

TERMS OF REFERENCE (ToR)

**For ICLEI – Local Governments for Sustainability
Climate Resilience for Communities Project in Izmir, Türkiye**

Contractor to construct a greenhouse in Kadifekale Community Gardens - Greenhouse Contractor

About ICLEI

ICLEI - Local Governments for Sustainability (ICLEI) is a global network working with more than 2,500 local and regional governments committed to sustainable urban development. Active in 125+ countries, ICLEI influences sustainability policy and drives local action for low-emission, nature-based, equitable, resilient, and circular development.

Purpose

ICLEI World Secretariat seeks to contract with a firm to support the construction of a community greenhouse in Kadifekale Community Gardens, Izmir, under the [Climate Resilience Measurement for Communities - CRMC Framework](#) and implement enhancement strategies against flooding and heat waves in Izmir, Türkiye, as part of the Climate Resilience for Communities Project (Toplumlar için İklim Dayanıklılığı Projesi). This greenhouse will enhance local food security, heat-resilient cultivation practices, and community ownership over climate adaptation initiatives. The contractor will:

- Construct the greenhouse according to pre-identified specifications (to be inserted by ICLEI/Izmir Metropolitan Municipality (IMM)).
- Collaborate with relevant departments of the IMM during implementation.
- Ensure quality construction, safety, and timely delivery.

The anticipated period of the contract is 2 months, within a timeframe starting ideally on 01 August 2025.

Project Background

The Climate Resilience for Communities Project (Toplumlar için İklim Dayanıklılığı Projesi) in Izmir, Türkiye was launched by Z Zurich in 2023 in collaboration between The Z Zurich Foundation, ICLEI Local Governments for Sustainability, Z Zurich Türkiye, and Izmir Metropolitan Municipality, as part of the [Urban Climate Resilience Program](#) (UCRP). The UCRP is an important step in building resilient

cities and ensuring that urban communities are better prepared to cope with the challenges of a changing climate and create a sustainable future for all.

The project aims at enhancing local community resilience of two communities where the Climate Resilience Measurement for Communities (CRMC) tool will be applied to identify resilience enhancement opportunities against flooding, heat waves and further community challenges. Three key stages encompass the project:

1. A first baseline study (T0 study) developed to identify resilience enhancement areas.
2. The first stage informed the subsequent stage of community resilience enhancement strategies design and implementation.
3. A second study (T1 study) will be developed to measure the impact of the strategies.

All phases are being developed in consultation with the city government and community members, and will be rolled out collaboratively and inclusively. To illustrate the above, Figure 1 gives an overview of the overall workflow and the planned activities of the Climate Resilience for Communities Project (Toplumlara için İklim Dayanıklılığı Projesi).

Figure 1. Project Work Plan

STAGE 1 (18 months)			STAGE 2 (11 months)		STAGE 3 (8 months)			
KICK OFF & T0 STUDY PREPARATION (11 months)	T0 STUDY (6 months)		CO-DESIGN (6 months)	CO-IMPLEMENTATION (5 months)	T1 STUDY (5 months)			OTHERS
	Data Collection (3 months)	Grading (3 months)			T1 study prep. (2 months)	Data Collection (2 months)	Grading (1 m.)	

Tasks, deliverables and time frames

The successful applicant will report to David Jacome-Polit, Head of the Resilient Development Team at ICLEI World Secretariat and Nida Bilgen, Junior Officer of Resilient Development, ICLEI World Secretariat.

Under the guidance of the Project Core Team, the contractor will be responsible for undertaking the tasks described below (See Annex 1 for details on greenhouse specifications) in order to meet the deliverables of this ToR:

- Reviewing and confirming the greenhouse specifications provided by ICLEI/IMM.
- Procuring materials and equipment required for the construction.
- Constructing the greenhouse on the identified site in Kadifekale Community Gardens.
- Ensuring site safety and environmental protection during construction.
- Testing the completed greenhouse structure for stability and safety.

- Collaborating and coordinating with relevant Izmir Metropolitan Municipality departments throughout construction.
- Handing over the completed greenhouse to the municipality/ICLEI within the agreed timeframe.

Timeline

The contractor is expected to:

- Mobilize immediately upon contract signing.
- Complete construction within **1 month** from the start date, barring unforeseen circumstances.

Deliverables

- Completed greenhouse constructed according to the given specifications (Annex 1).
- Handover report including:
 - Materials used and technical compliance documentation.
 - Construction photos.
 - Stability and safety test documentation.
- Final handover meeting with ICLEI and Izmir Metropolitan Municipality representatives.

Notes on working approach

- ICLEI, and project partners, where relevant, will provide content and additional relevant guidance for the tasks.
- ICLEI will request changes to the deliverables if they do not meet the expected standard.
- Regular meetings/calls to report on progress on specific tasks and deliverables will be required in Central European Time.

Terms and conditions

- All content, documents, reports, and other materials prepared as part of this assignment shall be the property of ICLEI and shall be handed over upon completion of the assignment. The provider shall not pass on to any third party any data, documents, reports, or other materials prepared or obtained during the assignment.
- The organisation should submit an invoice for payment at the end of each milestone. The payment will be made:
 - 50% upfront,
 - 50% upon final acceptance.
- The contractor is responsible for ensuring compliance with relevant laws related to taxation, labor, safety, and environmental protection (e.g. must have permission to work as a contractor in Türkiye).
- **The rate included in the job offer shall include all costs.** No additional costs will be provided by ICLEI or other partners. The contractor is responsible for coverage under Turkish social and health services.
- The contractor will provide their own equipment, labor, and materials.

- Subcontracting is allowed only with prior written approval from ICLEI.
- Payment will be made in Euros, inclusive of all taxes and fees, upon final acceptance.
- The contractor is free to engage in other work during the remainder of their time, as long as the activity does not bring ICLEI, its partners or the project into disrepute.
- In case of dispute, the law applicable will be German Law and the place of jurisdiction will be the District Court of Bonn.

Required skills, qualifications and expertise

1. Turkish native proficiency, and fluency in English.
2. Registered construction company in Türkiye with the legal right to operate.
3. Proven experience in constructing small-scale agricultural or similar structures.
4. Ability to coordinate effectively with municipal departments.
5. Demonstrated track record of completing construction projects on time and within budget.
6. Sufficient technical capacity, equipment, and skilled labor to complete the greenhouse within 1 month.

Application

The application should include the following documents:

1. Submit a Technical Offer, responding to the following:
 - 1.1. Work plan on the ToR activities will be implemented;
 - 1.2. Proof of similar past projects completed (photos, references).
 - 1.3. Company profile, including relevant registration documents and insurance certificates.
Documents longer than 5 pages will not be considered for evaluation.
2. Submit a Financial Offer (Please use template in Annex 2)
 - 2.1. Budget: to be provided in Annex 2.
The comprehensive budget should include all task related costs, such as staff cost, logistics, translation, publication costs. The total costs should be **max EUR 40,000** including local taxes. Financial Offers above this threshold will be disregarded and will not be evaluated.
3. Filled out administrative information sheet (Please use Template in Annex 3)
4. Signed disclaimer on exclusion criteria (Please use Template in Annex 4). Applicants will have to complete and sign Annex 4. Failure to meet those criteria will mean that the bid will be discarded and not be evaluated.

Evaluation

Assessment will take the form of functionality and thereafter price. Parties will be evaluated on the following criteria:

1. Technical Offer (70%)
 - 1.1. Work plan (40%)
 - 1.2. Past experience based on professional references (30%)
2. Financial Offer (30%)

Please submit all information via email **in English** with the subject “**Application: Izmir UCRP Greenhouse**” to: **resilient.cities@iclei.org**. Please use English for all communications. Applications that do not comply with the instructions described in this ToR will not be considered. Only successful candidate/s will be contacted.

Timeline for submission

Date of publication:

Wednesday 09 July 2025

Last day for submission:

Sunday 27 July 2025 (End of day, Izmir Time)

ANNEX 1 - GREENHOUSE SPECIFICATIONS

General Information

Project Title: Construction of Greenhouse at Kadifekale Community Gardens

Location: Kadifekale, Konak, Izmir

Purpose: To support local food security, climate resilience, and heat-resilient agricultural practices.

1. Greenhouse Type and Dimensions

Greenhouse Type: Professional Gothic-Roof Greenhouse

Total Greenhouse Area (m²): 144.00 m²

Number of Tunnels: 1 unit

Greenhouse Dimensions (width x length x height): 9.60 m x 15.00 m x 6.65 m

Gutter Height: 4.00 m

Clip Type: Roof – Segmented Profile / Side – Polycarbonate

Arch: 60.30 x 1.50 mm Galvanized Pipe

Bottom Chord: 34 x 1.50 mm Galvanized Pipe

Ridge: 35 x 45 Segmented Profile with Bearing

Top Purlin: 35 x 35 Segmented Profile with Bearing

Perimeter Profiles: 35 x 35 C Profile – For Polycarbonate (4 Rows – Including Skirt)

2. Columns and Anchors

Outer Columns: 80 x 80 x 2.00 mm (Box Profile) - spaced every 2.50 m

Middle Columns: 80 x 80 x 2.00 mm (Box Profile) - spaced every 5.00 m

Front Facade Columns: 80 x 80 x 2.00 mm (Box Profile) - spaced every 9.60 m

Middle Front Columns: 80 x 80 x 2.00 mm (Box Profile) - spaced every 3.20 m

Column Bracing: 34 mm Galvanized Pipe (spaced 40–45 m)

Anchors: 70 x 70 x 2.00 mm

3. Rain Gutters and Clips

Rain Gutters: Deep and ribbed structure with minimal shading, high galvanized coating, 7-fold design, 2.00 mm thickness, leak-proof due to overlapping structure.

Clips: Segmented profile with clip seats, rubber bands ensuring waterproofing between clip seat and gutter, special rubber washers for bolt holes during gutter-column installation.

4. Gothic Roof Elements/Trusses

Truss Spacing: 2.50 m

Bottom Chord Tension Pipe: 34 x 1.50 mm Pipe (Weld-Coated)

Truss (Arch) Pipe: 60.30 x 1.50 mm Pipe (Weld-Coated)

Internal Mesh Pipes: 27 x 1.50 mm Pipe (Weld-Coated)

Truss Bracing: 27 x 1.50 mm Galvanized Pipe

Truss Arrangement: One Main Truss / One Intermediate Truss alternately

Truss Locking: 27 x 1.50 mm Pipe, running tunnel-length, locking trusses together

Main Truss Mesh Pieces: 6 pieces

Intermediate Truss Mesh Pieces: 3 pieces

Additional second bottom chord pipe for boom: Placed every 5 m.

5. Ridge and Side Profiles

- **Load-bearing ridge profiles** should have multiple folds and suitable seats to facilitate the installation of insect nets.
- **Side profiles** should be C-shaped and compatible with double-segment clips for greenhouses with plastic sides.

6. Ventilation

Roof Ventilation: Double-sided roof ventilation

Side Ventilation: None

Vent Opening: 2.00 + 2.00 m double-sided (at least 40% ventilation)

Operation System: Rack and pinion / Gear motor

Shaft Pipe: 34 x 2.50 mm Pipe

Window Arm: 30 x 40 x 1.50 mm D Profile

Arm / Rack Interval: 2.50 m Arm / 2.50 m Rack

Profile Design: Semi-Oval

7. Wind Bracing and Column Bracing

- **Front Wind Bracing:** 60.00 x 1.50 mm Galvanized Pipe
- **4 horizontal wind braces and 2 truss stabilizing braces** should be used in each area to resist wind loads.
- Window braces should be placed at window tops to prevent inversion.
- Column bracing should be installed across tunnels and at the front, with a maximum spacing of 40–45 m along the greenhouse width.
- If additional reinforcement is required, additional bracing pipes and alternative solutions should be applied at the front and inside the greenhouse.

8. Fasteners/Clamps/Bolts and Nuts

- All related materials should be made of galvanized sheet metal with at least 2.00 mm thickness.
- Steel quality should be 8.8 grade.
- Nuts used should be fiber-lined or toothed flanged to prevent loosening under vibration or shaking, appropriate to the installation location.

9. Polyethylene Plastic Top Cover

- Thickness: 180 microns
- Single-layer use
- At least 36-month warranty
- Features: UV protected, anti-bacterial, antioxidant, thermal, light-diffusing, EVA additive, anti-fog/drip, anti-mist, dust-resistant, chemical-resistant, clear IR, cooling effect, and anti-virus.

10. Insect Net and Accessories

- 40 mesh pore size
- UV additive, clear crystal color

11. Polycarbonate and Connection Profiles

- Thickness: 8.00 mm
- Structure: Twin-wall, single chamber
- Thermal insulation: 1.8 W/m²K
- Sound insulation: 16 dB
- Linear thermal expansion: 0.065 mm/m°C
- Temperature range: -40°C to +120°C
- UV protection: Coextrusion
- Fire reaction EN 13501-1: EuroClass B-s1,d0
- Polycarbonate joining parts (H profile) should be made of galvanized profile material.

12. Thermal and Shading Curtain System and Mechanism

Mechanism:

- Operating System: Pull wire system
- Operating Range: 5.00 m
- Front Support Profile: 50 x 50 x 2.50 mm Box Profile
- Drive Pipe: 60 x 3.00 mm Galvanized Pipe

- Curtain Pipe: 19 x 1.20 mm Galvanized Pipe
- Steel Cable: 3 mm Galvanized Steel Cable – Plastic coated on edges
- Fishing Line: 2.20 mm UV additive
- Reducer: 0.75 kW – 600 Nmm – 3 rpm (1 motor for 4 tunnels)

Curtain Fabric:

- Type: Phormium PH 55 (Belgium origin) woven fabric
- Color: Aluminum/diffused, reinforced strips every 20 cm
- Material: Alu/HDPE/Acrylic
- Weight: 90 g/m²
- Energy Saving: 58%
- Direct Light Transmission: 45%
- Shading: 55%

13. Seedling Bench System

- **Bench Height:** 80 cm
- **Tray Width:** 67 cm
- Special profiled benches with interlocking teeth, supported by 40 x 60 C profile legs.
- Leave 1 m space between benches for pathways.

14. BOOM Irrigation System

- Each tunnel will have 1 frequency-controlled unit, equipped with spraying and irrigation nozzles, an electrical control panel, and all necessary accessories fully installed and operational.

15. Internal Greenhouse Heating System

- The system will include a boiler, heaters, in-ground pipes inside the greenhouse, perimeter wall pipes, necessary connections, fittings, pumps, and motors.

16. Internal Irrigation, Fertigation, Climate Control, and Other Equipment

Item Description	Quantity	Unit
CLIMATE CONTROL DEVICE (DIRMAN)	1	unit
1/2" LEVEL FLOAT VALVE	1	unit
1/2" BALL VALVE	1	unit

5-TON RAW WATER TANK (BLUE)	1	unit
2" TANK FITTING	1	unit
63X2" PVC FEMALE ADAPTER	1	unit
2"X2" PVC BALL VALVE	1	unit
63 MM PVC PIPE CLAMP	10	units
63X63 PVC CHECK VALVE	1	unit
63X63/90 PVC ELBOW	12	units
63X63/45 PVC ELBOW	6	units
63X63 PVC COUPLING	2	units
63X1" P. COLLAR	1	unit
1" NIPPLE VALVE FITTING	1	unit
63X10 PVC PIPE	12	meters
63X50 PVC REDUCER	1	unit
50X1.5" PVC PUMP FITTING	1	unit
KDOD 8-4T 3 HP 1.5"X1.5" STAINLESS STEEL PUMP	1	unit
3.7 KW FREQUENCY CONTROL PANEL	1	unit
50X1.5" PVC PUMP FITTING	1	unit
50X50/90 PVC ELBOW	12	units
50X50/45 PVC ELBOW	12	units
50X50 PVC TEE	4	units
50X40X1" PVC REDUCER	1	unit
24 LT EXPANSION TANK	1	unit
50X1.5" PVC PUMP FITTING	2	units
1.5" PLS FILTER	1	unit

50X1.5" PVC FEMALE ADAPTER	2	units
1.5" SOLENOID VALVE	2	units
50X1.5" PVC MALE ADAPTER	2	units
50X50 PVC COUPLING	4	units
50X1.1/4" PVC REDUCER	2	units
SUPERDOS 45	1	unit
50X50 PVC CHECK VALVE	3	units
500 LT PLS FERTILIZER TANK	1	unit
50X10 PVC PIPE	18	meters
50 MM PVC PIPE CLAMP	20	units
50X1" TANK FILL FITTING AND VALVE	1	unit
SYSTEM FRAME	1	unit
50X40X1" PVC REDUCER	1	unit
24 VOLT AC SOLENOID CONTROL PANEL	1	unit
SYSTEM CABLING	1	unit

17. Installation and Transportation

- The transportation and installation cost of all works included in the offer will be stated separately.

ANNEX 2 - FINANCIAL OFFER

Name of the company	
----------------------------	--

Budget breakdown

Important Note:

The following factors need to be reflected in the contractor's offer:

- The proposed rate is an all-inclusive amount which will be paid by ICLEI to the contractor. ICLEI will also not reimburse the contractor for any other expenses. The contractor shall receive a payment in Euros, all taxes such as VAT included, for covering human resources inputs (staff time). But the contractor will be responsible for compliance with local taxation rules and for the payment of any tax liabilities. ICLEI will not make any deductions or withhold any amounts in relation to the contractor's tax liabilities.

ANNEX 3 - ADMINISTRATIVE INFORMATION SHEET

Name of contractor	
Relevant registration numbers & Country	
VAT ID (if applicable)	
Contact information Address E-mail Phone number	

ANNEX 4 - DISCLAIMER ON EXCLUSION CRITERIA

Terms of Reference:

Greenhouse contractor to construct a climate-resilient greenhouse in Kadifekale Community Gardens

I hereby declare that I am not triggering any of the following exclusion criteria:

- Not based in Izmir, or not able to demonstrate the ability to fulfill the required tasks;
- Unable to travel to attend the events described in the Deliverables and time frame section;
- Have a criminal record or ongoing criminal investigation/case;
- Being bankrupt or is involved in an insolvency process;
- Not fluent in Turkish and English.

Place, date

Signature