

TENDER FOR REHABILITATION OF FIVE (5) DRIP IRRIGATION SYSTEM, REF; NO. IRUK SEPT 2020-DRIP SYS 001

#### TENDER FOR REHABILITATION OF FIVE (5) DRIP IRRIGATION SYSTEM, REF; NO. IRUK SEPT 2020-DRIP SYS 001

#### **BACKGROUND/INTRODUCTION**

Islamic Relief is an independent humanitarian and development UK based organization, with an active presence in over 40 Countries across the globe, we strive to make the world a better and fairer place for people still living in poverty. Islamic relief began its humanitarian operation in South Sudan in 2004 focusing on providing lifesaving aid and implementing developmental Programmes to support people affected by flood, drought and Conflict establishing three sub offices in Narus (Kapoeta East), Wau, Warrap. A satellite office in Yei and Main office in Juba.

#### Our vision:

Inspired by our Islamic faith and guided by our values, we envisage a caring world where communities are empowered, social obligations are fulfilled and people respond as one to the suffering of others.

#### Our mission:

Exemplifying our Islamic values, we will mobilize resources, build partnerships, and develop local capacity, as we work to:

Enable communities to mitigate the effect of disasters, prepare for their occurrence and respond by providing relief, protection and recovery.

Promote integrated development and environmental custodianship with a focus on sustainable livelihoods.

Support the marginalized and vulnerable to voice their needs and address root causes of poverty.

We allocate these resources regardless of race, political affiliation, gender or belief, and without expecting anything in return.

#### INTRODUCTION

#### Background

Islamic Relief Worldwide- South Sudan is an international humanitarian organization that has been working with vulnerable communities in South Sudan since 2004. With funding from IR UK, IRSS is currently implementing a recovery project for rural communities in Tonj north county of Warrap state. The objective of the project is to improve access to food security for the affected rural communities of greater Tonj North County. In order to achieve these objectives Islamic relief intends to rehabilitate five (5) drip irrigation systems in greater Tonj north . In this regard IRSS is sourcing for a competent bidder to carry out the rehabilitation work of the proposed project.

The objective of the project is to improve access to food security for the affected rural communities of greater Tonj North County.

This tender for rehabilitation of five (5) drip irrigation systems, REF; NO. IRUK SEPT 2020-DRIP SYS 001 funded project intended to improve access to food security for the affected rural communities of greater Tonj North County.

### 1. Scope of Work:

The planned rehabilitation work is expected to take place in five sites distributed in different payams. The rehabilitation(repair) work is intended to improve the systems performance, it includes replacement of all the faulty parts( As detailed in the Bill of quantities), which comprises removal and fixing of new drip lines complete with mini valve at the manifold and flush valves at the end of each drip line, fixing of new screen filters as specified, fixing of new gate valves, fixing of one solar control unit (CU), repair work on solar wiring from solar arrays to control unit for one site, inspection and minor repair work on solar systems. There is going to be 35 drip pipes on each side of the farm as specified in the BOQ, each drip pipe is 30.0m long, each drip pipe will have a mini valve fixed on it at the manifold position and drip emitters punch at spacing of 0.50m. Spacing between the new drip pipes and another will be 1.50m. List of sites:

S/no	Location/site	Payam	Estimated Distance from					
			the canter					
01	Lounoi	Awul	5 kilometres					
02	Domkuat	Awul	4 kilometres					
03	Athiengpoul	Akop	54 Kilometres					
04	Rualbet	Rualbet	68 Kilometres					
05	Alabek	Alabek	60 kilometers					

#### DELIVERY DETAILS

Case	Delivery Destination
Supplier must have	
export permission or be	Delivered Duty Paid (DDP) to defined destinations inside South
able to supply locally	Sudan (Tonj north county, Warrap state)
from South Sudan.	

#### SUBMISSION DEADLINE

All tenders are required to be submitted before **Friday 15<sup>th</sup> Oct 2020, 4.00 pm Local time** pursuant to the attached guidelines for submitting a quotation and be returned to; **TO IRSS TENDER BOX** upon registration on the bid receipt form.

For any issues relating to the tender or its contents please email directly to; IRSS.Tender@islamic-relief.or.ke

#### All quotation providers are requested to fill in Appendix 1 and 2 below when submitting their proposal to IRW.

#### APPENDIX 1

#### Summary of Bid Prices

No.	Description	Total Price in USD (\$)
1	Grand Total Bid Price	
2	Discount Ratio (if any) % and the amount	
3	Grand Total after Discount	
4	Delivery time scales (in days)	

We have carefully checked and examined all bid documents and we are offering the costs above on a fixed basis and they are not subject to any changes or alterations including those due to currency fluctuations.

Total Price USD (\$)		
In words	[	]
Bidder's Signature	Stamp	Date

## Bidder is required to stamp this document with their legal company stamp no bid will be accepted without a genuine company stamp

#### APPENDIX 2 BILL OF QUANTITIES

Please also use our table when filling the prices. If you do not have the item just keep it empty. Your offer should be for the quantity that we request, not less and not more. Please only use USD (\$) as the currency for your offers as per the guidelines.

# BILL OF QUANTITIES FOR REHABILITATION OF 5 (FIVE) DRIP IRRIGATION SYSTEMS IN TONJ NORTH COUNTY, WARRAP STATE.

Item	Item description	Quantity	Unit	Unit cost	Amount -USD
number					
BILL No (	1) Lounoi Site	•	•		
01	Preliminaries- Site assessment and	01	Job		
	mobilization of resources				
02	Provide and allow for fixing of new control				
	unit ( CU) preferably Granados CU 200 -				
	1,400 Watts, including repair of electrical	01	Unit		
	cables from solar panels to the control unit				
	affected due to short circuit.				
03	Carry out minor repair of leakages from the				
	joints on the out lets from the tank,				
04	Provide and allow for fixing 1" and 1.0m				
	height stand pipe, G.I. stand pipe with 34"	01	Unit		
	tap. Connected 6.0m away from the 2" main				
	line, stand pipe should be casted in 7"				
	diameter 1:2:4 concrete, in 0.60mx0.60m				
	concrete plat form with raised edges(				
	provide but: 1" G.I. pipe x 1.0m height,				
	reducers 1"-3/4", 1" dia pvc pipe x 6.0m				
	long, reducers 2"-1", sockets , ¾" water tap,				
	cement, aggregate and sand ).				
Sub tota	(1)				
BILL NO	2) Domkuat site	•	•	I.	•
01	Provide and allow for temporary removal of				
	the 70.00m long main line from the ground,				
	clean up and prepare ready to receive lateral				
	drip pipes. Supply and install in correct				
	positions of 16mm lateral drip pipes, well				
	connected to the existing 2" main line , 30				
	meters long each drip pipe,70 pieces x 30	2,100	m		
	meters each at spacing of 1.50m between				
	one drip line and another. Allow for				
	punching of long path type drip holes in each				
	drip line at spacing of 50 cm( total 60 holes)				
	/ drip line x 70 drip lines = 4,200 emitter				
	holes. There will be 35 drip pipes (30.0m long				
	each) on each side of the farm. Allow for				

	nunching now holes for drive since have			I	
	punching new holes for drip pipes, hence				
00	block off all the existing holes.				
02	Provide and allow for fixing 1" and 1.0m				
	height stand pipe, G.I. stand pipe with $\frac{3}{4}$ "				
	tap. Connected 6.0m away from the 2" main				
	line, stand pipe should be casted in 7"				
	diameter 1:2:4 concrete, in 0.60mx0.60m				
	concrete plat form with raised edges(				
	provide but: 1" G.I. pipe x 1.0m height,				
	reducers 1"-3/4", 1" dia pvc pipe x 6.0m				
	long, reducers 2"-1", sockets , ¾" water tap,				
02	cement, aggregate and sand ).	01	Diago		
03	Provide and allow for fixing of new 2"	01	Piece		
0.4	G.I.gate valve at out let from the tanks.	02	D'		
04	Provide and allow for fixing 11/2" ball valve	02	Pieces		
05	on the main line.				
05	Provide and allow for fixing of complete	02			
Cult total	screen filters with 150-200 mesh size.	02	pieces		
Sub total	(2)				
	3) Athiengpoul site	1	1		
01	Provide and allow for temporary removal of				
	the 70.00m long main line from the ground,	2.400			
	clean up and prepare ready to receive lateral	2,100	Meters		
	drip pipes. Supply and install in correct				
	positions of 16mm LDPE 4.0 bar lateral drip				
	pipes, well connected to the 2" HDPE main				
	line (existing), 30 meters long each drip pipe,				
	70 pieces x 30 meters each. Allow for				
	punching of long path type drip holes in each				
	drip line at spacing of 50 cm( total 60 holes)				
	/ drip line x 70 drip lines = 4,200 emitter				
	holes. Spacing between each drip pipe and				
02	another should be 1.50m.		<u> </u>		
02	Provide and allow for fixing of mini valves to	70	Diagonal		
	each drip line, to regulate water flow in the	70	Pieces		
02	specific drip pipes.	01	Disar		
03	Provide and allow for fixing of new 2"	01	Piece		
0.4	G.I.gate valve at out let from the tanks.	02	Diastr		
04	Provide and allow for fixing 11/2" ball valve	02	Piece		
05	on the main line.				
05	Provide and allow for fixing of complete				
	screen filters with 150-200 mesh size.	02	pieces		
06	Provide and allow for fixing 1" and 1.0m				
	height stand pipe, G.I. stand pipe with 34"				

tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1.2:4 concrete, in 0.60m.0.60mUnitunit"diameter 1.2:4 concrete, in 0.60m.0.60mUnitconcrete plat form with raised edges( provide but 1" G.I. pipe x 1.0m height, reducers 1".3/4", 1" dia pvc pipe x 6.0mUnitsub total (3)Image: sub			1	r	1	1
diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia puc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ). <ul> <li>Sub total (3)</li> <li>Image: Concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia puc pipe x 6.0m</li> <li>Supply and install in correct positions of 16mm lateral drip pipes, well connected to the 2" main line (existing), 30 meters long each drip pipe, 20 pieces x 30 meters long each drip pipe, 20 pieces x 30 meters long each drip pipe, 20 pieces x 30 meters long each drip pipe</li> <li>Provide and allow for fixing mini valves on are 1,200 emitter holes.</li> </ul> 01         Supply and install in correct positions of cm( total 60 holes) / drip line x 20 drip lines = 1,200 emitter holes.         01         Pieces           02         Provide and allow for fixing mini valves on are ach drip pipe         20         Pieces         Image: Concrete plat plat plat plat plat plat plat plat						
concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, %" water tap, cement, aggregate and sand ).       Image: Concrete plat form soft and provide but (3)         Sub total (3)       Image: Concrete plat form soft and provide but (4)       Image: Concrete plat form soft and provide but (5)         Sub total (4)       Image: Concrete plat form soft and pipe, 20 pieces x 30 meters long each drip pipe, 20 pieces x 30 meters long each drip pipe, 20 pieces x 30 meters long each drip pipe, 20 pieces x 30 drip lines = 1,200 emitter holes.       Concrete plat form soft and pipe form at spacing of 50 cm( total 60 holes) / drip line x 20 drip lines = 1,200 emitter holes.       Concrete plat form soft and pipe form at spacing of 50 cm( total 60 holes) / drip line x 20 drip lines = 1,200 emitter holes.         02       Provide and allow for fixing mini valves on each drip pipe       Concrete plat form soft and pipe form with raised edges( provide and allow for fixing 1" and 1.0m height stand pipe form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, %" water tap, cement, aggregate and sand ).       Image: Concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, %" water tap, cement, aggregate and sand ).       Image: Concrete plat form tap provide 1.0m         Subtotal (4)       Image: Concr		line, stand pipe should be casted in 7"	01	Unit		
provide but: 1" G.I. pipe x 1.0m height, reducers 2"-3/4", 1" dia puc pipe x 6.0m long, reducers 2"-1", sockets , %" water tap, cement, aggregate and sand ).       Image: Comparison of the		diameter 1:2:4 concrete, in 0.60mx0.60m				
reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, %" water tap, cement, aggregate and sand ).       Image: cement, aggregate and sand ).         Sub total (3)       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         BILL NO (4) Rualbet site       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         BILL NO (4) Rualbet site       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         Sub total (3)       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         BILL NO (4) Rualbet site       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         Sub total (4)       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         Sub total (4)       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).       Image: cement, aggregate and sand ).         O1       Repair leakagges around 2" G.Igate vales at out let of the tank, ditto ditto but around around 11/2" por elbows 06 pieces , plumbing tapes 01       Image: cement, aggregate and sand ).         O4       Provide and allow for fixing 1" and 1.0m height, reducers 1".3/4", 1" dia puc pipe x 6.0m long, reducers 2".1", sockets , %" water tap, cement, aggregate and sand ).       Image: cement, aggregate and sand ).         Subtotal (4)       Imaggregate and sand ).       Image: cement, aggregate and		concrete plat form with raised edges(				
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cm( total 60 holes) / drip line x 20 drip lines       20       Pieces         02       Provide and allow for fixing mini valves on each drip pipe       20       Pieces         03       Repair leakages around 2" G.I.gate vales at out let of the tank, ditto ditto but around around 11/2" ball vales in main lines, provisional provide 11/2" pvc union, 06 pieces , 11/2" pvc elbows 06 pieces , plumbing tapes 01       01       Job         04       Provide and allow for fixing 1" and 1.0m height stand pipe, G.I. stand pipe with %" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).       Subtotal (4)         Subtotal (4)         01       Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct       2,100       Meters			600	meters		
= 1,200 emitter holes.       20       Pices         02       Provide and allow for fixing mini valves on each drip pipe       20       Pieces         03       Repair leakages around 2" G.I.gate vales at out let of the tank, ditto ditto but around around 11/2" ball vales in main lines, provisional provide 11/2" pvc union, 06 pieces , 11/2" pvc elbows 06 pieces , plumbing tapes 01       01       Job         04       Provide and allow for fixing 1" and 1.0m height stand pipe, G.I. stand pipe with ¾" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).       Subtotal (4)         Subtotal INO (5) Alabek site         01       Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct       2,100       Meters						
02       Provide and allow for fixing mini valves on each drip pipe       20       Pieces          03       Repair leakages around 2" G.I.gate vales at out let of the tank, ditto ditto but around around 11/2" ball vales in main lines, provisional provide 11/2" pvc union, 06 pieces, 1112" pvc elbows 06 pieces , plumbing tapes 01       01       Job         04       Provide and allow for fixing 1" and 1.0m height stand pipe, G.I. stand pipe with ¾" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 2"-1", sockets, ¾" water tap, cement, aggregate and sand ).           Subtotal (4)       Image: Subtotal (4)       Image: Subtotal (4)       Image: Subtotal (4)       Image: Subtotal (4)         01       Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct       2,100       Meters						
each drip pipe       Image: Constraint of the service of		= 1,200 emitter holes.				
03       Repair leakages around 2" G.I.gate vales at out let of the tank, ditto ditto but around around 11/2" ball vales in main lines, provisional provide 11/2" pvc union, 06 pieces, 1112" pvc elbows 06 pieces , plumbing tapes 01       01       Job         04       Provide and allow for fixing 1" and 1.0m height stand pipe, G.I. stand pipe with ¾" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).       Image: Concent of the tame tage tage tage tage tage tage tage tag	02	Provide and allow for fixing mini valves on	20	Pieces		
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around 11/2" ball vales in main lines, provisional provide 11/2" pvc union, 06 pieces, 1112" pvc elbows 06 pieces , plumbing tapes 01Image: Stand pipe vice of the stand pipe of the stand pipe of the stand pipe with %" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 2"-1", sockets , %" water tap, cement, aggregate and sand ).Image: Subtotal (4)Subtotal (4)Image: Subtotal (4)Image: Subtotal of the stand pipe ready to receive lateral drip pipes. Supply and install in correct2,100MetersMetersImage: Supply and install in correct2,100	03	Repair leakages around 2" G.I.gate vales at				
provisional provide 11/2" pvc union, 06 pieces, 1112" pvc elbows 06 pieces , plumbing tapes 01Image: stand pipe stand pipe stand pipe with %" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , %" water tap, cement, aggregate and sand ).Image: stand pipe		out let of the tank, ditto ditto but around	01	Job		
pieces, 1112" pvc elbows 06 pieces , plumbing tapes 01Image: stand pipe stand pipe, G.I. stand pipe with ¾" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Image: stand pipe should be casted in 7" Subtotal (4)Subtotal (4)Image: stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Image: stand pipe stand provide provide stand provide provide provide stand provide prov		around 11/2" ball vales in main lines,				
plumbing tapes 01Image: constraint of the provide and allow for fixing 1" and 1.0m height stand pipe, G.I. stand pipe with %" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , %" water tap, cement, aggregate and sand ).Image: constraint of the provide stateSubtotal (4)Image: constraint of the provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correctImage: constraint of the provide state 2,100		provisional provide 11/2" pvc union, 06				
04       Provide and allow for fixing 1" and 1.0m height stand pipe, G.I. stand pipe with ¾" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, ¾" water tap, cement, aggregate and sand ).         Subtotal (4)         BILL NO (5) Alabek site         01       Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct		pieces, 11l2" pvc elbows 06 pieces ,				
height stand pipe, G.I. stand pipe with ¾" tap. Connected 6.0m away from the 2" main line, stand pipe should be casted in 7" diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, ¾" water tap, cement, aggregate and sand ). Subtotal (J Subtotal (J 101) Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct		plumbing tapes 01				
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diameter 1:2:4 concrete, in 0.60mx0.60m concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets, ¾" water tap, cement, aggregate and sand ).Image: Concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 2"-1", sockets, ¾" water tap, cement, aggregate and sand ).Subtotal (4)Image: Concrete plat form form the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correctImage: Concrete plat form form table plate plat						
concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Image: Concrete plat form with raised edges( provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Subtotal (4)Image: Concrete plat form with raised edges( reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Subtotal (4)Image: Concrete plat form with raised edges( reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Subtotal (5) Alabek siteImage: Concrete plat form the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correctO1Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct2,100						
provide but: 1" G.I. pipe x 1.0m height, reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Image: Comparison of the second						
reducers 1"-3/4", 1" dia pvc pipe x 6.0m long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Image: Composition of the second se						
long, reducers 2"-1", sockets , ¾" water tap, cement, aggregate and sand ).Image: Comparison of target and sand and the second						
cement, aggregate and sand ).Image: Cement, aggregate and sand ).Subtotal (4)Image: Cement aggregate and sand ).BILL NO (5) Alabek siteImage: Cement aggregate and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct						
Subtotal (4)       Image: Constraint of the state of the		-				
BILL NO (5) Alabek site       01     Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct     2,100     Meters	Subtatal					
01 Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct	Subtotal	(4)				
01 Provide and allow for temporary removal of the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct						
the 70.00m long main line from the ground, clean up and prepare ready to receive lateral drip pipes. Supply and install in correct2,100Meters	•	•				1
clean up and prepare ready to receive lateral 2,100 Meters drip pipes. Supply and install in correct	01					
drip pipes. Supply and install in correct						
		clean up and prepare ready to receive lateral	2,100	Meters		
positions of 16mm lateral drip pipes, well		drip pipes. Supply and install in correct				
		positions of 16mm lateral drip pipes, well				

	connected to the 2" main line (existing), 30				
	meters long each drip pipe, 70 pieces x 30				
	meters each. Allow for punching of long path				
	type drip holes in each drip line at spacing of				
	50 cm( total 60 holes) / drip line x 70 drip				
	lines = 4,200 emitter holes. Spacing between				
	the new drip pipes will be 1.50m, punch new				
	holes for new drip pipes, hence block off all				
00	the existing holes.				
02	Provide and allow for fixing of mini valve to				
	each drip pipe.	70	Pieces		
03	Provide and allow for fixing of 2" G.I. gate	01	Pieces		
	valve at out let of the tanks				
04	Provide and allow for fixing of 11/2" ball				
	valve at main lines, complete with PVC	02	pieces		
	unions 02, elbows 04 sockets 04 and				
	plumbing taps.				
05	Provide and allow for fixing 1" and 1.0m				
	height stand pipe, G.I. stand pipe with $\frac{3}{4}$ "	1	piece		
	tap. Connected 6.0m away from the 2" main				
	line, stand pipe should be casted in 7"				
	diameter 1:2:4 concrete, in 0.60mx0.60m				
	concrete plat form with raised edges(				
	provide but: 1" G.I. pipe x 1.0m height,				
	reducers 1"-3/4", 1" dia pvc pipe x 6.0m				
	long, reducers 2"-1", sockets , 34" water tap,				
	cement, aggregate and sand ).				
Subtotal	(5)				
Grand T	otal= Sub total(1)+(2)+(3)+(4)+(5)				

#### IMPLEMENTATION PLAN

<u>Project:</u>: Warrap resilience and adaptation project (WRAP) <u>Location</u>: Tonj North County

Implementation plan: Rehabilitation of 05 drip irrigation system

<u>Project:</u>: Warrap resilience and adaptation project (WRAP) <u>Location</u>: Tonj North County

Implementation plan: Rehabilitation of 05 drip irrigation system

		Months						Comments						
				tobe	r	November								
		202	20 2020				-	-						
Activity #	Activity description	W k1	W k2	W k3	W k4	W k 1	w k 2	W k3	W k4	W k1	W k2	W k3	W k4	Rehabilitation work can
1.00	Preliminaries – resource mobilization													progress
2.00	Carry out rehabilitation of drip system in location (1) Lou now													following a sequent, other wise the contractor can engage as several teams as can afford.
3.00	Carry out rehabilitation of drip system in location (2) Domkuat													
4.00	Carry out rehabilitation of drip system in location (3) Akop													
5.00	Carry out rehabilitation of drip system in location (4) Rualbet													
6.00	Carry out rehabilitation of drip system in location (5) Alabek													
7.00	Final inspections and handing over													