

# Invitation to Bid

**Subject: Model Plant Farms**

**Reference Number: PR-IRQ-2025-021**

The Tearfund logo consists of the word "Tearfund" in white, sans-serif font, centered within a solid blue rectangular background.

Tearfund is an international relief and development agency working globally to end poverty and injustice, and to restore dignity and hope in some of the world's poorest communities.

**Tearfund is seeking a supplier to establish crucial demo plots in Basra for the project Strengthening Climate Resilience in Selected Climate-Security Hotspots in Southern Iraq in Basra from July 2025**

## **Terms of Reference (ToR)**

### **1. Background**

Iraq faces extreme vulnerability to climate change, with Southern Iraq, particularly Basra, identified as a critical climate-security hotspot. The region experiences severe environmental degradation marked by drought, decreasing rainfall, rising temperatures, and expanding desertification. Water scarcity is a significant and ongoing challenge, exacerbated by reduced flows in the Tigris and Euphrates rivers, saltwater intrusion into freshwater sources, and inefficient irrigation, severely impacting the agricultural sector which accounts for a substantial portion of the nation's water consumption. These environmental pressures threaten livelihoods, particularly agricultural communities, leading to crop failures, livestock losses, and displacement, which in turn strains public services and can intensify conflicts over dwindling resources.

In response to these critical challenges, Tearfund is implementing initiatives aimed at strengthening climate resilience in Southern Iraq. This project encompasses two vital demo plot initiatives: firstly, the establishment of a new Model Plant Farm at the College of Agriculture, University of Basrah, which will serve as an integrated model for modern, sustainable, and diverse agriculture, providing educational and training services to farmers and professionals. The College will contribute the land, electricity, water source, and labor for this new project. Secondly, the rehabilitation and technical enhancement of an existing Guiding Farm in Al-Sharsh will address specific technical needs such as water system maintenance, drip irrigation installation, solar power integration, and greenhouse cooling systems. Both demo plots are crucial for demonstrating innovative, climate-adaptive agricultural techniques, enhancing food security, and promoting sustainability and self-reliance within the local agricultural communities.

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### **2. Objective**

The overarching objective of this project is to bolster climate resilience and advance sustainable agricultural practices throughout Southern Iraq, specifically within the Basra Governorate, through two distinct but complementary initiatives. Firstly, the project aims to establish a new, comprehensive, and integrated Model Plant Farm at the College of Agriculture, University of Basrah, which will serve as a vital hub for providing practical education, scientific guidance, and hands-on training to local farmers, agricultural engineers, and community members on modern, diverse, and sustainable cultivation techniques, including hydroponics and organic farming, while demonstrating efficient resource use like solar energy and water-saving irrigation. Concurrently, the project seeks to rehabilitate and technically enhance the existing Guiding Farm in Al-Sharsh by upgrading its infrastructure, including water systems, installing efficient drip irrigation, integrating solar power, and improving greenhouse functionality with cooling systems, thereby optimizing conditions for crop production and enhancing the farm's operational capacity and training facilities. Both demo plots are designed to function as critical demonstration sites, disseminating practical knowledge and innovative techniques to build agricultural resilience against the impacts of climate change and improve economic opportunities and food security within the local farming communities.

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**Tearfund**

## 3. Scope of Work

The scope of work for this project encompasses all necessary activities for the establishment of a new Model Plant Farm at the College of Agriculture, University of Basrah, and the comprehensive rehabilitation and technical upgrade of the existing Guiding Farm in Al-Sharsh. The selected supplier will be responsible for the full execution of the activities outlined below, ensuring adherence to the project's objectives and specifications.

### I. Model Plant Farm at the College of Agriculture, University of Basrah (New Establishment)

The supplier will be responsible for the complete establishment of a model plant farm on an area of 1-1.5 dunams (approximately 1000-1500 square meters). This includes, but is not limited to, the following activities:

- **Land Preparation:**
  - Cleaning the land, removing weeds and any previous plant debris.
  - Plowing the soil using a moldboard plow.
  - Leveling the soil using a leveling machine.
  - Smoothing the soil with disc harrows.
  - Adding organic fertilizers (cow manure) and mixing them with the soil using disc harrows.
  - Planning and dividing the soil using a disc or plate planter.
- **Infrastructure Establishment:**
  - **Windbreaks:** Planting windbreak trees around the four sides of the farm using salt-tolerant, high-density trees, and installing a drip irrigation system for them, specifically 600 shrubs.
  - **Greenhouses:**
    - Supply and installation of one traditional plastic greenhouses (measuring *50m \* 9 m*) (*one is 1950m*, the other is 50m) complete with green shading nets, plastic nylon, drip irrigation systems, and 5-ton water tanks.
    - Supply and installation of one integrated cooled agricultural house (refrigerated agricultural house with coolers and exhaust fans) (measuring *50m \* 9 m*) including a green shading net, plastic nylon, drip irrigation system, and a 5-ton water tank.
  - **Water Management System:**
    - Preparation and construction of one concrete irrigation water collection tank, with one already existing on site. One new concrete basin for irrigation water storage (4m\*4m\*1m, 16 cubic meters capacity) needs to be built.
    - Supply and installation of One electric submersible water pump (2 HP power) that operates on solar energy, along with all accessories.
    - Supply and installation of an integrated solar energy system to power the submersible pumps and all accessories.
    - Supply and installation of an integrated drip irrigation system for an area of 1 dunam (2500 square meters)
  - **Hydroponics System:** Supply and installation of a hydroponic cultivation system (4\*10m) with all its requirements and dedicated irrigation system.
  - **Perennial Trees:** Provision and planting of 80 date palms and 40 fruit trees.
  - **Seeds and Fertilizers:** Provision of various plant seeds (10 kg of 10 types), organic fertilizers (animal waste), and chemical fertilizers.
  - **Site Management Facilities:** Provision of a caravan for farm administration.

# Invitation to Bid

**Subject: Model Plant Farms**

**Reference Number: PR-IRQ-2025-021**

**Tearfund**

## II. Guiding Farm in Al-Sharsh (Rehabilitation)

The supplier will be responsible for the rehabilitation and technical enhancement of the existing guiding farm in Al-Sharsh. This includes, but is not limited to, the following activities:

- **Farm Infrastructure Rehabilitation:**
  - Rehabilitation and maintenance of the existing water system.
  - Installation and equipping of a drip irrigation system.
  - Installation of a solar module system.
  - Provision of a 10,000-liter water tank or two 5,000-liter water tanks.
  - Rehabilitation of the greenhouse and addition of a cooling system.
  - Equipping an external fence with an area of 700 meters.
  - Provision of a green lid (50\*6 Korean type) for packaging the greenhouse.
  - Provision of a water pump with 2 HP power.
- **Farm Operations Equipment:**
  - Provision of 4 portable backpack spray holders for pesticide spraying.
  - Provision of pesticides to combat thin and wide bushes.
- **Training Hall Rehabilitation:**
  - Provision of two Datashow devices.
  - Provision of two laptops.
  - Provision of two vertical type refrigeration devices (2 tons each).
  - Provision of one 65 Pcs Screen.
  - Maintenance of the hall roof (addressing damaged sections).
  - Provision of 5 window covers.
  - Installation of electric lighting for the hall.
  - Provision of four outdoor lighting projectors for the extension farm.

The supplier will be responsible for the procurement, delivery, installation, and commissioning of all specified items and systems, ensuring their full functionality and quality. The College of Agriculture, University of Basrah, will provide the dedicated land, national electricity, water for irrigation, and agricultural service workers and guards for the new Model Plant Farm after its execution.

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## 4. Deliverables

The selected supplier shall provide the following deliverables, ensuring all items are procured, delivered, installed, and fully functional according to the specifications outlined in the Scope of Work:

### I. For the Model Plant Farm at the College of Agriculture, University of Basrah:

- **Prepared and Segmented Land:** Fully cleaned, plowed, leveled, smoothed, organically fertilized, and segmented land ready for cultivation.
- **Established Windbreak System:** 600 established windbreak shrubs with an operational drip irrigation system.

# Invitation to Bid

Subject: Model Plant Farms

Reference Number: PR-IRQ-2025-021

**Tearfund**

- **One Fully Functional Plastic Greenhouses:** One traditional plastic greenhouse (50\*9m) with green shading net, plastic nylon, drip irrigation system, and a 5-ton water tank, fully installed and operational.
- **One Fully Functional Cooled Agricultural House:** An integrated cooled agricultural house with green shading net, plastic nylon, drip irrigation system, and a 5-ton water tank, fully installed and operational.
- **Complete Water Management System:**
  - One newly constructed concrete irrigation water collection basin (4m\*4m\*1m capacity), in addition to the existing one.
  - One solar-powered electric submersible water pump (2 HP) with all accessories, fully installed and operational.
  - One integrated solar energy system for powering the submersible pumps with all accessories, fully installed and operational.
  - One integrated drip irrigation system for 1 dunam (2500 sq m), fully installed and operational.
- **Functional Hydroponics System:** One hydroponic cultivation system (4\*10m) with all accessories and its dedicated irrigation system, fully installed and operational.
- **Planted Perennial Trees:** 80 date palms and 40 fruit trees planted.
- **Provision of Seeds and Fertilizers:** Various plant seeds (10 kg of 10 types), organic fertilizers, and chemical fertilizers provided.
- **Farm Administration Caravan:** One caravan for farm administration provided and positioned.

## II. For the Guiding Farm in Al-Sharsh:

- **Rehabilitated Water System:** The existing water system fully rehabilitated and maintained.
- **Operational Drip Irrigation System:** A new drip irrigation system fully installed and equipped.
- **Functional Solar Module System:** A solar module system fully installed and operational.
- **Water Storage Tanks:** One 10,000-liter water tank or two 5,000-liter water tanks provided and installed.
- **Rehabilitated and Cooled Greenhouse:** The greenhouse rehabilitated with a functional cooling system added.
- **Secured External Fence:** A 700-meter external fence equipped and secured.
- **Greenhouse Covering:** Green lid (50\*6 Korean types) provided for greenhouse packaging.
- **Water Pump:** One water pump with 2 HP power provided.
- **Pesticide Application Tools:** Four portable backpack spray holders for pesticide spraying provided.
- **Pesticides:** Pesticides to combat thin and wide bushes provided.
- **Upgraded Training Hall:**
  - Two Datashow devices provided.
  - Two laptops provided.
  - Two vertical type refrigeration devices (2 tons each) provided.
  - One 65 Pcs Screen provided.
  - Hall roof fully maintained and repaired.
  - Five window covers provided.
  - Electric lighting for the hall is fully installed and functional.
  - Four outdoor lighting projectors for the extension farm were provided and installed.

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## 5. Qualifications

# Invitation to Bid

**Subject: Model Plant Farms**

**Reference Number: PR-IRQ-2025-021**

**Tearfund**

The successful supplier for this project must demonstrate robust capabilities and extensive experience in agricultural development, infrastructure, and training, particularly within challenging environmental contexts. Applicants should meet the following minimum qualifications:

## **I. General Company/Organizational Qualifications:**

- **Legal Registration and Compliance:** The applicant must be a legally registered entity with all necessary permits and licenses to operate in Iraq and specifically in Basra Governorate.
- **Financial Stability:** Demonstrated financial capacity to undertake and complete projects of this scale, evidenced by recent audited financial statements.
- **Reputation and Integrity:** A strong track record of ethical conduct and successful project delivery, with no history of significant contractual disputes or performance failures.

## **I. Technical and Experiential Qualifications:**

- **Extensive Experience in Agricultural Projects:** A minimum of 5 years of proven experience in implementing agricultural development, farm establishment, and/or agricultural rehabilitation projects. Specific experience in climate-resilient agriculture, water-saving technologies (e.g., drip irrigation, hydroponics), and organic farming is highly desirable.
- **Infrastructure Development Expertise:** Demonstrated capability in constructing and rehabilitating agricultural infrastructure, including but not limited to:
  - Greenhouse construction and climate control systems (cooling/shading).
  - Design and installation of modern irrigation systems, particularly drip irrigation.
  - Water collection and storage solutions (concrete basins, tanks).
  - Integration of renewable energy solutions, especially solar power for agricultural applications.
- **Horticultural and Agronomic Knowledge:** Demonstrated expertise in plant cultivation, crop management, and soil preparation techniques suitable for the local climate and soil conditions, including knowledge of salt-tolerant crops, diverse tree species, and specialized crops (medicinal, aromatic).
- **Hydroponics Experience:** Proven experience in designing and implementing hydroponic systems for various plant types.
- **Training and Capacity Building Experience:** Experience in delivering practical training and guidance to diverse groups, including farmers and agricultural professionals.
- **Project Management Capabilities:** Strong project management methodology and a qualified project team capable of overseeing multiple activity streams, managing budgets effectively, and adhering to strict timelines.

## **III. Other Considerations:**

- **Quality Assurance:** Demonstrated commitment to quality control and adherence to relevant agricultural and environmental standards.
- **Health and Safety:** A clear policy and demonstrated capacity for ensuring the health and safety of all personnel involved in the project.
- **Environmental Sensitivity:** Approaches that demonstrate an understanding of and commitment to minimizing environmental impact and promoting ecological sustainability.

# Invitation to Bid

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Tearfund

## 6. Duration

- The assignment will take place for at least one month July 2025. .

## 7. Location

- For the new Model Plant Farm:** College of Agriculture, University of Basrah, Karma Ali site, Basrah, Iraq.
- For the rehabilitation of the existing farm:** Al-Qurna - Al-Sharsh (The guiding farm in Al-Sharsh).

## 8. Coordination

The supplier is expected to maintain robust coordination with Tearfund, the College of Agriculture at the University of Basrah, local authorities, and other relevant stakeholders to ensure smooth implementation and avoid duplication of efforts.

- Regular Meetings:**
  - Weekly Technical Meetings:** With Tearfund's designated project coordinator and stakeholders to review progress, discuss challenges, and plan upcoming activities for both farms.

## 9. Pricing

Item No.	Item Description	Unit	Qty	Unit Price IQD	Total Amount IQD
1	Create belt lines (windbreaks) Keno Carbs	Tree	600		
2	Supply and installation of one traditional plastic greenhouses (measuring 50m * 9 m) complete with green shading nets, plastic nylon, drip irrigation systems, and 5-ton water tanks.	Ea	1		
3	Supply and installation of one integrated cooled agricultural house (refrigerated agricultural house with coolers and exhaust fans) (measuring 50m * 9 m) including a green shading net, plastic nylon, drip irrigation system, and a 5-ton water tank.	Ea	1		
4	Preparation and construction of one concrete irrigation water collection tank, with one already existing on site. One new concrete basin for irrigation water storage (4m*4m*1m, 16 cubic meters capacity) needs to be built.	Ea	1		
5	Supply and installation of One electric submersible water pump (2 HP power) that operates on solar energy, along with all accessories.	Ea	2		
6	Supply and installation of an integrated solar energy system to power the submersible pumps and all accessories.	Ea	1		
7	Supply and installation of an integrated drip irrigation system for an area of 1 dunam (2500 square meters	Ea	1		

# Invitation to Bid

Subject: Model Plant Farms

Reference Number: PR-IRQ-2025-021

Tearfund

8	Provision and planting of 80 date palms and 40 fruit trees	Ea	1		
9	Supply and installation of a hydroponic cultivation system (4*10m) with all its requirements and dedicated irrigation system.	Ea	1		
10	Provision of various plant seeds (10 kg of 10 types), organic fertilizers (animal waste), and chemical fertilizers.	KG	10		
11	Rehabilitation and maintenance of the existing water system. Deficiencies in connection and cleaning the system	1	1		
12	Installation and equipping of a drip irrigation system. 2500 M	Ea	1		
13	Supply and Installation of a solar module system	Ea	1		
14	Provision of a 10,000-liter water tank or two 5,000-liter water tanks.	Ea	1		
15	Rehabilitation of the greenhouse and addition of a cooling system.	Ea	1		
16	Equipping an external fence with an area of 700 meters.	Ea	700		
17	Provision of a green lid (50*6 Korean type) for packaging the greenhouse	Ea	1		
18	Provision of a water solar pump with 2 HP power.	Ea	1		
19	Provision of 4 portable backpack spray holders for pesticide spraying.	Ea	4		
20	Provision of pesticides to combat thin and wide bushes.	Ea	1		
21	Provision of two Datashow devices.	Ea	2		
22	Provision of two laptops.	Ea	2		
23	Provision of two vertical type refrigeration devices (2 tons each).	Ea	2		
24	Provision of one 65 Pcs Screen.	Ea	1		
25	Maintenance of the hall roof (addressing damaged sections).	Ea	1		
26	Provision of 5 window covers.	Ea	5		
27	Installation of electric lighting for the hall.	Ea	1		
28	Provision of four outdoor lighting projectors for the extension farm.	Ea	4		
Total Cost ( IQD )					

## Documents required for application:

1. A cover letter detailing relevant experience
2. The CV for the supplier/Company and any associates.
3. A technical proposal with a detailed approach.
4. A financial proposal, in **Iraqi Dinars** factoring in associated costs
5. Company registration certificate.
6. Payments shall be made for completed activities **within 30** days after Tearfund receives an invoice and act of acceptance from the stakeholders and letter of completing the work from the supplier/Company. Payment will be made in Iraqi Dinars via bank cheque or bank transfer.
7. Your whole bid must be completed in the English language. and submitted via email to Operations Officer at [arblina.seudin@tearfund.org](mailto:arblina.seudin@tearfund.org), no later than **(23th July 2025)**