

Annex AGRI - 2
Enhanced Domestic Food
Production

Sector: AGRICULTURE

Sub sector:
VEGETABLE AND FRUIT
PRODUCTION And
extension

Activity:
Provision of
seeds
seedling
fertilizer

Priority within the
sector: HIGH

A - CROP AND VEGETABLE
SEED.

Code	Item Description and its complementary items	Intended Use	Qty in unit
05-02-00001	Sunflower seed Hybrid variety .	Production of needed seed for cooking oil (sunflowers growers in the Governorates)	500mt
05-02-00002	Cucumber Hybrid - F1	Cucumber production, both in opened and covered fields (vegetable producers in the Governorates)	50mt
05-02-00003	Tomato seed	Tomato production, both in open and covered fields (vegetable producers in the Governorates)	40mt
05-02-00004	Squash seed Hybrid - F1	Squash production in both open and covered fields (vegetable producers in the Governorates)	10mt
05-02-00005	Pepper seed	Pepper production in both open and covered fields (vegetable producers in the Governorates)	8mt

05-02-00006	Onion seed	Onion production in open field (onion producers in the Governorates)	25mt
05-02-00007	Cowpeas	Cowpeas production in open field (vegetable producers in the Governorate)	150mt
05-02-00008	Bean	Bean production in open field (vegetable producers in the Governorate)	150mt
05-02-00009	Eggplant	EggplantBrodbean (vegetable producers in the Governorate)	10mt
05-02-00010	Brodbean	Brodbean production in open field (vegetable producers in the Governorate)	50mt
05-02-00011	Water Melon	Water melon production in the open field (water melon producers in the Governorates)	30mt
05-02-00012	Different Hybrid Seed for green Houses	covered vegetable field and green houses (vegetable producers in the Governorates)	6,000,000 seeds
05-02-00013	Rape	Production of needed seed for cooking oil (sunflowers growers in the Governorates)	200mt
05-02-00014	Safflower	Production of needed seed for cooking oil (sunflowers growers in the Governorates)	200mt

05-02-00015	A) Potato seed (Super elite and elite)	To be distributed to potato breeders for production of class A and B seed	5000MT
	B) Sourghun-sudan grass seed	To be used for forge production	200 MT

	B - FRUIT SEED AND SEEDLINGS:		
Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit
05-02-00016	Malus Communis Seed	Stock production for production of seedling to be distributed to the farmers (orchards owners in the Governorates growing the crop)	10kg
05-02-00017	Pyrus Communis Seed	Stock production for production of seedling to be distributed to the farmers (orchards owners in the Governorates growing the crop)	10kg
05-02-00018	Prunus Cerasifera Seed	following seeding, production of stocks in specialized nurseries then seedling distribution to the farmers (orchards owners in the Governorates favorable for this type)	50kg
05-02-00019	Mauls Communes Seedling	Stock production for production of seedling to be distributed to the farmers (orchards owners in the Governorates growing the fruit)	75000seedling

05-02-00020	Pyres communes seedling	Stock production for production of seedling to be distributed to the farmers (orchards owners in the Governorates favorable for this type)	75000seedling
05-02-00021	Prunus Cerasifera Seeding	Stock production for production of seedling to be distributed to the farmers (orchards owners in the Governorates favorable for this type)	25000seedling
05-02-00022	Olive rooted-stem cutting	To install olive orchid project and serving olive producers	4000000
05-02-00023	Routing hormones powder A) IBA B) Serdex No. 3	To be used by farmer and growers of orchids	10X 1Kg 20X0.5Kg 200 X 100gm
05-02-00024	A)Pruning saw B) secateurs	To be used by the state board of orchids and growers in the 15 governorates in pruning activities	200 2000
05-02-00025	Mulching polyathelene	To be used by the state board of orchids and growers in the nurseries	10 MT
05-02-00026	Black plastic sac 30 X 30 CM 15 X 30 CM seedling tray	=	20 MT 10 MT 500000 Pcs
05-02-00027	Netting shade Sheding 50% Sheding 75%	=	100000 M2 100000 M2
05-02-00028	Chessel 65 Cm 70 Cm	To be used in land preparation in the state company of orchids and growers	50 50

05-02-00029	Green houses structure 500 M2 with accessorie 180 M2 with accessories (galvanised tubes)	To be used by farmers in winter protected vegetable production and also for orchid nurseries	200 houses 200 houses (approx. 500MT of tubes)

	C - FERTILIZERS		
Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit
05-02-00030	Di ammonium phosphate	Will be spread in different fields crops (farmers)	40000mt
05-02-00031	Potassium sulphate	Will be spread in vegetable fields both opened and covered (farmers)	5000mt
05-02-00032	Magnesium Sulphate	Will be used in vegetable fields (farmers)	100mt
50-02-00033	Ferrous Sulfate FeSo4 (Min 19-20 %)	Will be spread in vegetable fields both opened and covered (farmers)	20mt
05-02-00034	Zinc Sulfate ZnSO4 (35%)	Will be spread in vegetable fields both opened and covered (farmers)	20mt
05-02-00035	Micro Neturen fouler fertiliser	Will be spread in vegetable fields both opened and covered (farmers)	50mt
05-02-00036	Cupper sulphate CuSO4H2o (35 % Cu)	Will be spread in vegetable fields both opened and covered (farmers)	10mt
05-02-00037	Manganese sulphate MnSO4 3H2O (28 % Mn)	Will be spread in vegetable fields both opened and covered (farmers)	25mt

05-02-00038	(TSP) Citrate and water solubility 46 % P2O5 .P2O5 soluble in water not less than 30 % Humidity 1.7 Max.	Will be spread in vegetable fields both opened and covered (farmers)	10000 mt

	D - The installation of new banana nursery		
Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit
05-02-00039	Complete green house	For (5) ha	To install pilot project for banana plantation (nursery)
05-02-00040	Drip irrigation unit	For (5) ha	To install pilot project for banana plantation (nursery)
05-02-00041	Heating and cooling system	For (5) ha	To install pilot project for banana plantation (nursery)
05-02-00042	Fibre glass for green house	For (5) ha	To install pilot project for banana plantation (nursery)
05-02-00043	Shading net	For (5) ha	To install pilot project for banana plantation (nursery)
05-02-00044	Tractor 33 HP with accessories		2 To install pilot project for banana plantation (nursery)
05-02-00045	80 KVA generators		1 To install pilot project for banana plantation (nursery)

05-02-00046	Banana seedling	12000	To install pilot project for banana plantation (nursery)
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	E - 1 : Rehabilitation of the extension senters .		
Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit
05-02-00047	Digital Betacam SP camera complete (DXC-D30P) with portable video cassette recorder (PVV-3P). Includes : 1.5" viewfinder ; tripod adapter; rain cover; extender board and operation / maintenance manual .	2	To support the activity of the state board of extension services in the different extension centers located in the following governorates
05-02-00048	AC Adapter. (AC550CE)	4	=
05-02-00049	Battery Charger for (NI-CD) batteries (BC-1WDCE).	4	=
05-02-00050	Video Cassette recorder Betacam SP (PVW-2800P) .	2	=
05-02-00051	Video Cassette player Betacam SP (PVW-2650P) for editing .	2	=
05-02-00052	Remote Control Editor (RM-450CE), editing control unit .	1	=
05-02-00053	Color Monitor with quad decoder and standard resolution in line slot mask CRT. Digital. (CVS-37-PS) 14" .	4	=
05-02-00054	(NI-CD) Batteries (NP1A).	30	=
05-02-00055	Metal type cassettes SP with 20 minute ; 30 minute ; 60 minute	150	=
05-02-00056	Cables for connections to the editing system	Round	=
05-02-00057	Dynamic microphone (NEKMIC).	4	=
05-02-00058	Video Cassette recorder V.H.S (multi-system) .	5	=

05-02-00059	Television (multi-system) with remote control .	10	=
05-02-00060	Photograph Camer motors , auto focus . (recently) .	3	=
05-02-00061	Portable Loudspeakers operate with batteries .	5	=
05-02-00062	Portable Audio Recorder .	2	=
05-02-00063	Computer with all the accessories. (recently) .	2	=
05-02-00064	Laser Printer for teaching .	10	=
05-02-00065	Spare parts for all the Audio and Video Equipments .	Round	=
05-02-00066	Slide projector with the screens .	5	=
05-02-00067	Overhead projector with the screens .	5	=
05-02-00068	Editing Unit for Radio Programm	1	=
05-02-00069	Data Show	1	=
05-02-00070	Overhead Transparencies	10	=
05-02-00071	Field Vehicle	10	=
05-02-00072	Field Vehicle for video show	2	=
05-02-00073	Video Unit 40"	2	=
05-02-00074	Field Soil Analysis Unit	6	Kit
05-02-00075	Portable Units to measure grain humidity.	5	=
05-02-00076	Tractor mounted sprayer 400 litters .	2	=
05-02-00077	Color Photo Copying machine with a computer	1	=
05-02-00078	Electric Generator 150 K.V.	2	=
05-02-00079	Water stiles for reservoir	6	nos

	E - 2 Requirement for horticulture labrotaries		
Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit
05-02-00079	UPVS pipes according to LSO standard 7473-1979 - 110 mm Ø	For green house and Labs. Rehabilitarion	300 m
05-02-00080	aluminum pipes for RO system 15 mm Ø 20 mm Ø 25 mm ?	For green house and Labs. Rehabilitarion	20 m
05-02-00081	Fire extinguisher of capacity : 9 type ABC kg 45 on wheels type ABC kg	For green house and Labs. Rehabilitarion	24 m 200 m
05-02-00082	Supply complete vacuum system with 2 pumps each of 7 l/s discharge . The system shall contain 300l tank , all necessary valves , gages , switches & an electrical panel	For green house and Labs. Rehabilitarion	10 Nos 3 Nos
05-02-00083	Vacuum outlets 15 mm Ø	For green house and Labs. Rehabilitarion	1 set
05-02-00084	Complete RO system with distilled unit of total capacity 2 m ³ /8h & storage capacity of 5 m ³ , with all necessary installations, switches , valves , gages , storage tanks, filters , piping , back washing , & disinfection & electrical panel .	For green house and Labs. Rehabilitarion	8Nos

05-02-00085	<p>Liquid Chillers</p> <p>Air Cooled liquid chillers of a capacity of 100 tons (351.6 kw) Rated at 52c º outdoor air temperature . The chiller shall be operated with 10% by weight ethylene Glycol Solution of inlet/outlet temperature 7.5 c º / 2c º respectively . The use of 10% ethylene glycol Solution shall not require a special chiller design . Simply the standard setting equipments in standard water chiller will be set at 2 c º instead of 4.5 c º obtained in ordinary water chillers. The chiller shall be suitable for 380v,3ph , 50 hz power supply & outdoor installation</p>	For green house and Labs. Rehabilitarion	1 set
05-02-00086	<p>Chilled liquid pumps</p> <p>The chilled liquid pump shall be of a capacity 54.5 m3 /hr (240 GPM) rated at a head of 28 meters of water column & 1450 rpm .The pump shall be equipped with suitable mechanical seals that make it leaktight . The pump shall be suitable for 380v,3ph,50hz power Supply</p>	For green house and Labs. Rehabilitarion	2 set

05-02-00087	<p>Air Duct Heaters</p> <p>The air duct heaters shall be of the special specifications & of capacities as indicated below . The Heaters shall be of the open coil type consisting of bare wire spiral coiled elements, Nickle Chrome resistance wire . The Heaters shall be Supplied complete with sensor , step controllerss, contactors , overloads and protection facilities . Any additionl Components that will make the heaters be computer controlled , shall be furnished . The heaters shall be fabricated to Fit inside the air ducts of Sizes as indicated below</p> <p>Heater (1) cap.(Kw) 12 No.of Stage 4 Airflow rate (l/s) 3000 Sliplin Direction H</p> <p>Heater (2) cap.(Kw) 30 No.of Stage 5 Airflow rate (l/s) 1220 Sliplin</p>	For green house and Labs. Rehabilitarion	2
05-02-00088	<p>Volume flow rate Controllers</p> <p>The volume flow rate controllers shall be able to control any desired air flow Rate from (0-750) l/s . The controller shall be duct fitted in the supply and exhaust ducts and shall be such equipped that it can be connected and controlled by a central computer system .</p>	For green house and Labs. Rehabilitarion	Round

05-02-00089	<p>Fan Coil Units</p> <p>The fan coil units shall be of floor mounted vertical discharge and face return air inlet . The unit shall have the following features:-</p> <ul style="list-style-type: none"> -Air Recirculation Rate =2574 L / S -Air condaition on coil at minimum room temp= 16úC db & 10.5úC wp Air off coil at minimum room temperature of 16 c ú = 8 cú db and 6.8 cú wb -Total Capacity (watts) =25330 -Sensible Capacity (watt) = 25330 -Entering ethylene glycol (10% by weight) temperature = 4 c ú -Ethylene Glycol temperature rise = 5.5 cú <p>The Fan coil shall be of two pipe system complete with three way valve , temperature sensors and actuators that can maintain the desired room temperature</p>	<p>For green house and Labs.</p> <p>Rehabilitarion</p>	Round
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05-02-00090	<p>Air Handling Units</p> <p>The air handling units shall be operated with totally fresh air and they shall have a total static pressure equal to the specified external static pressure plus the Internal static pressure which shall be specified and added by the unit manufacturer.</p> <p>AHU1 AHU2</p> <p>Air flow rate (l/s)</p> <p>3000 1340</p> <p>Total cooling capacity(KW) 190</p> <p>57</p> <p>Sensible Capacity(KW)</p> <p>155 56</p> <p>Chilled liquid temperature 2/7.5</p> <p>2/7.5</p> <p>in/out °C</p> <p>Air on coil °C db/Wb</p> <p>47/24 2/7.5</p> <p>Air off coil °C db/Wb</p> <p>6/5.6 14/13</p> <p>Apparatus dew point °C</p> <p>5 12.5</p> <p>External static pressure, Pa</p> <p>15 15</p>	For green house and Labs. Rehabilitation	Round
05-02-00090	<p>After coil air temperature range</p> <p>controlled by the three way valve 4-18°C AHU1</p> <p>Standard range AHU2</p> <p>Power supply available</p> <p>380-3ph-50Hz</p> <p>220-1ph-50Hz</p>	For green house and Labs. Rehabilitation	Round

05-02-00091	05-02-0009105-02-0009205-02-0009305-02-0009405-02-0009505-02-00096 Steam Humidifiers shall be specified in item (15) and specially specified in of electrically operated humidifiers with a Microprocessor control system and with steam distributing pipes for installation in duct work, The unit shall be such equipped so that it may be controlled by a central computer system suitable humidity sensors and actuators shall be provided - steam out put Range 2-30 Kg/hr - Power consumption 20Kw maximum - Power supply 380V-3Ph-50HZ - 220v-1ph-50HZ	For green house and Labs. Rehabilitarion	4
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05-02-00092	<p>Main distribution board (M.D.B) consist of - One 4-pole Air circuit breaker 1600 Af, 600 Volts with over current and short circuit protection facilities . - One manual change over switch TP&N 1600A 600 Volts - Seven MecB"S 100AF 4-pole with settings 100AT, 75AT, 75AT, 75T, 75AT, 50AT& 30AT respectively. 600 Volt ratings - Two MCCB"S 225AF p-pole 600 Volts with setting 150AT & 200AT respectively . - One voltmeter (0-500V) with selector switch (4-Positions) Complete with its potential transformers and protective fuses. - Three indicating lamps</p> <p>The main distribution board shall be dust and vermin proof manufactured with rigid and compact steel structure of free standing type suitable on</p>	<p>For green house and Labs. Rehabilitarion</p>	1
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05-02-00093	<p>Distribution panel (AC.D.B) consist of -</p> <p>One 4-Pole Load break isolator 1200A 600 Volts (Main isolator) - Four 4-pole MCCB'S 100AF, 100AT 600Volts - Fourteen 4-pole MCCB'S 100AF setted as follows :30AT / No.160AT / No.1275AT/ No.1 - Two single -pole MCB 30A, 250V . - Four single -pole MCB 15A, 250 V. - Four 100A 3-pole contactor, with thermal over load protection, push- button type. - One 60A 3-pole contactor, with thermal ovr load protection - TP&N+E busbar system 1200A , 400 Volts - Three Ammeters (0-60A) with current transformers (one for each contactor outlet) - one Ammeter(0 - 30 A) with its current transformer (for contactor outlet with 30AT setting MCCB) -</p>		
05-02-00093	<p>- One 4-Pole Load break isolator 1200A 600 Volts (Main isolator) - Two 4-pole MCCB'S 600AF, 450AT 600 volts - One indicating lamp for each panel supplying load through contactor device . - Five indicating lamps for each panel supplying reheater loads (6 panels) fitted with MCCB'S rating 75AT, & 5X60AT. The AC.D.B. Specification is the same as item 1 in consideration of its construction .</p>	For green house and Labs. Rehabilitarion	Round

05-02-00094	Luminaire (Lighting Fitting) 2X40 w Fluorescent with louver recessed type suitable for false ceiling mounting type (F1) similar to Philips TBS 31ZL or equivalent . Complete with starting gears.lampholders, lamps &power factor capacitor.	For green house and Labs. Rehabilitarion	75
05-02-00095	Ditto -but suitable for direct mounting on walls or surfaces. (type F2)	For green house and Labs. Rehabilitarion	40
05-02-00096	Fluorescent luminaire 220 V,2x40w with rapid starting ballast with universal reflector complete with lamp holders, lamps & power factor correction capacitor. Similar to Philips GM x250 /36-40w. or equivalent.(Type F3)	For green house and Labs. Rehabilitarion	30
05-02-00097	Fluorescent luminaire 220 V,2x40w with prismatic bottom & Side cover suitable for coupling arrangements in row group . complete with lamp holders ,lamps & correction factor capacitor. .(Type F4)	For green house and Labs. Rehabilitarion	50
05-02-00098	1x 500 mm2 PVC insulated with steel taped armoured cable PVC sheathed for under ground use.	For green house and Labs. Rehabilitarion	300 M. L

05-02-000099	750 KVA 3-phase 400V emergency diesel engine driven generator .with automatic & manual change over system complete with its control panel suitable for outdoor installation in tropical climatic conditions(- 8 C ú to 50 C ú)	For green house and Labs. Rehabilitarion	1 SET
05-02-00100	24 hours electronic timing switch three-phase 100 A , 400 Volts ratings.	For green house and Labs. Rehabilitarion	6
05-02-00101	Kiosk type Substation 1000 KVA , 11000/410 /230 Volts consists of the following Section : High tension Side: - One 600 A ,12KV H.T circuit breaker type VCB or SF6 provided switch over load & short circuit facilities.	For green house and Labs. Rehabilitarion	1

05-02-00102	- 12 KV 600 A TP busbar system . - One Load break switch 12KV,400A. - Three ammeters (0-600A) with their current transformers & accessories. - One voltmeter (0-13KV) with its selector switch (3-position) complete with its potential transformers & the protecting devices. - One KWH meter. - One 1000 KVA 11000/410 /230 Volt oil immersed naturally cooled transformer with all necessary protecting devices. - Low tension Side: - One air circuit breaker (ACB) 600A 600 Volts with overload & short circuit protection. - 2000 A, TP & N + E busbar system 400 Volts. - Two 1600 load break switch (LBS) tripple-pole 400V. - One 300 AF MCCB tripple-pole 400V. - One 100 AF MCCB tripple-pole 400V. -	For green house and Labs. Rehabilitarion	1 complete unit
	F:Improvement of agricultural tractor production and irrigation system		
CODE NO .	DESCRIPTION	INTENDED USE (AND TARGETED END USER)	QTY IN UNIT
05-02-00103	-Tractor parts 70-80HP with spare parts	Increase tractors production capacity	1000 sets
05-02-00104	Components and raw material for	Increase of irrigation systems	500 sets
	solid irrigation systems	production capacity	
05-02-00105	Components and raw material	Increase of irrigation systems	400 sets
	for mobil irrigation systems and spare parts	production capacity	

05-02-00106	Components and parts for center - pivot	Increase of irrigation systems	400 sets
	irrigation system and spare parts	production capacity	
05-02-00107	Irrigation pumps with spare parts	Increase of irrigation systems	-
05-02-00108	Agricultural implements and raw material: hot rolled steel bar / strip	production capacity	2819 tons
05-02-00109	Cleaning sewage sludge truck and spare parts		1
05-02-00110	DUCTILE PIPES DIA: 36 INCHES . TOTAL LENGTH 36000 METERS .	MAINTAIN CONTINUITY OF PRODUCING PLASTIC COVERS IN PETROCHEMICAL PLANT	36000 METERS
05-02-00111	BOILER CAPACITY 200 TON/HR PRESSURE 42 BAR	=	1
05-02-00112	SPARE PARTS FOR ETHYLENE TURBINES COMPRESSORS	=	DIFF
05-02-00113	BAGGING MACHINE FOR HDPE , LDPE GRANULES	=	2
05-02-00114	FIRE FIGHTING VEHICLES	=	2
05-02-00115	MOBILE CRANE 10 TONS	=	2
05-02-00116	MOBILE CRANE 25 TONS	=	2
05-02-00117	SPARE PARTS FOR SUNDYND PUMPS GA-6402,GA-6104 PRODUCT	=	DIFF
05-02-00118	COMPLETE PUMP GA-1101 FOR AMINE PRODUCT	=	2
05-02-00119	ETHYLENE PRODUCT PUMP	=	2
05-02-00120	COMPLETE PUMP GA-1201 FOR DEMETHANIZER	=	2
05-02-00121	COMPLETE PUMP GA-8500 FOR COOLING WATER	=	2
05-02-00122	PIPE LINE PUMPS FOR RAW WATER DISCHARGE PRESSURE 1300 KPA . CAPACITY : 3000 M3/HR	=	2
05-02-00123	DIGITAL CONTROL SYSTEM	=	DIFF
05-02-00124	PE COMPOUNDING LINE	=	1
05-02-00125	HEAT EXCHANGER BUNDLE PUSH PULLER	=	1
05-02-00126	TUBE PULLING MACHINE	=	2
05-02-00127	TUBE ROLLING EQUIPMENT	=	2
05-02-00128	HYDRO STATIC TESTING PUMPS	=	3

05-02-00129	L.D.P.E REACTOR MOTOR WITH SPARE PARTS .	=	DIFF
05-02-00130	LIQUID VACUUM TRUCK	=	2
05-02-00131	INSTRUMENT AIR DRYERS	=	DIFF
05-02-00132	DUMP TRUCK 20 TON	=	1
05-02-00133	STUDY OF REVAMPING ETHYLENE UNIT TO DECREASE WASTE OF PROPYLENE FOR ENVIROMENT PROTECTION	=	1
	H : IMPROVEMENT OF FERTILIZERS PRODUCTION		
PLANT 1			
CODE	ITEM DESCRIPTION AND ITS COMPLEMEENTRAY ITEMS (IF APPLICABLE)	INTENDED USE	QTY.
		(AND TARGETED	IN
		END USER)	UNIT
05-02-00134	REHABILITATE 2 (TWO) WASTE HEAT BOILERS FOR SULPHARIC ACID PLANT	TO REHABILITATE	DIFF.
		SULPHRIC PLANT	
05-02-00135	REHABILITATE AMMONIA PLANT	TO REHABILITATE	DIFF.
		AMMONIA PLANT	
05-02-00136	REHABILITATE 2 (TWO) BOILER FOR UTILITY PLANT	TO REHABILITATE	DIFF
		OF	
		UTILITIES PLANT	
05-02-00137	REHABILITE COMPLETE LINE FOR PHOSPHORIC ACID PLANT	TO REHABILITATE	2
		PHOSPHORIC ACID	
		PLAN	
05-02-00138	REVERS OSMOS (R.O) WITH ITS ACCESSORIES AND SPARE PARTS FOR 3 YEARS CAPACITY 200 M3/HOUR + PUMPS + VALVES + PIPES	WATER FOR INDYSTRIAL USES	3 LINES
05-02-00139	DEWATERING FILTER CAPACITY 100 TON/HR FOR ROCK PHOSPHATE SLURRY BENIFICIATION PLANT	TO REHABILITATE BENIFICIATION PLANT	2EA
05-02-00140	HEAVY EQUIPMENT BULLDOZER + SHOVEL + EXCAVATOR	TO REHABILITATE	9 EA
		ALKAIM FERTILIZER	
		COMPLEX	

05-02-00141	HEAVY DUTY TRUCK (WATER TANKER , TRUCK WITH CHASSES 6 X 4)	TO REHABILITATE	4EA
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00142	POLYPROPYLEN + P.V.C. SHEER AND PIPES FOR MAINTENANCE	TO REHABILITATE	DIFF
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00143	MACHIENS FOR WORKSHOP	TO REHABILITATE	DIFF.
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00144	CARBON STEEL PIPE	TO REHABILITATE	DIFF.
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00145	TYRES FOR TRUCK	TO REHABILITATE	DIFF.
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00146	SUBMERSIBLE PUMP (DIFF. SIZES AND DIFF CAPACITY)	TO REHABILITATE	92 EA
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00147	ACID COOLERS FOR SULPHURIC ACID PLANT	TO REHABILITATE SULPHURIC ACID PLANT	8 EA
05-02-00148	FORKLIFT + MOBILE CRANE + BOBCAT WITH SPARE PART FOR ALL ITEM	TO REHABILITATE	10EA
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00149	BEARINGS DIFF. SIZES	TO REHABILITATE	DIFF.
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00150	LABORATORY AND POLLUTION DEVICES	TO REHABILITATE	DIFF.
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00151	GEAR BOXES FOR DIGESTION TANK 321M55ABC	TO REHABILITATE PHOSPHORIC ACID PLANT	3EA

05-02-00152	MOTORIZED DRUM + SPEED REDUCER	TO REHABILITATE FERTILIZER PLANT	DIFF
05-02-00153	COOPER BEARING FOR FERTILIZER PLANT EQUIPMENT	TO REHABILITATE PHOSPHORIC ACID PLANT OF FERTILIZER PLANT	DIFF
05-02-00154	NALCO	TO REHABILITATE OF UTILITIES PLANT WATER TREATMENT	DIFF
05-02-00155	K.S.B PUMPS PARTS FOR WATER AND STEAM	TO REHABILITATE	DIFF.
		ALKAIM FERTILIZER	
		COMPLEX	
05-02-00156	GEAR BOX WITH ACCESSOURIES	TO REHABILITATE	2EA
		BENIFICAATION PLANT	
		COMPLEX	
PLANT 2			
CODE	ITEM DESCRIPTION & ITS COMPLEMENTARY ITEMS (IF APPLICABLE)	INTENDED USE (AND TRAGGETED END USER)	QTY. IN UNT.
05-02-00157	COMPRESSORS REVAMPING	REVAMPING OF UREA FERTILIZER PLANT	6
05-02-00158	TURBINES REVAMPING	=	5
05-02-00159	PUMPS REVAMPING	=	30
05-02-00160	DCS REVAMPING	=	1
05-02-00161	COOLING TOWER REVAMPING	=	1
05-02-00162	PRIMARY REFORMER & BOILERS REVAMPING	=	5
05-02-00163	COMPLET PUMPS WITH DRIVERS	=	30
05-02-00164	TUBES FOR HEAT EXCHANGERS	=	BULK
05-02-00165	COMPLET HEAT EXCHANGERS	=	6
05-02-00166	COMPLET GEAR MOTORS & CYCLO DRIVES	=	40
05-02-00167	BOILER FEED WATER PUMPS	=	4
05-02-00168	UREA HANDLING EQUIPMENT REVAMPING	=	BULK
05-02-00169	UREA WEIGHING & BAGGING SYSTEM REVAMPING	=	8
05-02-00170	COMPLET BAGGING SYSTEM	=	2
05-02-00171	VALVES	=	BULK

05-02-00172	INSTRUMENTATION CONTROL VALVES WITH ACCESSORIES	=	BULK
05-02-00173	CONTROL & MEASUREMENT INSTRUMENTATIONS	=	BULK
05-02-00174	VIBRATION MONITORS	=	BULK
05-02-00175	ELECTRICAL MOTORS L.T & H.T.	=	30
05-02-00176	CABLES & ACCESSORIES	=	BULK
05-02-00177	ELECTRICAL EQUIPMENT CONTROLLER & PROTECTION DEVICES	=	BULK
05-02-00178	WORKSHOP EQUIPMENT & WELDING MACHINE WITH ACCESSORIES	=	BULK
05-02-00179	OIL SEALS , MECHANICAL SEALS & O-RING	=	BULK
05-02-00180	WELDING RODS	=	BULK
05-02-00181	GASKETS & PACKING MATERIALS	=	BULK
05-02-00182	PIPES & FITTINGS	=	BULK
05-02-00183	BEARINGS	=	BULK
05-02-00184	GOVERNORS , TACHOMETERS & T.T.V. FOR TURBINES	=	BULK
05-02-00185	N2 GENERATOR COMPLET UNIT	=	1
05-02-00186	INSTRUMENT AIR COMPRESSOR COMPLET UNIT	=	1
05-02-00187	LABORATORIES EQUIPMENT	=	BULK
05-02-00188	ON - LINE ANALYTICAL INSTRUMENTS	=	BULK
05-02-00189	MECHANICAL INSPECTION EQUIPMENT	=	BULK
05-02-00190	UPS COMPLET SET	=	2
05-02-00191	33KV G.C.B. (SF6) & 6.6KV C.B.	=	6
05-02-00192	CHEMICALS FOR AMMONIA PLANT	=	BULK
05-02-00193	INDUSTRIAL COOLING SYSTEM	=	BULK
05-02-00194	REVERSE OSMOSIS UNIT	=	1
05-02-00195	ANTICAKING FOR UREA PRILLS PRODUCT	=	100 TON
05-02-00196	SHOVELS , CRANES & FORKLIFT	=	2,3,6
05-02-00197	TRAILORS , TANK-CARS , TIPPER VEHICLES & SKYLIFT	=	2,2,2,1
05-02-00198	BUSES , PICK-UP TRUCK , MINI BUS & MINI LANDCRUSER	=	10,2,6,13

05-02-00199	ELECTRIC GENERATOR 10-15 MVA	=	1
05-02-00200	POLY PROBYLINE BAGG	=	5 MILLION
05-02-00201	EJECTORS	=	BULK
05-02-00202	BATTERIES & CHARGERS	=	BULK
05-02-00203	EXPLOSION PROOF LIGHTING EQUIPMENT & FIXTURES	=	BULK
05-02-00204	COMPRESSORS & ACCESSORIES FOR (PLANT AIR / INSTRUMENT AIR / N2 GENERATORS)	=	3
05-02-00205	CONTROL INSTRUMENTS (INSTRUMENTATION) FOR FLOW , LEVEL , TEMP, PRESSURE CONTROL VALVE RELIEVING DEVICES , SWITCHIES , SOLENOIDS	=	BULK
05-02-00206	CONTROL (DEVICES) FLOW , LEVEL , TEMP. PRESSURE , CONTROL & MEASURMENT EQUIPMENTS .	=	BULK
05-02-00207	RAW MATERIAL FOR FABRICATION EQUIPMENT	=	BULK
05-02-00208	PIPES , FLANGES , GASKETS , FITTINGS , VALVES	=	BULK
05-02-00209	PUMPS	=	6
PLANT 3			
CODE NO .	ITEM DESCRIPTION & ITS COMPLEMENTARY ITEMS (IF APPLICABLE)	INTENDED USE (&TARGETED END USER)	QTY. IN UNIT
No.			
05-02-00210	<u>INDUSTRIAL W. WATER TREATMENT PLANT</u>	Maintain continuity of Urea production	
	1- Utilize existing cooling tower blow down quantity (900 m3/h) with (T.D.S.) of (4000~5000mg/l) & full analysis.		
	2- Utilize the waste water from existing plant & cooling tower blow down quantity (1000m3/h) the final water analysis.		

	3- Treatment for the waste water from Ammonia & Urea plants quantity (100m3/h) & full analysis. The quantity remain when applied case (1) to be treated according to the limits of the regulation of the protection of the rivers & public water from the pollution No. 25 for a year 1967.		1
	4- Utilize existing brine water the blow down from (R.O) units, quantity (750 m3/h) (T.D.S) of (6850~7650 mg/L) & full analysis .		
CODE NO .	ITEM DESCRIPTION & ITS COMPLEMENTARY ITEMS (IF APPLICABLE)	INTENDED USE (&TARGETED END USER)	QTY. IN UNIT
	<u>Laboratory Equipment</u>	Maintain continuity of Urea production	
05-02-00211	1- PH Meter Bench Type Digital		1
	Up to date.		
05-02-00212	2- E.C. Meter Bench type digital		1
	Up to date		
05-02-00213	3- Dew point Meter digital		1
	Up to date		
	Range (-70 C ⁰ ~ + 50 C ⁰)		
05-02-00214	4- Gas Analyzer Portable Digital		1
	Up to date		
	For detection of Ammonia in Air.		
05-02-00215	5- Carbon Residual Digital Up to date.		1
05-02-00216	6- Spectrophoto Meter Digital Computerized .		1
	Up to date.		
05-02-00217	7- Karl Fischer Digital Computarized.		1

	Up to date.		
05-02-00218	8 - Gas Chromatography .		1
	Up to date.		
	Advance analytical gas chromatograph to analyse the gases (H ₂ , N ₂ , O ₂ , CH ₄ , CO, CO ₂ , Ar, ...etc.)		
05-02-00219	9- Tensile strength.		1
	Up to date.		
05-02-00220	10- Jar tester apparatus.		1
	Contains 6 (six) mixers.		
	Up to date.		
05-02-00221	11- Drop melting of petroluim, wax including petroluim. Up to date.		1
05-02-00222	12- Pour point apparatus for petroluim Oil.Up to date.		1
05-02-00223	13- Flash point digital computarized.		1
05-02-00224	14-Total sulfur in Oil (organic & Inorganic) digital.		
05-02-00225	15- Electric furnace digital	Maintain continuity of Urea production	1
	Up to date.		
	Holding capacity 15 liters or more.		
	Temp. range (0-1600 C ú).		
05-02-00226	16- High temp. gravity convection oven		1
	Digital.		
	Up to date.		
	Temp. range (50~275 C ú).		
05-02-00227	17- Digital density / specific gravity meter.		1
	Up to date.		
	For measuring true density of aqueous liquid.		
05-02-00228	18- Moisture determination balance digital.		1

	Up to date.		
	Auto dry routine save time.		
05-02-00229	19- Constant - temp. horizontal shaking		1
	Bath.		
	Up to date.		
	This horizontal shaking bath uniformly & quitly agitates sample.		
05-02-00230	<u>Glass Ware</u>	Maintain continuity of Urea production	1 SET
	1-(ASTM) STANDARD SIEVE 200 MM STAINLESS STEEL) Stand No. (6,8,10,12,14,16,18,20,25,30,35,40,45,50,60,70,80,100). With 1(one) set cover & receiver each 1(one) piece.		
05-02-00231	2- Gas regulator for (one for each gas)		1 for each gas
	a- Acetylene (C ₂ H ₂).		
	b- Hydrogen (H ₂).		
	c- Oxygen (O ₂).		
05-02-00232	3- Hollow cathod lamps for atomic absorption shimadzu AA-630-12.for each : As,Cd,Co,Ag,Fe,Mn,Ni,Li,V ,Sn		1 for each one
05-02-00233	4- Millipore filter (0.45M) Mm poresize.		100x(25pkg)=2 500 paper
05-02-00234	- Size 47 mm diameter.		or 250x(10pkg)=2 500 paper
05-02-00235	5- L.D. P.E. washing bottle (Narrow mouth) Low densitiy Poly Ethylene.		
05-02-00236	Capacity 1 liter		50
05-02-00237	Capacity 500 ml.		50
05-02-00238	6- PE (Poly Ethylene) bottle narrow mouth with stopper.		
05-02-00239	Capacity 500 ml.		50
05-02-00240	Capacity 1 liter.		50
05-02-00241	7-PE bottle wide mouth with stopper.		
05-02-00242	capacity 250 ml.		50

05-02-00243	Capacity 500 ml.		50
05-02-00244	Capacity 1 L.		25
05-02-00245	Capacity 2 L.		25
05-02-00246	8-Stainless steel gas sampling cylinder for collecting.	Maintain continuity of Urea production	10
05-02-00247	9- Wet test meter for measuring gas flow.		4
05-02-00248	10- Measuring cylinder (special design, 100 ml) capacity for determination of water in liquid Ammonia.		30
05-02-00249	11- Burette calibrated (0~50ml).		30
05-02-00250	12- Absorbing tube (capacity 25ml).		30
05-02-00251	13-High density poly Ethylene rectangular aspirator bottles with spigot outlets.		
05-02-00252	Capacity 5 liters		10
05-02-00253	Capacity 10 liters		5
05-02-00254	Capacity 20 liters		5
05-02-00255	Capacity 30 liters		5
	<u>Lab. Chemical Regrents</u>		
05-02-00256	1- 1-Naphthyl amine (C ₁₀ H ₉ N) pakage=250g (Analar).		2
05-02-00257	2- Sodaum bicarbonate (NaHCO ₃) pakage=500g (Analar).		3
05-02-00258	3- Squalence for G.C 20 wt%. pakage=100ml		5
05-02-00259	4- Ammonia Acetate (CH ₃ COONH ₄). pakage=500g		20
05-02-00260	5- Chloro form (G.P.R). pakage=1 liter		20
05-02-00261	6- Active carbon (100 wt%). pakage=100g		5
05-02-00262	7- Tin (Sn) G.R. granuated. pakage=250g		3
05-02-00263	8- Alum (Al ₂ (SO ₄) ₃ , 18H ₂ O) analar pakage=500g	Maintain continuity of Urea production	2
05-02-00264	9- PH buffer solution (7). Analar pakage=500ml		10

05-02-00265	10- Silver Nitrate (AgNO ₃). Analar package=250g		2
05-02-00266	11- Manganese sulfate (MnSO ₄ . H ₂ O) analar		3
	Or (MnSO ₄ .2H ₂ O) package=500g		
05-02-00267	12- Liquid paraffin (analar) package=500ml		5
05-02-00268	13- Methanol 100% (analar) package=1 liter		10
05-02-00269	14- Mannital CH ₂ (OH). (CHOH) ₄ CH ₂ OH (analar) (G4P.R) package=500g		6
05-02-00270	15- Glycerene (Analar). package=1 liter		10
	Biochemicals For Bacteria Count		
05-02-00271	1- Nutrient broth (analar) package=500g		4
05-02-00272	2- Bacto-peptone (analar) package=500g		4
05-02-00273	3- Yeast extract (analar) package=500g		4
05-02-00274	4- Macconkey broth (analar) package=500g		4
	<u>SUPPLY OF STANDARD GASES CYLINDERS</u>	Maintain continuity of Urea production	
05-02-00275	1- Gas mixture 5% Argon, Nitrogen balance.		2
05-02-00276	2- Argon (Ar) 6.5 m ³ 99.999%		2
05-02-00277	3- Hydrogen (H ₂) 6.5 m ³ 99.999%		2
05-02-00278	4- Oxygen (O ₂) 6.5 m ³ 99.999%		2
05-02-00279	5- Gas mixture 3ppm Oxygen, Nitrogen balance.		2
05-02-00280	6- Gas mixture 10ppm Oxygen, Nitrogen balance.		2

05-02-00281	7- Gas mixture 0.5% ppm Oxygen, Nitrogen balance.		2
05-02-00282	8- Gas mixture 5.0% ppm Oxygen, Nitrogen balance.		2
05-02-00283	9- Gas mixture 0.5% ppm Nitrogen, hydrogen balance.		2
05-02-00284	10- Gas mixture 1.0% ppm Nitrogen, hydrogen balance.		2
05-02-00285	11- Nitrogen (N ₂) 6.5 m3 99.999%		2
05-02-00286	12- Gas mixture 0.5% CH ₄ , N ₂ balance		2
05-02-00287	13- Gas mixture 8 % CH ₄ , N ₂ -Balance.		2
05-02-00288	14- Gas mixture 12% CH ₄ , N ₂ -Balance.		2
05-02-00289	15- Gas mixture 75% CH ₄ , N ₂ -Balance.		2
05-02-00290	16- Gas mixture 85% CH ₄ , N ₂ -Balance.		2
05-02-00291	17- Gas mixture 10 ppm Co ₂ , N ₂ -balance.	Maintain continuity of Urea production	2
05-02-00292	18- Gas mixture 0.5% ppm Co ₂ , N ₂ -balance.		2
05-02-00293	19- Gas mixture 3.0% ppm Co ₂ , N ₂ -balance.		2
05-02-00294	20- Gas mixture 9.0% ppm Co ₂ , N ₂ -balance.		2
05/02/200295	21- Gas mixture 14% ppm Co ₂ , N ₂ -balance.		2
05-02-00296	22- Gas mixture 10 ppm Co ₂ , N ₂ -Balance.		2
05-02-00297	23- Gas mixture 0.1% ppm Co ₂ , N ₂ -Balance.		2
05-02-00298	24- Gas mixture 3% ppm Co ₂ , N ₂ -Balance.		2
05-02-00299	25- Gas mixture 10% ppm Co ₂ , N ₂ -Balance.		2
05-02-00300	26- Gas mixture 15% ppm Co ₂ , N ₂ -Balance.		2
05-02-00301	27-Gas mixture 70% CH ₄ , N ₂ balance		2
05-02-00302	28-Gas mixture 15% C ₂ H ₆ , N ₂ balance		2
05-02-00303	29- Gas mixture 5% C ₃ H ₈ , N ₂ -Balance.		2
05-02-00304	30- Gas mixture 0.5% i - C ₄ H ₁₀ , N ₂ -Balance.		2

05-02-00305	31- Gas mixture 1.5% n-C ₄ H ₁₀ , N ₂ -Balance.		2
05-02-00306	32- Gas mixture 0.5% I-C ₅ H ₁₂ , N ₂ -Balance.		2
05-02-00307	33- Gas mixture 1.0% n-C ₅ H ₁₂ , N ₂ -Balance.		2
05-02-00308	34- Carbon dioxide (CO ₂) 99.9999% analar.		2
05-02-00309	35- Nitrous oxide (N ₂ O) pure fule for Atomic Absorption.		2
	<u>INSPECTION EQUIPMENT</u>	Maintain continuity of Urea production	
05-02-00310	1-Digital portable Instr. For combustibile gases detection.		4 set
05-02-00311	2-Digital portable Instr. For Ammonia gas percentage detection .		1 set
05-02-00312	3-Portable ultrasonic flow meter for different fluids.		1 set
05-02-00313	4-Diesel operating testing pump.		1 unit
05-02-00314	5- Portable tube press. Test gun kit.		2 set
05-02-00315	6-Digital ultrasonic thickness meter.		2 set
05-02-00316	7-Portable ultrasonic detect detector.		1 set
05-02-00317	8-Electric Furnace.		2 set
	-Temp. Max. 1600 C / 1800 C .		
	- Holding capacity 30 kg.		
05-02-00318	9-Portable surface temp. measurement		2 set
05-02-00319	10-Thermopoint (Non-contact manual scanning radio-meter) Heat Spy.		2 set
05-02-00320	11-Thermocouple.		12 pcs.
05-02-00321	12-Mask filter for high Ammonia gas concentration.		1000 pcs.
05-02-00322	13-Fast rise power potentiostat.		1 set
05-02-00323	14-Portable digital stroboscope for rotary machines speed check.		2 set

05-02-00324	15-Microstructure photo scanning unit with exposure control & camera.		1 set
	<u>PRODUCTION</u>	Maintain continuity of Urea production	
05-02-00325	Revamping of Hydrolysis of Urea Plant Process Condensate to a Deep Hydrolysis		for two trains
	Plant Load: 1600 T/D (for each train) Process condensate flow from vacuum system:- (45-50 m ³ /h) chemical composition of process		
	condensate feed according to design data:-		
	NH ₃ = 4.88 wt%		
	CO ₂ = 2.14 wt%		
	Urea = 0.51 wt%		
	Water = Balance		
	According to the above data we need to revamp our water treatment section with DEEP HYDROLYSIS system in order to get a quality of treated water to reduce urea conc. To less than (5 ppm) & ammonia to less than (5 ppm) & water conductivity to less than 10 MU / cm ² .	For Operation & Maintenance	
	The treated water then can be used as a boiler feed water.		
	Revamping of N2 generating Unit to get		
	O2 & Ar From waste Gas.		
05-02-00326	<u>TRANSPORTATION</u>		
	BUSES		

	Vehicle are equipped with diesel engine , 6 stroke, water cooled, direct injection pump, air condensations, 50 persons.	to transfere employees to & from the factory	20 bus
	MAINTENANCE	Maintain continuity of Urea production	
05-02-00327	Vibration manitoring system.		1 set
05-02-00328	1- Tube for H.E. A 213 TP 304. 3/4 , 5/6		134000 m
05-02-00329	2- Piping different size & Material. SUS 304		9500 m
05-02-00330	Fittings / different size & material		4750 pcs
	SUS 316		
05-02-00331	3- Valves (different size & material)		1850 PCS
05-02-00332	4- Tool for H.E.		1985 pcs
			148 set

05-02-00333	5- Bagging Equipment Automatic Bagging Line.		10 set
05-02-00334	6- Main. Equipment & Tool.		15 machine
05-02-00335	7- Waste Heat Boiler for NH3 Plant E-109.		2 SET
05-02-00336	8- Insulation Material.		64500 kg
05-02-00337	1-Ins. Air Com. with spare parts.	Maintain continuity of Urea production	1 set
05-02-00338	2-Mechanical Seals.		45 set
05-02-00339	3- Uraca (p-501) :-		2 set
	Turque convertor type RL-19 for		
	Ammonia feed pump type KD-815		
05-02-00340	4- Uraca Pump		2 set
	H.P. Washing Pump		
	Type = KD- 211- S with spare part		
	5- Submerged Pumps		
05-02-00341	Sub. P. size = 1"		10
05-02-00342	Sub. P. size = 2"		4
05-02-00343	Sub. P. size = 4"		4
05-02-00344	Sub. P. size = 6"		3
05-02-00345	Sub. P. size = 8" / heavey duty		3
05-02-00346	Sub. P. size = 10" / heavey duty		3
05-02-00347	DI-2-Ethyl hexyl phthalate DOP		1000 tons
05-02-00350	Beet cleaning station with spare parts		1 set
05-02-00356	candle filters		5 units
05-02-00357	cooling water chemicals- chimec 1460 corrosion scale inhibitor	kg	89,915
	chimec 7464- cooling water bio-dispersant	kg	3,510
	chimec 7279- micro organism control chemical	kg	5,890
	chimec 1366- corrosion and scale inhibitor for closed circuit	kg	1,855
05-02-00358	Pumps with motors	Units	13
05-02-00359	Water stiles for reservoir	NOS	6

05-02-00360	Burner for reformers & boiler with spare parts	sets	29
05-02-00361	Complete system for beet laboratory full automatic.	lot	1
05-02-00362	overhauled rotor tag no 107jct	pcs	1