



International Organization for Migration (IOM)
The UN Migration Agency

Client: International Organization for Migration (IOM)
Work: Construction of four (04) Boreholes (Water Point)
Local/sites: IDP sites, Post admin. De Mesa e Ancuabe sede, Ancuabe district, CABO DELGADO Province
Date: October 16, 2023

SUMMARY OF BUDGET				
CHAP	DESCRIPTION / DESCRIÇÃO	TOTAL AMMOUNT		64.181
		(MZN)	(USD)	
1	BOREHOLE CONSTRUCTION (CONSTRUÇÃO DO FURO)	0.00	0.00	
2	PUMP (BOMBA)	0.00	0.00	
3	CONCRETE SLAB AND ACCESSIBILITY	0.00	0.00	
4	MAINTENANCE	0.00	0.00	
TOTAL		0.00	0.00	
		VAT(16%)	0.00	0.00
TOTAL AMOUNT		0.00	0.00	

Construction of 4 positive boreholes equipes with handpump in the IDP sites, Milamba 2, Minheuene, Natove and Cujupane, located in Ancuabe district, Cabo Delgado - LOT I

OPEN BOREHOLE		ABERTURA DE FURO		Cost Estimate			
Item	Description of Activities	Descrição das Actividades	UN	QTY	Unit.price	NUMBER OF BOREHOLE	Total
0.0	VERY IMPORTANT NOTE: The cost mentioned in the BoQ should always include all related works (Mobilization, demobilization, Hiring technician staff and applying HSST protocols for safety and Security, with a First Aid kit to be at the site, also this should be considered for the temporary fencing, fire Extinguishers, work plate, and hiring the needed equipment on timely basis)	NOTA MUITO IMPORTANTE: O custo mencionado no MQ deve sempre incluir todos os trabalhos relacionados (Mobilização, desmobilização, Contratação de pessoal técnico e aplicação dos protocolos HSST de segurança e protecção, com um kit de primeiros socorros a estar no local, também isto deve ser considerado para as vedações temporárias, Extintores de incêndio, placa de obra e contratação atempada do equipamento necessário)				4.00	
BOREHOLE CONSTRUCTION (CONSTRUÇÃO DO FURO)	1.0	Mobilization and demobilization for each indicated community	un	1.00		4.00	MZN -
	1.1	Geophysical study for mapping of 3 the suitable sites	un	1.00		4.00	MZN -
	1.2	Drilling in sediments (sand, clay) minimum diameter of 165mm	m	10.00		4.00	MZN -
	1.3	Drilling in rocks (grass-gneisses, fissured granite) minimum diameter of 165 mm	un	40.00		4.00	MZN -
	1.4	Supply and placement of 102mm diameter PVC pipe	m	40.00		4.00	MZN -
	1.5	Supply and placement of PVC filter tube with 102mm internal diameter and 5mm opening	m	9.00		4.00	MZN -
	1.6	Placement of 1.5m bag pipe (by positive hole)	m	1.50		4.00	MZN -
	1.7	Filling of annular space with a calibrated area of 0.70 to 2.0mm of each meter in length (minimum of 1 m of area every 3 meters) up to 3m above the last filter tube	un	1.00		4.00	MZN -
	1.8	Ring hole filling in the zone and smooth pipe with one meter thick seal	m	1.00		4.00	MZN -
	1.9	Filling the annular space of the hole in the smooth tube area with tout-venant	un	1.00		4.00	MZN -
	1.10	Filling a 5m column of smooth tube with fine sand mortar and cement up to the top of the hole	un	1.00		4.00	MZN -
	1.11	Cleaning and development of the hole considering a maximum of 6 hours and a minimum of 2 hours	un	1.00		4.00	MZN -
	1.12	Pumping test with 3 steps from 1.2 to 2 hours each	un	1.00		4.00	MZN -
	1.13	Water quality analysis for physical, chemical and microbiological characterization per borehole based on the Diploma Ministerial Nº 13/2021	un	1.00		4.00	MZN -
1.14	Borehole disinfection with Calcium hypochlorite (HTH) 1% solution to reach 50 mg/l of chlorine solution per calculated volume of water in the borehole and pumped out after 24 hour	un	1.00		4.00	MZN -	

PUMP (BOMBA)	2.0	Supply, assembly of AFRIDEV type pump	Fornecimento, montagem de bomba do tipo AFRIDEV	un	1.00		4.00	MZN -
	2.1	Supply of complete column (suction piping and rods up to 45 meters including connection and fixing accessories)	Fornecimento de coluna completa (tubagem do sucção e varetas ate 45 metros incluindo acessórios de ligação e fixação)	m	45.00		4.00	MZN -
CONCRETE SLAB AND ACCESSIBILITY	3.0	Excavation and embankment in foundation trenches, with a width of 400mm, depth > 850mm, including irrigation and compaction of the foundation beds and the bottom filling must be carried out in accordance with the instructions of the site engineer and in layers not exceeding 200mm in depth. thick and well compacted with earth rammer or rammer (95% AASTHO). Transport for surplus material waste, if necessary, must be included	Escavação e aterro em valas de fundação, com largura de 400mm, profundidade > 850mm, incluindo rega e compactação dos leitos das fundações e o enchimento de fundo deve ser feito de acordo com as instruções do engenheiro do local e em camadas não superiores a 200mm de espessura e bem compactado com compactador de terra ou compactador (95% AASTHO). O transporte para os resíduos de material excedente, se necessário, deve ser incluído	m ³	19.04		4.00	MZN -
	3.1	Anti-termite treatment, with a 10-year guarantee, whose certificate must be shared by the contractor	Tratamento anti-térmites, com garantia de 10 anos, cujo o certificado deveria ser partilhado pelo empreiteiro	m ²	22.40		4.00	MZN -
	3.2	Supply and application of 100 mm of rockfill in medium stone on the base of foundations.	Fornecimento e aplicação de 100 mm de enrocamento em pedra mediana em base de fundações.	m ³	2.24		4.00	MZN -
	3.3	Supply and application of cleaning concrete	Fornecimento e aplicação de betao de limpeza classe B15com 50mm de espessura	m ³	1.12		4.00	MZN -
	3.4	Supply and installation in 0.80x5.2x0.20m solid blocks, laid with cement mortar and sand in a 1:5' ratio, including all complementary work	Fornecimento e assentamento em blocos maciçados (200x200x400mm) de 0.80x5.2x0.20m (area), assentes com argamassa de cimento e areia ao traço 1:5 'incluindo todos os trabalhos complementares	m ²	8.96		4.00	MZN -
	3.5	Supply and installation of 90 cm high cold rolled steel hollow tube metal railing, with simple frame formed by an upper guard edge 100x40x2 mm, which acts as a handrail, and a lower guard edge 80x40x2 mm; vertical uprights 80x40x2 mm placed every 120 cm and vertical bars 20x20x1 mm, placed every 500 mm and welded together, for polygonal slab opening. Fixed by means of mechanical anchorage type countersunk head screw with inner six-pointed star for Torx key, made of galvanized steel.	Fornecimento e assentamento de guarda metálica de tubo oco de aço laminado a frio de 90 cm de altura, com caixilho simples formado por remate de guarda superior de 100x40x2 mm, que faz de corrimão, e remate de guarda inferior de 80x40x2 mm; montantes verticais de 80x40x2 mm dispostos cada 120 cm e barras verticais de 20x20x1 mm, colocadas cada 500 mm e soldadas entre si, para abertura poligonal de laje. Fixada através ancoragem mecânica tipo parafuso de cabeça escareada com estrela interior de seis pontas para chave Torx, de aço galvanizado.	m	20.80		4.00	MZN -
	3.6	Supply and placement of 100mm of rockfill, medium gravel in the floor box, with compaction, dimensions of (19~38mm)	Fornecimento e colocação de 100mm de enrocamento, brita mediana na caixa de pavimento, com a compactação, dimensões de (19~38mm)	m ²	2.04		4.00	MZN -
	3.7	Supply and assembly of polyethylene membrane/plastic screen, GLUNPLUS USB GREEN or HYPERLASTIC ORANGE, 250 microns thick, for waterproofing.	Fornecimento e montagem de membranda de polietileno/tela plástica, GLUNPLUS USB GREEN ou HYPERLASTIC ORANGE, 250 microns de espessura, para impermeabilização.	m ²	20.41		4.00	MZN -
	3.8	Supply and application of 0.80x5.2x0.20m mesh for the floor slab, including shim spacers, tying wire, bends, hooks, splices, overlaps, and all the necessary work and materials.	Fornecimento e aplicação de malha 0.80x5.2x0.20m, para laje de pavimento, incluindo espaçadores de calços, arame de atar, dobras, ganchos, emendas, sobreposições, e todos os trabalhos e materiais necessários.	m ²	20.41		4.00	MZN -
	3.9	Supply and placement of B25 concrete, including all the necessary works for the construction of a 100mm thick floor slab	Fornecimento e colocação de betão B25, incluindo todas as obras necessárias para a construção de laje de pavimento com 100mm de espessura	m ³	2.04		4.00	MZN -
	3.10	Construction of a plinth with minimum external dimensions of 5020x3000mm and 400mm in height from the ground level of masonry in masonry block, including water drainage up to and including all necessary works, filling with duly compacted gravel and laying gravel ballast (19 ~ 25 mm) at a height of not less than 50 mm inside the box, plastered.	Construção de um rodape com dimensoes exteriores minimas de 5020x3000mm e 400mm de altura apartir do nivel tereo de alvenaria em bloco de alvenaria, incluindo a drenagem da agua ate ao incluindo todos trabalhos necessarios, enchimento com saibro devidamente compactada e assentamento de lastro de brita (19 ~ 25 mm) a uma altura nao inferior a 50mm dentro da caixa, com reboco.	un	1.00		4.00	MZN -
3.11	Execution of plaster with 2.5cm duly regularized with cement and sand mortar in a 1:4 ratio, including roughcast with cement and sand mortar in a 1:3 ratio.	Execução de reboco com 2.5cm devidamente regularizado com argamassa de cimento e areia ao traço 1:4, incluindo chapiscos com argamassa de cimento e areia ao traço 1:3.	m ²	5.60		4.00	MZN -	
MAINT ENANC E	4.00	Capacity building and supply the full kit of maintenance for the water committee management , in which include all necessary accessories and tools for the mechanician	Treinamento, e fornecimento de <i>Kit Completo de manutenção da bomba para o Comitê de gestão de água</i> que inclui todos os acessórios necessários e chaves para o mecânico	un	1.00		4.00	MZN -
		Note: Collection of soil sample at 3m interval in appropriate sampling polybag/wooden compartmental box to support bore-log preparation and borehole design						