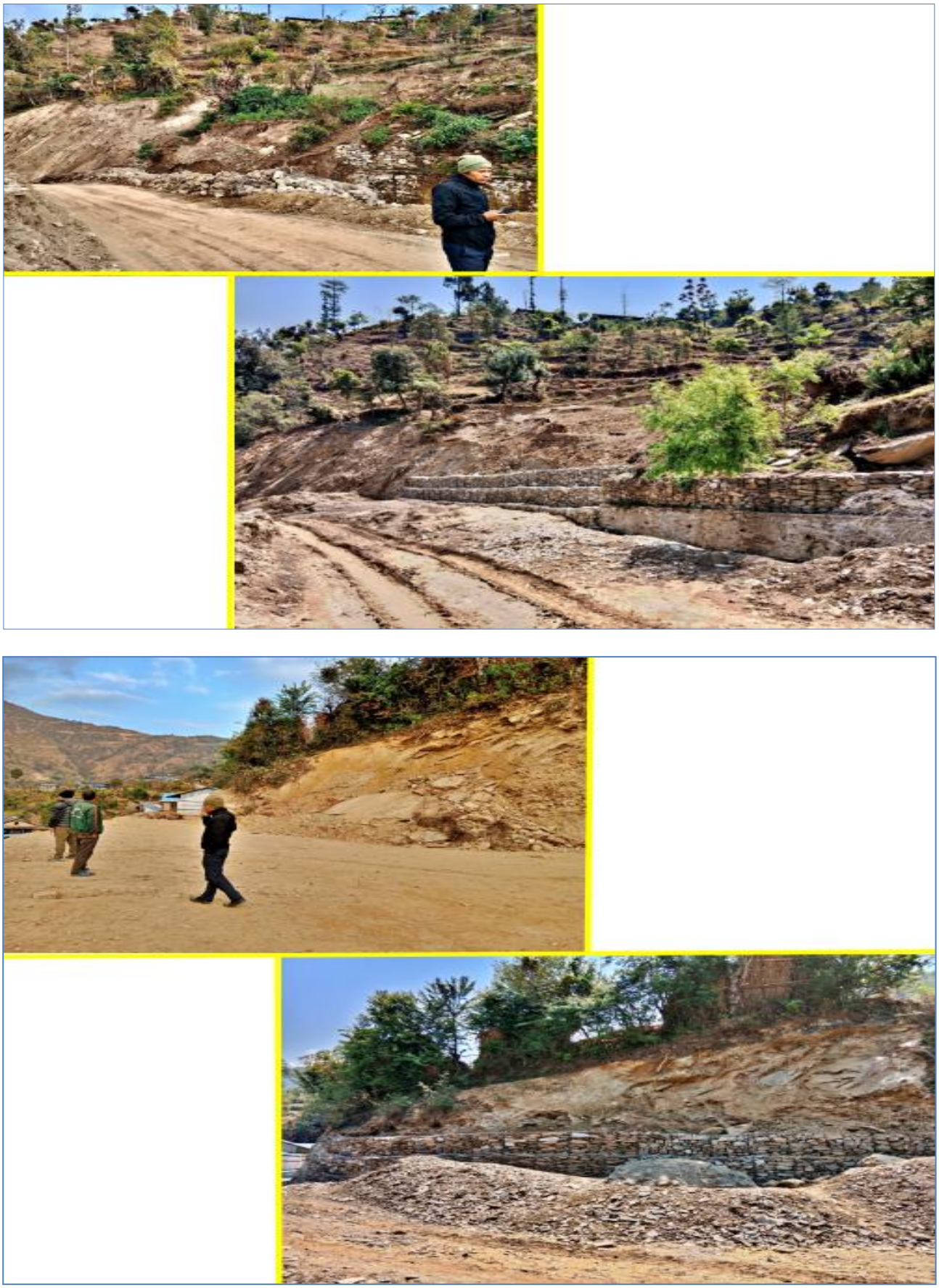


Figure 17: Sandada Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Gangadev		**Ward No:** 6	**Place:** Tarikhola	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.518057		Longitude: 82.443022	
3	**Existing Site Problem:** The Landslide in the way to a school possess a risk of damage to the rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1125091.68	**Office:** 999994.97	**Users:** 125096.71	**Others:**
b	**Actual Expenditure**	**Total:** 1125091.68	**Office:** 999994.97	**Users:** 125096.71	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 105 Nos; Box size 2m*1m*1m=40 Nos. 1.5m*1m*1m=65 Nos.; were used to construct 15m long & 8m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	695 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the rural road and agricultural land; Approximately 0.2 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 45	**Dalit:**	**Janajati:**	**Others:** 45
12	**Problem/Obstacles Faced:**	Transportational difficulties; Stones needed for packing work have to be collected and transported from far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Aadhunik Laligurans Krishak Samuha			
		Chair Person: Nara Singh Rana			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 18: Tarikhola Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Sunchhahari		**Ward No:** 6	**Place:** Fagaam	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.311727		Longitude: 82.738566	
3	**Existing Site Problem:** The gully formation possess a risk of damage to the settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1113450.40	**Office:** 999996.98	**Users:** 113453.42	**Others:**
b	**Actual Expenditure**	**Total:** 1104732.97	**Office:** 992486.50	**Users:** 112246.51	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Chek-daml Construction (Gabion Box 48 Nos; Box size 2m*1m*1m=11 Nos., 1.5m*1m*1m=61 Nos., 1.5m*1m*0.50m=21 Nos.; were used to construct 2 nos. of Gabion Check-dam)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	690 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 12	**Janajati:** 65	**Others:** 23
12	**Problem/Obstacles Faced:**	Transportational difficulties; Stones needed for packing work have to be collected and transported from far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:**Kultung Khola Pahiro Niyantran Yojana Upabhokta Samiti			
		Chair Person: Bishal Gharti Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

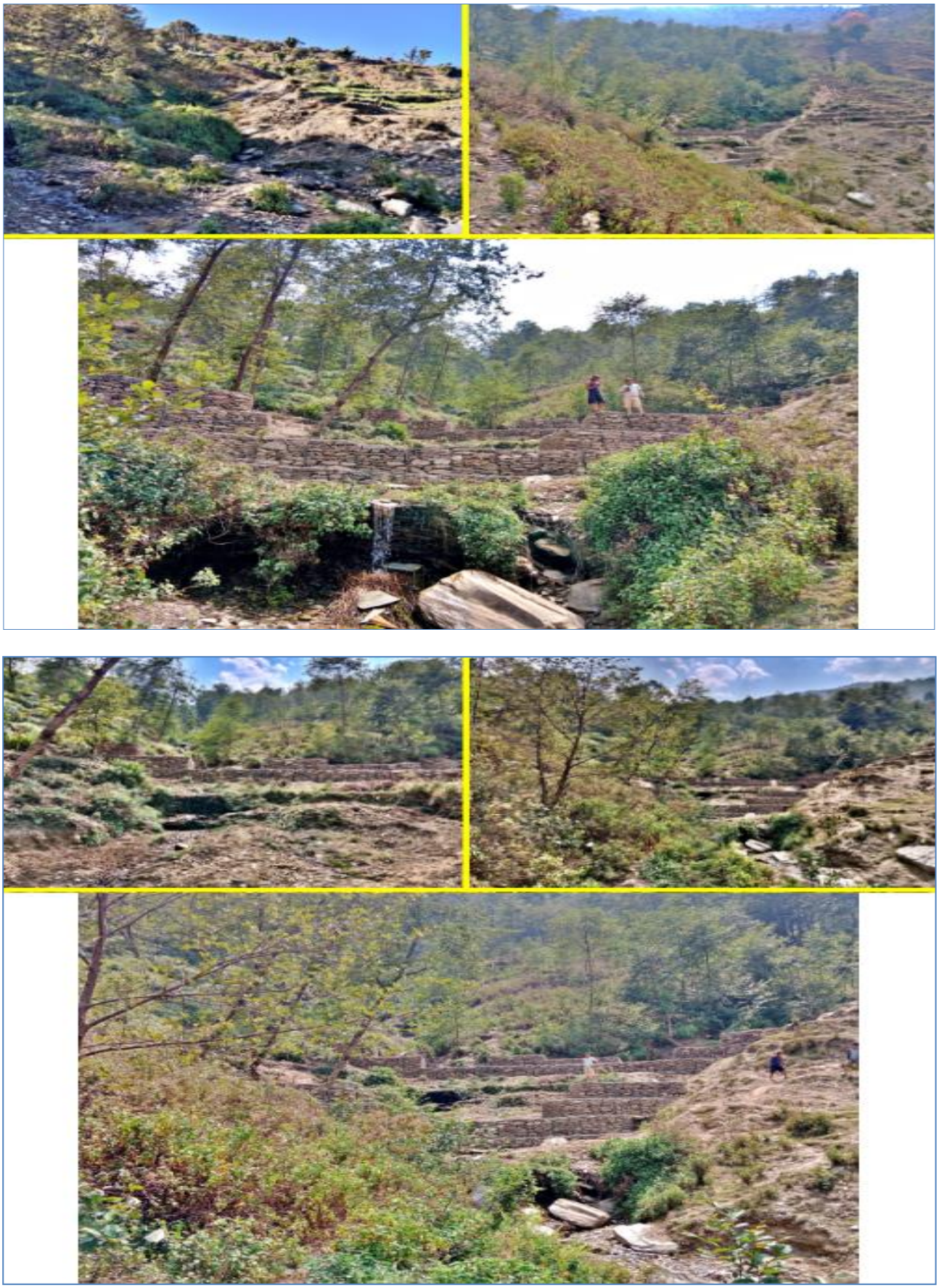


Figure 19: Fagam Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Sunchhahari		**Ward No:** 6	**Place:** Fagaam	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.311727		Longitude: 82.738566	
3	**Existing Site Problem:** The Landslide possess a high risk of damage to the settlement, rural road and barren land				
4	**Cost:**				
a	**Estimated**	**Total:** 627503.38	**Office:** 507042.76	**Users:** 120460.62	**Others:**
b	**Actual Expenditure**	**Total:** 627503.38	**Office:** 507042.76	**Users:** 120460.62	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Vegetative:** Bamboo crib wall (80m) & Bamboo wattling (400m) Construction, Amriso Rhizome, SmartNapier & Bhujetro Plantation (0.10ha)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Bamboo, Amriso, Smart Napier, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	352 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.5 ha of barren land has been conserved			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 12	**Janajati:** 65	**Others:** 23
12	**Problem/Obstacles Faced:**	Local people didn't believe that these types of low cost soil conservation techniques can control landslide			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support.			
15	**Others; Name of:**	**User Group:** Kultung Khola Pahiro Niyantran Yojana Upabhokta Samiti			
		Chair Person: Bishal Gharti Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 20: Fagam Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rolpa /Sunilsmriti		**Ward No:** 6	**Place:** Gajul	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.292277		Longitude: 82.713124	
3	**Existing Site Problem:** The Landslide infront of the School possess a risk of damage to the Schoo; building & rural road				
4	**Cost:**				
a	**Estimated**	**Total:** 168414.36	**Office:** 149926.65	**Users:** 18470.87	**Others:**
b	**Actual Expenditure**	**Total:** 168414.36	**Office:** 149926.65	**Users:** 18470.87	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 24 Nos; Box size 2m*1m*1m=16 Nos. 1.5m*1m*1m=8 Nos.; provided by Office were used to construct 8m long & 4m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	104 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the school & rural road Approximately 0.25 ha of school area has been conserved			
11	**Benefitted HH:**	**Total:** 90	**Dalit:** 20	**Janajati:** 30	**Others:** 40
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Janajyoti Ma.Bi, Bidhyalaya Byawasthapan Samiti			
		Chair Person: Yuvraj Subedi.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 21: Gajul Landslide Treatment

1	**Program:** Emergency Landslide Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 5	**Place:** Bajhawang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.250831		Longitude: 82.611527	
3	**Existing Site Problem:** The Landslide caused by river bank cutting possess a risk of damage to the agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 795879.48	**Office:** 699960.37	**Users:** 95919.11	**Others:**
b	**Actual Expenditure**	**Total:** 793166.90	**Office:** 697689.82	**Users:** 95477.08	**Others:**
5	**Objectives:**	**a)** to ***reduce soil erosion and mass movement*** ***b)*** to ***reduce devastating effects on the downstream and surrounding area***			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 60 Nos; Box size 2m*1m*1m=20 Nos.; ; Box size 1.5m*1m*1m=40 Nos.; were used to construct 40m long Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	485 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the agricultural land; Approximately 0.5 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 20	**Janajati:** 15	**Others:** 5
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Odarne Panighat Sichail Jal Upabhokta Samuha			
		Chair Person: Tek Bdr. Mahara			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 22: Sulibagar Madikhola Landslide Treatment

1	**Program:** Emergency Landslide Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 4	**Place:** Office	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.312115		Longitude: 82.623525	
3	**Existing Site Problem:** Several man made & natural hazards like landlsides, gully formation, river bank cutting etc. ae prevalent in the working area of SWMO, Rolpa				
4	**Cost:**				
a	**Estimated**	**Total:** 1699955.86	**Office:** 1699955.86	**Users:**	**Others:**
b	**Actual Expenditure**	**Total:** 1699955.86	**Office:** 1699955.86	**Users:**	**Others:**
5	**Objectives:**	**a)** to ***reduce soil erosion, mass movement & river bank cutting*** ***b)*** to ***reduce devastating effects on the downstream and surrounding area***			
6	**Technique Applied:**	**a) Structural:** Gabion box procurement (Gabion Box 574 Nos; Box size 2m*1m*1m=106 Nos.; ; Box size 1.5m*1m*1m=468 Nos.; were procured)			
7	**Implementation Process:**	Co-ordination with Local Representatives, District Administration Office, District Disaster Management Committee and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Procurement of Machine made Gabiion Boxes; Provide Gabion Boxes at free of cost to several households referred by DAO, Disaster Management Committee & related Ward office; Monitoring & Evaluation			
8	**Employment:**				
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion, mass movement & river bank cutting has been reduced; Reduce the risk of damage to the settlement, rural road, other infrastructures & agricultural land; Approximately 1.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 60	**Dalit:** 22	**Janajati:** 20	**Others:** 18
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Several			
		Chair Person:			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 23: Gabin Boxes Procurement

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Rural Municipality**: Rolpa /Lungri		**Ward No:** 3	**Place:** Jutung Khola, Chiurafed	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.217681		Longitude: 82.810925	
3	**Existing Site Problem:** The irrigation canal has been damaged & agricultural land has been in degraded form by Jutung khola bank cutting				
4	**Cost:**				
a	**Estimated**	**Total:** 1122013.29	**Office:** 999999.07	**Users:** 122014.22	**Others:**
b	**Actual Expenditure**	**Total:** 1118996.31	**Office:** 996982.09	**Users:** 122014.22	**Others:**
5	**Objectives:**	a) to prevent stream bank cutting b) to protect the irrigation canal & conserve agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 150 Nos; Box size 1.5m*1m*0.5m=60 Nos.; Box size 2m*1m*1m=30 Nos.; Box size 1.5m*1m*1m=60 Nos.; were used to construct 60m long Gabion Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	693 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, stream bank cutting and erosion has been controlled; Reduce the risk of damage to the irrigation canal and agricultural land; Approximately 0.6 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 17	**Dalit:**	**Janajati:** 13	**Others:** 4
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Sakriya Shanti Yuwa Club			
		Chair Person: Rajesh Pun Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 24: Jutung Khola Stream Bank Protection

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 5	**Place:** Puranogaun	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.278848		Longitude: 82.582056	
3	**Existing Site Problem:** The Madikhola has possess a risk of damage the agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1133643.16	**Office:** 999994.69	**Users:** 133648.47	**Others:**
b	**Actual Expenditure**	**Total:** 1130203.13	**Office:** 997138.35	**Users:** 133064.78	**Others:**
5	**Objectives:**	a) to prevent stream bank cutting b) to conserve the agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Embankmnet with Stud Construction (Gabion Box 130 Nos; Box size 1.5m*1m*0.5m=40 Nos.; Box size 2m*1m*1m=25 Nos.; Box size 1.5m*1m*1m=65 Nos.; were used to construct 50m long Gabion Embankment with Stud)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	693 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, stream bank cutting and erosion has been controlled; Reduce the risk of damage to the agricultural land; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 14	**Dalit:**	**Janajati:** 5	**Others:** 9
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Odabhariko Motorbato Sarsafai Upabhokta Samiti			
		Chair Person: Man Bdr. Pun			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

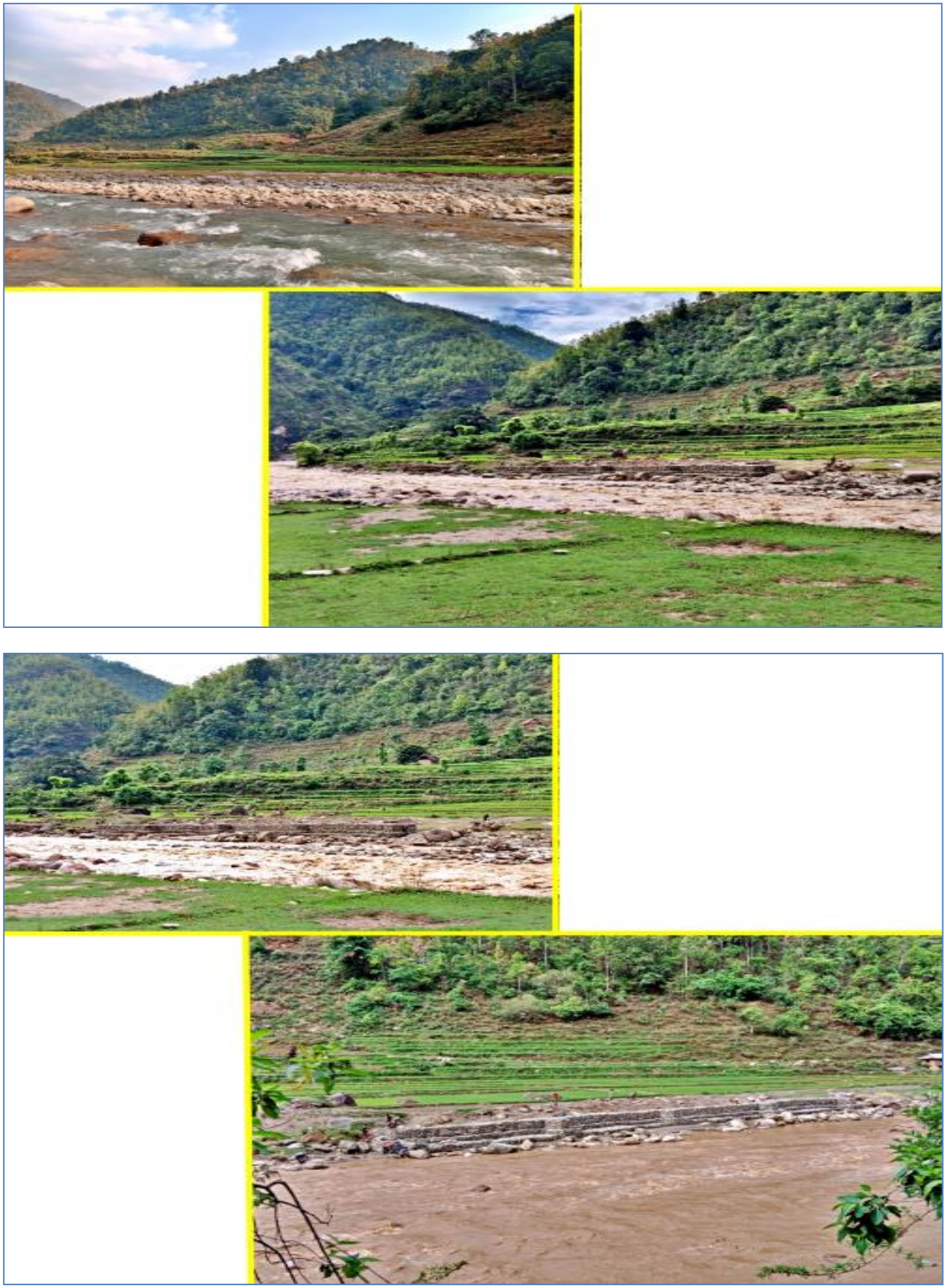


Figure 25: Puranogaun Madikhola Stream Bank Protection

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa	**Ward No:** 5	**Place:** Panighat	**F/Y:** 079/80	
	Co-ordinates:	Latitude: 28.251207	Longitude: 82.61781		
3	**Existing Site Problem:** The Madikhola, which flows alongside the village, possess a risk of damage to the settlement and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1714753.17	**Office:** 1499996.09	**Users:** 214757.08	**Others:**
b	**Actual Expenditure**	**Total:** 1703888.53	**Office:** 1491209.67	**Users:** 212678.86	**Others:**
5	**Objectives:**	a) to prevent stream bank cutting b) to protect the settlement and agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 122 Nos; Box size 1.5m*1m*0.5m=52 Nos.; Box size 2m*1m*1m=18 Nos.; Box size 1.5m*1m*1m=52 Nos.; were used to construct 52m long Gabion Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	1036 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, stream bank cutting and erosion has been controlled; Reduce the risk of damage to the settlement and agricultural land; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 45	**Dalit:** 15	**Janajati:** 15	**Others:** 15
12	**Problem/Obstacles Faced:**	Stones needed for packing work has to be collected and transported from very far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Odarne Panighat Sichai Jal Upabhokta Samuha			
		Chair Person: Tek Bdr. Mahara			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 26: Panighat MadiKhola Stream Bank Protection

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa	**Ward No:** 5	**Place:** Darekhola	**F/Y:** 079/80	
	Co-ordinates:	Latitude: 28.252077	Longitude: 82.609602		
3	**Existing Site Problem:** The Darekhola bank cutting caused a landslide that possess a risk of damage to the settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 2209930.07	**Office:** 1999954.70	**Users:** 209975.37	**Others:**
b	**Actual Expenditure**	**Total:** 2195417.52	**Office:** 1987553.96	**Users:** 207863.56	**Others:**
5	**Objectives:**	a) to prevent stream bank cutting and landslide b) to protect the settlement,rural road and agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 150 Nos; Box size 2m*1m*1m=50 Nos.; Box size 1.5m*1m*1m=50 Nos. Box size 1.5m*1m*0.50m=50 Nos.; were used to construct 50m long Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	1382 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, river bank cutting, landslide and erosion has been controlled; Reduce the risk of damage to the settlement, rural road and agricultural land; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 12	**Janajati:** 16	**Others:** 12
12	**Problem/Obstacles Faced:**	Stones needed for packing work has to be collected and transported from very far distance			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Odarne Panighat Sinchai Jal Upabhokta Samuha			
		Chair Person: Tek Bdr. Mahara			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 27: Darekhola Torrent Control

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Rural Municipality**: Rolpa /Lungri		**Ward No:** 3	**Place:** Jutung Khola	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.224324		Longitude: 82.797658	
3	**Existing Site Problem:** The Jutung khola possess a risk of damage to agricultural land by stream bank cutting				
4	**Cost:**				
a	**Estimated**	**Total:** 902106.15	**Office:** 799983.62	**Users:** 102122.53	**Others:**
b	**Actual Expenditure**	**Total:** 898928.26	**Office:** 797357.08	**Users:** 101571.18	**Others:**
5	**Objectives:**	a) to prevent stream bank cutting b) to conserve agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 97 Nos; Box size 1.5m*1m*0.5m=30 Nos.; Box size 2m*1m*1m=22 Nos.; Box size 1.5m*1m*1m=45 Nos.; were used to construct 45m long Gabion Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	554 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, stream bank cutting and erosion has been controlled; Reduce the risk of damage to the agricultural land; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 39	**Dalit:** 6	**Janajati:** 23	**Others:** 10
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Chiurakhola Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Tej Bdr. Gharti Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 28: Jutung Khola Stream Bank Protection

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 3	**Place:** Satdobato	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.271607		Longitude: 82.666552	
3	**Existing Site Problem:** The excess runoff water flowing through its own natural channel caused erosion and landslide in the downstream area; Lack of water for irrigation, livestock and other domestic purposes				
4	**Cost:**				
a	**Estimated**	**Total:** 1155108.88	**Office:** 999989.87	**Users:** 155119.01	**Others:**
b	**Actual Expenditure**	**Total:** 1165620.29	**Office:** 999186.32	**Users:** 166433.97	**Others:**
5	**Objectives:**	a) to harvest the runoff water b) to control erosion and landslides on downstream area c) to use the harvested runoff water for irrigation, livestock and other domestic purposes			
6	**Technique Applied:**	**a) Structural:** Dam (19.28m*0.85m*2m) & Recharge Pond Construction (Pond wall 4 nos,=15.4m & 15.1m, Wall Height=1.5m; Water Holding Capacity= 348.80m3)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	795 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Properly harvest the runoff water; Reduce the risk of damage in downstream area Support irrigation facilities for approximately 3 ha of agricultural land			
11	**Benefitted HH:**	**Total:** 16	**Dalit:** 1	**Janajati:** 5	**Others:** 10
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different fruit tree species which supports for income generation.			
15	**Others; Name of:**	**User Group:** Satdobato Jalasaya Nirman Upabhokta Samiti			
		Chair Person: Pratham Roka			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 29: Satdobato Recharge Pond

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Municipality**: Rolpa /Rolpa	**Ward No:** 6	**Place:** Baghthala, Darbot	**F/Y:** 079/80	
	Co-ordinates:	Latitude: 28.336338	Longitude: 82.539503		
3	**Existing Site Problem:** The excess runoff water flowing through its own natural channel caused erosion and landslide in the downstream area; Lack of water for irrigation, livestock and other domestic purposes				
4	**Cost:**				
a	**Estimated**	**Total:** 1111772.99	**Office:** 999960.00	**Users:** 111812.99	**Others:**
b	**Actual Expenditure**	**Total:** 1079100.35	**Office:** 969259.33	**Users:** 109841.02	**Others:**
5	**Objectives:**	a) to harvest the runoff water b) to control erosion and landslides on downstream area c) to use the harvested runoff water for irrigation, livestock and other domestic purposes			
6	**Technique Applied:**	**a) Structural:** Recharge Pond Construction (L= 24m, B= 11m, H= 1.5m; Water Holding Capacity= 396 m3)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board Placing from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	898 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Properly harvest the runoff water; Reduce the risk of damage in downstream area Support irrigation facilities for approximately 3 ha of agricultural land			
11	**Benefitted HH:**	**Total:** 60	**Dalit:** 10	**Janajati:** 30	**Others:** 20
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different fruit tree species which supports for income generation.			
15	**Others; Name of:**	**User Group:** Baasthala Pokhari Nirman Upabhokta Samiti			
		Chair Person: Ajendra K.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 30: Baghthala Recharge Pond

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Rural Municipality**: Rolpa /Thawang		**Ward No:** 1	**Place:** Jaljala	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.444811		Longitude: 82.724672	
3	**Existing Site Problem:** The excess runoff water flowing through its own natural channel caused erosion and landslide in the downstream area				
4	**Cost:**				
a	**Estimated**	**Total:** 999619.45	**Office:** 999619.45	**Users:**	**Others:**
b	**Actual Expenditure**	**Total:** 958404.65	**Office:** 958404.65	**Users:**	**Others:**
5	**Objectives:**	a) to harvest the runoff water b) to control erosion and landslides on downstream area			
6	**Technique Applied:**	**a) Structural:** Recharge Pond Construction (9.9m*6m*1.35m; Water Holding Capacity= 88.20m3)			
7	**Implementation Process:**	Co-ordination with Local Representatives and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the construction of recharge pond by quotation; Monitoring & Evaluation			
8	**Employment:**	666 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Properly harvest the runoff water; Reduce the risk of damage in downstream area			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 26	**Janajati:** 64	**Others:** 10
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different fruit tree species which supports for income generation.			
15	**Others; Name of:**	**Firm name:** Tribeni Construction & Transportation Pvt. Ltd.			
		Chair Person: Lakap Budha			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 31: Jaljala Recharge Pond

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Rural Municipality**: Rolpa /Gangadev		**Ward No:** 4	**Place:** Pakhapani	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.494163, 28.519017		Longitude: 82.438065, 82.427476	
3	**Existing Site Problem:** The excess runoff water flowing through its own natural channel caused erosion and landslide in the downstream area; Lack of water for irrigation, livestock and other domestic purposes				
4	**Cost:**				
a	**Estimated**	**Total:** 901168.54	**Office:** 799943.04	**Users:** 101225.60	**Others:**
b	**Actual Expenditure**	**Total:** 898271.46	**Office:** 797224.29	**Users:** 101047.17	**Others:**
5	**Objectives:**	a) to harvest the runoff water b) to control erosion and landslides on downstream area c) to use the harvested runoff water for irrigation, livestock and other domestic purposes			
6	**Technique Applied:**	**a) Structural:** Recharge Pond Construction=8 nos. Earthern Pond of different sizes (Water Holding Capacity= 1137.99 m3)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the constriction of Recharge pond, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	923 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Properly harvest the runoff water; Reduce the risk of damage in downstream area Support irrigation facilities for approximately 2.5 ha of agricultural land			
11	**Benefitted HH:**	**Total:** 132	**Dalit:** 24	**Janajati:**	**Others:** 108
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different fruit tree species which supports for income generation.			
15	**Others; Name of:**	**User Group:** Dalsinge Krishak Samuha			
		Chair Person: Dipendra K.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 32: Pakhapani Recharge Pond

	Program: Fruit/Fodder Tree seedling Distribution and Plantation to Promote Agro-forestry				
2	**Location:** Different Places of Rolpa, Rukum East and Pyuthan Districts	**Ward No:**	**Place:**	**F/Y:** 079/80	
	Coordinate:	Latitude: 28.256458, 28.299387	Longitude: 82.716993, 82.630504		
		Latitude: 28.636982, 28.105636	Longitude: 82.549261, 82.745818		
3	**Existing Site Problem:** High demand of fruit tree seedlings				
4	**Cost:**				
a	**Estimated**	**Total:** 800000.00	**Office:** 800000.00	**Users:**	**Others:**
b	**Actual Expenditure**	**Total:** 800000.00	**Office:** 800000.00	**Users:**	**Others:**
5	**Objectives:**	a) to promote IGAs, ensure employment opportunities and improve the livelihood of the rural people b) to promote agro-forestry			
6	**Technique Applied:**	**a) Vegetative:** Distribution and plantation of 2340 nos. of Mango Seedlings, 1825 nos. of Litchi Seedlings, 2100 nos. of Lemon Seedlings, 1500 nos. of Orange Seedlings, 700 nos. of Kimbu Seedlings & 5000 nos. of Smart Napier Sets			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Purchasing, Distribution & Plantation of Mango/Litchi/Lemon/Orange/Kimbu/Smart Napier Seedlings; Monitoring & Evaluation			
8	**Employment:**				
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	It will support IGAs, ensure employment opportunities and improve the livelihood of rural people Plantation of Approx. 44 ha of land			
11	**Benefitted HH:**	**Total:** 1860	**Dalit:** 620	**Janajati:** 780	**Others:** 460
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	Fund has not been allocated for maintenance from the office. Users will do, if necessary.			
14	**Lesson Learned:**	More emphasis should be given to women & marginalized groups in these types of income generating activities; Indeed, active participation, proper care and maintenance of the planted seedlings results in effective & successful project			
15	**Others; Name of:**	**User Group:** Different User Groups			
		Chair Person: Different			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 33: Fruit Seedlings Distribution & Plantation

1	**Program:** Soil Conservation Work Along Rural Road				
2	**Location: District/Municipality**: Rolpa/Rolpa		**Ward No:** 2	**Place:** Salwang	**F/Y:** 079/80
	Coordinate:	Latitude: 28.306625		Longitude: 82.591885	
3	**Existing Site Problem:** The soil erosion & landslide possess a risk of damage to the rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 889481.39	**Office:** 799991.96	**Users:** 89489.44	**Others:**
b	**Actual Expenditure**	**Total:** 889481.39	**Office:** 799991.96	**Users:** 89489.44	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area c) to improve the road condition			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 50 Nos; Box size 2m*1m*1m=25Nos., 1.5m*1m*1m=25Nos. were used to construct 20m long Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	556 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the rural road; Approximately 0.04 km of rural road & 0.1ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 50	**Dalit:** 10	**Janajati:** 10	**Others:** 30
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Salwang tatbandhan Nirman Aayojana Upabhokta Samiti			
		Chair Person: Anil Dangi			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 34: Salwang Rural Road Conservation

1	**Program:** Soil Conservation Work Along Rural Road				
2	**Location: District/Municipality**: Rolpa/Rolpa	**Ward No:** 4	**Place:** Barreck	**F/Y:** 079/80	
	Coordinate:	Latitude: 28.298414	Longitude: 82.636739		
3	**Existing Site Problem:** The Landslide possess a risk of damage to the rural road, Army Staff Building and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 199803.64	**Office:** 199803.64	**Users:**	**Others:**
b	**Actual Expenditure**	**Total:** 199803.64	**Office:** 199803.64	**Users:**	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Stone Masonary Retaining Wall Construction (9m*0.7m*1.95m)			
7	**Implementation Process:**	Co-ordination with Local Representatives and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the construction of Retaining Wall through quotation; Monitoring & Evaluation			
8	**Employment:**	120 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the rural road; Approximately 0.02 km of rural road & 0.06 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 20	**Dalit:** 8	**Janajati:** 8	**Others:** 4
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**Firm Name:** Shubham Nirman Sewa			
		Chair Person: Anju Kumari K.C. Dangi			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 35: Barreck Landslide Treatment

1	**Program:** Sensitive Watershed Area Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 6	**Place:** Darbot	**F/Y:** 079/80
	Coordinate:	Latitude: 28.327471		Longitude: 82.539079	
3	**Existing Site Problem:** The water source was unprotected and drinking water facilities was lacking due to old pipeline;				
4	**Cost:**				
a	**Estimated**	**Total:** 1010786.39	**Office:** 833248.25	**Users:** 177583.13	**Others:**
b	**Actual Expenditure**	**Total:** 917400.65	**Office:** 749330.02	**Users:** 168070.63	**Others:**
5	**Objectives:**	a) to protect the water source, improve water quality or its regime b) to support drinking water facilities			
6	**Technique Applied:**	**a) Structural:** Intake Construction (L= 2.75m, B= 1.30m, H= 0.80m; Stone Masonary Protection Wall Construction=12.2 m long altogether; Pipeline Construction=1150m)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	521 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Protect the water source; improved water quality Support drinking facilities for 80 households			
11	**Benefitted HH:**	**Total:** 80	**Dalit:** 15	**Janajati:** 35	**Others:** 30
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species around thw water source			
15	**Others; Name of:**	**User Group:** Saurya Urja Khanepani Upabhokta Samiti			
		Chair Person: Chandrajyoti D.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 36: Darbot Water Source Protection

1	**Program:** Sensitive Watershed Area Protection				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 10	**Place:** Bhanbhane	**F/Y:** 079/80
	Coordinate:	Latitude: 28.329528		Longitude: 82.673065	
3	**Existing Site Problem:** The water source was unprotected and lack of drinking water facilities				
4	**Cost:**				
a	**Estimated**	**Total:** 441525.83	**Office:** 268532.19	**Users:** 172993.64	**Others:**
b	**Actual Expenditure**	**Total:** 419625.44	**Office:** 251618.96	**Users:** 168006.48	**Others:**
5	**Objectives:**	a) to protect the water source, improve water quality or its regime b) to support drinking water facilities			
6	**Technique Applied:**	**a) Structural:** Intake Construction 2nos. (L= 1.6m, B= 0.80m, H= 0.95m; Pipeline Construction=2600m)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	175 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Protect the water source; improved water quality Support drinking facilities for 40 households			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 2	**Janajati:** 4	**Others:** 34
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species around thw water source			
15	**Others; Name of:**	**User Group:** Dhawang Khola Sanrakshan Samiti			
		Chair Person: Ba Bdr Mahara			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

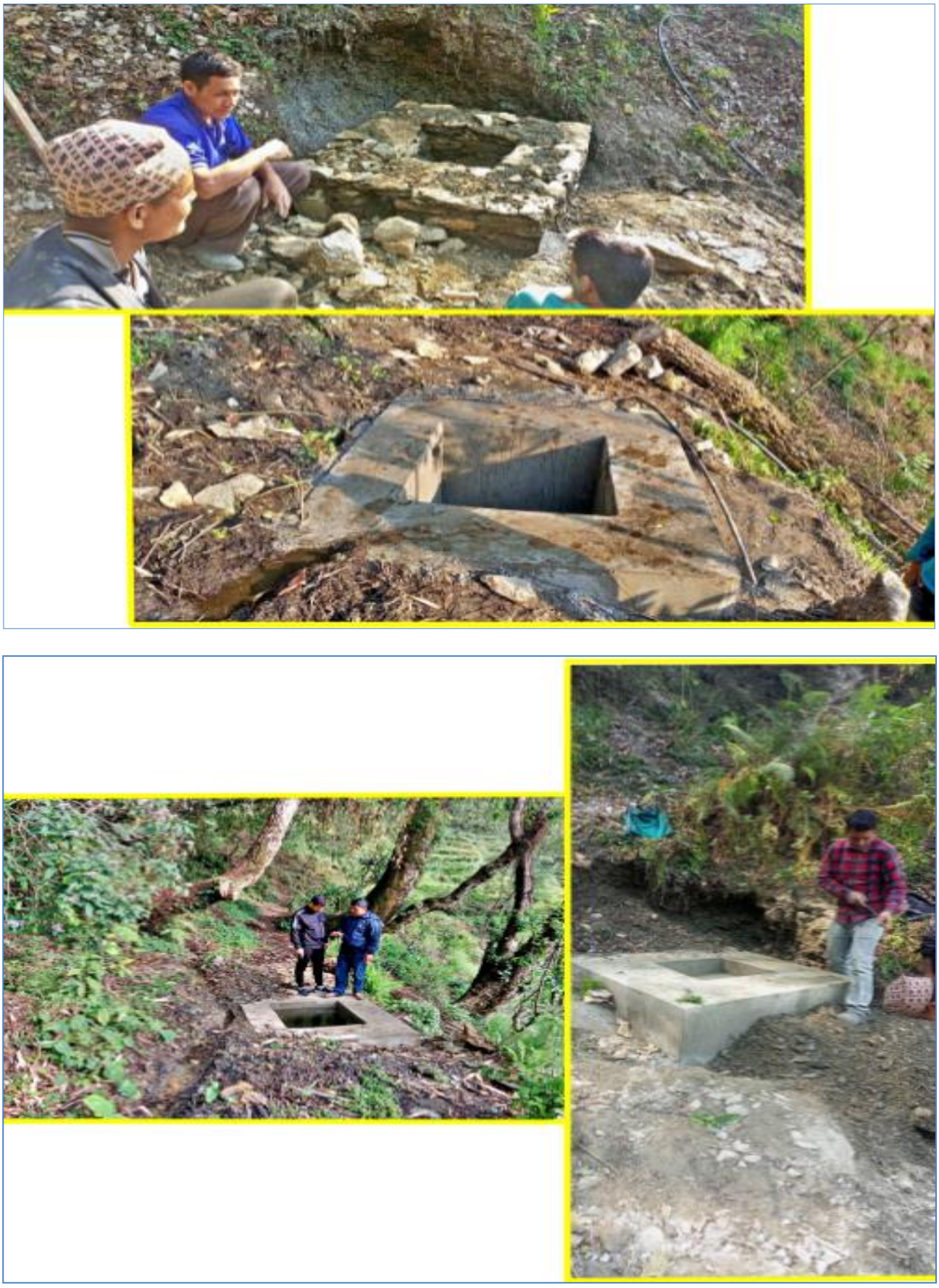


Figure 37: Bhanbhane Water Source Protection

1	**Program:** Sensitive Wateshed Area Protection				
2	**Location: District/Rural Municipality**: Rolpa /Sunilsmriti		**Ward No:** 3	**Place:** Barhathan, Mijhing	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.255404		Longitude: 82.70713	
3	**Existing Site Problem:** The excess runoff water flowing through its own natural channel caused erosion and landslide in the downstream area; Lack of water for irrigation, livestock and other domestic purposes				
4	**Cost:**				
a	**Estimated**	**Total:** 231892.69	**Office:** 199950.88	**Users:** 31941.82	**Others:**
b	**Actual Expenditure**	**Total:** 230830.65	**Office:** 198888.83	**Users:** 31941.82	**Others:**
5	**Objectives:**	a) to harvest the runoff water b) to control erosion and landslides on downstream area c) to use the harvested runoff water for irrigation, livestock and other domestic purposes			
6	**Technique Applied:**	**a) Structural:** Recharge Pond Construction (Dia=20m H= 1.15m; Water Holding Capacity= 314m3)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the construction of Earthern recharge pnd, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	207 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Properly harvest the runoff water; Reduce the risk of damage in downstream area Support irrigation facilities for approximately 3 ha of agricultural land			
11	**Benefitted HH:**	**Total:** 105	**Dalit:** 35	**Janajati:** 35	**Others:** 35
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different fruit tree species which supports for income generation.			
15	**Others; Name of:**	**User Group:** Barhathan Samudayik Ban Upabhkta Samuha			
		Chair Person: Kesh Bdr. Giri			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 38: Mijhing Recharge Pond

1	**Program:** Bamboo Crib Wall Construction , Brush Layering, Fascine & Palisade Construction				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No: 1,**4	**Place:**Chhapdhunga, Runtawang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.296937, 28.297079		Longitude: 82.64675, 82.647013	
3	**Existing Site Problem:** The landslide possess a risk of damage to the settlement, rural road, irrigation canal and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1338972.33	**Office:** 1172999.05	**Users:** 165973.29	**Others:**
b	**Actual Expenditure**	**Total:** 1141410.74	**Office:** 999024.08	**Users:** 142386.66	**Others:**
5	**Objectives:**	**a)** to ***reduce soil erosion, mass movement & river bank cutting*** ***b)*** to ***reduce devastating effects on the downstream and surrounding area***			
6	**Technique Applied:**	**a) Structural:** Bamboo Crib Wall, Bamboo Wattlling, Jute Netting, Brush Layering, PalisadeConstruction Amriso, Smart Napier, Vetiver, Bamboo & Nigalo Plantation			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Bamboo Poles, various seedings, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	613 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, rural road & irrigation canal; Approximately 0.7 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 12	**Janajati:** 20	**Others:** 8
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. Use of Bio-engineering techniques is effective			
15	**Others; Name of:**	**User Group:** Lahari Khola Sanrakshan Bikash Samuha			
		Chair Person: Dil Bdr Gurung			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 39: Bamboo Crib Wall, Fascine, Wattling Construction

1	**Program:** Seedling Production (Fodder/Bioengineering Species)				
2	**Location: District/Municipality**: Rolpa /Rolpa		**Ward No:** 1	**Place:**Mewang	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.294506		Longitude: 82.643422	
3	**Existing Site Problem:** There is a need for the production of different bio-engineering tree, shrub or grass species to treat the various natural hazards prevalent in the working area of SWM, Rolpa; Also there was a demand for the fodder tree species				
4	**Cost:**				
a	**Estimated**	**Total:** 302772.44	**Office:** 302772.44	**Users:**	**Others:**
b	**Actual Expenditure**	**Total:** 296490.00	**Office:** 296490.00	**Users:**	**Others:**
5	**Objectives:**	a) to *produce different types of bio-engineering r fodder species* *b)* to *distribute the produced species for the treatment of varius natural hazards prevalent in the working area*			
6	**Technique Applied:**	a) Vegetative: Bhujetro seedling production (12550 nos.), Bamboo Culm Cutting Production (150 nos.), Tanki seeding production (4000 nos.)			
7	**Implementation Process:**	Co-ordination with Local Representatives and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the production of different types of seedings through quotation; Monitoring & Evaluation			
8	**Employment:**	350 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Prooduction of different types of bio-engineering species which can further be used to treat various natural hazards prevalent in the working area of SWMO, Rolpa			
11	**Benefitted HH:**	**Total:** 300	**Dalit:** 90	**Janajati:** 120	**Others:** 90
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. Use of Bio-engineering species is effective in treatment of different natural hazards			
15	**Others; Name of:**	**Firm Name:** Dajubhai Krishi Tatha Ban Jadubuti Firm			
		Chair Person: Rishiram Roka Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 40: Seedling Production

2.2 ACTIVITY PROFILE OF RUKUM EAST DISTRICT

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rukum East/Bhume		**Ward No:** 7	**Place:** Gunaam	**F/Y:** 079/80
	Coordinate:	Latitude: 28.524993		Longitude: 82.713034	
3	**Existing Site Problem:** The landslide & gully formation possess a risk of damage to the nearby settlement , rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 889719.45	**Office:** 799991.75	**Users:** 89727.70	**Others:**
b	**Actual Expenditure**	**Total:** 889719.45	**Office:** 799991.75	**Users:** 89727.70	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide & gully b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall & Check-dam Construction (Gabion Box 66 Nos; Box size 2m*1m*1m=54 Nos., Box size 1.5m*1m*1m=12 Nos. were used to construct 12m long, 3m high Gabion Retaining Wall & 10 nos. of check-dam)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	517 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.3 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 50	**Dalit:** 5	**Janajati:** 45	**Others:**
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Khandhara Chhellophalne Nirman Upabhokta Samiti			
		Chair Person: Dal Bdr. Sunar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 416: Gunam Gully & Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Rukum East/Putha Uttarganga		**Ward No:** 1	**Place:** Maikot	**F/Y:** 079/80
	Coordinate:	Latitude: 28.6804038		Longitude: 82.8832100	
3	**Existing Site Problem:** The torrent possess a risk of damage to the water source, water tank-tap and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 910535.77	**Office:** 799959.68	**Users:** 110576.09	**Others:**
b	**Actual Expenditure**	**Total:** 897451.72	**Office:** 788756.15	**Users:** 108695.96	**Others:**
5	**Objectives:**	a) to reduce erosion & torrent bank cutting b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** GabionEmbankment Construction (Gabion Box 50 Nos; Box size 1.5m*1m*1m=50 Nos.) were used to construct 30m long Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	408 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and torrent bank cutting has been contolled; Reduce the risk of damage to the water source, water tank & tap; Approximately 0.3 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 70	**Dalit:** 20	**Janajati:** 30	**Others:** 20
12	**Problem/Obstacles Faced:**	Transportational difficulties; one of the remote area of Lumbini province			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Ekikrit Yuwa Bikash Kendra			
		Chair Person: Bikash Pun Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 42: Maikot Torrent Control

1	**Program:** Emergency Landslide Treatment				
2	**Location: District/Rural Municipality**: Rukum East/Putha Uttarganga	**Ward No:** 9	**Place:** Kharawang	**F/Y:** 079/80	
	Coordinate:	Latitude: 28.677257	Longitude: 82.791797		
3	**Existing Site Problem:** The Landslide cause damage to the school building & possess a risk of damage to the settlement and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 2053471.81	**Office:** 1300092.56	**Users:** 253379.25	**Others:**500000
b	**Actual Expenditure**	**Total:** 2023901.89	**Office:** 1283208.35	**Users:** 240693.54	**Others:** 500000
5	**Objectives:**	a) to prevent erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Wall Construction (Gabion Box 180 Nos; Box size 2m*1m*1m=100 Nos.; Box size 1.5m*1m*1m=80Nos.; were used to construct 24m long * 6m high Gabion wall plus 16m long Gabion wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	1554 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion & mass movement has been controlled; Reduce the risk of damage to the school building; Approximately 0.5 ha of school area & 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 250	**Dalit:** 120	**Janajati:** 110	**Others:** 20
12	**Problem/Obstacles Faced:**	Transportational difficulties; one of the remote area of Lumbini province			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Kharawang Jaladhar Kshetra Sanrakshan Upabhokta Samiti			
		Chair Person: Dewa Prasad Roka			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 43: Kharawang Landslide Treatment

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Rural Municipality**: Rukum East /Sisne		**Ward No:** 3	**Place:** Sani Bheri, Mulpani	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.634864		Longitude: 82.573699	
3	**Existing Site Problem:** The Sani Bheri river poassess a risk of damage to the suspension bridge & settlement upside.				
4	**Cost:**				
a	**Estimated**	**Total:** 1152920.02	**Office:** 999931.56	**Users:** 152988.46	**Others:**
b	**Actual Expenditure**	**Total:** 1152920.02	**Office:** 999931.56	**Users:** 152988.46	**Others:**
5	**Objectives:**	a) to prevent river bank cutting b) to protect the suspension bridge, settlement & conserve agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Spur Construction (Gabion Box 131 Nos; Box size 1.5m*1m*0.5m=46 Nos.; Box size 2m*1m*1m=58 Nos.; Box size 1.5m*1m*1m=27 Nos.; were used to construct a Gabion Spur)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	646 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, stream bank cutting and erosion has been controlled; Reduce the risk of damage to suspension bridge & settlement; Approximately 0.4 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 35	**Janajati:** 20	**Others:** 45
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Mulpani Jholunge Pul Sanrakshan Upabhkta Samiti			
		Chair Person: Balak Bdr. Khadka			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 44: Mulpani River Bank Protection

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Rural Municipality**: Rukum East /Bhume		**Ward No:** 4	**Place:** Sakim	**F/Y:** 079/80
	Coordinate:	Latitude: 28.603524		Longitude: 82.638795	
3	**Existing Site Problem:** The water source was unprotected and water tank was damaged; Lack of drinking water facilities				
4	**Cost:**				
a	**Estimated**	**Total:** 594356.60	**Office:** 499959.17	**Users:** 94397.42	**Others:**
b	**Actual Expenditure**	**Total:** 579189.39	**Office:** 484791.97	**Users:** 94397.42	**Others:**
5	**Objectives:**	a) to protect the water source, improve water quality or its regime b) to support drinking water facilities			
6	**Technique Applied:**	**a) Structural:** Intake-1nos./Water Tank-2nos./ Tap-2nos./ Pipeline-1400m Construction			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	311 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Protect the water source; improved water quality Support drinking facilities			
11	**Benefitted HH:**	**Total:** 24	**Dalit:** 3	**Janajati:** 15	**Others:** 6
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species around the water source			
15	**Others; Name of:**	**User Group:** Dadagaun Pahiro Roktham Upabhokta Samiti			
		Chair Person: Karmasari Budha			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 45: Sakim Water Source Protection

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Rural Municipality**: Rukum East /Bhume		**Ward No:** 5	**Place:** Daliwang	**F/Y:** 079/80
	Coordinate:	Latitude: 28.59306		Longitude: 82.659892	
3	**Existing Site Problem:** The water source was unprotected; Lack of drinking water facilities				
4	**Cost:**				
a	**Estimated**	**Total:** 690045.45	**Office: 525189.73**	**Users:** 164855.72	**Others:**
b	**Actual Expenditure**	**Total:** 654456.19	**Office:** 499552.46	**Users:** 154903.73	**Others:**
5	**Objectives:**	a) to protect the water source, improve water quality or its regime b) to support drinking water facilities			
6	**Technique Applied:**	**a) Structural:** Water Tank-2nos./ Tap-4nos./ Pipeline-1350m Construction			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	323 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Protect the water source; improved water quality Support drinking facilities			
11	**Benefitted HH:**	**Total:** 35	**Dalit:** 25	**Janajati:** 5	**Others:** 5
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species around the water source			
15	**Others; Name of:**	**User Group:** Daliwang Tallo Okhar Gaira Muhan SanrakshanTatha Tanki Nirman Upabhokta Samiti			
		Chair Person: Uttaman Nepali			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 46: Daliwang Water Source Protection

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Rural Municipality**: Rukum East /Sisne		**Ward No:** 5	**Place:** Kamaldaha	**F/Y:** 079/80
	Coordinate:	Latitude: 28.610067		Longitude: 82.623953	
3	**Existing Site Problem:** The kamaldaha pond was affected by erosion & sediment deposition				
4	**Cost:**				
a	**Estimated**	**Total:** 588789.48	**Office:** 493459.63	**Users:** 95329.85	**Others:**
b	**Actual Expenditure**	**Total:** 588789.48	**Office:** 493459.63	**Users:** 95329.85	**Others:**
5	**Objectives:**	a) to reduce the erosion & sedimentation in the pond b) to improve the water regime			
6	**Technique Applied:**	**a) Structural:** Stone Masonary Wall Construction (Stone Masonary Wall Construction-33.60m long)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	323 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Reduce the erosion & sedimentation in the pond Improve the water regime			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 20	**Janajati:** 45	**Others:** 35
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species around the water source			
15	**Others; Name of:**	**User Group:** Kamaldaha Dhalko Parkhal Nirman Upabhokta Samiti			
		Chair Person: Roshan Shah			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 47: Kamaldaha Protection Work

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Rural Municipality**: Rukum East /Putha Uttarganga		**Ward No:** 9	**Place:** Lahabang	**F/Y:** 079/80
	Coordinate:	Latitude: 28.679142		Longitude: 82.769747	
3	**Existing Site Problem:** The overflow water from the ratodaha pond possess a risk of damage to the settlement & agricultural and				
4	**Cost:**				
a	**Estimated**	**Total:** 889390.01	**Office:** 799996.65	**Users:** 89393.36	**Others:**
b	**Actual Expenditure**	**Total:** 869522.81	**Office:** 782182.18	**Users:** 87340.64	**Others:**
5	**Objectives:**	a) to manage the overflow water from the pond b) to reduce the devastating effects on the downstream & surrounding area			
6	**Technique Applied:**	**a) Structural:** Dam Construction (9.8m*0.75m*1.75m)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	404 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Manage the overflow water from pond Reduce the risk of damage to the settlement & agricultural land			
11	**Benefitted HH:**	**Total:** 20	**Dalit:** 4	**Janajati:** 12	**Others:** 4
12	**Problem/Obstacles Faced:**	Transportational difficulties; One of the remote area of Lumbini Province			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species around the water source			
15	**Others; Name of:**	**User Group:** Kharawang Jaladhaar Kshetra Sanrakshan Upabhokta Samiti			
		Chair Person: Dewa Prasad Roka			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 48: Ratodaha Protection Work

1	**Program:** Soil Conservation Work Along Rural Road				
2	**Location: District/Rural Municipality**: Rukum East/Sisne		**Ward No:** 7	**Place:** Pakhagaun	**F/Y:** 079/80
	Coordinate:	Latitude: 28.638428		Longitude: 82.553016	
3	**Existing Site Problem:** The Landslide possess a risk of damage to the rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1128309.61	**Office:** 999990.21	**Users:** 128319.40	**Others:**
b	**Actual Expenditure**	**Total:** 1128309.61	**Office:** 999990.21	**Users:** 128319.40	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 98 Nos; Box size 2m*1m*1m=44Nos., Box size 1.5m*1m*1m=54Nos. were used to construct 27m long & 3m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskille Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	646 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the rural road; Approximately 0.05 km of rural road & 0.15 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 10	**Janajati:** 20	**Others:** 10
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Sanokhola Madhara Kanewang Sadak Sanrakshan Upabhokta Samiti			
		Chair Person: Hari Budha			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 49: Pakhagaun Rural Road Conservation

1	**Program:** Sensitive Watershed Area Protection				
2	**Location: District/Rural Municipality**: Rukum East /Bhume		**Ward No:** 5	**Place:** Sani Bheri, Baluwa	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.631185		Longitude: 82.621343	
3	**Existing Site Problem:** The Sani Bheri river poassess a risk of damage to the & settlement upside & agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1160138.64	**Office:** 999993.44	**Users:** 160145.20	**Others:**
b	**Actual Expenditure**	**Total:** 1160138.64	**Office:** 999993.44	**Users:** 160145.20	**Others:**
5	**Objectives:**	a) to prevent river bank cutting b) to reduce the risk of damge to the settlement & agricultural land			
6	**Technique Applied:**	**a) Structural:** Gabion Spur Construction (Gabion Box 154 Nos; Box size 1.5m*1m*0.5m=68 Nos.; Box size 2m*1m*1m=59 Nos.; Box size 1.5m*1m*1m=27 Nos.; were used to construct a Gabion Spur)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	646 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, stream bank cutting and erosion has been controlled; Reduce the risk of damage to the settlement & agricultural land Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 30	**Dalit:** 5	**Janajati:** 10	**Others:** 15
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Baluwa Basti Tatha Nadi Niyantran Upabhokta Samiti			
		Chair Person: Ganapati Budha			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 50: Baluwa Sensitive Watershed Area Protection

2.3 ACTIVITY PROFILE OF PYUTHAN DISTRICT

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Jhimrukh		**Ward No:** 1	**Place:** Koladada, Dadakharka	**F/Y:** 079/80
	Coordinate:	Latitude: 28.132332		Longitude: 83.032068	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement , rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1352042.24	**Office:** 1199967.96	**Users:** 152074.28	**Others:**
b	**Actual Expenditure**	**Total:** 1347297.58	**Office:** 1195962.54	**Users:** 151335.05	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 111 Nos; Box size Box size 2m*1m*1m=37 Nos.; Box size 1.5m*1m*1m=74 Nos. were used to construct 74m long Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	777 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 20	**Janajati:** 20	**Others:** 60
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Koladada Pahiro Niyantran Tatha Byabasthapan Yojana Upabhokta Samiti			
		Chair Person: Bipin G.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 51: Koladada Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Sarumarani	**Ward No:** 3	**Place:** Dhadkhola, Kalakhola	**F/Y:** 079/80	
	Coordinate:	Latitude: 27.900828	Longitude: 82.794742		
3	**Existing Site Problem:** The torrent possess a risk of damage to the nearby settlement and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1129287.52	**Office:** 999985.27	**Users:** 131756.26	**Others:**
b	**Actual Expenditure**	**Total:** 1124707.29	**Office:** 993666.92	**Users:** 131040.37	**Others:**
5	**Objectives:**	a) to reduce soil erosion and torrent bank cutting b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Embankment Construction (Gabion Box 126 Nos; Box size 1.5m*1m*1m=90 Nos.; Box size 1.5m*1m*0.50m=36 Nos. were used to construct 54m long Emabnkment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board Placing from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	646 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and toreent bank cutting has been reduced; Reduce the risk of damage to the settlement and agricultural land; Approximately 0.6ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 60	**Dalit:** 30	**Janajati:** 10	**Others:** 20
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Dhandkhola Kalakhola Khahare Niyantran Upabhokta Samiti			
		Chair Person: Keshab Acharya			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 52: Dhandkhola Kalakhola Torrent Control

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Municipality**: Pyuthan/Pyuthan	**Ward No:** 3	**Place:** Barkhola	**F/Y:** 079/80	
	Coordinate:	Latitude: 28.112404	Longitude: 82.842191		
3	**Existing Site Problem:** The gully formation possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1059996.31	**Office:** 949991.72	**Users:** 110004.59	**Others:**
b	**Actual Expenditure**	**Total:** 1059996.31	**Office:** 949991.72	**Users:** 110004.59	**Others:**
5	**Objectives:**	**a)** to ***reduce soil erosion and check the gully*** ***b)*** to ***reduce devastating effects on the downstream and surrounding area***			
6	**Technique Applied:**	**a) Structural:** Gabion Check-Dam Construction (Gabion Box 109 Nos; Box size 1.5m*1m*1m=76 Nos.; Box size 1.5m*1m*0.50m=33 Nos. were used to construct 2 Nos. of check-dam)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Box, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	618 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and gully formation has been controlled; Reduce the risk of damage to the settlement and rural road; Approximately 0.6 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 20	**Janajati:** 7	**Others:** 13
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Jumri Khola Sanrakshan Upabhokta Samiti			
		Chair Person: Rabindra Pandey			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 53: Barkhola Gully Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Jhimrukh		**Ward No:** 7	**Place:** Tusara	**F/Y:** 079/80
	Coordinate:	Latitude: 28.144266		Longitude: 82.955135	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1114402.56	**Office:** 999992.70	**Users:** 114409.86	**Others:**
b	**Actual Expenditure**	**Total:** 1114402.56	**Office:** 999992.70	**Users:** 114409.86	**Others:**
5	**Objectives:**	a) to *reduce soil erosion & mass movement from landslide* *b)* to *reduce devastating effects on the downstream and surrounding area*			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 90 Nos; Box size 2m*1m*1m=52 Nos.; Box size 1.5m*1m*1m=38 Nos. were used to construct 16m long & 7m long Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	650 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion & mass movement has been reduced; Reduce the risk of damage to the rural road & settlement; Approximately 0.45 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 10	**Janajati:**	**Others:** 30
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Tushare Khola Chhipchhipe Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Ritu Giri			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 54: Tusara Chhipchhipe Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Jhimrukh		**Ward No:** 7	**Place:** Kaprakhola	**F/Y:** 079/80
	Coordinate:	Latitude: 28.157517		Longitude: 82.966528	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 913228.03	**Office:** 799980.43	**Users:** 113247.60	**Others:**
b	**Actual Expenditure**	**Total:** 913228.03	**Office:** 799980.43	**Users:** 113247.60	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 66 Nos; Box size 2m*1m*1m=44 Nos. & Box size 1.5m*1m*1m=22 Nos. were used to construct 22m long & 4m high Gabion Retaining Wall			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	517 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.2 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 10	**Janajati:** 5	**Others:** 25
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Kaprekhola Simpani Motorbato Bhu-sanrakshan Upabhokta Samiti			
		Chair Person: Sudarshan G.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 55: Kaprakhola Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Jhimrukh		**Ward No:** 1	**Place:** Jawune	**F/Y:** 079/80
	Coordinate:	Latitude: 28.12322		Longitude: 82.041366	
3	**Existing Site Problem:** The landslide and Gully formation possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1664695.02	**Office:** 1499997.99	**Users:** 164697.03	**Others:**
b	**Actual Expenditure**	**Total:** 1664695.02	**Office:** 1499997.99	**Users:** 164697.03	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide and gully b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall/Check-Dam Construction (Gabion Box 144 Nos; Box size 2m*1m*1m=87 Nos.; Box size 1.5m*1m*1m=47 Nos. ; Box size 1.5m*1m*0.5m=10 Nos. were used to construct 22m long/5m high, 12m long/3m high GabionRetaining Wall and 9m long/2m high Gabion Check-dam)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	975 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.7 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 45	**Dalit:** 10	**Janajati:** 20	**Others:** 15
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Jawune Sadak Sanrakshan Samiti			
		Chair Person: Raju Thapa Chhetri			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 56: Jawune Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Jhimrukh		**Ward No:** 1	**Place:** Ghatachaur	**F/Y:** 079/80
	Coordinate:	Latitude: 28.109773		Longitude: 82.047257	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road , playgraound and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1721929.33	**Office:** 1499990.15	**Users:** 221939.18	**Others:**
b	**Actual Expenditure**	**Total:** 1721929.33	**Office:** 1499990.15	**Users:** 221939.18	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 135 Nos; Box size 2m*1m*1m=81 Nos.; Box size 1.5m*1m*1m=54 Nos. were used to construct 54m long/3m high GabionRetaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	975 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement, playground and rural road; Approximately 0.95ha of playground & agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 45	**Dalit:** 10	**Janajati:** 20	**Others:** 15
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Ghatachaur Pahiro Niyantran Upabhkota Samiti			
		Chair Person: Kapil G.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 57: Ghatchaur Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Airawati		**Ward No:** 5	**Place:** Pyarpatti	**F/Y:** 079/80
	Coordinate:	Latitude: 28.042906		Longitude: 82.867691	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 796937.98	**Office:** 699980.20	**Users:** 96957.79	**Others:**
b	**Actual Expenditure**	**Total:** 790500.82	**Office:** 694808.93	**Users:** 95691.89	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 80 Nos; Box size 2m*1m*1m=20 Nos.; Box size 1.5m*1m*1m=60 Nos. were used to construct 40m long GabionRetaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	452 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.9 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 20	**Dalit:** 3	**Janajati:** 15	**Others:** 2
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Siundada Pahir Roktham Upabhokta Samiti			
		Chair Person: Num Bdr. Rana			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 58: Siundada Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Naubahini		**Ward No:** 7	**Place:** Daringe	**F/Y:** 079/80
	Coordinate:	Latitude: 28.214154, 28.215791		Longitude: 82.872707, 82.272590	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 910775.11	**Office:** 799986.98	**Users:** 110788.13	**Others:**
b	**Actual Expenditure**	**Total:** 910775.11	**Office:** 799986.98	**Users:** 110788.13	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 75 Nos; Box size 2m*1m*1m=45 Nos.; Box size 1.5m*1m*1m=30 Nos. ; were used to construct 30m long/3m high GabionRetaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	520 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.7 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 30	**Dalit:** 7	**Janajati:** 15	**Others:** 8
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Daringe Basti Badhi Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Dharam Bdr. G.C.			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 59: Daringe Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Naubahini		**Ward No:** 3	**Place:** Dhamche	**F/Y:** 079/80
	Coordinate:	Latitude: 28.248594		Longitude: 82.942084	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 558325.00	**Office:** 499982.00	**Users:** 58343.00	**Others:**
b	**Actual Expenditure**	**Total:** 558325.00	**Office:** 499982.00	**Users:** 58343.00	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 45 Nos; Box size 2m*1m*1m=27 Nos.; Box size 1.5m*1m*1m=18 Nos. ; were used to construct 10m long/5m high GabionRetaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	325 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.1 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 45	**Dalit:**	**Janajati:** 15	**Others:** 30
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Dhamche Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Gange Giri			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 60: Dhamche Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Naubahini		**Ward No:** 2	**Place:** Jugekhola, Ligha	**F/Y:** 079/80
	Coordinate:	Latitude: 28.244847		Longitude: 82.906579	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 565191.86	**Office:** 499962.43	**Users:** 65229.43	**Others:**
b	**Actual Expenditure**	**Total:** 565191.86	**Office:** 499962.43	**Users:** 65229.43	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 46 Nos; Box size 2m*1m*1m=30 Nos.; Box size 1.5m*1m*1m=16 Nos. were used to construct 16m long/3m high GabionRetaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	325md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.2 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 30	**Dalit:** 7	**Janajati:** 15	**Others:** 8
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Juge Khola Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Yam Bdr. Gharti Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 61: Jugekhola Landslide Treatment

1	**Program:** Gully, Landslide and Torrent Control				
2	**Location: District/Rural Municipality**: Pyuthan/Naubahini		**Ward No:** 1	**Place:** Sijwang	**F/Y:** 079/80
	Coordinate:	Latitude: 28.293945		Longitude: 82.937671	
3	**Existing Site Problem:** The landslide possess a risk of damage to the nearby settlement, rural road and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1684344.55	**Office:** 1499983.38	**Users:** 184361.18	**Others:**
b	**Actual Expenditure**	**Total:** 1676469.89	**Office:** 1493370.55	**Users:** 183099.33	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 142 Nos; Box size 2m*1m*1m=76 Nos.; Box size 1.5m*1m*1m=58 Nos.; Box size 1.5m*1m*0.5m=8 Nos. were used to construct 44m long/3m high GabionRetaining Wall & 10m long/2mhigh Gabion Check-dam)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	970 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.2 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 45	**Dalit:** 10	**Janajati:** 20	**Others:** 15
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Sijwang Pahiro Niyantran Upabhokta Samiti			
		Chair Person: Gakule Budha Magar			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

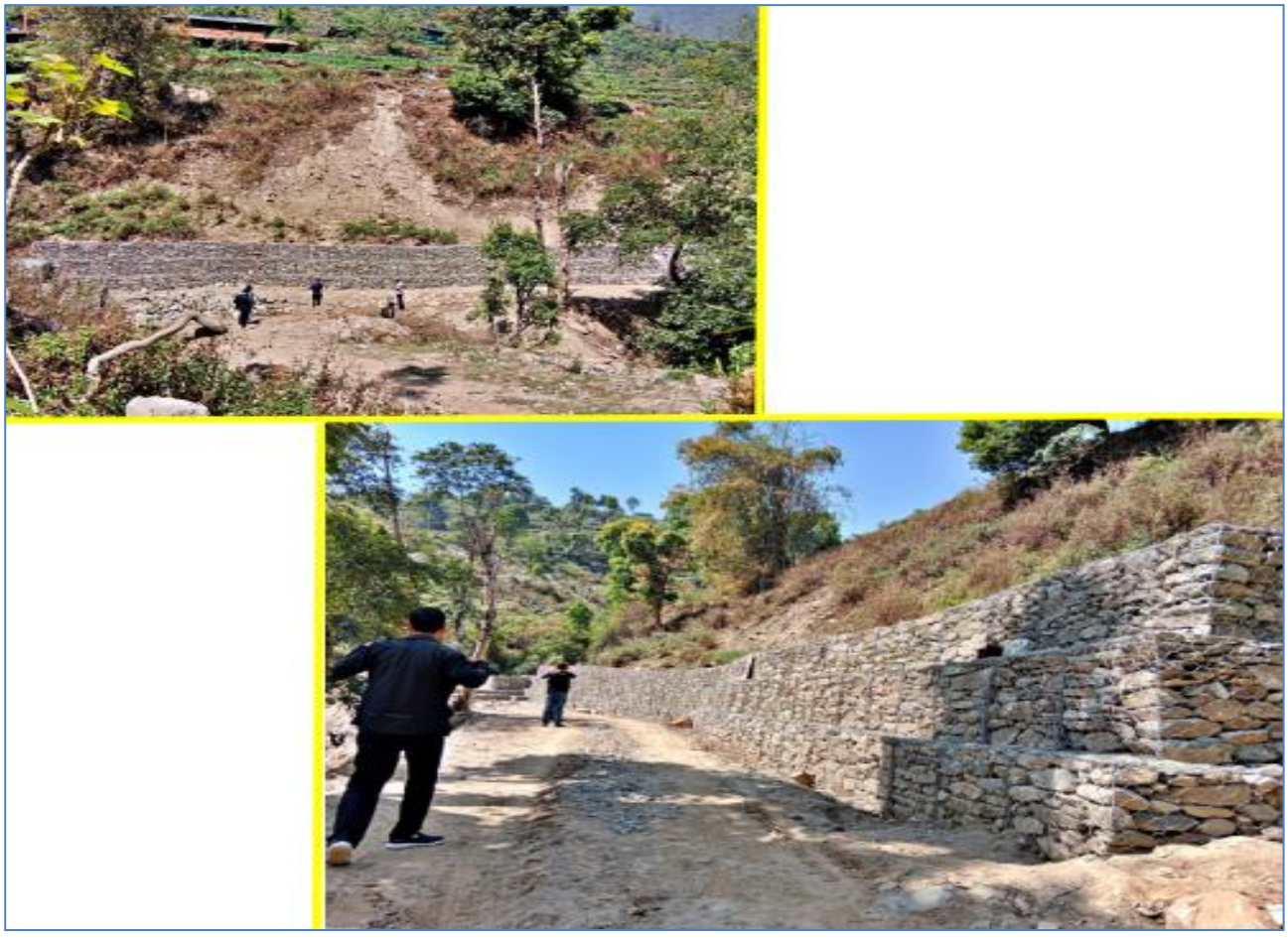


Figure 62: Sijwang Landslide Treatment

1	**Program:** Emergency Landsllide Protection				
2	**Location: District/Rural Municipality**: Pyuthan/Jhimrukh		**Ward No:** 7	**Place:** Chhatipata	**F/Y:** 079/80
	Coordinate:	Latitude: 28.147995		Longitude: 82.946420	
3	**Existing Site Problem:** The landslide possess a risk of damage to the settlement and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1130580.13	**Office:** 999993.35	**Users:** 130586.78	**Others:**
b	**Actual Expenditure**	**Total:** 1125866.91	**Office:** 996113.73	**Users:** 129753.18	**Others:**
5	**Objectives:**	a) to reduce soil erosion and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 115 Nos; Box size 2m*1m*1m=8 Nos.; Box size 1.5m*1m*1m=80 Nos.; Box size 1.5m*1m*0.50m=27 Nos. were used to construct 27m long/2m high & 35m long Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled abour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	648 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and mass movement has been reduced; Reduce the risk of damage to the settlement and rural road; Approximately 0.15 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 10	**Janajati:**	**Others:** 30
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Tushare Khola Chhipchhipe Pahiro Roktham Upabhokta Samiti			
		Chair Person: Ritu Giri			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 63: Chhatipata Landslide Treatment

1	**Program:** Emergency Landsllide Protection				
2	**Location: District/Rural Municipality**: Pyuthan/Mandabi		**Ward No:** 3	**Place:** Chiuria Paharo	**F/Y:** 079/80
	Coordinate:	Latitude: 28.041990		Longitude: 82.76785	
3	**Existing Site Problem:** The landslide caused by river bank cutting possess a risk of damage to the irrigation canal and agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 797738.83	**Office:** 699962.15	**Users:** 97776.67	**Others:**
b	**Actual Expenditure**	**Total:** 797738.83	**Office:** 699962.15	**Users:** 97776.67	**Others:**
5	**Objectives:**	a) to reduce soil erosion, river bank cutting and mass movement from landslide b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 77 Nos; Box size 2m*1m*1m=33Nos.; Box size 1.5m*1m*1m=22 Nos.; Box size 1.5m*1m*0.50m=22 Nos. were used to construct 22m long/3m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour cost, Hoarding Board from Program cost; Unskilled abour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	455 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion, river bank cutting and mass movement has been reduced; Reduce the risk of damage to the irrigation canal and agricultural land; Approximately 0.1 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 30	**Dalit:** 10	**Janajati:** 5	**Others:** 15
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Chiure Paharo Pahiro Roktham Upabhokta Samiti			
		Chair Person: Narayan Prasad Poudel			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 64: Chiuria Paharo Landslide Treatment

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Municipality**: Pyuthan/Pyuthan		**Ward No:** 3	**Place:** Jhimrukh Khola, Tikuri	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.115232		Longitude: 82.876447	
3	**Existing Site Problem:** The Jhimrukh Khola possess a risk of damage to the settlement, rural road & agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1327611.63	**Office:** 1199976.24	**Users:** 127635.39	**Others:**
b	**Actual Expenditure**	**Total:** 1323533.12	**Office:** 1196262.00	**Users:** 127271.12	**Others:**
5	**Objectives:**	a) to prevent erosion & river bank cutting b) to reduce the devastating effects on the downstream & surrounding area			
	Technique Applied:	**a) Structural:** Gabion Embankment/Stud Construction (Gabion Box 111 Nos; Box size 2m*1m*1m=39 Nos.; Box size 1.5m*1m*1m=26 Nos.; Box size 3m*1m*1m=46 Nos.; 3m*1m*0.50m=10 Nos.were used to construct 26m long/3m high Gabion Embankment with stud)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	777 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, river bank cutting and erosion has been controlled; Reduce the risk of damage to the settlement & rural road; Approximately 2 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 100	**Dalit:** 20	**Janajati:** 35	**Others:** 45
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Jhimrukh Jaladhaar Kshetra Sanrakshan Upabhokta Samiti			
		Chair Person: Kamal Raj Rijal			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

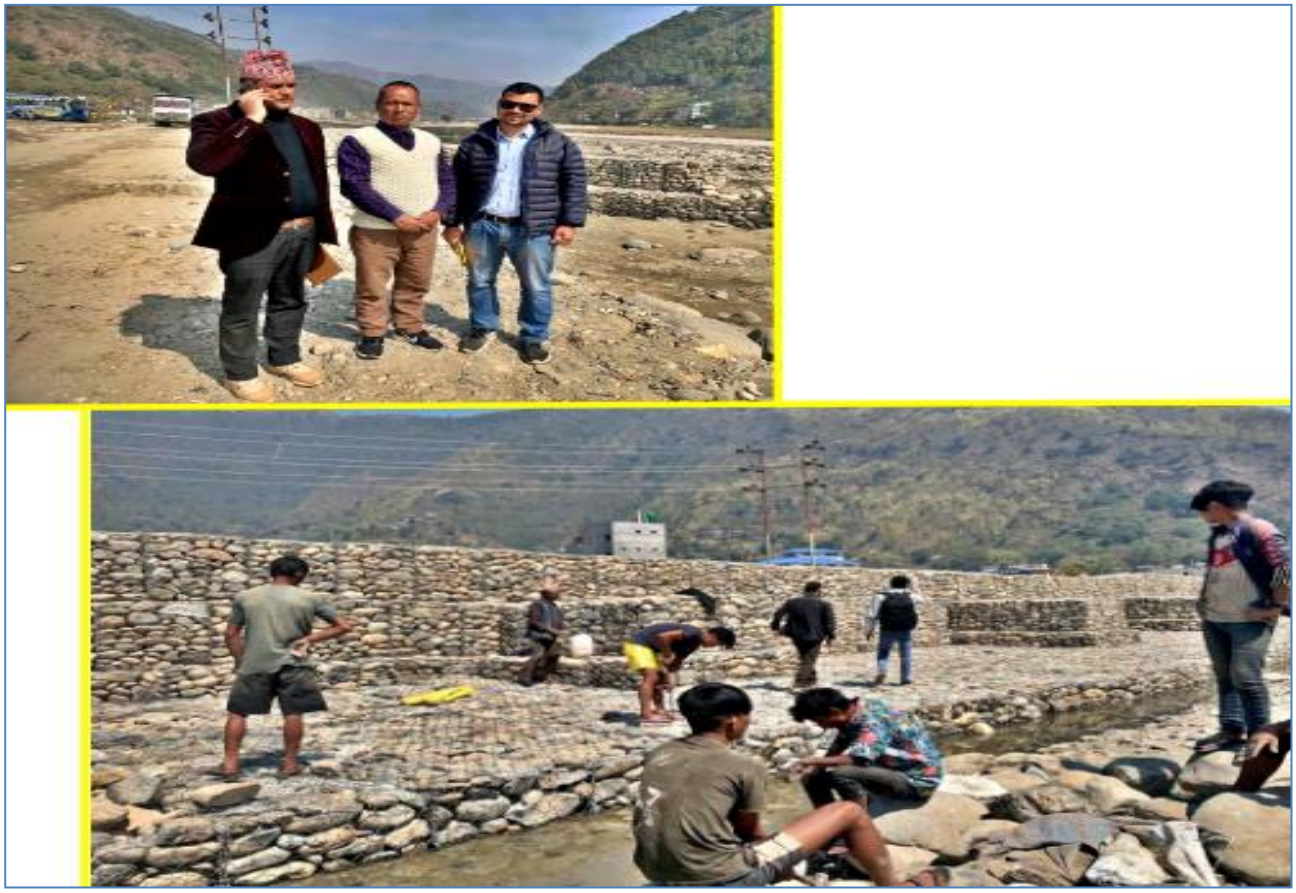


Figure 65: Jhimrukh River Bank Protection

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Municipality**: Pyuthan/Sworgadari		**Ward No:** 1	**Place:** Arang Khola, Todyar	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.054062		Longitude: 82.678659	
3	**Existing Site Problem:** The Arang Khola possess a risk of damage to the settlement, suspension bridge & agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 553756.93	**Office:** 499978.24	**Users:** 53778.69	**Others:**
b	**Actual Expenditure**	**Total:** 553756.93	**Office:** 499978.24	**Users:** 53778.69	**Others:**
5	**Objectives:**	a) to prevent erosion & river bank cutting b) to reduce the devastating effects on the downstream & surrounding area			
	Technique Applied:	**a) Structural:** Gabion Embankment Construction (Gabion Box 60 Nos; Box size 2m*1m*1m=12 Nos.; Box size 1.5m*1m*1m=24 Nos.; Box size 1.5m*1m*0.50m=24 Nos. were used to construct 24m long/2m high Gabion Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	325 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, river bank cutting and erosion has been controlled; Reduce the risk of damage to the settlement & suspension bridge; Approximately 0.4 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 8	**Dalit:**	**Janajati:**	**Others:** 8
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Arang Khola Niyantran Upabhokta Samiti			
		Chair Person: Sitadevi Thapa Chhetri			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 66: Todyar Arang Khola River Bank Protection

1	**Program:** River/Stream Bank Protection				
2	**Location: District/Rura Municipality**: Pyuthan/Jhimrukh		**Ward No:** 7	**Place:** Chhatipata	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.148436		Longitude: 82.946588	
3	**Existing Site Problem:** The Lankuri Khola possess a risk of damage to the settlement & agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1114575.23	**Office:** 999910.50	**Users:** 114664.74	**Others:**
b	**Actual Expenditure**	**Total:** 1114575.23	**Office:** 999910.50	**Users:** 114664.74	**Others:**
5	**Objectives:**	a) to prevent erosion & stream bank cutting b) to reduce the devastating effects on the downstream & surrounding area			
	Technique Applied:	**a) Structural:** Gabion Embankment Construction (Gabion Box 114 Nos; Box size 2m*1m*1m=24 Nos.; Box size 1.5m*1m*1m=45 Nos.; Box size 15m*1m*0.50m=45 Nos. were used to construct 45m long/2m high Gabion Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	650 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, river bank cutting and erosion has been controlled; Reduce the risk of damage to the settlement; Approximately 0.8 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 30	**Dalit:**	**Janajati:**	**Others:** 30
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Chhatipata ankuri Khola Nadi Niyantran Upabhokta Samiti			
		Chair Person: Bishnu Prasad Neupane			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 67: Chhatipata Lankuri Khola Stream Bank Protection

1	**Program:** Water Source Protection/Conservation Pond				
2	**Location: District/Municipality**: Pyuthan/Pyuthan		**Ward No:** 1	**Place:** Khairakot	**F/Y:** 079/80
	Coordinate:	Latitude: 28.077751		Longitude: 82.856174	
3	**Existing Site Problem:** The Pond constructed by the office in previous year possess a risk for children				
4	**Cost:**				
a	**Estimated**	**Total:** 335538.88	**Office:** 299882.65	**Users:** 35656.23	**Others:**
b	**Actual Expenditure**	**Total:** 337561.71	**Office:** 298844.06	**Users:** 38717.65	**Others:**
5	**Objectives:**	a) to harvest the runoff and source water b) to use the harvested runoff and source water for irrigation, livestock and other domestic purposes c) to reduce the risk of drowning for the chidren			
6	**Technique Applied:**	**a) Structural:** Masonary Wall Construction (L= 60m, B= 0.4.40m, H= 0.27m; Water Holding Capacity=226 m3); Chainink Fence Cnstruction (60m long/1m high)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Construction Materials, Skilled Labour, Hoarding Board Placing from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	194 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	Properly harvest the runoff and source water; Reduce the risk f drowning for children			
11	**Benefitted HH:**	**Total:** 50	**Dalit:** 10	**Janajati:** 12	**Others:** 28
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by plantation of different tree species which supports for income generation.			
15	**Others; Name of:**	**User Group:** Kharkachaur Pokhari Marmat Tatha Nirman Samiti			
		Chair Person: Chitra Bdr Basnet			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 68: Khairakot Pond Maintenance & Fencing

1	**Program:** Soil Conservation Work Along Rural Road				
2	**Location: District/Rural Municipality**: Pyuthan/Naubahini	**Ward No:** 7	**Place:** Balle Mairamare	**F/Y:** 079/80	
	Coordinate:	Latitude: 28.1983175, 28.1993768	Longitude: 82.8711092, 82.8673581		
3	**Existing Site Problem:** The landslide & river bank cutting possess a risk of damage to the different sections of Balle Mairamare rural road				
4	**Cost:**				
a	**Estimated**	**Total:** 1118921.47	**Office:** 999996..47	**Users:** 118925.00	**Others:**
b	**Actual Expenditure**	**Total:** 1118921.47	**Office:** 999996..47	**Users:** 118925.00	**Others:**
5	**Objectives:**	a) to reduce erosion, landslide and stabilize the road slope b) to reduce devastating effects on the downstream and surrounding area			
6	**Technique Applied:**	**a) Structural:** Gabion Retaining Wall Construction (Gabion Box 95 Nos;Box size 2m*1m*1m=53 Nos.; Box size 1.5m*1m*1m=42Nos. were used to construct 28m long/4m high Gabion Retaining Wall)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	650 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, erosion and ruver bank cutting has been reduced; Reduce the risk of damage to the rural road and settlement; Approximately 0.05 km of rural road & 0.6 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 80	**Dalit:** 20	**Janajati:** 25	**Others:** 35
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Balle Mairamare Sadak Sanrakshan Upabhokta Samiti			
		Chair Person: Sarad Subedi			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

Figure 69: Balle Mairamare Rural Road Protection

1	**Program:** Sensitive Watershed Area Protection				
2	**Location: District/Municipality**: Pyuthan/Pyuthan		**Ward No:** 3	**Place:** Jumri Khola, Jumri	**F/Y:** 079/80
	Co-ordinates:	Latitude: 28.125894		Longitude: 82.836752	
3	**Existing Site Problem:** The Jumri Khola possess a risk of damage to the Irrigation canal & agricultural land				
4	**Cost:**				
a	**Estimated**	**Total:** 1101169.17	**Office:** 999996.46	**Users:** 101172.71	**Others:**
b	**Actual Expenditure**	**Total:** 1101169.17	**Office:** 999996.46	**Users:** 101172.71	**Others:**
5	**Objectives:**	a) to prevent erosion & river bank cutting b) to reduce the devastating effects on the downstream & surrounding area			
	Technique Applied:	**a) Structural:** Gabion Embankment Construction (Gabion Box 116 Nos; Box size 2m*1m*1m=26 Nos.; Box size 1.5m*1m*1m=45 Nos.; Box size 1.5m*1m*0.50m=45 Nos. were used to construct 45m long/2m high Gabion Embankment)			
7	**Implementation Process:**	Co-ordination with Local Representatives, User Groups and other concerned authorities; Field Visits; Survey, Design & Cost Estimation; Provide funds for the purchase of Gabion Boxes, Skilled Labour, Hoarding Board from Program cost; Unskilled Labour cost was contributed jointly through program cost and people participation; Monitoring & Evaluation			
8	**Employment:**	650 md			
9	**Gender/Social Consideration:**	Both men and women were equally involved; More emphasis was given to the genuine participation of disadvantaged groups			
10	**Effect/Impact:**	To some extent, river bank cutting and erosion has been controlled; Reduce the risk of damage to the irrigation canal; Approximately 1..2 ha of agricultural land has been conserved			
11	**Benefitted HH:**	**Total:** 40	**Dalit:** 7	**Janajati:** 12	**Others:** 21
12	**Problem/Obstacles Faced:**	No			
13	**Maintenance/ Sustainability:**	5% amount of total payable amount has been deducted for the maintenance work, if some damage occurs.			
14	**Lesson Learned:**	If real needs of the community are to be addressed, villagers readily participate throughout the activity implementation process, thus greater achievements are possible even with small external support. The physical structures constructed should be accompanied by bio-engineering techniques to sustain the structures.			
15	**Others; Name of:**	**User Group:** Jumri Khola Sanrakshan Upabhokta Samiti			
		Chair Person: Rabindra Pandey			
		Site Incharge: Rakesh Shahi (ASCO)			
		Watershed Management Officer: Robert Mahara			

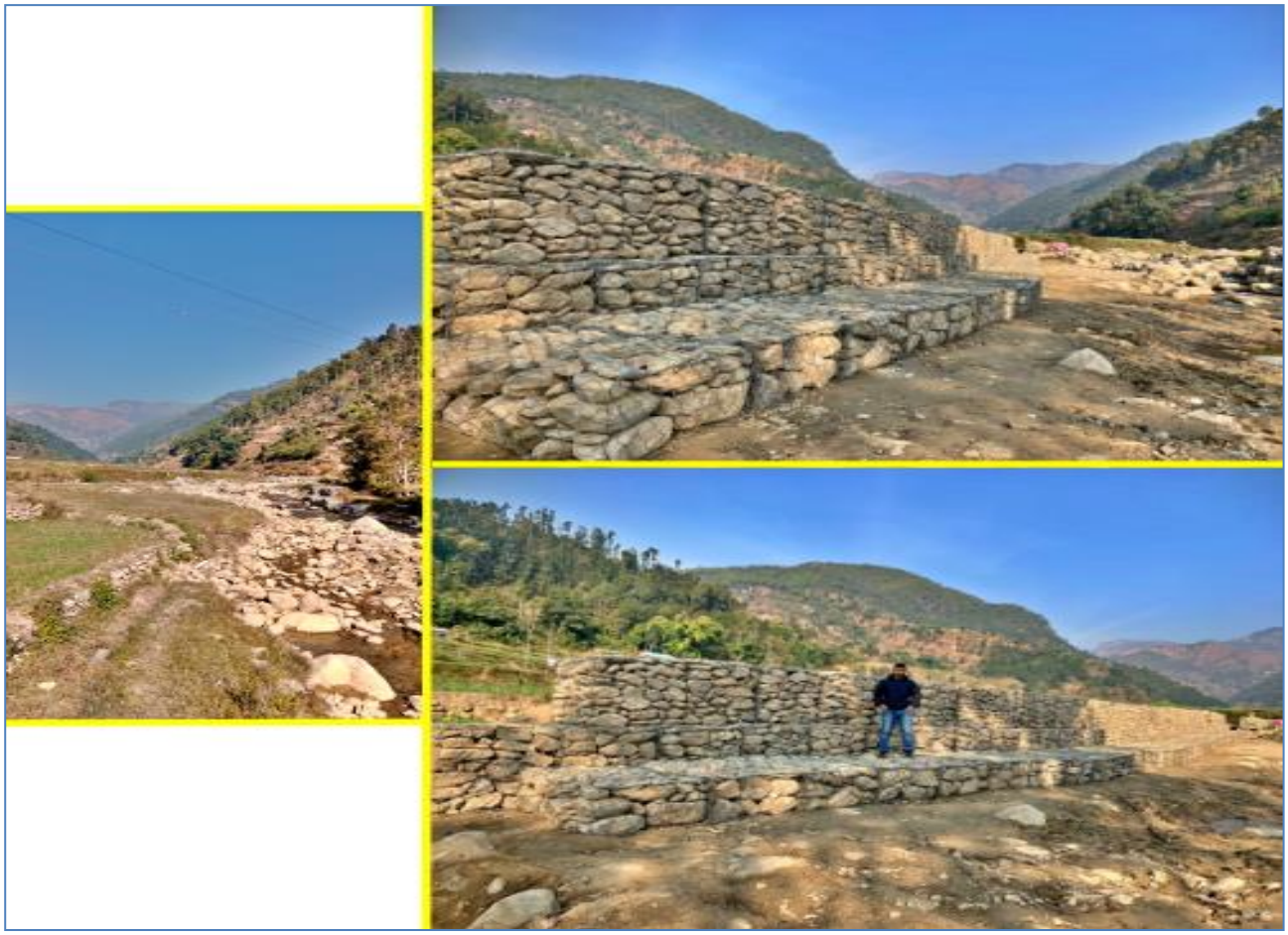


Figure 70: Jumri Khola Sensitive Waterhsed Area Protection

SECTION 3: IMPLEMENTED PROGRAM, LOCATIONS AND MAJOR OUTPUTS

3.1 LOCATION MAP OF THE IMPLEMENTED PROGRAM

Altogether 72 activities, alongwith activity profile & office booklet publication, under different program headings were carried out in the 70 places of three working areas (districts) of SWMO, Rolpa in this fiscal year. The location maps of the activities implemented were shown below;

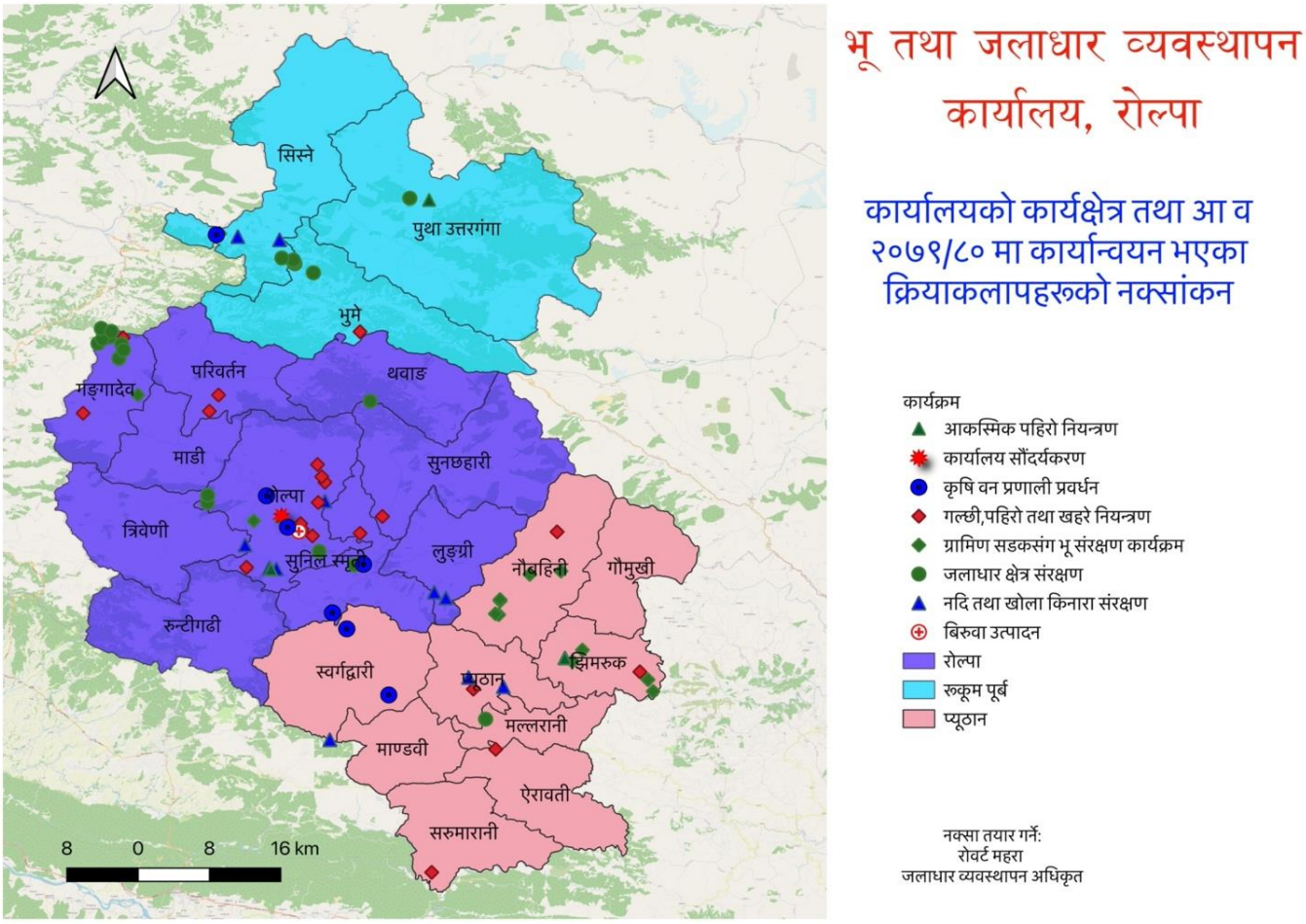
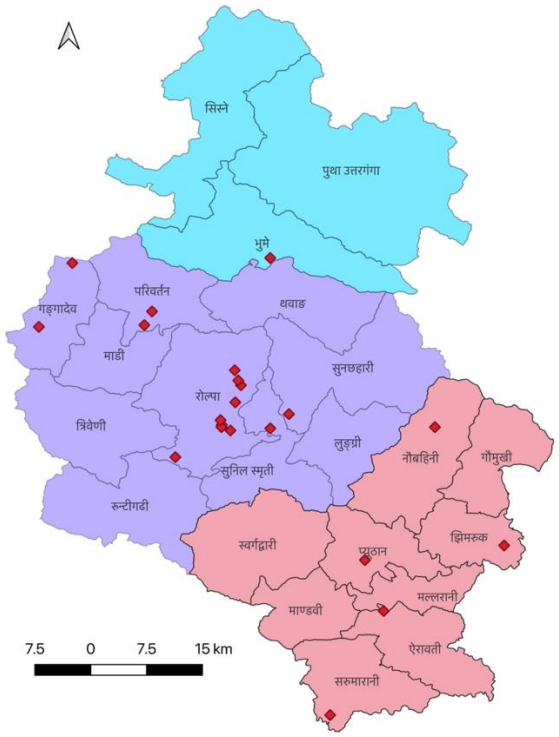


Figure 71: Location map according to working areas & implemented program

3.2 IMPLEMENTED PROGRAM AND MAJOR OUTPUTS

3.2.1 GULLY, LANDSLIDE AND TORRENT CONTROL



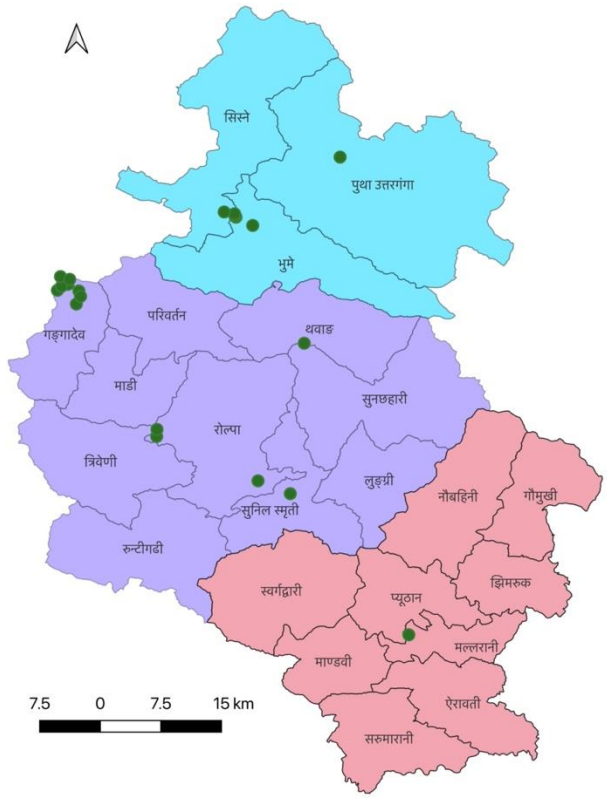
Total no. of Activities Executed: 29 nos.
Total Cost: Nrs. 3,04,59,839.88
Office Contribution: Nrs. 2,78,99,996.29
User's Contribution: Nrs. 35,60,627.19

Techniques Applied: Gabion retaining Wall Construction=778m, Gabion Check-Dam Construction= 18 nos., Stone Masonary Retaining Wall=98.17m, Bamboo Wattle Fence Construction= 700 m, Bamboo Crib Wall=380m Amriso, Smart Napier, Napier, Bhujetro Plantation=1ha

Employment: 18,592 md
Benefitted Households: 1563 HHs
Conserved Area: 15.25 ha
Agricultural/Barren/Degraded Land

Figure 72: Location map of Gully, Landslide & Torrent Control Program with Major Outputs

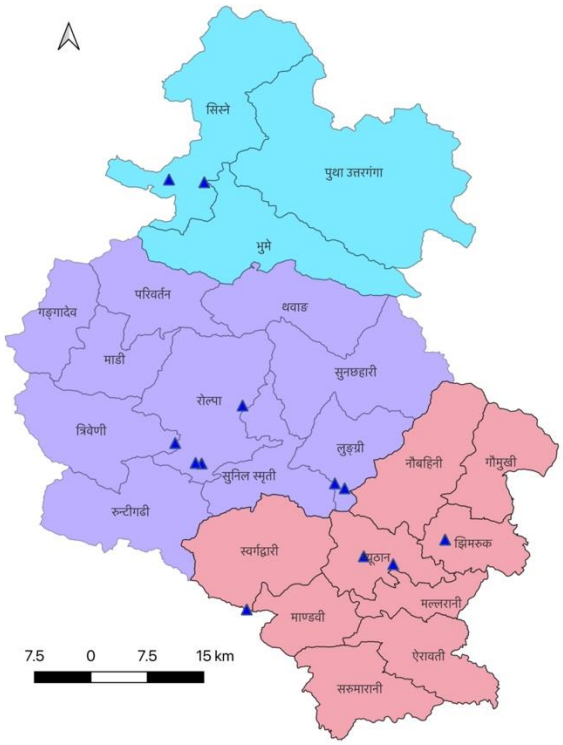
3.2.2 WETLAND/POND/WATER-SOURCE PROTECTION/ POND CONSTRUCTION



Total no. of Activities Executed: 19 nos.
Total Cost: Nrs. 83,61,211.36
Office Contribution: Nrs. 71,84,898.64
User's Contribution: Nrs. 11,77,312.73
Techniques Applied: Concrete Wall Recharge Pond Construction= 2 nos., Earthern Recharge Pond Construction= 10 nos., Natural Lake Conservation=2 nos. (43.4m Stone Masonary Wall/DamConstruction), Intake Construction =4 nos., Water Storage Tank construction=4 Nos., Pipeline=6500m., Water Tap Construction=6 nos.), Fencing Construction=60m long)
Employment: 5740 md
Benefitted Households: 762 HHs
Water Holding Capacity of Pond/Tank: 2510 cum. that supports irrigation facilities for 12 ha of agricultural land and drinking facilities for 180 HHs.

Figure 73: Location map of Wetland/Pond/Watersource Protection Program with Major Outputs

3.2.3 RIVER/STREAM-BANK PROTECTION



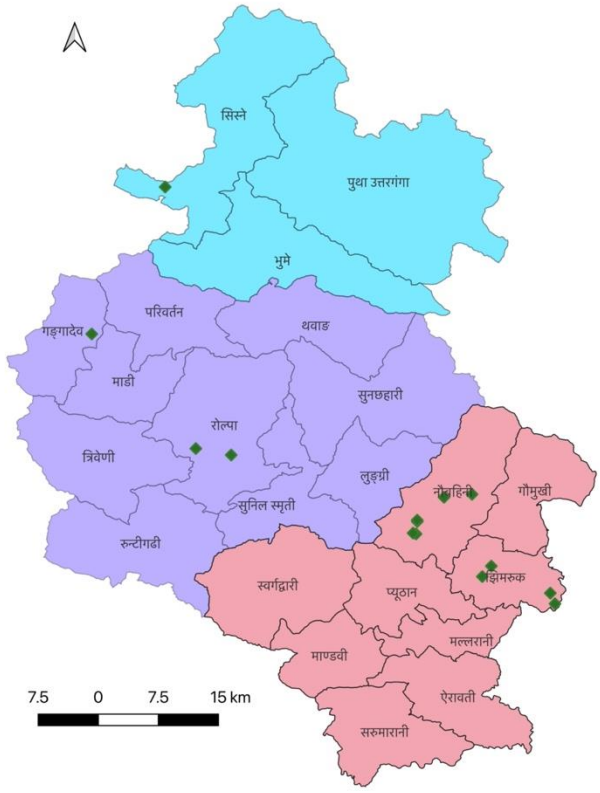
Total no. of Activities Executed: 11 nos.
Total Cost: Nrs. 1,34,53,526.86
Office Contribution: Nrs. 1,09,66,313,35
User's Contribution: Nrs. 11,87,213.53

Techniques Applied: Gabion Embankment Construction= 397m, Gabion Spur Construction=2 nos.

Employment: 7452 md
Benefitted Households: 463 HHs
Conserved Area: 9.4 ha Agricultural Land

Figure 74: Location map of River/Stream-Bank Protection Program with Major Outputs

3.2.4 SOIL CONSERVATION WORK ALONG RURAL ROAD



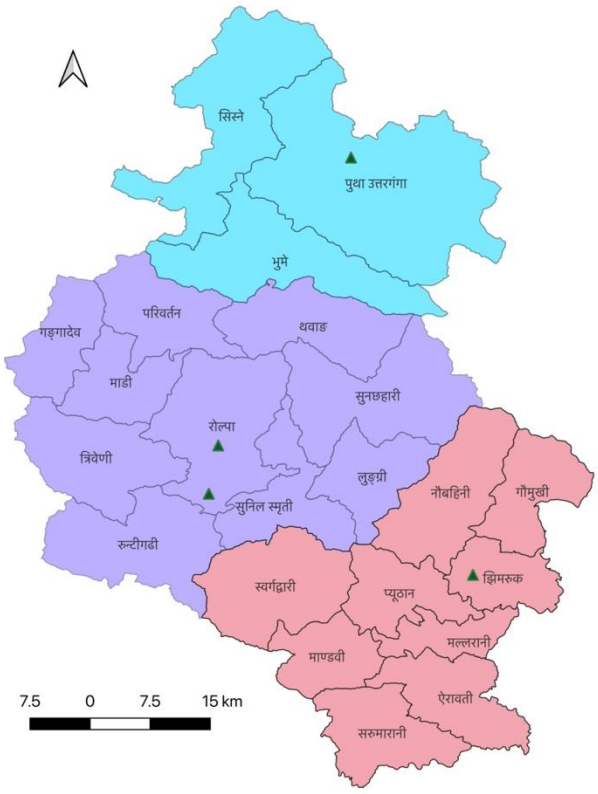
Total no. of Activities Executed: 4 nos.
Total Cost: Nrs. 33,36,516.11
Office Contribution: Nrs. 29,99,782.28
User's Contribution: Nrs. 3,36,733.84

Techniques Applied: Gabion Retaining Wall Construction= 75m, Stone Masonary Wall Construction-9m

Employment: 1872 md
Benefitted Households: 190 HHs
Conserved Area: 0.91 ha Agricultural Land & 0.16 Km Rural Road

Figure 75: Location map of Soil Conservation Work Along Rural Road Program with Major Outputs

3.2.5 EMERGENCY LANDSLIDE TREATMENT



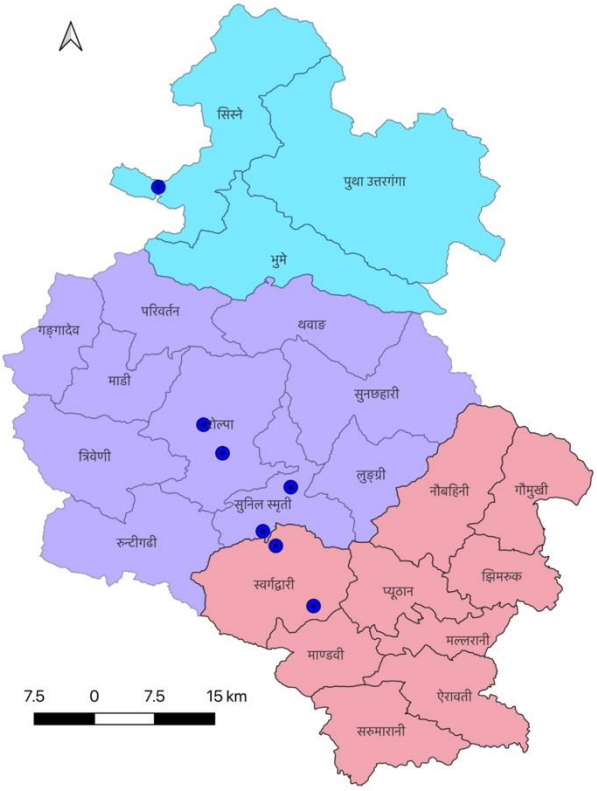
Total no. of Activities Executed: 5 nos.
Total Cost: Nrs. 64,40,603.39
Office Contribution: Nrs. 53,76,929.91
User's Contribution: Nrs. 5,63,700.47

Techniques Applied: Gabion Retaining Wall Construction= 284m; Gabin Box Supply From Office

Employment: 3142 md
Benefitted Households: 410 HHs
Conserved Area: 2.85 ha Agricultural Land

Figure 76: Location map of Emergency Landslide Treatment Program with Major Outputs

3.2.6 FRUIT/FODDER SEEDLING DISTRIBUTION AND PLANTATION



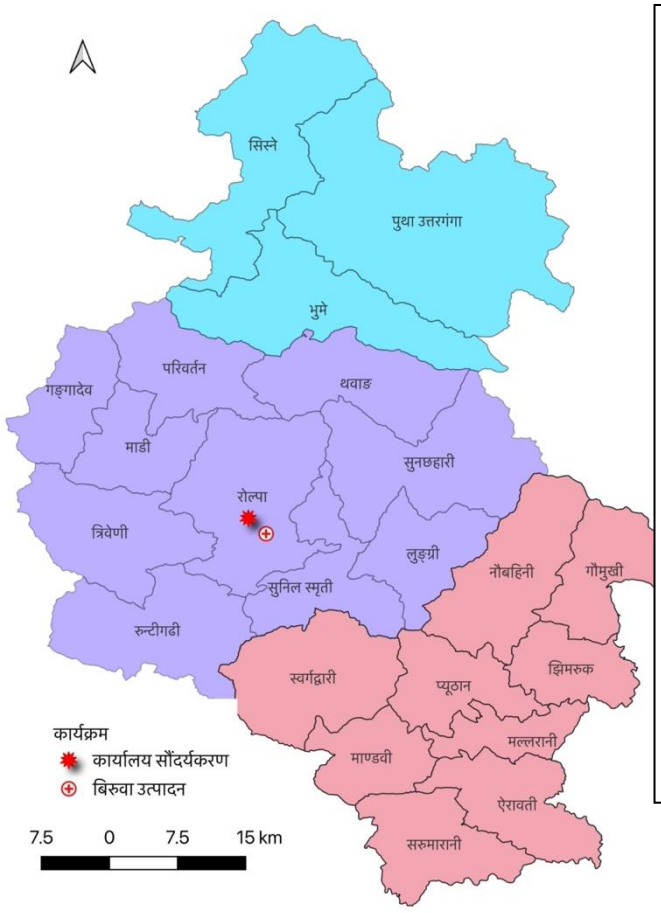
Total no. of Places: 7 nos.
Total Cost: Nrs. 8,00,000.00
Office Contribution: Nrs. 8,00,000.00

Techniques Applied: Fruit Seedlings Purchasing and Distribution and Plantation of Mango(Amrapali)= 2340 nos., Litchi (Shahi)= 1825 nos., Orange=1500 nos., Lemon =2100 nos.. Kimbu=700 nos. & Smart Napier=5000 sets.

Benefitted Households: 1860 HHs
Plantation Area: Approx 44 ha.

Figure 77: Fruit/Fodder Seedling Distribution and Plantation with Major Outputs

3.2.7 SEEDLING PRODUCTION & OFFICE BEAUTIFICATION



Total no. of Places: 2 nos.
Total Cost: Nrs. 3,92,489.00
Office Contribution: Nrs. 3,92,489.00

Techniques Applied: Bio-engineering & Fodder Species Seedling Production (Bhujetro= 12550 nos., Tanki= 4000 nos., Bamboo ulm Cutting=150 cuttings). Ashok tree, Nilkada Plantation, Gardening Work & Painting Work

Employment= 350 md
Benefitted Households: 300 HHs
Plantation Area: Approx 5 ha.

Figure 78: Seedling Production & Office Beautification

3.3 SUMMARY OF THE PROGRAMS AND MAJOR OUTPUTS

The following figure shows the total no. of activities implemented in the working areas of SWMO, Rolpa during this fiscal year.

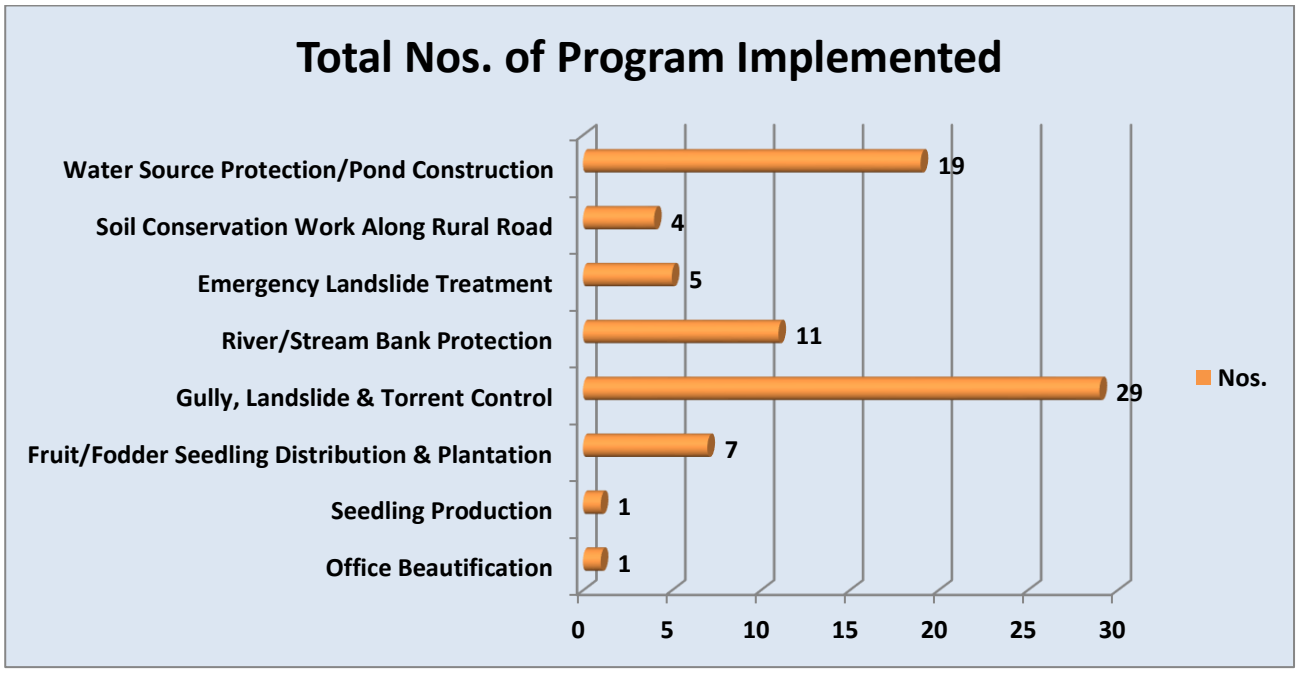


Figure 77: Nos. of Program Implemented

MAJOR OUTPUTS:

The following outputs were achieved by the execution of above mentioned soil conservationand watershed management activities;

- 18 **nos. of Gabion Check-Dam** has been constructed to check, plug and prevent the further degradation of the gully.
- **0.40 km of Gabion Embankment and 2 nos. of Spur** has been constructed to prevent River/Stream Bank cutting.
- **1.14 km of Gabion Retaining wall and 107 m of Stone Masonary Retaining Wall** has been constructed to control torrent & landlsides.
- **0.16 km of rural road** has been conserved from erosion, gully & landslides.
- **2 nos. of Recharge Pond with Stone Masonary Wall & 10 nos. of Earthern Recharge Pond** has been constructed to increase the ground water table & support irrigation facilities **for 12 ha arable land** by supplying about **2510 m3 of water stored** in the pond.
- **2 nos. of wetland** has been conserved through dam & wall constroction.
- **4 nos. of Intake, 4 nos. of Reservoir Tank, 6500m Pipeline & 6 nos. of Water Tap** has been constructed to support drinking water facilities for **180 HHs.**
- **700m Bamboo Wattle Fence & 380m of Bamboo Crib-wallConstruction with 1 ha of Bhujetr, Smart Napier, Super Napier, Amriso Plantation Work** has been done to prevent and control landslides **(Bio-engineering Works).**
- **4000 nos. of Tanki Seedlings, 12550 nos. of Bhujetro Seedlings & 150 nos. of Bamboo Culm Cuttings** has been produced in the Nursery.
- A total of **7765 nos. of different fruit seedlings** (Mango=2340 nos., Litchi=1825 nos., Lemon=2100 nos., Orange=1500 nos.) & **5700 nos. of grass & fodder seedlings/sets** (700 nos. of Kimbu & 5000 nos. of Smart Napier) has been distributed to different user groups to promote agro-forestry and ensure income-generation activities.
- A total no. of about **5548 households** were directly mobilized and benefitted from the program.
- **26 ha.** of agricultural land, barren land, degraded land, etc. has been conserved through the program execution.
- About **37148 man-days** temporary employment has been generated during the execution of the program.
- Necessary furnitures and machinery equipments has been purchased to facilitate the program executions.

3.4 LESSON LEARNED

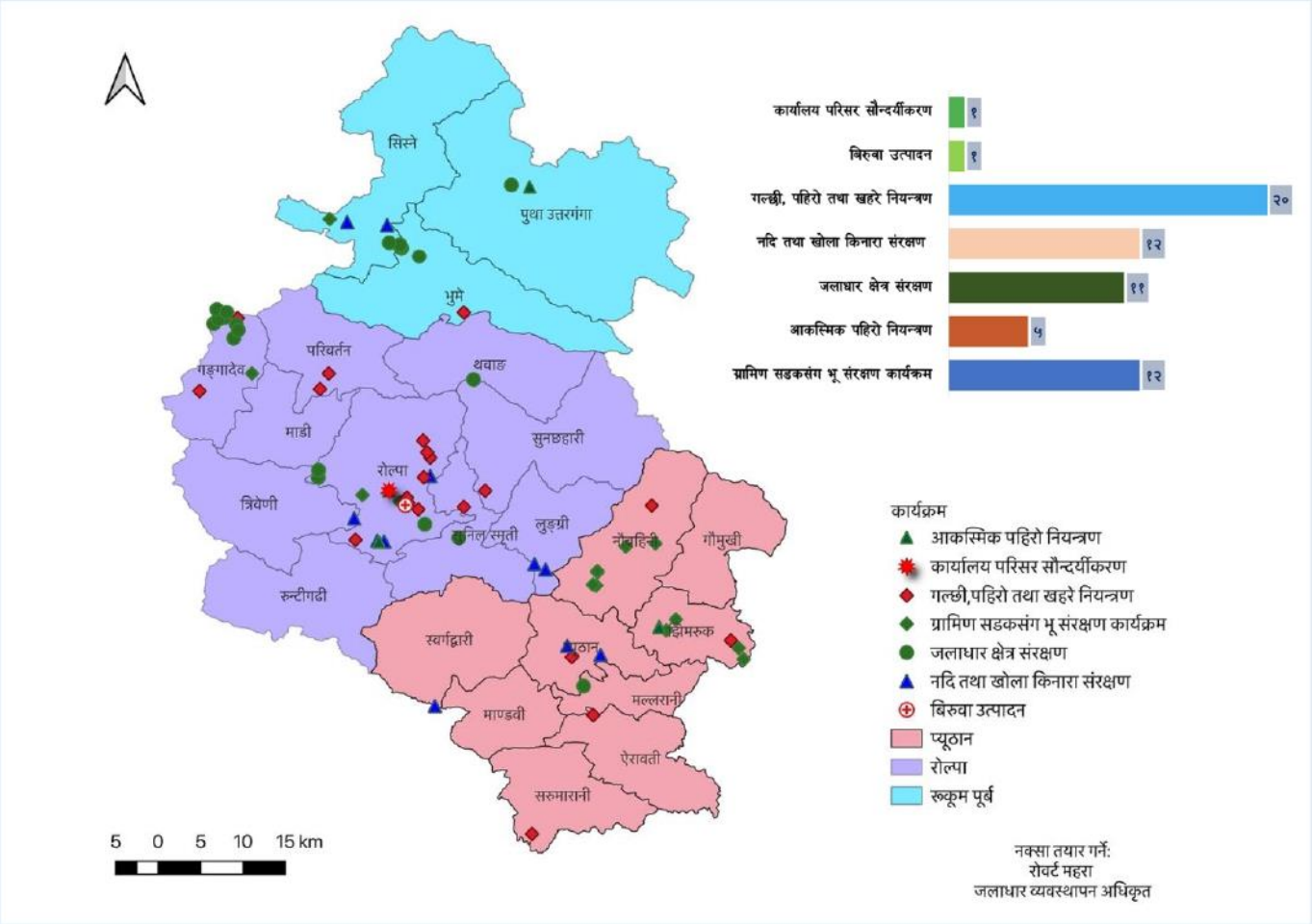
Some lessons gained through programs/activities execution mentioned below would be the guiding materials for the betterment of the programs in the years to come.

- Execution of the programs during leisure time of the local communities proved to be very effective.
- Realization of the three things (Problem, Interest, Need)-PIN of the local community together make the program effective and successful.
- Partnership Soil Conservation Programs is important for the conservation of large degraded land.
- Locally available materials should be made ready by the community in advance before the delivery of construction materials (Gabion Boxes, Cement, Reinforcement Steel, etc.).
- Bio-engineering in combination with engineering structures is effective for the program's sustainability.
- Regular Monitoring and follow-up is the backbone for quantity as well as quality assurance of the implemented activities.
- Training, advocacy, coordination workshop, and networking must be done to create upstream and downstream linkages.
- Basic information collection on the executed activity before its implementation is very helpful for Activity Profile Publication.

3.5 SUGGESTIONS AND RECOMMENDATIONS

- Monitoring and evaluation from the related Ministry and other line agencies need to be intensified.
- Integration of vegetative parts should be considered as far as possible.
- IGA for pro-poor people should be emphasized.
- There should be provision to address emergency soil conservation works.
- Partnership programs should be emphasized for the conservation of large degraded areas.
- Allocation of the budget should be based on the Problem, Interests, and Needs of the communities.

THE END



भू तथा जलाधार व्यवस्थापन कार्यालय, रोल्पा
फोन नं.: ०८६५९४००२
मोबाइल नं.: ९८५७८४६००२
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