

**Annex AGRI - 2**  
**Enhanced Domestic Food Production**

**Sub sector:**  
**VEGETABLE AND**  
**FRUIT PRODUCTION**  
**And extension**

**Sector: AGRICULTURE**  
**Priority within the sector: HIGH**  
**A - CROP AND VEGETABLE SEED.**

<b>Code</b>	<b>Item Description and its complementary items</b>	<b>Intended Use</b>	<b>Qty in unit</b>	<b>Allocation Criteria</b>	<b>Time frame</b>	
					<b>Field Application</b>	<b>Optimal Delivery Time</b>
05-02-00001	Sunflower seed Hybrid variety .	Production of needed seed for cooking oil (sunflowers growers in the Governorates)	500mt	Area under sunflower	SPRING	August-December
05-02-00002	Cucumber Hybrid - F1	Cucumber production, both in opened and covered fields (vegetable producers in the Governorates)	50mt	Size of area under cucumbers.	WINTER & SUMMER	August-December
05-02-00003	Tomato seed	Tomato production, both in open and covered fields (vegetable producers in the Governorates)	40mt	Size of area under Tomato	WINTER & SUMMER	August-December
05-02-00004	Squash seed Hybrid - F1	Squash production in both open and covered fields (vegetable producers in the Governorates)	10mt	Area under the squash	WINTER & SUMMER	August-December
05-02-00005	Pepper seed	Pepper production in both open and covered fields (vegetable producers in the Governorates)	8mt	Area under the pepper	WINTER	August-December

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

05-02-00015	A) Potato seed (Super elite and elite) B) Sourghun-sudan grass seed	To be distributed to potato breeders for production of class A and B seed  To be used for forge production	5000MT 200 MT	To be distributed to potato breeders in the center and south according to farm size. To be distributed to dairy station and animal breeders.	ALL YEAR	AS SOON AS POSSIBLE
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**B – FRUIT SEED AND SEEDLINGS:**

Code	Item Description and its complementary items (if applicable )	Intended Use	Qty in unit	Allocation Criteria	Time frame	
					Field application	Optimal Delivery Time
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	Seed will be multiplied in specialized nurseries, the seedling will be distributed to farmers	DECEMBER - JANUARY	August-December
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	Seed will be multiplied in specialized nurseries, the seedling will be distributed to farmers	DECEMBER - JANUARY	August-December
05-02-00018	Prunus Cerasifera Seed	following seedling, production of stocks in specialized nurseries then seedling distribution to the farmers (orchards owners in the Governorates favorable for this type)	50kg	Seedling will be distributed to farmer on request, size of planted area under the fruit.	DECEMBER - JANUARY	August-December
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	Seedling will be distributed to farmer on request area.	DECEMBER - JANUARY	August-December

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	Seedling will be distributed to farmer on request area.	DECEMBER - JANUARY	August-December
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	Seedling will be distributed to farmer on request area/ and size of area under the crop.	DECEMBER – JANUARY	August-December
05-02-00022	Olive rooted-stem cutting	To install olive orchid project and serving olive producers	4000000	Routed stem will be distributed to farmer on request area and size of area under the crop	All year round	August-December
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	The hormone will be distributed by the state company of orchids to the growers in the governorates	All year round	August-December
05-02-00024	A)Pruning saw B) scateures	To be used by the state board of orchids and growers in the 15 governorates in pruning activities	200 2000	The saws will be distributed to the company orchids and growers in the 15 governorates	All year round	August-December
05-02-00025	Mulching polyathelene	To be used by the state board of orchids and growers in the nurseries	10 MT	It will be distributed to the company and the growers in the 15 governorates	All year round	August-December
05-02-00026	Black plastic sac 30 X 30 CM 15 X 30 CM seedling tray	=	30 MT 70 MT 500000 Pcs	=	=	August-December
05-02-00027	Netting shade Sheding 50% Sheding 75%	=	100000 M2 100000 M2	=	=	August-December

05-02-00028	Chessel 65 Cm 70 Cm	To be used in land preparation in the state company of orchids and growers	50 50				August-December
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)	Horticulture and forestry company , potato seed producers , vegetable growers in the 15 governorates			August-December

### C - FERTILIZERS

Code	Item Description and its complementary items (if applicable )	Intended Use	Qty in unit	Allocation Criteria	Time frame	
					Field Application	Optimal Delivery Time
05-02-00030	Di ammonium phosphate	Will be spread in different fields crops (farmers)	40000mt	State of soil fertility/size of cultivated area.	ALL YEAR ROUND	August-December
05-02-00031	Potassium sulphate	Will be spread in vegetable fields both opened and covered (farmers)	10000mt	State of soil fertility/size of cultivated area	ALL YEAR ROUND	August-December
05-02-00032	Magnesium Sulphate	Will be used in vegetable fields (farmers)	100mt	State of soil fertility/size of cultivated area	ALL YEAR ROUND	August-December
05-02-00033	Ferrous Sulfate FeSo4 ( Min 19-20 %)	Will be spread in vegetable fields both opened and covered (farmers)	75Tons	State of soil fertility/size of cultivated area	ALL YEAR ROUND	August-December
05-02-00034	Zinc Sulfate ZnSO4 ( 35%)	Will be spread in vegetable fields both opened and covered (farmers)	75Tons	State of soil fertility/size of cultivated area	All year round	August-December
05-02-00035	Micro Neturen fowler fertiliser	Will be spread in vegetable fields both opened and covered (farmers)	50mt	State of soil fertility/size of cultivated area	All year round	August-December

05-02-00036	Copper sulphate CuSO <sub>4</sub> H <sub>2</sub> O ( 35 % Cu )	Will be spread in vegetable fields both opened and covered (farmers)	50Tons	State of soil fertility/size of cultivated area	All year round	August-December
05-02-00037	Manganese sulphate MnSO <sub>4</sub> 3H <sub>2</sub> O ( 28 % Mn ) ( TSP ) Citrate and water solubility 46 % P2O <sub>5</sub> . P2O <sub>5</sub> soluble in water not less than 30 % Humidity 1.7 Max.	Will be spread in vegetable fields both opened and covered (farmers)	75Tons	State of soil fertility/size of cultivated area	All year round	August-December
05-02-00038		Will be spread in vegetable fields both opened and covered (farmers)	10000 mt	State of soil fertility/size of cultivated area	All year round	August-December

**D - The installation of new banana nursery**

Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit	Allocation Criteria	Time frame	
					Field Application	Optimal Delivery Time
05-02-00039	Complete green house	For ( 5 ) ha	To install pilot project for banana plantation ( nursery )	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December
05-02-00040	Drip irrigation unit	For ( 5 ) ha	To install pilot project for banana plantation ( nursery )	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December
05-02-00041	Heating and cooling system	For ( 5 ) ha	To install pilot project for banana plantation ( nursery )	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December
05-02-00042	Fibre glass for green house	For ( 5 ) ha	To install pilot project for banana plantation ( nursery )	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December
05-02-00043	Shading net	For ( 5 ) ha	To install pilot project for banana plantation ( nursery )	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December

05-02-00044	Tractor 33 HP with accessories	2	To install pilot project for banana plantation (nursery)	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December
05-02-00045	80 KVA generators	1	To install pilot project for banana plantation (nursery)	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December
05-02-00046	Banana seedling	12000	To install pilot project for banana plantation (nursery)	Articulator and forestry company and banana plantation owners	The farm will be established in the central part of the country to serve banana producer	August-December

**E - 1 : Rehabilitation of the extension centers .**

Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit	Allocation Criteria	Time frame		
					Field Application	Optimal Delivery Time	
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	According to the requirements of baghdad , Nenava , Tameem , Wasit , Basrah	All year round	August-December
05-02-00048	Motor cycles	1200 Pcs	=	For Agricultural units working with farmer cooperatives	=	=	=
05-02-00049	Battery Charger for (NI-CD) batteries (BC1WDCE).		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 (NPIA).		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	250	=	=	=	=
05-02-00075	Portable Units to measure grain humidity.	50	=	=	=	=
05-02-00076	Airconditioning split units 2~4 Ton	A) 150 Pcs for 2 Tons B) 150 Pcs for 4 Tones	=	=	=	=
05-02-00077	Cooler machine ( for water )	200	=	=	=	=
05-02-00078	Electric Generator 150 K. V.	2	=	=	=	=

## E - 2 Requirement for horticulture laboratories

Code	Item Description and its complementary items (if applicable)	Intended Use	Qty in unit	Allocation Criteria	Time frame	
					Field Application	Optimal Delivery Time
05-02-00079	UPVS pipes according to LSO standard 7473-1979 - 110 mm Ø aluminum pipes for RO system 15 mm Ø 20 mm Ø 25 mm ?	For green house and Labs. Rehabilitarian	300 m	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00080	Fire extinguisher of capacity : 9 type ABC kg 45 on wheels type ABC kg	For green house and Labs. Rehabilitarian	20 m	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00081	Supply complete vacuum system with 2 pumps each of 7 l/s discharge . The system shall contain 3001 tank , all necessary valves , gages , switches & an electrical panel	For green house and Labs. Rehabilitarian	24 m 200 m	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00082	Vacuum outlets 15 mm Ø	For green house and Labs. Rehabilitarian	10 Nos 3 Nos	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00083	Complete RO system with distilled unit of total capacity 2 m <sup>3</sup> /8h & storage capacity of 5 m <sup>3</sup> , with all necessary installations, switches , valves , gages , storage tanks, filters , piping , back washing , & disinfection & electrical panel .	For green house and Labs. Rehabilitarian	1 set	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00084			8Nos	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

05-02-00085	<p>Liquid Chillers</p> <p>Air Cooled liquid chillers of a capacity of 100 tons (351.6 kw) Rated at 52c ° outdoor air temperature . The chiller shall be operated with 10% by weight ethylene Glycol Solution of inlet/outlet temperature 7.5 c ° / 2c ° 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 ° instead of 4.5 c ° obtained in ordinary water chillers. The chiller shall be suitable for 380v,3ph , 50 hz power supply &amp;outdoor installation</p>	For green house and Labs. Rehabilitation	1 set	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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 &amp; 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. Rehabilitation	2 set	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

05-02-00087	<p><b>Air Duct Heaters</b>  The air duct heaters shall be of the special specifications &amp; 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 controllers, contactors , overloads and protection facilities . Any additional 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  Heater (1) cap.(Kw) 12 No.of Stage 4  Airflow rate (l/s) 3000 Sliplin Direction H  Heater (2) cap.(Kw) 30 No.of Stage 5  Airflow rate (l/s) 1320 Sliplin Direction H  Heater (3) cap.(Kw) 15 No.of Stage 5  Airflow rate (l/s) 750 Sliplin Direction V  Heater (4) cap.(Kw) 36 No.of Stage 4  Airflow rate (l/s) 4300 Sliplin Direction H</p>	For green house and Labs. Rehabilitarion	2	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00088	<p><b>Volume flow rate Controllers</b>  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	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

05-02-00089	<p><b>Fan Coil Units</b>  The fan coil units shall be of floor mounted vertical discharge and face return air inlet . The unit shall have the following features:-  -Air Recirculation Rate =2574 L / S  -Air condation on coil at minimum room temp= 16°C db &amp; 10.5°C wp  Air off coil at minimum room temperature of 16 c° = 8 c° db and 6.8 c° wb -Total Capacity (watts ) =25330  -Sensible Capacity (watt) = 25330  -Entering ethylene glycol (10% by weight) temperature = 4 c°  -Ethylene Glycol temperature rise = 5.5 c°  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 within accuracy of +_1c° maximum.  Maintained room air temperature can be setted at any temperature between 16 to 28 c° .</p>	For green house and Labs. Rehabilitation	Round	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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05-02-00090	<p><b>Air Handling Units</b>  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  Air flow rate (l/s) 3000  1340  Total cooling capacity(KW) 190  57  Sensible Capacity(KW) 155  56  Chilled liquid temperature 2/7.5  2/7.5  in/out c  Air on coil c° db/Wb 47/24  2/7.5  Air off coil c° db/Wb 6/5.6  14/13  Apparatus dew point C 5 12.5  External static pressure, 15 15  MmH2O  Chilled liquid flow rate, l/s 8.3 2.5  Type of Filters  Washable type prefilters AHU1  Washable type prefilters AHU2  Medium efficiency bag filters AHU1  Medium efficiency Bag filters AHU2  99.97 efficiency HEPA absolute filters  AHU1</p>	For green house and Labs. Rehabilitation	Round	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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05-02-00090	<p>After coil air temperature range controlled by the three way valve 4-18C AHU1 Standard range AHU2 Power supply available 380-3ph-50Hz 220-1ph-50Hz</p>	For green house and Labs. Rehabilitarion	Round	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00091	<p>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</p>	For green house and Labs. Rehabilitarion	4	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

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&amp;N 1600A 600 Volts - Seven MecB"S 100AF 4-pole with settings 100AT, 75AT, 75AT, 75T, 75AT, 50AT&amp; 30AT respectively. 600 Volt ratings - Two MCCB"S 225AF p-pole 600 Volts with setting 150AT &amp; 200AT respectively . - One voltmeter (0-500V) with selector switch (4-Positions) Complete with its potential transformers and protective fuses. - Three indicating lamps The main distribution board shall be dust and vermin proof manufactured with rigid and compact steel structure of free standing type suitable on operation on 400V , 50Hz 3-phase systems . All steel shall be finally finished with enamel paint . The panel shall be in sections for easy assembly .</p>	<p>For green house and Labs. Rehabilitation</p>	I	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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05-02-00093	<p>Distribution panel (AC.D.B) consist of -  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 settled  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&amp;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) - one voltmeter (0-500V) With  its 4-position selector switch, potential  transformer and protective fuses (Fitted on  the main incoming door ).</p>			Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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, &amp; 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	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

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.lamp holders, lamps & power factor capacitor.	For green house and Labs. Rehabilitarian	75	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00095	Ditto –but suitable for direct mounting on walls or surfaces. (type F2)	For green house and Labs. Rehabilitarian	40	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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. Rehabilitarian	30	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
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. Rehabilitarian	50	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00098	1x 500 mm2 PVC insulated with steel taped armoured cable PVC sheathed for under ground use.	For green house and Labs. Rehabilitarian	300 M. L	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00099	750 KVA 3-pare 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 ° to 50 C ° )	For green house and Labs. Rehabilitarian	1 SET	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00100	24 hours electronic timing switch three- phase 100 A , 400 Volts ratings.	For green house and Labs. Rehabilitarian	6	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

05-02-00101	<p>Kiosk type Substation 1000 KVA , 11000/410 /230 Volts consists of the following Section :</p> <p>High tension Side:</p> <ul style="list-style-type: none"> <li>- One 600 A , 12KV H.T circuit breaker type VCB or SF6 provided switch over load &amp; short circuit facilities.</li> </ul>	For green house and Labs. Rehabilitarion	1	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible
05-02-00102	<ul style="list-style-type: none"> <li>- 12 KV 600 A TP busbar system . - One Load break swith 12KV,400A. - Three ammeters (0-600A) with their current transformers &amp; accenorities. - One voltmeter (0-13KV) with its selector switch (3-position) complete with its potential transformers &amp; 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 &amp; short circuit protection. - 2000 A, TP &amp; 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. - Three ammeters (0-1500A) with their current transformers. - One Voltmeter (0-500V) with its selector switch ( 4-positions ) &amp; potential transformers with their protective devices. - One power factor meter. Three indicating lamps for mains ON.</li> </ul>	For green house and Labs. Rehabilitarion	1	Hort. comp. Tissue culture lab.	All days in the year	As soon as possible

**F: Improvement of agricultural tractor production and irrigation system**

CODE NO.	DESCRIPTION	INTENDED USE (AND TARGETED END USER )	QTY IN UNIT	ALLOCATION CRITERIA	TIME FRAME	
					FILED APPLICATION	OPTIMAL DELIVERY
05-02-00103	Tractor components 70-80 hp on CKD condition with spare parts	Increase tractors production capacity	1000 sets	Improve productivity of tractors factory	All year round	As soon as possible
05-02-00104	Components and raw materials for Dripping irrigation systems	Increase of irrigation systems production capacity	1000 sets	TO improve productivity of irrigation systems	All Year round	As soon as possible
05-02-00105	polyethylen shoot	Increase of irrigation systems production capacity	5000 tons	TO improve productivity of irrigation systems	All year round	As soon as possible

**G: Improvement of Sugar production**

CODE NO.	ITEM DESCRIPTIONS COMPLEMEN TRAY ITEM (IF- PLICABLE)	INTENDED USE (AND TARGETED END USER	QTY IN UNIT	ALLOCATION CRITERIA	TIME FRAME	
					FIELD APPLICATION	AS SOON AS POSSIBLE
05-02-00106	STEAM BOILER	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	3 NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00107	FIELD EQUIPEMENTS (280320)HR ALTERNATOR 75ANP-12 VOLT TRANS.AUTOMATIC 5 FOR USED SPEED,REVERS. TIRES-23.1X34 OR 20.8X38 10 PLY THIS MACHINE USED FOR DIFFERENT ADD,AS PLOWING SUB SOTLING DITCHER,LAND PLEAN	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	6NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00108	HEAVEY EQUIPEMENT CANE HARVESTER 4X4 WHEEL DRIVE ENGIEN MERCEDS 6 CYLINDER HP=240 WITH TURBO CHARED TOPPER=2 CUTTERING DISCS HYDROLICALLY HEIGHT CROP.	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	3NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00109	portable (in car) jet water pump for opening sewage channel	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	2NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00110	TRUCKING (MACHINE) FOR OPENING DRAINAGE PIPE. DIESEL ENGINE	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	2NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00111	PUMPS AND COMPRESSOR DOSING PUMP	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	4NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00112	VERTICAL PUMPS	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	3NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00113	COMPRESSOR FOR CO2 GUS	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	4NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE

05-02-00114	AIR BLOWER FOR INVERSE WASHING SAND FILTER	TO HELP IMPROVING PERFORMANCE OF SUGAR FACTORY	2 NOS	INCREASE PRODUCTION OF SUGAR	ALL YEAR ROUND	AS SOON AS POSSIBLE
05-02-00115	WASTE WATER TREATMENT PLANT	TO REDUCE THE POLLUTION THE RIVER	1 NOS	INCREASE PRODUCTION OF SUGAR (MOSUL)	ALL YEAR ROUND	AS SOON AS POSSIBLE

**H: Improvement of Fertilizers production**

CODE NO.	DESCRIPTION	INTENDED USE (AND TARGETED END USER )	QTY IN UNIT	ALLOCATION CRITERIA	TIME FRAME	
					FILED APPLICATION	OPTIMAL DELIVERY
05-02-00116	REHABILITATION OF TRIPPLE SUPER PHOSPHATE PLANT LINE 1 & 2	TO REHABILITATE FERTILIZER PLANT	2 EA	TO INCREASE CAPACITY OF FERTILIZER PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00117	REHABILITATION OF BENIFICIATION PLANT	TO REHABILITATE BENIFICACION PLANT	01EA	TO INCREASE CAPACITY OF BENIFICACION PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00118	TREATMENT OF SOIL AND FOUNDATIONS OF ALKAIM COMPLEX	TO REHABILITATE OF SULPHURIC ACID PLANT	DIFF.	TO INCREASE CAPACITY OF SULPHURIC ACID PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00119	LINING OF PHOSPHO JUPSUM BASIN	TO REHABILITATE OF UTILITIES PLANT	DIFF.	TO INCREASE CAPACITY OF UTILITIES PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00120	R.O COMPLETE BACKAGE UNIT FOR INDUSTRIAL WASTE WATER	TO REHABILITATE OF UTILITIES PLANT	1 EA	TO INCREASE CAPACITY OF UTILITIES PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00121	REHABILITATION OF AMMONIA PLANT	TO REHABILITATE OF AMONIA PLANT	1 EA	TO INCREASE CAPACITY OF AMONIA PLANT	FILED APPLICATION	AS SOON AS POSSIBLE

05-02-00122	REHABILITATION OF ELECTRIC DRAGLINE TYPE MARION 195 + COMPLETE ELECTRIC DRAGLINE TYPE MARION 195 OR EQUIVALENT	TO REHABILITATE OF MINES PRODUCTION	01EA	TO INCREASE CAPACITY OF MINES PRODUCTION	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00123	REHABILITATION OF ELECTRIC SHOVEL TYPE RB- 150 + COMPLETE ELECTRIC SHOVEL TYPE RB150 OR EQUIVALENT	TO REHABILITATE OF MINES PRODUCTION	01EA	TO INCREASE CAPACITY OF MINES PRODUCTION	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00124	SPARE PARTS FOR PUMPS.	TO REHABILITATE OF ALKAIM FERTILIZER COMPLEX	DIFF.	TO INCREASE CAPACITY OF FERTILIZER PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00125	Ball and roller bearings with spare parts	TO REHABILITATE ALKAIM FERTILIZER COMPLEX	2638 pcs	TO INCREASE CAPACITY OF FERTILIZER PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00126	STEAM CONVERTING VALVE WITH SPARE PART	TO REHABILITATE OF UTILITIES PLANT	4 Unit	TO INCREASE CAPACITY OF UTILITIES PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00127	CATALYST FOR SULPHURIC ACID PLANT	TO REHABILITATE OF SULPHURIC ACID PLANT	DIFF.	TO INCREASE CAPACITY OF SULPHURIC ACID PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00128	ROLLERS FOR CONVAYER BELTS	TO REHABILITATE FERTILIZER PLANT	DIFF.	TO INCREASE CAPACITY OF FERTILIZER PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00129	GEAR BOX WITH ACCESSORIES	TO REHABILITATE BENEFICIATION PLANT	2 EA	TO INCREASE CAPACITY OF BENEFICIATION PLANT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00130	REHABILITATION OF STEAM TURBINE	TO REHABILITATE OF UTILITIES PLANT	DIFF	TO INCREASE CAPACITY OF UTILITIES UNIT	FILED APPLICATION	AS SOON AS POSSIBLE
05-02-00131	FIRE BRICKS + CASTABLE AND MORTER FOR BENEFICIATION PLANT	TO REHABILITATE BENEFICIATION PLANT	DIFF	TO INCREASE CAPACITY OF BENEFICIATION PLANT	FILED APPLICATION	AS SOON AS POSSIBLE

05-02-00132	MACHINES FOR WORK SHOP	TO REHABILITATE OF ALKAIM FETILIZER COMP.	DIFF	TO INCREASE CAPACITY OF FETILIZER PRODUCTION	FILED APPLICATION	AS SOON AS POSSIBLE
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**I: Requirements for Agricultural Bulletins, Magazines, Pamphlets for research and extension**

CODE NO.	DESCRIPTION	INTENDED USE (AND TARGETED END USER )	QTY IN UNIT	ALLOCATION CRITERIA	TIME FRAME	
					FILED APPLICATION	OPTIMAL DELIVERY
05-02-00133	Paper different sizes (in MT and Cartons of 1000 sets)	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	60 + 1500 tons + cartons	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00134	Cartoon paper for filing different sizes	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	30 MT	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00135	Carbon paper for typing	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	3000 boxes of 50 packs each	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00136	Stencil paper for typing	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	3000 boxes of 50 packs each	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00137	Writing ink (Coulour Blue + Black)	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	5000 Bottle	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00138	Correcting ink (White)	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2000 bottle	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE

05-02-00139	A) Pins	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	5000 Pack	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
	B) Clips					
	C) Clippers different types					
05-02-00140	Printing ink different colores	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	200 Kg	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00141	Computer papers different types	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	1500 Pack	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00142	Different cartridges and ribbins for computer printers	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	3000 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00143	Printing plet different sizes	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	300 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00144	Binding materia different sizes	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	6000 M <sup>2</sup>	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00145	Glue for binding	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	100 Kg	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE

05-02-00146	Ink for photo copy machines	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	500 pack	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00147	Rechargeable hand light	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	150 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00148	Chemicals for typing Developers	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	100 Kg	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
	B) Correction		100 Kg			
	C) Replex		100 Kg			
05-02-00149	Paper shredder	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	70 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00150	Electrical cleaning machine	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	70 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00151	Stand-by emergency lamp + Batteries	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	200 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00152	Colore sperator with accessories	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE

05-02-00153	Film processor with accessories	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00154	Software for coloure sperator	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	4	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00155	Card printer with spare parts and accessories	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	3	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00156	Digital camera (Computer connectable)	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	4	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00157	Computer system with accessories	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	3	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00158	Printing scanner	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	3	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00159	Computer laser printer	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	8 Pcs	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE

05-02-00160	Resiograph printer with accessories and ink, films, rolls	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00161	Plet developer machine 50X70 cm	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00162	Map printer machine (roll type 90 cm)	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00163	U.V. dryer for packing (50X70cm)	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00164	Golden foiling machine with accessories and powder	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	2	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00165	Photo copying machines with accessories and spare parts	To be used in printing Agricultural Bulletins, Magazines, Pamphlets for research and extension	100	For Ministry of Agriculture and state board of extension printing activities	All year around	AS SOON AS POSSIBLE
05-02-00166	Vaccum cleaner		70 Nos			