

**UNICEF WATER & SANITATION PHASE XII**  
**SUB-PROJECT : Rural Household Water Security**

Activity: Construction Water Supply Systems:

Code	Description	Quantity	Unit of measurement
03-11-00001	Casing pipe, mild steel, Grade ST-37 as per DIN 17100, food grade for lining of water borehole, one end male threaded, heavy duty female socket on the other end, to be produced according to DIN 4922 in lengths of 5.80 m, outer diameter 8 5/8 inch.		
03-11-00002	Slotted casing pipe, mild steel, Grade ST-37 as per DIN 17100, food grade for lining of water borehole, one end male threaded, heavy duty female socket on the other end, to be produced according to DIN 4922 in lengths of 5.80 m, outer diameter 8 5/8 inch.		
03-11-00003	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 150mm PN 25.		
03-11-00004	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 100mm PN 25.		
03-11-00005	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 75mm PN 25.		
03-11-00006	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 62mm PN 25.		
03-11-00007	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 50mm PN 25.		
03-11-00008	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 37 mm PN 25.		
03-11-00009	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 25 mm PN 25.		
03-11-00010	GI pipe for drinking water supply, both ends male threaded ISO 7, female threaded socket fitted to one end, ND 19 mm PN 25.		
03-11-00011	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 19 mm, PN 16.		
03-11-00012	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 25 mm, PN 16.		
03-11-00013	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 37 mm, PN 16.		

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Code	Description	Quantity	Unit of measurement
03-11-00014	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 50 mm, PN 16.		
03-11-00015	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 62 mm, PN 16.		
03-11-00016	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 75 mm, PN 16.		
03-11-00017	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 100 mm, PN 16.		
03-11-00018	Bronze heavy type gate valve set with hand wheel, clockwise closing, FxF, threaded to BS 21 (ISO R7), ND = 150 mm, PN 16.		
03-11-00019	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 19mm, PN 16.		
03-11-00020	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 25mm, PN 16.		
03-11-00021	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 37mm, PN 16.		
03-11-00022	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 50mm, PN 16.		
03-11-00023	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 62mm, PN 16.		
03-11-00024	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 75mm, PN 16.		
03-11-00025	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 100mm, PN 16.		
03-11-00026	GI equal elbows for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, 90 degree, FxF, ND 150mm, PN 16.		
03-11-00027	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 16. Size 25mm.		

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Code	Description	Quantity	Unit of measurement
03-11-00028	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 25. Size 37mm.		
03-11-00029	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 16. Size 50mm.		
03-11-00030	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 16. Size 62mm.		
03-11-00031	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 16. Size 75mm.		
03-11-00032	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 16. Size 100mm.		
03-11-00033	GI equal elbows, 45 degrees, for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, PN 16. Size 150mm.		
03-11-00034	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 19mm, PN 16.		
03-11-00035	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 25mm, PN 16.		

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Code	Description	Quantity	Unit of measurement
03-11-00036	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 37mm, PN 16.		
03-11-00037	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 50mm, PN 16.		
03-11-00038	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 62mm, PN 16.		
03-11-00039	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 75mm, PN 16.		
03-11-00040	GI equal tee joints for drinking water supply conforming to iso R 49 and threaded to ISO R 7, FxFxF, MD 100mm, PN 16.		
03-11-00041	GI equal tee joints for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, FxFxF, MD 150mm, PN 16.		
03-11-00042	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R7, FxF, PN 16 ND 19 mm.		
03-11-00043	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R7, FxF, PN 16 ND 25 mm.		
03-11-00044	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R7, FxF, PN 16 ND 37 mm.		
03-11-00045	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R7, FxF, PN 16 ND 50 mm.		
03-11-00046	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R7, FxF, PN 16 ND 62 mm.		
03-11-00047	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, FxF, PN 16 ND 75mm		
03-11-00048	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, FxF, PN 16 ND 100mm.		
03-11-00049	GI equal unions for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, FxF, PN 16 ND 150mm.		

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Code	Description	Quantity	Unit of measurement
03-11-00050	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 19mm.		
03-11-00051	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 25mm .		
03-11-00052	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 37mm inch.		
03-11-00053	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 50mm.		
03-11-00054	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 62mm.		
03-11-00055	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 75mm.		
03-11-00056	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 100mm.		
03-11-00057	GI equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. PN 16. Size 150mm.		
03-11-00058	GI equal sockets for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. PN 16. Size 19 mm.		
03-11-00059	GI equal sockets for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. PN 16. Size 25 mm.		
03-11-00060	GI equal sockets for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. PN 16. Size 37 mm.		
03-11-00061	GI equal sockets for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. PN 16. Size 50 mm.		
03-11-00062	GI reducer joints for drinking water supply conforming to ISO R 49 and threaded to ISO R 7, FxF, size 150mm x 100mm , PN 16.		
03-11-00063	Malleable cast iron, hot dip galvanized reducer joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. PN 16. Size 100 x 75 mm.		

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Code	Description	Quantity	Unit of measurement
03-11-00064	As in above but size 100 x 62 mm.		
03-11-00065	As in above but size 100 x 50 mm.		
03-11-00066	As in above but size 75 x 62 mm.		
03-11-00067	As in above but size 75 x 50 mm.		
03-11-00068	As in above but size 75 x 37 mm.		
03-11-00069	As in above but size 75 x 25 mm.		
03-11-00070	As in above but size 62 x 50 mm.		
03-11-00071	As in above but size 62 x 37 mm.		
03-11-00072	As in above but size 62 x 25 mm.		
03-11-00073	As in above but size 62 x 19 mm.		
03-11-00074	As in above but size 50 x 37 mm.		
03-11-00075	As in above but size 50 x 25 mm.		
03-11-00076	As in above but size 50 x 19 mm.		
03-11-00077	As in above but size 37 x 25 mm.		
03-11-00078	As in above but size 37 x 19 mm.		
03-11-00079	As in above but size 25 x 19 mm.		
03-11-00080	Brass non return valve, for potable water, FxF. PN 16. Size 37 mm.		
03-11-00081	As in above but size 50 mm.		

Activity: Construction Water Supply Systems:

Code	Description	Quantity	Unit of measurement
03-11-00082	As in above PN 16, size 62 mm.		
03-11-00083	As in above but size 75 mm.		
03-11-00084	As in above but size 100 mm.		
03-11-00085	As in above but size 150 mm.		
03-11-00086	Water tap, brass, with T-handle and threaded as per ISO 228, size 20 mm (3/4 inch). PN 10.		
03-11-00087	Submersible pump , Q= (10-18) m3/hr, head= 190-135 m, with direct coupled electrical motor and with non-return valve, control panel complete set, 150 M three core cable; suitable for control panel, tail cable and cable terminal kit, with low level cut-out electrode and cable, two years spare parts. CABLE TO BE SUPPLIED SEPERATELY FOR EACH PUMP AND TO BE INSTALLED ON NEW BOREWELL, (the unit is set). Each set should have 40Nos (3MI) each of red oxide threaded column assemblies		
03-11-00088	As in above, but Q= 4-8 m3/hr, head= 124-90 m. (the unit is set)		
03-11-00089	As in above, but Q= 4-11 m3/hr, head= 220-100 m, (the unit is set),		
03-11-00090	As in above, but Q=18 m3/hr, head=200m		
03-11-00091	As in above but Q= 10m3/hr, head= 140m		
03-11-00092	As in above but Q= 20m3/hr, head= 340m		
03-11-00093	Diesel driven centrifugal surface mounted water pump, diesel engine, brackets with anti-vibration mountings, includes electrical starter. With two years spare parts. Altitude 1200m, capacity 10m3/hr and 60m head (Hatz type).(the unit is set)		
03-11-00094	As in above, but 80m head,		
03-11-00095	As in above, but 180m head		

Activity: Construction Water Supply Systems:

Code	Description	Quantity	Unit of measurement
03-11-00096	Deep well turbine pumping system, operating at 2,700 RPM for pumping clean water to fit in a 8 inch bore well, Q=10 cum/hr and head = 133 M at 1,200 metres altitude/elevation, 50 deg centigrade complete set with pump head, discharge flange, right angle gear drive connected to engine by universal shaft. Air or water cooled diesel engine unit <b>with centrifugal clutch</b> , electric starter, heavy duty oil bath, air cleaner, speed governor, silencer exhaust pipe, mounted fuel tank, with column pipes and line shafts, foot valve with strainer, water level indicator, tool-kit, spare parts for 2 years operation, O&M manual in English and spare parts catalogue with appropriate seaworthy packing. Each set should have		
03-11-00097	Same as above but Q = 8 cum/hr, H= 140 m, (the unit is set)		
03-11-00098	Same as above but Q = 12 cum/hr, H= 180 m, (the unit is set)		
03-11-00099	Handpump, complete set including connecting rods and riser pipes, (the unit is set). Each set with 15 nos of 3ML		
03-11-00100	Shallow well hand pump, complete set.		
03-11-00101	Deepwell turbine pump complete with body(bowls and impellers), discharge column(Column pipe elements and lineshaft), drivehead (electric motor), capacity Q=15 cum/hr(max), head=124 M (min), Complete with bowl assembly, pump head and discharge flange with 2.5 inch BSP thread, electric motor 3x380/660V, 50Hz, (RPM 2900) with housing guard direct coupled with pump head, top column pipe 3 inch length 0.485M threaded with 8 threads per inch, complete with 3/4 inch line shaft, mechanical shaft seal and coupling, intermediate column pipe 3 inch line shaft, column bearing and liner, suction pipe 3 inch, length 1.64M with 3 inch spring loaded foot-valve with strainer 50M cable 4x6MM2 and 4 PCS cable gland, spare parts for two years operatoin, O&M manual in English with appropriate packings. Item No.1113. (the unit is set) Each set should		



Activity: Construction Water Supply Systems:

Code	Description	Quantity	Unit of measurement
03-11-00102	Diesel generator, 100 KVA,400/220V, 3-Phase, 50 Hz for continous operation complete set with control panel, comrising automatic mains circuit breaker, voltmeter, ammeter, hourmeter, emergency stop and keystart, high temperature and low oil pressure warning lamp, low fuel warning; 12V voltage regulator, battery charger, water cooled with tropical radiator, air , oil & fuel filters, speed governor, scilencer, 1.5 m exhaust flexible piping, 185 liters fuel tank to run for 8 hours. Model TC 100 FM type:8061 SI 16 also including: spare parts for 2 years operation, operation and maintenance manual(s) and wiring diagram, in English and (if available) in Arabic- toolkit packed in strong wooden crate, with operation and Spares /Service / Operation manual (English).		
03-11-00103	Diesel generator, 50 KVA,400/220V, 3-Phase, 50 Hz for continous operation complete set with control panel, comrising automatic mains circuit breaker, voltmeter, ammeter, hourmeter, emergency stop and keystart, high temperature and low oil pressure warning lamp, low fuel warning; 12V voltage regulator, battery charger, water cooled with tropical radiator, air , oil & fuel filters, speed governor, scilencer, 1.5 m exhaust flexible piping, 142 liters fuel tank to run for 14 hours. Model TC 50 FM type:7450 I 15- engine, :- spare parts for 2 years operation, operation and maintenance manual(s) and wiring diagram, in English and (if available) in Arabic- toolkit packed in strong wooden crate, with operation		
03-11-00104	Diesel generator, 30 KVA,400/220V, 3-Phase, 50 Hz for continous operation complete set with control panel, comrising automatic mains circuit breaker, voltmeter, ammeter, hourmeter, emergency stop and keystart, high temperature,		
03-11-00105	Diesel generator, 200 KVA,400/220V, 3-Phase, 50 Hz for continous operation complete set with control panel, comrising automatic mains circuit breaker, voltmeter, ammeter, hourmeter, emergency stop and keystart, high temperature.		
03-11-00106	Ordinary Portland cement packed in 3-ply 50 kg paper bags (equivalent to BS12), (the unit is Ton)		
03-11-00107	Mild steel deformed reinforcing bars in 6 meter length (+/- 100 mm), commercial grade tensile strength: 42.5-53.5 Kg/mm2 in bundles of 1 MT. size: Dia 10 mm : average weight 0.617 Kg/m, (the unit is Ton)		
03-11-00108	As in above but size 12 mm dia., (the unit is Ton)		
03-11-00109	As in above but size 16 mm dia., (the unit is Ton)		

Activity: Construction Water Supply Systems:

Code	Description	Quantity	Unit of measurement
03-11-00110	Mild steel binding wire (flexible), 1 mm diameter, fully annealed, used to tie reinforcing bars for concrete work, supplied in coils of 50 kg (approx), (the unit is Kg)		
03-11-00111	Concrete hollow blocks of size 20x20x40 cm (to be procured locally). For Dohuk blocks should be solid and of size 15x20x40, (in thousand)		
03-11-00112	50x50x3 mm angle iron, mild steel, of 6 metres length.		
03-11-00113	Manhole cover for light duty domestic use, size 0.3x0.3 M.		
03-11-00114	Manhole cover for medium duty carriage way, size 0.5x0.5 M		
03-11-00115	Steel door with door frame for latrine of size 1 x 2 metres		