Government of Nepal Ministry of Irrigation

Department of Irrigation Irrigation and Water Resources Management Project (IWRMP)

Irrigation Infrastructures Development & Improvement (AF), Component-A (Word Bank Project ID: P144474)

SUBPROJECT COMPLETION REPORT Goiladi, Darchula

CMS Engineering Consult Pvt. Ltd. Full Bright Consultancy Pvt. Ltd. JV

June 2018 / Asar 2075

IWRMP (AF) - COMPONENT A Goiladi Subproject Completion Report

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IWRMP (AF) - COMPONENT A Goiladi Subproject Completion Report

Name of Subproject	Goiladi	Ecologic	cal Belt	Mountain			
Municipality & Ward No(s) Shailshikar Municipality	Ward-2 District	Darch	ula			
	SUBPROJEC	T DESCRIPTION					
Brief Description of Supproject							
Brief Description of Subproject Goeladi ISP is situatedin Sailesh Shikhar M'cipality ward no-2 of Darchula district. Intake site is at 465099.82 East and 3287123.039 North with the elevation of 1345.96m.The command area lies on the bank of chakimul khola. The nearest black topped road is at Gokuleshwor, through which it connects Dethala bazar via 8 km gravel road and project site is nearly 3.5 hrs. walking distance away from Dethala bazar. The nearest market is Gokuleshwor. Structures constructed are RCC Canal lining 1700m, HDPE Pipe lining 9m, retaining wall 132.7m, dry wall 43m and gabion protection work 8.0m.							
Size of Command Area Location of Centre of Co	`	32° 87' [Ne 12.00 "	et 26 ha			
	Eastinç	g 46]° 50]' [46.00 "				
Distance from Command							
nearest paved roa	ntre/market (na IDSD/GWIDD office (na	ame) <mark>gokuleshwor,Bal</mark> ame) <mark>khalanga</mark> ame) galphai	anch	5 km 8 km 8 km 80 km			
Source(s) of Irrigation W	ater Supply						
Source Reference 1 Name Chakimul kho Type perenial 2 Name Type	E 46° 50	7' 12.00"	lp	s ste			
3 Name	N		lp	s ate			

IWMRP INTERVENTION Irrigation Water Supply Source **Target Supply Actual Flow Rate Measurements** 40 l/s 22 l/s 28 Jan 18 date 1 l/s date l/s 2 l/s date l/s date 3 l/s date date l/s l/s 40 l/s 22 l/s 0 l/s Total 1.538 l/s/ha 0.846 l/s/ha l/s/ha Duty Infrastructure Development Works under IWRMP Quantity Planned in DFSR Name and Description of Structure **Key Dimensions** Constructed RCC Canal lining (m) (30*30) cm 1700 HDPE Pipe Lining 9 9 Side Intake(1 no) 1 1 Retaining wall (m) 132.72 Dry wall (m) 43 Gabion protection 3*1.5*0.75 8

Infrastructure Development Works under IWRMP (continued) Quantity Name and Description of Structure **Key Dimensions** Planned in DFSR Constructed Financial Summary (all figures in NPR) Approved Estimate Contract Value Final Value [A] Civil Works NCB (All Packages) 6,547,784 3,944,140 3,904,763 WUA Payable (All Packages) 1,528,898 1,528,898 1,528,898 WUA Contribution (All Packages) 730,150 730,150 999,569 Subtotal 8,806,832 6,203,188 6,433,230 [B] Coningencies (All NCB Packages) Physical 724,530 **Price Escalation** 724,530 270,683 Other (5%) 362,439 Subtotal 1,811,499 0 270,683 [C] Miscalleneous Items 124,470 86,243 [D] SEMP 235,500 235,000 Total Expenditure [A]+[B]+[C]+[D] 10,978,301 6,203,188 7,025,156 Calculation of Dol/WUA Contributions **Total Dol Works** 10,248,151 5,473,038 6,025,587 WUA Net Cash Contribution* **Net Dol Contribution** 5,473,038 10,248,151 6,025,587 WUA Contribution Contracts (All) 730,150 730,150 999,569 Total DoI+WUA Contributions 6,203,188 7,025,156 10,978,301 **Total WUA Contribution** 730,150 999,569 730,150

(* where appropriate)

14.2%

6.7%

11.8%

Overall Effective WUA Contribution

Number of Traing Events

WUA Training Participation No

	WAT	TER MANAG	SEMENT				
Description of How the Physical No physical structures like division					water in the	fiold	
Water is flowing in the canal syste	-	•				ileiu.	
Water is nowing in the carial syste	III. Dellellol	anes lanner	s take water	nom out lets	•		
Description of How Farmers Sha	are the Wa	ter Amona 1	Themselves				
There is rotation system to share v							
_		•					
Desciption of Field Application	Methods B	eing Used					
Beneficiaries farmers irrigate their	land by floo	oding method	d through ou	t lets.			
	WATER	USERS AS	SOCIATION				
Participation	Total	Men	Women	Janajati	Dalit	Other	
Number of Households	35			,			
<u> </u>							
Total Population No	300	155	145	0	12	288	
%		52%	48%	0%	4%	96%	
WUA Executive Committee No	11	7	4	0	1	10	
%		64%	36%	0%	9%	91%	
	-						

	day	month	year
Date of WUA Registration	12	11	2070
Date of WUA Subproject Agreement with Dol			

95

49%

100

51%

0%

11

6%

184

94%

Observations on WUA Organisation, Rules, Regulations and Conflict Resolution

6

195

%

Goiladi ISP is situated in Shailyashikhar Municipality Ward No. 2, Darchula district. This WUA is more active and collective action oriented and have completed more than 66% of IDF activities. WUA managed adminnistration and canal operation & maintenance effectively. The WUA estabalish grievance readdress management with forming 5 members Grevience Readress Sub-committee and maintaning a record keeping register. WUA need to formulate rule and regulations, distribute the membership card and enhance the linkage building with stakeholders. Almost water user farmers including women and Dalit people are satisfied with ISP improvement.

Observations on WUA Organisation of Operation and Maintenance (see also Annex F)

WUA is handling the canal operation and maintenace system effectively at regula basis. All water users farmers use to go for intake maintenace, clearnce of canals 2 times a year. WUA collecting ISF randomly because they have niether ISF collection plan nor resource mobilization plan. WUA currently prepared the ISF collection and O & M plan by endorsing in the next AGM

AGRICULTURE EXTENSION AND TRAINING								
Participation			Total	Men	Women	Janajati	Dalit	Other
Tot	al Popula	tion No	300	155	145	0	12	288
		%		52%	48%	0%	4%	96%
Number of 7	raing Eve	ents	2					
Participan	ts in Trair	ning No	47	15	32		5	42
		%		32%	68%	0%	11%	89%
Productivity		R Baseline			•	ter FY of da		
	Area (ha)	Productivity (t/ha)	Area (ha)	Productivity (t/ha)	Price (NRs/t)	Gr Income (NRs/ha)	Prod Cost (NRs/ha)	Net Income (NRs/ha)
Spring Paddy						0		0
	Inc	rease in Pro	ductivity	-				
Paddy	16	2.10	22	3.30	50,000	165,000	85,000	80,000
	Inc	rease in Pro	ductivity	57%				
Wheat	8		1	3.00	55,000	165,000	53,130	111,870
	Inc	rease in Pro	ductivity	67%				
Maize	10			2.40	50,000	120,000	53,500	66,500
	Inc	rease in Pro	ductivity	26%				
Potato	2		1	13.00	60,000	780,000	188,584	591,416
	Inci	rease in Pro	ductivity	150%				
Pulses						0		0
	Inc	rease in Pro	ductivity	-				
Oilseed			-l (ii)			0		0
		rease in Pro		-		ı		
Vegetables	2	6.50		12.70	40,000	508,000	190,000	318,000
	IIIC	rease in Pro	auctivity	95%				
Other	Inc	rease in Pro	ductivity			0		0
	IIIC	rease III Pro	auctivity	- Tota	l al ISP Net In	come (NRs)		8,573,480
Overall Net Income per hect						` ′		329,749
Command Are	a Borfor	manco						
Command Area Performance				DFSR E	Baseline	Targe	et	Latest
Cropping Intensity					158%	227%	, b	231%
% Cropped Are	ea Planted	d with Impro	ved Seed	. <u></u>			 	35%
• •		·					=	35%
% Farmers Using Improved Techniques 35%								

Adoption of Improved Crop Varieties

	·
Spring Paddy	
Paddy	Radha-4, Hardinath-1, Ram Dha
Wheat	WK1204, Gautam
Maize	Manakamana-3, Dewti, Shital
Potato	Dezire Cardinal
Pulses	
Oilseed	
Vegetables	Snow Corown, KTM Local, Green Coronet, Pired of India, Manisha, Shrijana

SOCIAL AND ENVIRONMENTAL MANAGEMENT

Implementation of SEMP Recommendations

SEMP Issue	Location	Mitigation Measure	Compliance Remarks
Impediment of Movement of Wild Animals/People due to canal widening		Narrow canal where possible and building crossings	Yes
High Seepage		Lining of canal along the vulnerable reach (weak zone)	Yes
Extension of canal to accommodate additional command area.		Lining and retaining wall shall be provided at such spots.	Yes
Protection of landslide and flood prone zone.		Retaining walls and bio- engineering to be incorporated in the design.	Yes
Chemical Fertilizers Pesticides		Training and promotion of organic farming will be arranged.	Yes
		Training on controlled use of chemical fertilizer and pesticide will be managed.	Yes
		Training on organic manure, OFWM and modern agricultural practice.	Yes
		Field and exposure visits	Yes
Gender Issues·		Priority employment to Dalit by contractor/WUA	Yes
Dalit issue		Opportunity for employment to Dalit and backwards.	Yes
Awareness / Health and Sanitation		Awareness for Health and Sanitation by DPHO, DWSSO,	Yes

Total Number of Mitigation Measures (not including those no longer relevant)	11
Number of Mitigation Measures Fully Implemented	11
Overall Rate of Compliance	100%

ANNEX B

PHOTOGRAPHS

Photographs: Goiladi ISP, Darchula

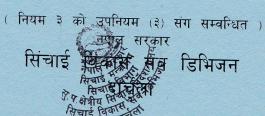


Figure 1: Side intake

Figure 2: Lined Canal along the command area

ANNEX C

WUA REGISTRATION DOCUMENT



उपभोक्ता संस्था दर्ता प्रमाण पत्र नं.:०९/२०७०/०७१

मिति:२०७३/०८/०३

उपभोक्ता संस्था दर्ता प्रमाण पत्र

श्री गोइलाडी सिचाइ जल उपभोक्ता समिति देथला २,३ दार्चुला

उपभोक्ता संस्था दर्ता गर्नको लागि त्यस संस्थाले मिति २०७३/०८/०३ गते दिएको दरखास्तको सम्बन्धमा कारवाही हुदा सिंचाई नियमावली, २०५६ को नियम ३ वमोजिम दर्ता गरी यो प्रमाणपत्र प्रदान गरिएको छ ।

कः उपभोक्ता संस्थाको नाम र ठेगाना :- गोइलाडी सिचाइ जल उपभोक्ता समिति देथला २,३ दार्चुला अपभोक्ता संस्थाको उद्देश्य :- समुचित सिंचाइ विकास गर्ने ।

ा. उपभोक्ता संस्थाको पदाधिकारीहरूको नाम :--

१.अध्यक्षः श्री माधव राज भट्ट २.उपाध्यक्षः श्री पदम राज भट्ट ३ सचिवः श्री भिविराज भट्ट

४.कोषाध्यक्षः श्री शंकर दत्त भट्ट

५ सह-सचिवः श्री दिपक बहादुर पाल

६.सदस्यः श्री कालो महर

७.सदस्य: श्री माधव राज भट्ट

प्रतस्यः श्री हरिना भट्ट

९.सदस्यः श्री मानमती भट्ट

उपभोक्ता संस्थाले उपयोग गर्ने कुलो कुलेसो प्रशाखा शाखा नहर : गोइलाडी सिचाइ योजना देथला २,३ दार्चुला

कार्यालयको छाप



प्रमाणपत्र दिने अधिकारीको, नाम:- दिनेश प्रसाद आचार्य सही:-पद:- सब डिभिजन प्रमुख मिति:- २०७३/०८/०३

७३/०८/०३ प्रमुख स्व-हिमिजन प्रमुख

ANNEX E LAND DONATION RECORDS

आंग मिली 2069 खाला में पिर १६ अते अ दिन पर अहिता।

वि कि चार् अला उपमाना समिली को वैहन समिती की काध्यहम

की माध्य रित मह की मध्यहमता मा कि तपिता कमानाम

की उपाध्यत मा तपिता कमानाम की निर्णय गरियों।

तपिता

अर्थ प्राध्व राम अह 314491 JANE ME उपाध्यह भी पदम्पाम कार FIM9 की मिनिराम अर 13िन्दा मा सर सिंग्न की रिपक विष्याल H41-4 की काला मह chirel भी प्राधन (मिलह स ५४४ 4-1113 आमारी पानमी गह 4464 पर देवी हिराना लह 4914 11 5 19 मा अह (गमनाम , , 277-1210 ग्रामत) गर 11-

प्रस्ताव न. 9: जिल्हाई की जिन्हा प्रमार

नि . प. १ . प्रस्तान इ. १ मा हलफला गर्दा पता गाइलाई सिन्पाइ औ नेहर निकान के। लगागी न्याहिन कावायक जिस्सा मिलाई निम्मा न्याहिन किन्याई किन्याई कापालप क्याईन यह पाहि एक। वेरवल उपलाव्य निम्मा नियाई कापालप क्याई नार्या पाहि एक। वेरवल उपलाव्य नार्या निवाह निम्मा निवाहित गाँउ नार्या प्राप्त नार्या न

Jan's

गोइबाडी सिंचाइ उपभोक्ता समिति

देशला-३, दार्चुला पत्र संख्या :- ७६४/०७४ चलानी नं:- 92

मिति :- 206४। 219

विषय:- 572211 स्टिन्ट्रामा

श्री सु.प. मिंचाई जिन्हाम सन डिजिनन न.४ दार्चुला

34रान्त सम्बन्ध्या मस जीहलाडी छिन्दाई मीत ना के सेवा होगा मित्र पर्ने ज्या एके 613 की जाया सिन्धाई छाया लय लगाई आवस्पत्र परेना करमाउ 4010ET DIXIX - 2717 PHA) 20691 C190 STA SIFE वसे की में 65 ले समेत निर्म में में के के हुए। उन्छ भारामा और समा होत्रा में जा की कारामा कार्या करिया कार्या करिया कार्या करिया कार्या करिया कार्या कार राध गर उत्ते उत्त निर्वाम की छारोकपी समेल यस साथ संलग्न राष्ट्री पहाएकी व्यवसा अत्रराध गरिन्द्र)

SA Januar 86. 05 27 29 2005/02/02

(21E45)

ANNEX F

IRRIGATION SERVICE FEE COLLECTION PLAN

Irrigation and Water Resources Management Project (Additional Funding)

O & M Cost and ISF Collection Plan

	ubproject: Goeladi District Darchula Construction Start: Finish: Salient Features of Subproject Infrastructure:							
Name of Canal/Structure	Size / No	Critical Features regarding O&M						
Side Intake	1.0							
Canal lining	1700 m							
HDPE pipe	9.0m							
Retaining wall	137.72 m							

2. Summary of Engineer's Estimate for O & M Cost and ISF Rate:

43 m

8 m

See attached spreadsheets (Tables A, C, D & F) for details:

- c) Additional funds required by WUA through ISF to meet 0&M costs = (a b) = 183797 NPR
- d) Equivalent rate per ha for ISF......7069 NPR/ha

3. WUA's Agreed O&M Budget and ISF Rate:

Dry wall

Gabion protection

Details of budget agreed with WUA, based on their past experience and summarized in the attached spreadsheet (Tables A, F, G & H).

a)	Agreed Overall O&M budget (including deposits for emergency repairs) 299000 NPR
b)	Estimated non-ISF income of WUA (excluding labour contributions)
c)	Additional funds required by WUA through ISF to meet O&M costs (= $a - b$) 294750 NPR
d)	Equivalent rate per ha for ISF

e) Available records, if any, of ISF collection in recent years.

		NPR '000						
Year	Balance at Start of Year	Est. Value of Labour/Kind Contribution	ISF rate(NPR/ha)	Total Amount Collected	Total Expenditure	Balance at End of Year		
2073/74	0.00							

4. Recommended Annual ISF Collection Rate

ISF Rate (NPR/ha)								
WUA's agreed Estimate	Currently collected by WUA	Recommended transition from Existing Collection Rate to Engineer's Estimated Rate						
LStilliate	2073-74 2074-75 2075-76 2076-77 2077-					2078-79		
11337	0.00	2267	4535	6802	9069	11337		

In the beginning WUA may not agree collect ISF as per engineer's estimate and should be suggested during discussion to increase ISF rate gradually to meet within 4-5 years so that the surplus amount will be helpful at the time of heavy damage if any in future and also they can benefit from bank interest.

5. ISF Collection Plan as per WUA:

Give details as per discussion with WUA, based on the following checklist.

- a) Timing of payments (before/after harvest).-After harvest
- b) Has a person responsible for ISF collection been appointed yet? (Y/N)- No
- c) Will the person responsible for ISF collection be remunerated in any way?- No

6. Financial Management by WUA

Confirm (from project records) that WUA members have completed the relevant training and financial procedures according to the IDF, namely:

Phase 1 – Pre-project Implementation

• SN 25 Preparation of annual work programme and budgets- No

Phase 2 – Project Implementation

- SN 6 ISF and other resources collection-No
- SN 7 Formulation of financial and administrative rules and regulations-No
- SN8 Auditing- No
- SN 10 Notice issued on financial activities and public auditing- No

Phase 3 – Operation and Maintenance

- SN 3 ISF and other resource collection- No
- SN 6 Establishing canal maintenance fund- No
- SN 10 Submitting financial details to DoI after end of financial year- No



IWRMP-AF

Expenditure Model Plan for ISF Collection to Meet O & M Costs

28 June 2018

A Project Details

Name of Irrigation Sub-project (ISP)	Goeladi	
Command Area	26	ha
Number of Households	35	Nos
Population	300	Nos

B Estimated Cost of Civil Works 9,402,350 NPR

C Engineer's estimate for Annual O&M Costs

Description	Rate	Amount(NPR)	
Engineer's estimate for overall O&M cost of sub-project @ 2 - 3 % of civil	2%	100 047 00	
works cost and including:	2%	188,047.00	
a) Operation cost includes the following			
- Office rent and furnitures			
- Stationary			
- WUA Renewal cost			
- WUA audit cost			
- WUA G assembly/ election cost			
- other office expenses			
- Miscellaneous expenses			
b) Mainteneance cost includes the following			
- Routine maintenance of H/W and structures including operating gates.			
- Dhalpa/chaoukidar/heralu			
- ISF collector remuneration			
- Emergency maintenenace of Canal and structures as and when required			
- Miscellaneous expenses			

D Calculation of ISF based on Engineer's Estimate

Annual amount required for O& M = (Engineer's estimate - WUA income)	183,797.00
ISF rate per ha	7,069.12
ISF rate per bigha (1ha = 1.48 Bigha)	4,776.43
ISF rate per kattha (1ha = 29.60 Kattha)	238.82
ISF rate per ropani (1ha = 19.675 Ropani)	359.29

E Estimated Value of Routine Maintenance Activities (supplied as labour)

SN	Description	Quantity (Labor)	Rate	Amount(NPR)
1	Main Canal/structures cleaning (2 times/year)	50	500	25000
2	Intake H/W Diversion (2 times/year)	20	500	10000
2	Branch canal repair/cleaning (times/year)			0
	Total			35,000

F Expected Sources of Cash Income of WUA

SN	Description	Quantity	Rate	Amount (NPR)
1	Membership Fee	35	50	1,750
2	Defaulter's Fee	5	500	2,500
3	Industries (Fish, water shear etc)			0
4	Visitor's fee			0
5	Agro-mechanical rental of WUA equipments			0
6	Profit from Land buy/sell fee			0
7	Profit from culture program			0
8	Profit fromWUA Training allowance/Expopsure visit			0
9	Sand obtained from canal de-silting			0
10	Interest of bank deposit			0
11	Interest of loan provided to WUA beneficiaris by WUA			0
12	Grass of canal bank			0
13	Other			0
	Total			4,250

G Provisional O&M Budget Agreed with WUA

SN	Description	Quantity	Rate	Amount (NPR)
1	O&M of Headworks	20	500	10,000
2	O&M of Main Canals	50	500	25,000
3	O&M of Branch Canals			
4	O&M of Flow Control Structures			
5	O&M of Bridges, Culverts and Syphons			
6	Remuneration of Dhalpa / Heralu / Chowkidar			
7	Transportion			15,000
8	Office Rent	1*12	1,000	12,000
9	Office Equipment (incl furniture and stationery)			100,000
10	Remuneration for ISF Collector			
11	WUA General Assembly			7,000
12	WUA Audit			10,000
13	other			20,000
	Subtotal		·	199,000
14	Deposit into fund for emergency repairs			100,000
	Total		, and the second second	299,000

H Calculation of ISF based on WUA's Agreed Budget

<u> </u>	
Annual amount required for O& M = (Engineer's estimate - WUA income) - NPR	294,750
ISF rate per ha	11,337
ISF rate per bigha (1ha = 1.48 bigha)	7,660
ISF rate per kattha (1ha = 29.60 kattha)	383
ISF rate per ropani (1ha = 19.675 ropani)	576

Note:-

WUA beneficiaries may pay ISF fee in cash, in kind (such as with paddy, wheat, or other crops) or in labour, as agreed by the WUA.