ANNEX AGR I - 6

Sector: AGRICULTURE **Sub-Sector:** IRRIGATION **Activity:** Rehabilitation of Pumping Stations

Priority within the Sector: First **Total requested fund :_____**

Code	Item Description and its complementary items (if applicable)	ntended use (and targeted end user)	Qty. in unit	Requested fund US$(000)	Allocation Criteria	Time frame	
						Optimal application	Optimal delivery
05-06-00001	Portable Centrifugal Pumping Set with Accessories and generating sets., See App. 6A codes 00011-00018	For improving irrigation capacity & efficiency for approx. 500,000 hectares (All irrigation and drainage pumping stations.)	571		Alternative for the existing pumps	APRIL	FEBRUARY
05-06-00002	Pumps and generating sets for water wells, See App. 6A codes 00019-00023	For Irrigation and drinking water supply (Farmers depend on ground-Water supply at Kerballa, Najaf, Tamem, Anbar, Diyala , Salah Aldeen and Basrah.)	2200		Alternative for the existing pumps	APRIL	FEBRUARY
05-06-00003	Horizontal Centrifugal Pump Set and Accessories. See App. 6A codes 00024-00026	For improvement Main Out Fall Drain in Iraq located in Nassiryia site	23		To complete the pumping station	ALL YEAR	AS SOON AS POSSIBLE
05-06-00004	Dewatering Pumps See App. 6A codes 00030 - 00032 and codes 00040 - 00043	Dewatering Pumps for existing pumping stations in all 15 Governorates)	88		Resemble requirement for repair and improving dewatering in the pumping stations	ALL YEAR	AS SOON AS POSSIBLE

05-06-00005	Pumps for water treatment plants . See App. 6A codes 00033-00039	Pumps for water treatment plants in the existing Irrigation projects.	33	Alternative for the existing pumps in the existing water treatment plants	ALL YEAR	AS SOON AS POSSIBLE
05-06-00006	Different Types Of Pumps.See App. 6A codes 00027-00029	Rehabilitation of grouting processes (Saddam Dam at Ninava)	8	Alternative for the existing pumps	MARCH	JANUARY FEBRUARY
05-06-00007	Main Electrical Motor For Pumps See App. 6B	Rehabilitation of pumping stations. (Pumping stations in all 15 Governorates)	206	Resemble requirement for repair.	ALL YEAR	AS SOON AS POSSIBLE
05-06-00008	Spare Parts For Pumping Stations. See App. 9A	Maintenance of existing pumping stations (Pumping stations exist in all 15 Governorates.)	As stated in App. 9A	Resemble requirement for repair.	ALL YEAR	AS SOON AS POSSIBLE
05-06-00009	Spare Parts For Al-Jazirah main Pumping Station. See App. 9B-1	Maintenance of Al-Jazirah pumping station. (Al-Jazirah pumping station at Ninava)	As stated in App. 9B - 1	Resemble requirement for repair	ALL YEAR	OCTOBER
05-06-00010	Spare Parts For Sprinkler Irrigation system See App. 9B- 2	Maintenance of Sprinkler Irrigation system in Al-Jazirah and Kirkuk project .	As stated in App. 9B -2	Resemble requirement for repair	ALL YEAR	AS SOON AS POSSIBLE

PUMPING SETS FOR IRRIGATION AND DRAINAGE

Code	DESCRIPTION	QUANTITY
05-06-00011	**Portable Centrifugal Pumping Set and Accessories.** 3 x 380 V - 50 Hz. Motors Discharge 1 m3/sec Total Head 17 - 20 m. Static Suction Head 4 - 5 m.	240
05-06-00012	**Portable Centrifugal Pumping Set and Accessories.** 3 x 380 V - 50 Hz. Motors Discharge 0.5 m3/sec Total Head 17 - 20 m. Static Suction Head 4 - 5 m.	100
05-06-00013	**Portable Centrifugal Pumping Set and Accessories.** 3 x 380 V - 50 Hz. Motors Discharge 1 m3/sec Total Head 30 m. Static Suction Head 4 - 5 m.	15
05-06-00014	**Portable Diesel Centrifugal Pumping Set and Accessories** Discharge 1 m3 / sec. Total Head 17 - 20 m. Static Suction Head 4 - 5 m.	[*]**200**
05-06-00015	**Portable Diesel Centrifugal Pumping Set and Accessories.** Discharge 0.5 m3/sec Total Head 17 - 20 m. Static Suction Head 4 - 5 m.	*** 50**
05-06-00016	**Vertical pumps set with electrical motors And Accessories** Discharge from 0.25 to 5.5 m3/sec Total head from 3 to 93 m	96
05-06-00017	**Submersible Pump And Accessories** 300 & 130 KW, 380 V, 50 Hz motors Discharge 300 & 130 L / Sec. Total Head 55 m.	10
05-06-00018	**Submersible Pump And Accessories** 55 KW, 380 V, 50 Hz motors Discharge 70 L / Sec. Total Head 55 m.	10

[*] amended 15 February 2000

	Pumps For Water Wells	
05-06-00019	*** Turbine pumps driven by electrical motor** Q = 5 - 20 l/sec Total Head 100 - 70 meter	1000
05-06-00020	*** Turbine pumps driven by diesel engine** Q = 5 - 20 l/sec. Total Head 100 - 70 meter	400
05-06-00021	*** Submersible Pumps** Q = 5 - 20 l/sec. Total Head 100 -350 meter	600
05-06-00022	* Diesel generating sets mounted on a steel frame with a weather protecting cover capacity (25- 75) KVA .	150
05-06-00023	* Diesel generating sets mounted on a steel frame with a weather protecting cover capacity (500-1500) KVA .	50
	Horizontal Centrifugal Pump Set and Accessories.	
	*** Fixed blade pump**	
05-06-00024	- Q = 20m3/sec - Total Head = 5.6 m - 2000 KW, 6KV, Three phase 50HZ,syhnchronous motor with accessories .	4
	*** Adjustable blade axial pump**	
05-06-00025	- Q = (13.5- 25)m3/sec - Total Head = 5.6 m - 2000 KW, 6KV, Three phase 50HZ,syhnchronous motor with accessories .	4
05-06-00026	*** Auxillary Equipment for Nassiryia Pumping Station**	
	- Bridge crane 30/5 ton with accessiores	1
	- Semi gantry crane 2x10 ton with accessiores	1
	- Gantry crane 2x10 ton with accessiores	1
	- Trash racks with accessiores	12
05-06-00027	**Pump with coupling between** Hydraulic unit and the pump including flexible Hose (C2 4 ½ x 5") and accessories Q = 400 L/min	4
05-06-00028	**Submersible Pump And Accessories** 54 KW, 3 x 380 V, 50 Hz. Motors Discharge 3 m3/min.Total Head 50 m.	2
05-06-00029	**Submersible Pump And Accessories** 30 KW, 3 x 380 V, 50 Hz motors Discharge 2 m3 / min. Total Head 30 m.	2
05-06-00030	**Horizontal Pump Set and Accessories.** Q= 200 L/Sec, 3x380 V, 50HZ , 300Kw	10
05-06-00031	**Horizontal Pump Set and Accessories.** Q=3.4 m3/sec, H = 85 m , 3x11 KV, 3450Kw	1
05-06-00032	**Horizontal centrfugal motor driven Pump Set and Accessories.** Q= 170 L/hr , head = 23 m 18.5 kw motor , 380 v / delta , 50 HZ	6
05-06-00033	**Multi - stage pump (for clear water)** Q = 20 m 3/ hr Head = 70 - 100 M motor 7.5 kw , 10 hp , 1500 rpm V = 380 / 660	5

05-06-00034	**Multi - stage pump (for clear water)** Q = 55 m 3/ hr Head = 140 m motor 45 kw 2960 rpm V = 380 / 660	2
05-06-00035	**Effluent pump (for clear water)** Head = 8 m Q = 55 m 3/ hr R . P . M = 1500 V = 220 / 380 , 2.2 kw	4
05-06-00036	**Back wash pump (for clear water)** Head = 10 m Q = 227 m3/ hr motor = 11 kw ,R.P.M. = 1450 V = 380 / 660	10
	Dosing pump :	
05-06-00037	*** Prominet electronic :** Head = 15 m Q= 18/36 liter / hr motor 220 v, 50 hz	4
05-06-00038	***Prominet electronic :** Head = 15 m Q= 34/92 l / hr motor 220 v, 50 hz	4
05-06-00039	*** Dosator :** Head = 80 m Q= 2 . 9 l/hr motor 220 / 380 V , 50 hz, R.P.M. =1350 / 36	4
05-06-00040	**Submersible pump :** V = 380 , 7.5 kw, R.P.M. = 1500 , 50 HZ H= (15 - 20) m Q = 54 m3 /hr	10
05-06-00041	**pump** Q = 60 m 3 / hr H = 20 m	7
05-06-00042	**pump** Q = 50 m 3 / hr H = (60 - 80) m	4
05-06-00043	**pump set** Q = 5 m 3 / hr H = 60 m , 15 kw 17 kw , 380 V , 3000 rpm motor	60

APPENDIX 6 B .
MAIN ELECTRICAL MOTOR FOR PUMPS

Code	DESCRIPTION	QUANTITY
05-06-00044	Main Motor type 3AHR 354 - 4 (200 KW, 380 V, 1500 R.P.M.) Horizontal	100
05-06-00045	Main motor for pump type MY - 500 B and motor type KPR 315 M4 (132 KW, 380 V, 750 R.P.M.) Horizontal	20
05-06-00046	Horizontal electrical motor, Syhncronous type, thyaristor starting ; (800 kw, 6kv, 500rpm, 50 Hz)	3
05-06-00047	Vertical electric motor, slip ring type rotor resistance starting (315 KW, 380V, 600 rpm, 50 HZ)	2
05-06-00048	Vertical electric motor, slip ring type rotor resistance starting (630 KW, 6KV, 500 rpm, 50 HZ)	4
05-06-00049	Vertical electric motor, slip ring type rotor resistance starting (350 KW, 6KV, 500 rpm, 50 HZ)	2
05-06-00050	Vertical electric motor , Sequirral cage type(D.O.L starting) (700 KW, 6 KV, 500 rpm, 50 HZ)	3
05-06-00051	Vertical electric motor, slip ring type rotor resistance starting (520 KW, 3300V, 500 rpm, 50 HZ)	4
05-06-00052	Vertical electric motor, (630 KW, 6 KV,500 rpm, 50 HZ)	2
05-06-00053	Vertical electric motor. D.O.L starting (500 KW, 6 KV,600 rpm,50 HZ)	4
05-06-00054	Horizontal electric motor, slip ring type (150 KW, 380V, 750 rpm, 50 HZ)	3
05-06-00055	Horizontal electric motor , star- delta starting (130 KW,380 V, 1000 rpm, 50 HZ)	3
05-06-00056	Horizontal electric motor , star- delta starting (250 KW,380 V, 1000 rpm, 50 HZ)	8
05-06-00057	Vertical electric motor rotor resistance starting(315 KW, 500 rpm ,6 KV, 50HZ)	4
05-06-00058	Horizontal Induction electric motor D.O.L starting (630KW, 1485 rpm, 6 KV, 50HZ)	4
05-06-00059	Horizontal electric motor , (280 KW,380 V, 750rpm, 50 HZ)	30
05-06-00060	Vertical induction motor slip ring movable type , with rotor resistance (8 stages mounted in oil box), the upper bearing of the motor should be thrust bearing type. The motor is (500 KW , 3.3 KV,500 r.p.m.)	4
05-06-00061	3- phase Asyhncronous Vertical motor 1350 Kw , 6Kv , 50 Hz , 590 RPM	2
05-06-00062	3- phase Asyhncronous Vertical motor 850 Kw , 6Kv , 50 Hz , 590 RPM	2
05-06-00063	Horizontal slip ring induction motor 3450 Kw , 11Kv , 50 Hz ,750 RPM	2

Additions:

05-06-00064*	Horizontal centrifugal pump driven by electrical motor or diesel engine with all accessories Q=100 lit/sec; head rating = 90M.	20

* amended 19 June 2000