

QUANTITIES, DESCRIPTIONS AND SPECIFICATIONS OF REQUIRED EQUIPMENT, MATERIALS, AND SERVICES UNDER PSAC Project

Bidders are expected to examine carefully and comply with all instructions and specifications

#	Item	Specifications
1.	<p>Number of greenhouses and their size in meters (M):</p> <p>1.1: (8Mx24M) 1.2: (8Mx30M) X8 1.3: (9Mx30M) X5 1.4: (9.6Mx28M) 1.5: (8Mx15M) 1.6: (8Mx40M) 1.7: (8Mx25M)</p>	<ul style="list-style-type: none"> • Galvanized Circular hollow posts of 50 mm diameter with 1.5-2.0mm of thickness • Galvanized Circular hollow arches of 40 mm diameter with 1.5-2.0mm thickness with all accessories: Crosses, Clamps, Profile, • Plastic cover of 200 microns thickness for roof (m²) • Insect net of 50 mesh for sides and top ventilation • PVC gutters for rainwater harvesting with accessories • Steel posts of 50mm X 1.5-2.0mm for Crop support and one roll galvanized wire for trellising and crops holder • Manual side roll up system for both sides • Entry porch with 2 Doors • External protection support cables of 3mm-5mm (m) • Drip irrigation Complete Kit of 8 mil (or above) Drip Tape Irrigation Kits to cover 192 m2 inside the greenhouse and accessories. • Elevated water storage system that supplies the greenhouse by gravity with plastic water tank capacity of 2000L placed on a metal tower of 2 meters above ground made of rectangular steel tubes of different sizes: 60mm x 40mm for main load-bearing legs (the strongest parts), 40mmx40mm for Cross-bracing frame to stabilize the stand, and 30mmx30mm secondary supports and platform framing.
2.	<p>Construction of shade net facilities with the following size in meters (M):</p> <p>2.1: (6Mx8M) 2.2: (15Mx40M) 2.3: (20MX50M) 2.4: (17MX10M)</p>	<ul style="list-style-type: none"> • Material: 100% Virgin HDPE (High-Density Polyethylene) for strength and UV resistance. • Shade Rate: Varies by stage: Seedlings (Nursery): 75-8 Hardening (Pre-transplant): 40-50%. • Young Plants: Can range from 30-90%, often used with shade trees. • Construction: Knitted (warp-knitted) offers good breathability and strength, while flat woven is tighter. • Density/Weight: Look for ≥60gsm (grams per square meter) for stability or check specs for tensile strength. • UV Protection: Essential for longevity; look for 5–8-year outdoor warranties or explicit UV stabilizer content. • Color: Green or Black are common choices. Dimensions: Available in various widths (1-10m) and lengths (50m, 100m rolls).
3.	<p>Walk in tunnels (Size in meters):</p> <p>3.1: (14Mx36M) X12 3.2: (14Mx42M) 3.3: (30Mx20M) 3.4: (20Mx50M) 3.5: (16Mx30M) 3.6: (15Mx40M)</p>	<p>Metal frame greenhouse covered with UV-treated polyethylene film, designed to allow a person to walk inside comfortably.</p> <ol style="list-style-type: none"> 1. Dimensions: Width: 6 m – 9 m, length: 20 m – 40 m, sidewall height: 1.8 m – 2.5 m, central (ridge) height: 3.0 m – 4.5 m. 2. Frame specifications: Frame material: Galvanized steel pipes, Pipe diameter & thickness: 32–50 mm outer diameter and 1.2–2.0 mm wall thickness, Arch/hoop spacing: 1.0 m – 2.0 m between hoops. 3. Covering material: Greenhouse plastic: 150–200-micron UV-treated polyethylene film

		<p>4. Side ventilation:</p> <ul style="list-style-type: none">a. Roll-up sides: Height: 1.2 – 2.0 m, Length: entire length of the tunnel.b. Covered with: Insect net (40–60 mesh)c. End wall vents: Doors: 1 m – 1.2 m wide, 2 m high
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