

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**  
**Kopche Damare, Arghakhanchi**

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

**February 2018 / Falgun 2074**

**IWRMP (AF) - COMPONENT A**  
**Kopche Damare Subproject Completion Report**

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F ISF Collection Plan	<input checked="" type="checkbox"/>

**IWRMP (AF) - COMPONENT A**  
**Kopche Damare Subproject Completion Report**

Name of Subproject  Ecological Belt   
Municipality & Ward No(s)  District

**SUBPROJECT DESCRIPTION**

**Brief Description of Subproject**

Kopche Damare irrigation sub- project command area 64 ha is a farmer managed irrigation system with house hold 66 nos. and population 352 nos. This sub project farmers' managed irrigation was initiated more than 25 years ago by few senior farmers. Intake and main canal length (3+250 Km) is located at ward- 4 of Shitganga M'cipality-12. With managed irrigation system by beneficiaries come on serving the full command area from moderate stream named "Kopche Khola" after system has been rehabilitated. Total command area is lying at ward- 12 of same M'cipality. Short length of RCC core wall with natural pool been created already & few gabion protection D/S have been constructed across the stream to maintain the bed level and simple side intake on left bank however some temporary diversion with low labour strength is to be made for pond level to create in winter. Labour strength in main canal repair and maintenance has been reduced from 2700 m-d to 500 m-d whereas water diversion at head work 100 m-d to almost nil after rehabilitation. They contribute 500 m-d at section 187 m RCC main canal devastated by earthquake 2 years ago. Water rotation in winter is of 2 days at present. They are expecting to reduce it to 12 hrs with active participation of farmers on water management. Farmers were operating and maintaining the system on their own resources from long time back and continued the same with new ISF collection plan to be implemented after decesion for future sustaining the system. Now the farmers are at good riddance from frequent washout of diversion and leakage of water through earthen canal bed however section 187 m main canal is challenging in water operation. Farmers are moreover relieved by operation problems faced annually and could not obtain desired quantity of agricultural output because of limited quantity of water at source and poor main canal. There is a vertical growth trend in the increase of overall production and productivity of cereals and cash crops. Also, the horizontal growth of cropping intensity was increased by 36% from the baseline intensity of 138% as compared to the cropping intensity of 214% during the fiscal year. 2016-17.

Size of Command Area Gross  ha Net  ha

Location of Centre of Command Area Northing °  "  
Easting °  "

**Distance from Command Area to:**

nearest road accessible by jeep/tractor  km  
nearest paved road  km  
nearest urban centre/market (name)   km  
nearest local IDD/IDSD/GWIDD office (name)   km  
nearest local DADO office (name)   km

**Source(s) of Irrigation Water Supply**

Source Reference	Location of Headworks	Measured Flow	Comments
1 Name <input type="text" value="Kopche Khola"/> Type <input type="text" value="Perennial"/>	N <input type="text" value="28"/> ° <input type="text" value="39'"/> <input type="text" value="6.70"/> " E <input type="text" value="82"/> ° <input type="text" value="7'"/> <input type="text" value="30.40"/> "	<input type="text" value="380"/> lps <input type="text" value="29 Apr 12"/> date	<input type="text" value="Minimum flow measured"/>
2 Name <input type="text"/> Type <input type="text"/>	N <input type="text"/> ° <input type="text"/> ' <input type="text"/> " E <input type="text"/> ° <input type="text"/> ' <input type="text"/> "	<input type="text"/> lps <input type="text"/> date	<input type="text"/>
3 Name <input type="text"/> Type <input type="text"/>	N <input type="text"/> ° <input type="text"/> ' <input type="text"/> " E <input type="text"/> ° <input type="text"/> ' <input type="text"/> "	<input type="text"/> lps <input type="text"/> date	<input type="text"/>

## IWRMP INTERVENTION

## Irrigation Water Supply

Source	Target Supply	Actual Flow Rate Measurements			
1	<input type="text" value="280"/> l/s	<input type="text" value="80"/> l/s	<input type="text" value="23 Jan 18"/> date	<input type="text"/> l/s	<input type="text"/> date
2	<input type="text"/> l/s	<input type="text"/> l/s	<input type="text"/> date	<input type="text"/> l/s	<input type="text"/> date
3	<input type="text"/> l/s	<input type="text"/> l/s	<input type="text"/> date	<input type="text"/> l/s	<input type="text"/> date
Total	<input type="text" value="280"/> l/s	<input type="text" value="80"/> l/s		<input type="text" value="0"/> l/s	
Duty	<input type="text" value="4.375"/> l/s/ha	<input type="text" value="1.250"/> l/s/ha		<input type="text" value="-"/> l/s/ha	

## Infrastructure Development Works under IWRMP

Name and Description of Structure	Key Dimensions	Quantity	
		Planned in DFSR	Constructed
H/W Intake/covered canal.	nos.	<input type="text" value="1"/>	<input type="text" value="1"/>
Canal lining/covered canal.	m	<input type="text" value="2200"/>	<input type="text" value="2195"/>
Escape.	nos.	<input type="text" value="3"/>	<input type="text" value="3"/>
Superpassage.	nos.	<input type="text" value="8"/>	<input type="text" value="5"/>
Aqueduct (nos.)	nos.	<input type="text" value="3"/>	<input type="text" value="2"/>
Outlet.	nos.	<input type="text" value="30"/>	<input type="text" value="20"/>
Protection work.	m	<input type="text" value="22"/>	<input type="text" value="20"/>
Canal E/W .	cum	<input type="text" value="2895"/>	<input type="text" value="2895"/>
E/W Back filling.	cum	<input type="text" value="1598"/>	<input type="text" value="1500"/>
FB/VRB	nos.	<input type="text" value="8"/>	<input type="text" value="9"/>
HDP Pipe canal	rm	<input type="text" value="-"/>	<input type="text" value="605"/>



## Infrastructure Development Works under IWRMP (continued)

Name and Description of Structure	Key Dimensions	Quantity	
		Planned in DFSR	Constructed

## Financial Summary (all figures in NPR)

	Approved Estimate	Contract Value	Final Value
<b>[A] Civil Works</b>			
NCB (All Packages)	13,322,685	13,209,995	13,209,995
WUA Payable (All Packages)	4,268,738	4,268,738	4,172,521
WUA Contribution (All Packages)	1,764,480	1,764,480	1,768,431
<i>Subtotal</i>	19,355,903	19,243,213	19,150,947
<b>[B] Coningencies (All NCB Packages)</b>			
Physical	1,757,297	220,176	220,176
Price Escalation	1,757,297	0	0
Other (5%)	878,648	878,648	878,648
<i>Subtotal</i>	4,393,242	1,098,824	1,098,824
<b>[C] Miscalleneous Items</b>	137,864	43,925	43,925
<b>[D] SEMP</b>	200,000	199,996	199,996
<b>Total Expenditure [A]+[B]+[C]+[D]</b>	24,087,009	20,585,958	20,493,692
<b>Calculation of Dol/WUA Contributions</b>			
Total Dol Works	22,322,529	18,821,478	18,725,261
WUA Net Cash Contribution*			
Net Dol Contribution	22,322,529	18,821,478	18,725,261
WUA Contribution Contracts (All)	1,764,480	1,764,480	1,768,431
Total Dol+WUA Contributions	24,087,009	20,585,958	20,493,692
Total WUA Contribution	1,764,480	1,764,480	1,768,431
<b>Overall Effective WUA Contribution</b>	7.3%	8.6%	8.6%

(\* where appropriate)

## WATER MANAGEMENT

### Description of How the Physical Water Distribution System Operates

Simple side intake and small core wall across the stream with gabion protection, cross drainage such as super passage- 5 nos, outlets- 20 nos. and pipe canal 605 mm have been helping farmers to get reliable water after rehabilitation however low labour strength diversion is required in winter at intake. Main canal is made of RCC lined canal 2008 m excluding 187 m damaged section with distribution structures at branch off-takes and open outlets to regulate by farmers on decision of WUA.

### Description of How Farmers Share the Water Among Themselves

During water share traditional rule is prevailing. Water is not enough at source but tail end farmers are on pressure to have water rotation of 2 days on months Falgun, Chaitra and Baisakh. Farmers are active on water management and expecting rotation to reduce to 12 hrs.

### Description of Field Application Methods Being Used

Generally flooding method is adopted for summer crops and farmers make small water course from branch canal in command area to irrigate winter crops.

## WATER USERS ASSOCIATION

Participation	Total	Men	Women	Janajati	Dalit	Other
Number of Households	352					
Total Population No	352	152	200	27	15	310
%		43%	57%	8%	4%	88%
WUA Executive Committee No	11	7	4	0	1	10
%		64%	36%	0%	9%	91%
Number of Training Events	4					
WUA Training Participation No	150	95	55	1	18	131
%		63%	37%	1%	12%	87%

	day	month	year
Date of WUA Registration	29	8	2071
Date of WUA Subproject Agreement with DoI	14	1	2072

### Observations on WUA Organisation, Rules, Regulations and Conflict Resolution

Strength: WUA was legally resisted in IDD of Arghakhachi in 14 December 2014. 36% female are selected in WUA-EC. More than 35% of female were participated in various ID trainings and exposure visit. General Annual Audit was carried out up to fiscal year 2073/074 and ready for WUA renewable and general assembly. WUA-EC/beneficiaries have actively participated in construction works. They kept sign board and made a plan for WUA office establish. IDD had provided some Furniture for their capacity building. Weakness: WUA office was not yet established and not good maintained account keeping, store book, income and expenditure book, registers, minute etc. . Grievance register and visitor book is not established.

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

WUA and the community are active but they do not collect ISF and not manage watchman for operation and maintenance of the system. TA team advice them for ISF collection and watchman manage.

**AGRICULTURE EXTENSION AND TRAINING**

<b>Participation</b>	Total	Men	Women	Janajati	Dalit	Other
Total Population No	352	152	200	27	15	310
%		43%	57%	8%	4%	88%
Number of Traing Events						
Participants in Training No	0					0
%		-	-	-	-	-

**Productivity**

Productivity	DFSR Baseline		Latest Available Data, FY: <b>&lt;enter FY of data here&gt;</b>					
	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
	Increase in Productivity			-				
Paddy	45	2.50	64	3.20	35,000	112,000	43,000	69,000
	Increase in Productivity			28%				
Wheat	10	1.75	30	1.80	50,667	91,201	51,000	40,201
	Increase in Productivity			3%				
Maize	30	1.60	20	2.10	35,714	74,999	40,000	34,999
	Increase in Productivity			31%				
Potato			14	13.00	21,153	274,989	111,000	163,989
	Increase in Productivity			-				
Pulses	3	0.60	5	0.80	75,000	60,000	29,510	30,490
	Increase in Productivity			33%				
Oilseed			3	0.90	67,778	61,000	36,150	24,850
	Increase in Productivity			-				
Vegetables			1	13.00	20,077	261,001	86,150	174,851
	Increase in Productivity			-				
Other						0		0
	Increase in Productivity			-				
Total ISP Net Income (NRs)							9,019,704	
Overall Net Income per hectare of Command Area (NRs/ha)							140,933	

**Command Area Performance**

	DFSR Baseline	Target	Latest
Cropping Intensity	138%		214%
% Cropped Area Planted with Improved Seed			45%
% Farmers Using Improved Techniques			40%

**Adoption of Improved Crop Varieties**

Spring Paddy	
Paddy	Improved = Sukha -, Khumal 10, Super Sona, Golden Mansuli, Locals= Lame, Kathe, C
Wheat	Gautam
Maize	Arun 2 and Mankamana 3
Potato	Locals
Pulses	Locals
Oilseed	Local Tori
Vegetables	Hybrids of tomato, cauliflower, cabbage and cucumber.

**SOCIAL AND ENVIRONMENTAL MANAGEMENT****Implementation of SEMP Recommendations**

SEMP Issue	Location	Mitigation Measure	Compliance	Remarks
Impediment to movement of cattle and people;	Main canal	Construction of eight numbers of RCC crossings / accesses	Yes	Sufficient crossings have been constructed
Waste management	Canal construction area	Disposal of excavated waste on either banks and / or as tipplings pointed out in design	Yes	
Water management	command area	Proper water management & Provision of adequate numbers of field outlets.	Yes	Outlets have been constructed for water management.
Trainings for proper fertiliser use, pesticide use, Enhance modern farming practices;		Trainings for Farmers for proper use of chemical fertilisers, pesticides. Improved seeds, modern	Yes	
Social and Environmental Monitoring	Construction activities	Execute periodic monitoring of the sub-project activities	Yes	
Employment opportunity to dalit and economically backward people	Construction site	Employment opportunity to dalit and economically backward people;	Yes	
		Field and exposure visit	Yes	
		Ensure equal wages for equal work, no discrimination in wages paid to women;	Yes	

Total Number of Mitigation Measures (not including those no longer relevant)

8

Number of Mitigation Measures Fully Implemented

8

Overall Rate of Compliance

100%

## **ANNEX A**

### **MAPS AND LAYOUT PLANS**

## Kopchedamare IT & Damaged Section

### Legend

- A ACTIVE LOG
- P Feature 1

Kopcheintake

492 | 492

493 | 493

493 | 493

494 | 494

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496 | 496

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498 | 498

499

500

500 | 500

500 | 500

501

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502

502 | 502

502 | 502

Google Earth

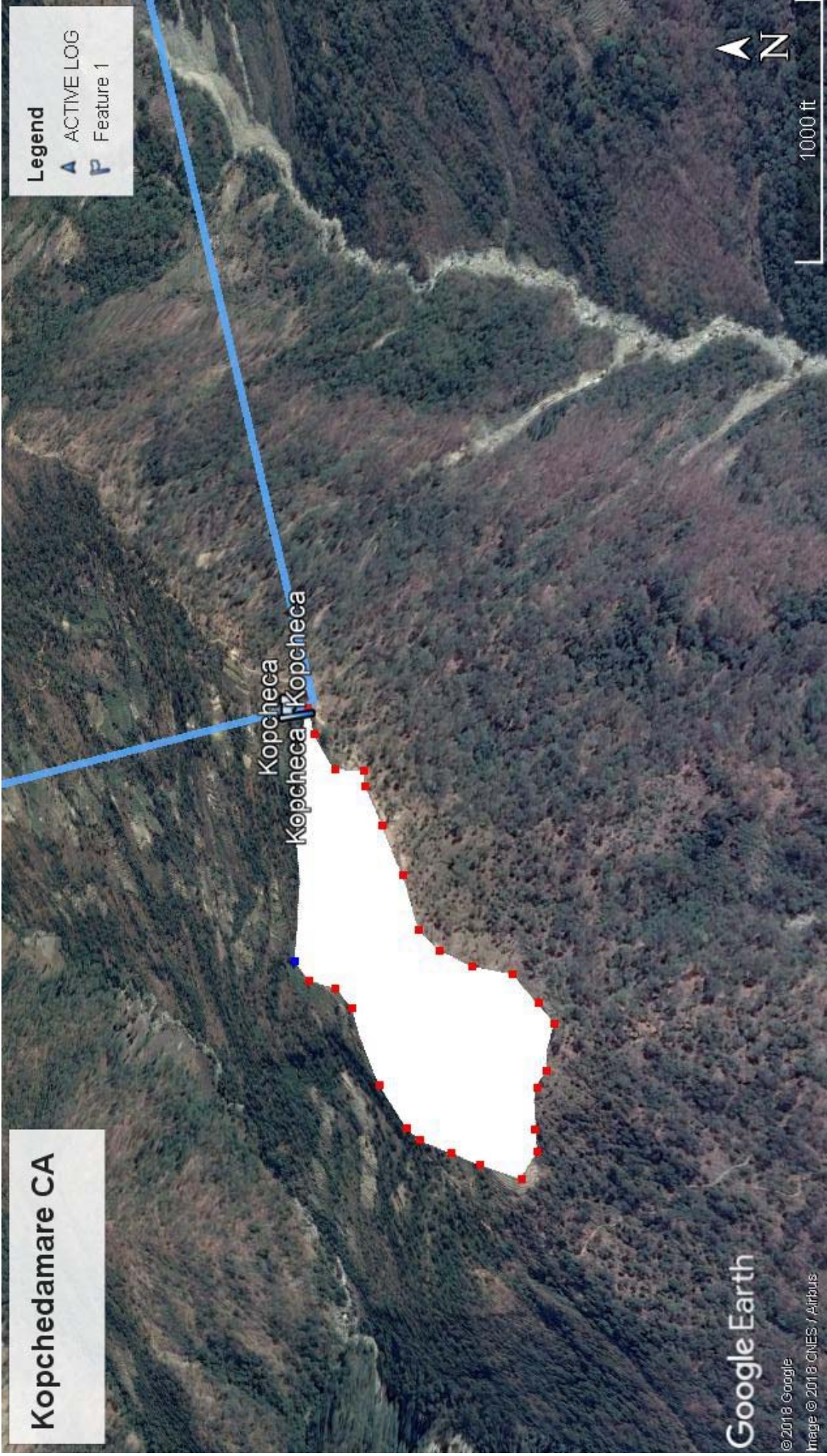
© 2018 Google

Image © 2018 CNES / Airbus



200 ft





## **ANNEX B**

### **PHOTOGRAPHS**



**PHOTOS of Kopchedamare:**



**Figure 1: Lapses of routine maintenance.**



**Figure 2: Lapses of routine maintenance of the canal.**





Figure 3: Lapses of canal routine maintenance.



Figure 4: Iron trash rack to be provided in front of Pipe to protect the chance of blocked inside pipe canal.





Figure 5: Earthquake effect on main canal on right side broken piece of RCC lined canal of 190 m length.



Figure 6: Bamboos plantation to be promoted in area of fragile zone.





**Figure 7: Interaction and Information carried out with WUA/Beneficiaries**



**Figure 8: TA team distributed some necessary documents and grievance register book to WUA.**





Figure 9: WUA Sign Board



Figure 10: Irrigation Impact of Vegetable farming (Tomato, Cauliflower and Chilli) inside plastic house.





Figure 11: Wheat crop at Kopche Damare ISP



Figure 12: Vegetable under plastic house at Kopchedamare.





Figure 13 : Lying of foundation by Ministry of Irrigation Mr.NP Saud.

## **ANNEX C**

### **WUA REGISTRATION DOCUMENT**



अनुसूची - २  
नियम ३ को उपबिम्ब (३) संग सम्बन्धित

नेपाल सरकार  
सिंचाई विभाग  
पश्चिमाञ्चल क्षेत्रीय सिंचाई निर्देशनालय

**पश्चिमाञ्चल सिंचाई विकास सब-डिभिजन नं. ५**  
अर्घाखाँची

**उपभोक्ता संस्था दर्ता प्रमाण पत्र**

उपभोक्ता संस्था दर्ता प्रमाण पत्र नं. : १८२ मिति : २०७१/८/२९

उपभोक्ता संस्था दर्ता गर्नको लागि त्यस संस्थाले मिति २०७१/८/२९ मा दिएको दरखास्तको संबन्धमा कारवाही हुँदा सिंचाई नियमावली २०५६ को नियम ३ बमोजिम यो प्रमाण-पत्र प्रदान गरिएको छ ।

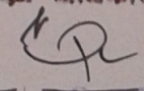
उपभोक्ता संस्थाको नाम र ठेगाना : कोल्थे दहारे खि. पो. नं. ३. ठाडा - ६, ड. (च.)

उपभोक्ता संस्थाको उद्देश्य : "कृषि उत्पादनमा बृद्धि ल्याउने"

उपभोक्ता संस्थाका पदाधिकारीहरूको नाम :

(१) अध्यक्ष - हरिलाल वैद्यसाई	(२) उपाध्यक्ष - देवेन्द्र पौडेल
(३) सचिव - तुलसीराम छिप्रिरे	(४) कोषाध्यक्ष - मिनरा चौधरी
(५) सह सचिव - भोपराज शर्मा	(६) सदस्य - मेघनाथ छिप्रिरे
(७) सदस्य - उमकला वैद्यसाई	(८) सदस्य - रामपाल कामी
(९) सदस्य - चन्द्रकला वैद्यसाई	(१०) सदस्य - पुराणि वैद्यसाई
(११) सदस्य - देवकला कुँवर	

उपभोक्ता संस्थाले प्रयोग गर्ने कुलो/कुलेसा/नहर

प्रमाण-पत्र दिने अधिकारीको  
दस्तखत : 

नाम : लक्ष्मण कुमार शर्मा  
पद : सब डिभिजन प्रमुख  
मिति : २०७१/८/२९

## **ANNEX D**

### **WUA/DoI IWRMP SUBPROJECT AGREEMENT**



अनुसूची १  
(कार्यविधिको दफा ९ संग सम्बन्धित)  
नेपाल सरकार  
जलस्रोत मन्त्रालय  
सिंचाई विभाग  
**सिंचाई विकास डिभिजन**  
अर्घाखाँची  
२

सम्मौता नं. /०७३।०७४

**सम्मौता पत्र**

कोप्चे दमारे सिंचाई योजना जल उपभोक्ता समिति, ठाडा ५ अर्घाखाँची बीच गरिएको

योजना कार्यक्रमको नाम : कोप्चे दमारे सिंचाई योजना  
कामको नाम : नहर तथा संरचना निर्माण कार्य  
संस्थाको नाम : कोप्चे दमारे सिंचाई योजना जल उपभोक्ता समिति  
ठेगाना : ठाडा ५ अर्घाखाँची  
जम्मा समितिले सम्मौता रकम रु. ७,६७,८३०।३७  
उपभोक्ता समितिले जनश्रमदान वापत गर्नुपर्ने कार्य रु. ७,६७,८३०।३७  
उपभोक्ता समितिले कार्य गरे वापत भुक्तानी हुने रकम रु. ०  
काम शुरु गर्नुपर्ने मिति : २०७३।०८।२६  
काम सम्पन्न गर्नुपर्ने मिति : २०७४।३।३५

शर्तहरू :

१. सबै कामहरु इन्जिनियरिङ नर्स , प्राविधिक नक्सा , संलग्न प्राविधिक स्पेसिफिकेशन एवं कार्यालय वा कार्यालयले तोकेको प्रतिनिधिको निर्देशानुसार गर्नुपर्नेछ ।
२. सम्मौता बमोजिमको कार्य उपभोक्ता संस्था आफैले गर्नुपर्नेछ , निर्माण व्यवसायी वा अन्य माध्यमबाट गराउन पाउने छैन ।
३. त्रुटी सच्याउने/भूल सुधार गर्ने अवधि सम्पूर्ण कार्य सम्पन्न भएका मितिले १८० दिनको रहनेछ ।
४. संस्थाले पाउने भुक्तानी बाट ५ (पाँच) प्रतिशत रकम धरौटी वापत कट्टी गरिनेछ । यसरी कट्टा गरिएको रकम त्रुटी सच्याउने अवधिभर त्रुटि सच्याइसकेपछि र सो अवधि तामेल भइसकेपछि संस्थालाई फिर्ता गरिनेछ ।
५. उपभोक्ता संस्थाको कार्यालयबाट भुक्तानी पाएको रकम दुरुपयोग गरेको बुझिन आएमा छानबिन गरि दुरुपयोग भएजति रकम संस्थाका संलग्न पदाधिकारबाट दामासाहीले सरकारी बाँकी सरह असूल उपर गरिनेछ ।
६. कुनै कारणवश काम सम्पन्न गर्नुपर्ने मितिभित्र संस्थाले कार्य सम्पन्न गर्न नसकेमा सो काम सम्पन्न गर्नुपर्ने म्यादभन्दा कमतिमा ७ दिन अगावै कार्यालयमा उचित कारण खुलाई म्याद थपका लागि निवेदन दिनु पर्नेछ । जसउपर कार्यालयबाट सार्वजनिक खरीद ऐन, २०६३ को दफा ५६ तथा



हस्ताक्षरहरू

सार्वजनिक खरीद नियमावली, २०६४ को नियम १२० मा व्यवस्था भए बमोजिम कारवाही बढाइनेछ । तर एक आर्थिक वर्षबाट अर्को आर्थिक वर्षमा म्याद जाने गरी म्याद थप गरिने छैन ।

७. सम्पन्न कार्यको मर्मत संभार तथा संचालन नियम बमोजिम सम्बन्धित उपभोक्ता संस्था ले गर्नुपर्नेछ ।।

८. सार्वजनिक खरीद नियमावली, २०६४ को नियम ९७ को उपनियम ६ र ११ मा उल्लेख भएको अभिलेख उपभोक्ता संस्थाले अनिवार्य रूपमा राखी भुक्तानी माग गर्दा सो को प्रमाणित प्रतिलिपी पेश गर्नु पर्नेछ ।

९. उपभोक्ता संस्थाबाट संचालन हुने निर्माण कार्यमा लोडर , एक्स्काभेटर ,डोजर जस्ता भारी उपकरणहरु प्रयोग गर्न पाइने छैन ।

१०. उपभोक्ता संस्थाले सम्पादित कार्यको भुक्तानी माग गर्दा सो साथ प्राविधिक मूल्यांक ,बिल भरपाइ र खर्चलाई प्रमाणित गर्ने कागजात सो संस्थाको बैठकबाट अनुमोदन गराई पेश गर्नु पर्नेछ ।

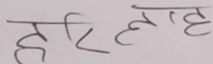
११. अन्य विषयको हकमा प्रचलित ऐन कानून तथा विभागीय निर्देशनअनुसार हुनेछ ।

उपरोक्त बमोजिम काम यसै साथ संलग्न परिमाणहरुको विजक Bill of Quantity मा उल्लेख भए बमोजिमको आइटमवाइज परिमाण र दर अनुसार गर्ने गराउने कुरामा दुवै पक्ष मन्जुर भई आज मिति २०७३।०९।२६ का दिन सहीछाप गरि दियोलियो ।

जल उपभोक्ता संस्थाको तर्फबाट

ज.उ.स. अध्यक्ष :-हरीलाल वेल्वासे

सही :

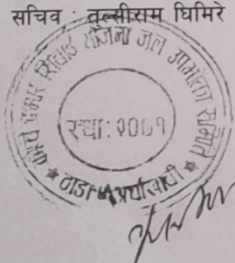


ज.उ.स. सचिव : तुल्सीराम धिमिरे

सही :

मिति :

साक्षी :



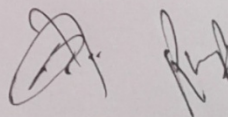
कार्यालयको तर्फबाट

कार्यालय प्रमुख टंक बहादुर के.सी.

सही : डिभिजन प्रमुख

कार्यालयको छाप :

साक्षी :





Government of Nepal  
Ministry of Irrigation  
Department of Irrigation  
Western Regional Irrigation Directorate  
IRRIGATION DEVELOPMENT DIVISION  
Argakhanchi

**AGREEMENT**

Name of Project : Kopche Damare Irrigation Project  
Name of Work: Construction of Canal and structures  
Location:- Thada 5 Argakhanchi

**WUA NON  
PAYABLE PART**

S.N.	Description	Quantity	Unit	Rate	Amount	Remarks
1	E/W Excavation in GBM Soil for Foundation of Canal and Structures all complete work as per specification, drawings & instruction all complete.	1096.23	m <sup>3</sup>	553.31	606553.91	
2	E/W excavation for back filling	1585.65	m <sup>3</sup>	101.71	161276.46	
	Total				767830.37	

उपरोक्त कार्यहरू गर्दा खरिद गरेको सामानहरूको VAT बील पेस गरेमा ल.ई. र नर्मस को परिधि भित्र रहि VAT रकम कार्यालयबाट न.उ.स. लाई मुक्तानी दिइनेछ ।

**On the Behalf of WUA**

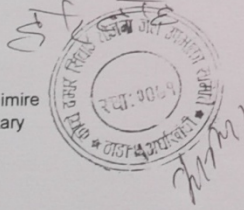
Name:- Hari Lal Belbase  
Designation:- Chair Person

Signature:-

Date:-

**Witness**

Name:- Tulsiram Ghimire  
Designation:- Secretary  
Signature:-  
Date:-



**On the Behalf of Office**

Name:- Tank Bahadur K.C.  
Designation:- SDE

Signature:-

Date:-

**Witness**

Name:-  
Designation:-  
Signature:-

Signature:-  
Date:-  
Signature:-

## **ANNEX E**

### **LAND DONATION RECORDS**



पत्र संख्या : ०७२।०७३

च.नं. १४०

नेपाल सरकार  
सिंचाई मन्त्रालय  
सिंचाई विभाग  
पश्चिमान्चल क्षेत्रीय सिंचाई निर्देशनालय  
सिंचाई विकास डिभिजन  
अर्घाखाँची

मिति : २०७२।०९।१२

विषय : जग्गाको विवरण सम्बन्धमा ।

श्री सिंचाई तथा जलस्रोत व्यवस्थापन आयोजना,  
जावलाखेल, ललितपुर ।

प्रस्तुत सम्बन्धमा तहांको च.नं.२३५ मिति ०७२।०७।३० को पत्र प्राप्त भइ व्यहोरा अवगत भयो । सो सम्बन्धमा यस कार्यालयबाट सिंचाई तथा जलस्रोत व्यवस्थापन आयोजनाको Additional Financing बाट कार्यान्वयनमा रहेका यस जिल्लाका दमैढुंगा सिंचाई योजना, ठाडा र कोप्चे दमारे सिंचाई योजना ठाडाको जल उपभोक्ता समिति खंग नहर तथा संरचना निर्माणको लागि आवश्यक पर्ने जग्गाको बारेमा जानकारी लिंदा नहर विगत धेरै वर्ष देखि संचालनमा रहेको र उक्त योजनाको नहर र संरचनाहरुले ओगटेको जग्गा कुलो प्रयोजनका लागि प्रयोग भइरहेको सार्वजनिक जग्गाको रुपमा रहेको एवं त्यसमा कहिँकतै बाट दाबी विरोध वा विवाद नरहेको व्यहोरा जानकारी गराएकोले सोही अनुसार अनुरोध छ । साथै उक्त योजना संचालनका क्रममा नयां कुलो नखनिएकोले जग्गा प्राप्तीको कुरा समेत नरहेको एवं उक्त योजनाहरुको जग्गा समेत सबै संरचनाहरु उपभोक्ता समिति र समुहको स्वामित्वमा पर्ने व्यहोरा समेत अनुरोध छ ।

बोधार्थ :

श्री पश्चिमान्चल क्षेत्रीय सिंचाई निर्देशनालय, पादी, पोखरा ।

(निमित्त डिभिजन प्रमुख)

०१८

062151C

डीआर। सिचार् डिमिज कापुल हाप सुपुख जू।

(मरिच) ची।



महोदय.

विषय - जज्जाक विवरण सम्बन्ध

महोदय.

प्रस्तुत सम्बन्धक नही कापुलपका च. नं 905 मिति.

2064/198 को जज्जाक विवरण सम्बन्धी फल प्राप्त हुई.  
व्योरोच भवगत मपी. सा सम्बन्धक चाल कोचोदमार सिचार्  
पोज्जाको नहर विगत जेरे वर्ष केरि संचालन में रहेको र  
उक्त पोज्जाको नहर र संचालन आगरेको जज्जा मुली प्रमाणवक  
लागी प्रयोग भइरहेको लावजगिक जज्जाको रूपमा रहेको एक लालमा केही  
कलैवाट दानी क्रियोध को विवाद भइरहेको व्योरोच भुनरोध छ। साथै  
उक्त पोज्जा संचालन को क्रममा नपा मुली नखाने रकोले जज्जा प्राली  
को कुरा सिमेल भइरहेको एवं उक्त पोज्जाको जज्जा सिमेल सर्वै संचालन  
उपभोक्ता समिते र उपभोक्ता समुहको स्वाधीन पने व्योरोच सिमेल  
भुनरोध छ।

निवेदक -

उपभोक्ता समिते  
हरिलाल केलवाने  
रिहा छ





## **ANNEX F**

### **IRRIGATION SERVICE FEE COLLECTION PLAN**

**Irrigation and Water Resources Management Project  
(Additional Funding)**

**O & M Cost and ISF Collection Plan**

**Subproject: Kopchedamare ISP District: Arghakhanchi Construction Start: 2071/12/30  
Finish: 2074/03/15**

**Salient Features of Sub-project Infrastructure:**

<b>Name of Canal/Structure</b>	<b>Size / No</b>	<b>Critical Features regarding O&amp;M</b>
H/W Intake/covered canal	1	
RCC lined canal, m	2195	180 m long RCC lined canal is damaged by Earthquake, 2072 Baisakh. WUA managed by earthen canal to resume flow.
Retaining wall, m	-	
Supper passage, nos.	5	
Aqueduct, nos.	2	
Outlets, nos.	20	
VRB/FB, nos.	8	
Outlet, nos.	20	
Road crossing, nos.	-	
Escape, nos.	3	
Protection work, stone masonry, m.	20	

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

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

a) Engineer's estimate of overall O&M cost..... 345,210 NPR

- b) Estimated non-ISF income of WUA (excluding labour contributions) ..... 7,260 NPR
- c) Additional funds required by WUA through ISF to meet O&M costs = (a – b) = 337,950 NPR
- d) Equivalent rate per ha for ISF ..... 5,280 NPR/ha

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

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)..... 371,260 NPR
- b) Estimated non-ISF income of WUA (excluding labour contributions) ..... 7,260 NPR
- c) Additional funds required by WUA through ISF to meet O&M costs ( = a – b) .... 3,64,000 NPR
- d) Equivalent rate per ha for ISF ..... 5,688 NPR/ha
- e) Available records, if any, of ISF collection in recent years.

Year	NPR '000					
	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
2073-074	82,000	61,600	0	0	-	82,000

## 3. Recommended Annual ISF Collection Rate

ISF Rate (NPR/ha)						
Engineer's or WUA's Agreed Estimate (whichever more)	Currently collected by WUA	Recommended transition from Existing Collection Rate to Engineer's Estimated Rate				
	2073-74	2074-75	2075-76	2076-77	2077-78	2078-79
5,688	0 (0/Ropani)	1,138 (58 /Ropani)	2,275 (116/Ropani)	3,413 (174/Ropani)	4,550 (231/Ropani)	5,688 (289/Ropani)

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.

**4. 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 paddy harvest**
- b)** Has a person responsible for ISF collection been appointed yet? (Y/N)- **N**
- c) Will the person responsible for ISF collection be remunerated in any way? (Y/N)- **N**

**5. 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 program and budgets(Y/N)- N

Phase 2 – Project Implementation

- SN 6 ISF and other resources collection(Y/N)- Y
- SN 7 Formulation of financial and administrative rules and regulations(Y/N)- N
- SN8 Auditing(Y/N)- Y
- SN 10 Notice issued on financial activities and public auditing(Y/N)- N

Phase 3 – Operation and Maintenance

- SN 3 ISF and other resource collection(Y/N)- N
- SN 6 Establishing canal maintenance fund(Y/N)- N
- SN 10 Submitting financial details to DoI after end of financial year(Y/N)- N

# IWRMP-AF

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

14 February 2018

### A Project Details

Name of Irrigation Sub-project (ISP)	Kopchedamare, Arghakhanchi	
Command Area	64	ha
Number of Households	66	Nos
Population	352	Nos

<b>B Estimated Cost of Civil Works</b>	17,260,480	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 works cost and including:	2%	345,210
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) Maintenance cost includes the following		
- Routine maintenance of H/W and structures including operating gates.		
- Dhalpa/chaoukidar/heralu		
- ISF collector remuneration		
- Emergency maintenence 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)	337,950
ISF rate per ha	5,280
ISF rate per bigha (1ha = 1.48 Bigha)	3,568
ISF rate per kattha (1ha = 29.60 Kattha)	178
<b>ISF rate per ropani (1ha = 19.675 Ropani)</b>	<b>268</b>

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

SN	Description	Quantity (Labor, m-d)	Rate	Amount(NPR)
1	Main Canal/structures cleaning (2.. times/year)	80	700	56,000
2	Intake H/W Diversion (2 times/year)	8	700	5,600
3	Branch canal repair/cleaning, nos (1..... times/year)	-	700	-
	<b>Total</b>			<b>61,600</b>

**F Expected Sources of Cash Income of WUA**

SN	Description	Quantity	Rate	Amount (NPR)
1	Membership Fee	66	50	3,300
2	Defaulter's Fee	10	400	3,960
3	Industries (Fish, water shear etc)	-	-	-
4	Visitor's fee	-	-	-
5	Agro-mechanical rental of WUA equipments	-	-	-
6	Profit from Land buy/sell fee	-	-	-
7	Profit from culture program	-	-	-
8	Profit from WUA Training allowance/Exposure visit	-	-	-
9	Sand obtained from canal de-silting	-	-	-
10	Interest of bank deposit	-	-	-
11	Interest of loan provided to WUA beneficiaries by WUA	-	-	-
12	Grass of canal bank	-	-	-
13	Other	-	-	-
	<b>Total</b>			<b>7,260</b>

**G Provisional O&M Budget Agreed with WUA**

SN	Description	Quantity	Rate	Amount (NPR)
1	O&M of Headworks	-	-	-
2	O&M of Main Canals (RCC lined Canal), m	2,195	88	193,160
3	O&M of Branch Canals, m	-	-	-
4	O&M of Flow Control Structures, nos	5	1,000	5,000
5	O&M of Bridges, Culverts and Syphons, nos	16	1,000	16,000
6	Repair/maintenance of steel gates, nos	1	-	-
7	Remuneration of Chowkidar, m-m	10	5,000	50,000
8	Plumber for HDP pipe canal, m-d	14	500	7,000
9	Office Rent (will be rented)	12	1,500	18,000
10	Office Equipment (incl furniture and stationery)	1	11,300	11,300
11	Office sign board	1	3,500	3,500
12	Remuneration for ISF Collector	-	-	-
13	WUA General Assembly, m-d	66	50	3,300
14	WUA Monthly meeting, m-d	180	50	9,000
15	WUA Audit	1	5,000	5,000
16	Office support staff	-	-	-
	<b>Subtotal</b>			<b>321,260</b>
17	Deposit into fund for emergency repairs			50,000
	<b>Total</b>			<b>371,260</b>

**H Calculation of ISF based on WUA's Agreed Budget**

1	Annual amount required for O&M = (WUA's Agreed Budget - WUA income), NPR	364,000
2	ISF rate per ha	5,688
3	ISF rate per bigha (1ha = 1.48 bigha)	3,843
4	ISF rate per kattha (1ha = 29.60 kattha)	192
5	<b>ISF rate per ropani (1ha = 19.675 ropani)</b>	<b>289</b>

**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.