



Anniversary

## FAO's Integrated Approaches, Field Practices and Project Experiences

27th Meeting of the COMCEC Agriculture Working Group

21–22 September 2026 | Ankara, Türkiye

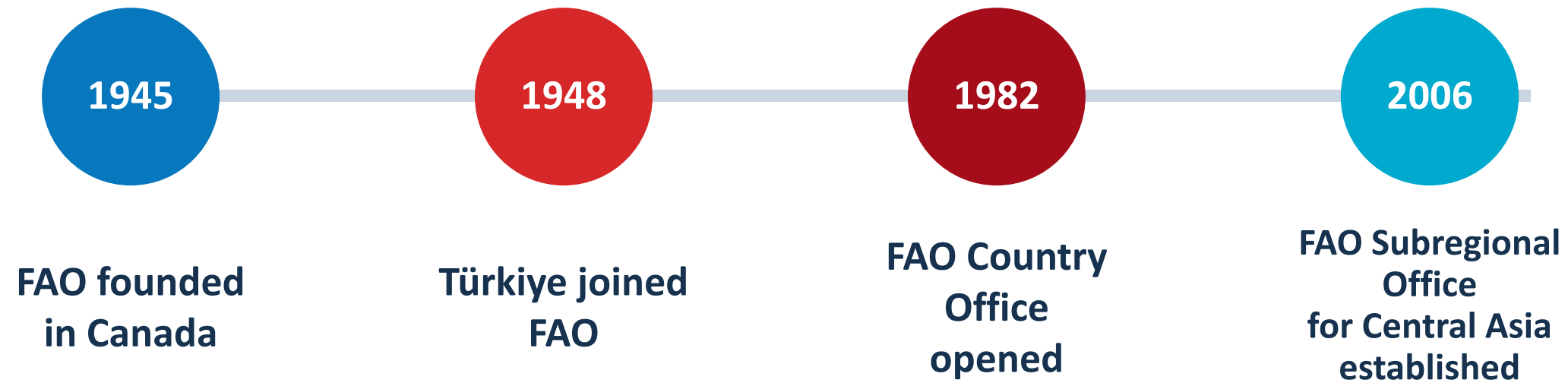
**Dr. Abdüssamet AYDIN**  
**FAO Türkiye**

# Content of the Presentation

- **FAO Türkiye at a Glance**  
A brief overview of FAO Türkiye, its mandate and priority areas of work.
- **Water Management in Practice: The Gediz River Basin Project**  
Key activities, results and lessons from an integrated water and natural resources management project.
- **A New Climate-Resilient Agriculture project: The Nature-based Solutions Project**  
The project's objectives, selected implementation areas, planned interventions and expected results.



# FAO in Türkiye: Key Milestones



## Countries served by the Subregional Office

Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Türkiye, Turkmenistan and Uzbekistan



# Geographical Coverage of FAO–GEF Projects in Türkiye



Map: Distribution of GEF projects by provinces

PROJECT OVERVIEW

Sustainable and Integrated Water Resource Management in Gediz River Basin in Türkiye

PROJECT OBJECTIVE

To promote Integrated Natural Resources Management (INRM) in the Gediz River Basin by supporting the sustainable management of land and water resources and mainstreaming biodiversity conservation.

2022–2026

22 November 2022 –  
30 June 2026

İzmir + Manisa

Gediz River Basin  
implementation area

USD 8,015,639

Total project budget

Implementing Agency

Food and Agriculture Organization of the United Nations (FAO)

Main Beneficiary

Ministry of Agriculture and Forestry – General Directorate of Water Management

Key Stakeholders

DSİ • OGM • DKMP • TRGM • BÜGEM • TAGEM • Manisa and İzmir Provincial Directorates of Agriculture and Forestry • General Directorate of EU and Foreign Relations • Universities • NGOs • Producer organizations • Cooperatives • Farmers



BUDGET STRUCTURE

|                       |               |
|-----------------------|---------------|
| GEF contribution      | USD 1,143,139 |
| Ministry co-financing | USD 6,872,500 |

# Gediz River Basin: Context and Key Barriers

## WHY THE BASIN MATTERS

Türkiye manages water resources on a river basin basis in line with the EU Water Framework Directive. This approach connects water, land and biodiversity management within a shared hydrological system.

The Gediz River Basin illustrates the combined pressures affecting many basins in Türkiye. Sustainable management requires coordinated action across institutions, sectors and local stakeholders.



Location of the Gediz River Basin in Türkiye

## FOUR MAIN PRESSURES

- 1 Climate change
- 2 Water scarcity
- 3 Land degradation
- 4 Pollution

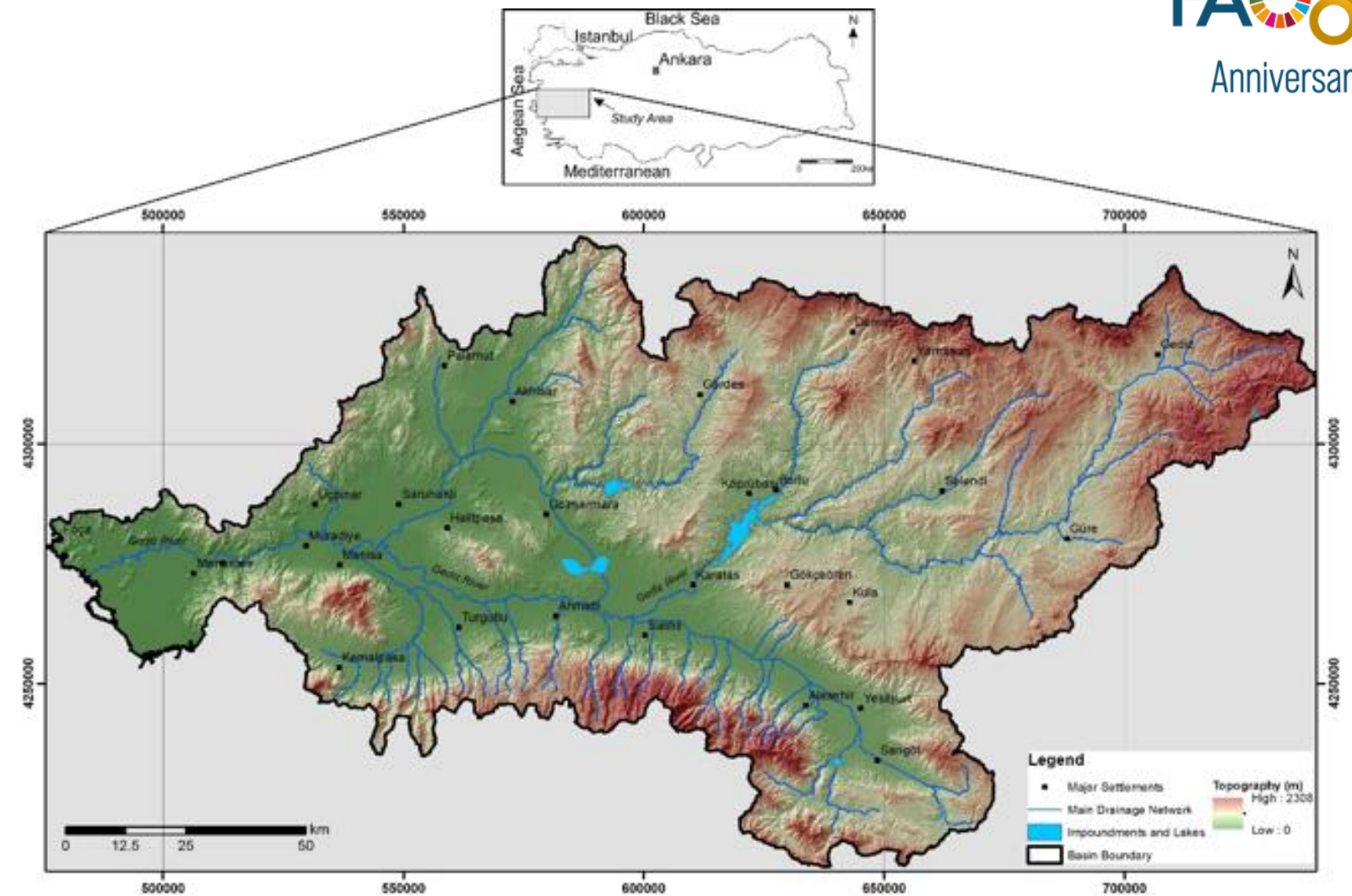
## KEY BARRIERS

- Fragmented water governance and coordination
- Weak balance between conservation and resource use
- Limited knowledge of innovative water management tools
- Insufficient basin-level water quality monitoring
- Limited analytical capacity for evidence-based decisions

# Gediz River Basin Project Targets

## Institutional and Ecosystem Targets

- 1 One roadmap for community-based participation
- 2 Improved management of 14,900 ha in the Gediz Delta Ramsar Site
- 3 Flamingo Species Management Action Plan
- 4 Natural capital assessment for the Gediz River Basin
- 5 One forest management plan incorporating hydrological functions
- 6 Training for 50 ministry staff and 200 local stakeholders



## 413 ha of Sustainable Land Management Practices

- Groundwater recharge planning
- Forest terracing and afforestation
- Rangeland rehabilitation
- Promotion of conservation agriculture
- Agricultural terracing
- Promotion of scheduled irrigation systems
- Restoration of the Gediz Delta Ramsar Site

# Policy and Governance Outputs

The project created practical analysis and long-term plans that institutions can use after project closure.



Gediz River Basin Stakeholder Analysis, Training/Capacity Needs Assessment and Community Based-Governance Recommendations Report  
September 2025

## Stakeholder Analysis

Community-Based Governance

- Assessed training and capacity needs
- Developed community-based governance recommendations
- Clarified stakeholder roles and needs



## National Flamingo Species Action Plan

2026–2035

The plan sets out a national approach to flamingo conservation and management.

It provides a long-term framework for coordinated species protection.

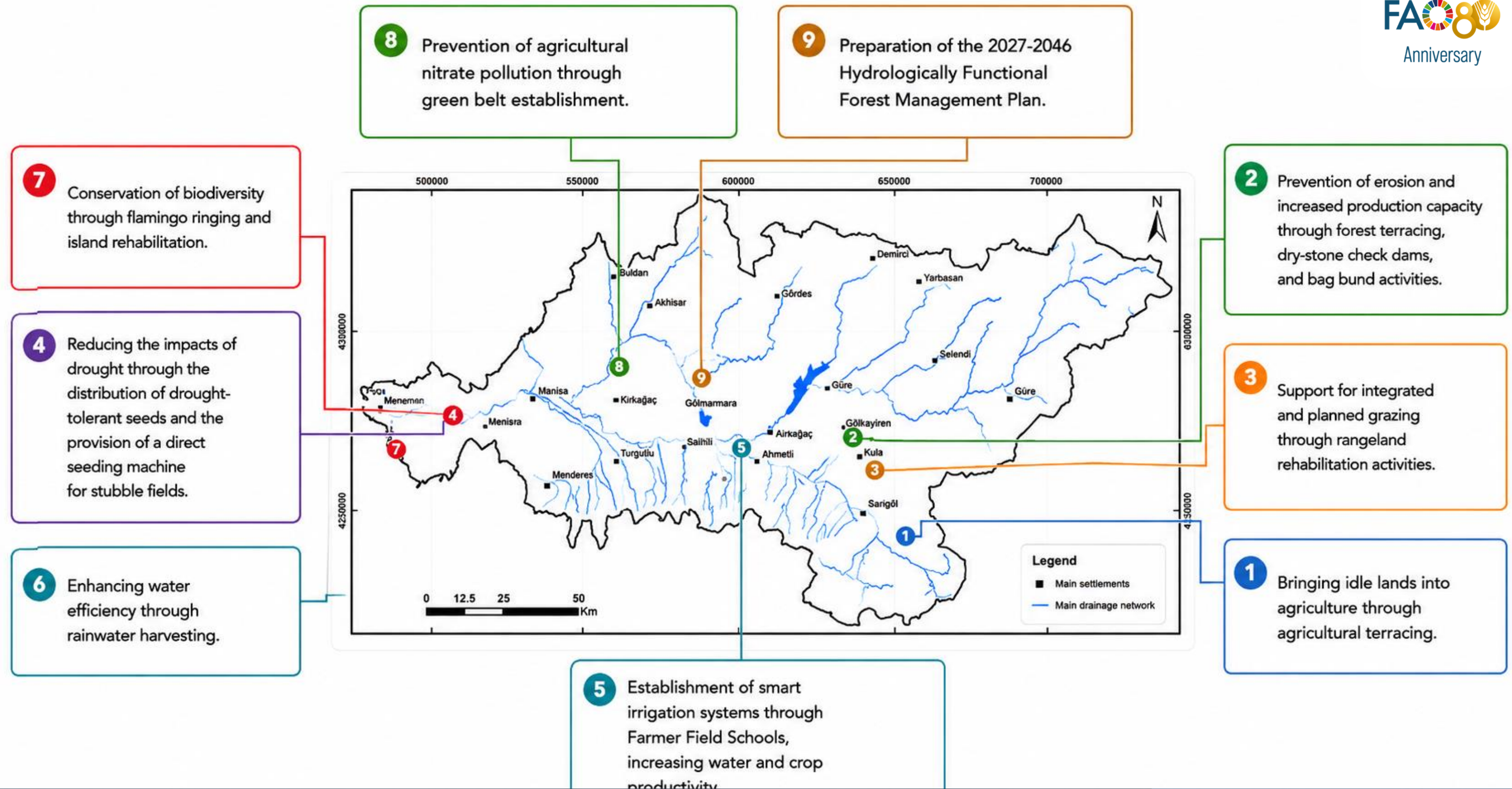


## Hydrological-Function Forest Management Plan

2027–2046

- Strengthens forest–water planning at basin level
- Supports water production and ecosystem services
- Integrates project results into institutional planning

# Promoting Sustainable Land Management (SLM) Practices



# Terracing Practices in the Gediz River Basin

Two field applications reduced erosion risks and brought degraded sloping land into productive use.



## Forest Terracing

125.4 ha

Kula-Güvercinlik Village

Forest terracing, dry-stone check dams and erosion-control measures were completed across the application area.



## Agricultural Terracing

70 decares

5 parcels in 2 locations | 50 farmers trained

Land improvement plans were prepared, and terracing was completed on sloping idle land. Field demonstrations and practical training supported wider adoption.

# Farmer Field Schools and Conservation Agriculture

Field-based learning connected water efficiency, sustainable production and soil conservation.



## Farmer Field Schools (FFS)

5 FFS

Observation, measurement and learning by doing

- Practical training under FAO's FFS approach
- Smart irrigation and sustainable production practices
- Farmers and facilitators learned together in the field



## Conservation Agriculture

103.3 ha

12,210 kg of seed | 7 seed varieties

- A direct seeding machine was provided for sowing into stubble
- Demonstrations promoted reduced soil disturbance
- The approach supports soil health, moisture retention and resilience

# Flamingo Conservation and Public Awareness in the Gediz Delta

Field conservation, scientific monitoring and communication strengthened protection of this Ramsar wetland.



## Flamingo Ringing

Two ringling events combined scientific monitoring with institutional and community participation.



## 664 chicks

ringed in 2023 and 2025

2023 • 262 flamingos  
78 participants, including 36 women

2025 • 402 flamingos  
116 participants



## Communication and Awareness

Media coverage, project videos and success stories brought the Gediz Delta's biodiversity work to wider audiences.

# Gediz Field Results and Global Recognition

Field practices delivered measurable results and gained international technical recognition.



|                                                                                                            |                                                                                                    |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <div>Rangeland Management</div> <div>215 ha</div> <div>Reseeding and rotational, controlled grazing</div>  | <div>Crop Rotation</div> <div>91.4 ha</div> <div>Crop rotation in plant production</div>           |
| <div>Agricultural Terracing</div> <div>7 ha</div> <div>Idle and sloping land brought into production</div> | <div>Smart Irrigation</div> <div>2.5 ha</div> <div>AI-supported scheduled drip irrigation</div>    |
| <div>Forest Rehabilitation</div> <div>125.4 ha</div> <div>Terracing, check dams and dry-stone walls</div>  | <div>Green Belt</div> <div>480 m</div> <div>Green belt established to reduce pollution risks</div> |



## Global Technical Recognition Award

The Gediz Project gained global visibility for its technical approach and practical field applications in sustainable land, soil and water management.

Field evidence translated into international recognition.

# GEF-8 Food Systems Integrated Program in Türkiye

Increasing the Sustainability and Resilience of Agriculture and Food Systems through Nature-Based Solutions



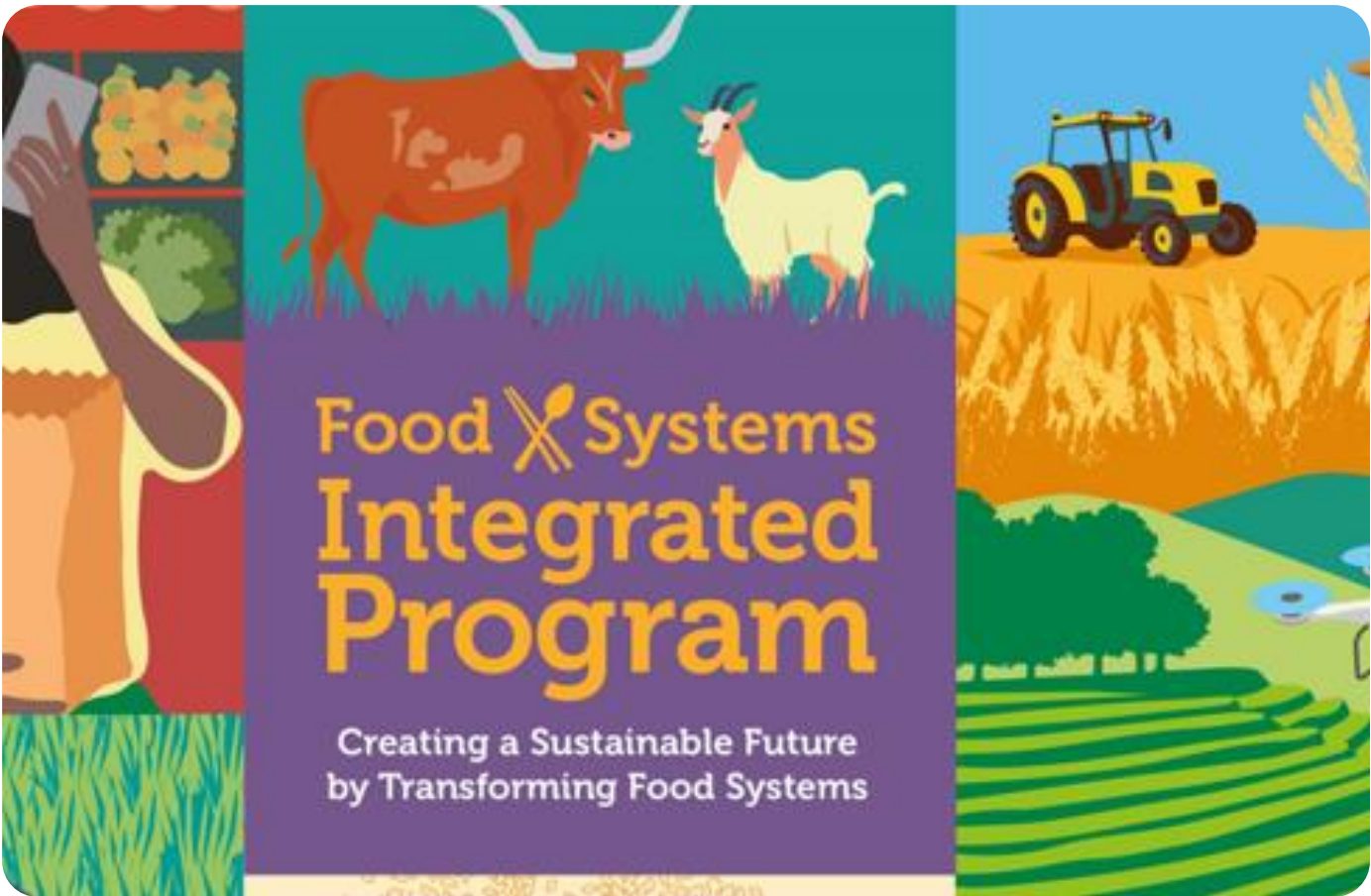
## Project Overview

|                  |                                                                                         |
|------------------|-----------------------------------------------------------------------------------------|
| Lead Agency      | FAO                                                                                     |
| Executing Agency | Nature Conservation Centre (DKM)                                                        |
| Main Beneficiary | Ministry of Agriculture and Forestry, General Directorate of Agricultural Reform (GDAR) |
| Implementation   | 15 May 2026– 31 August 2029   48 months                                                 |
| Project Type     | Full-size GEF project                                                                   |

## Pilot Provinces

Kars • Tekirdağ • Niğde • Nevşehir • Bingöl • Kahramanmaraş

The project promotes nature-based solutions to strengthen resilient, sustainable and inclusive food systems.



## Project Financing

|              |                   |
|--------------|-------------------|
| GEF Grant    | USD 4.8 million   |
| Co-financing | USD 30.0 million  |
| Total Budget | USD 35.40 million |

# Nature-Based Solutions for Resilient Agriculture and Food Systems

## Project Objective

Reduce environmental degradation linked to food systems by mainstreaming nature-based solutions into agriculture. The project addresses biodiversity loss, land degradation, freshwater depletion, agricultural nutrient pollution and greenhouse gas emissions.

## Key Challenges in Türkiye

- Land degradation
- Water scarcity
- Climate change impacts
- Limited access to finance

## Systemic Barriers

1. Governance and policy gaps (Component 1)
2. Financial and market constraints (Component 2)
3. Limited multi-stakeholder mechanisms and scaling capacity (Component 3)
4. Knowledge, innovation and monitoring gaps (Component 4)

The project links each barrier to a dedicated component, creating a clear pathway from policy reform to field-level scaling.



# Project Provinces and Priority Interventions

Six pilot provinces address locally identified challenges through nature-based solutions.



**Bingöl**

Rangeland management, water harvesting and value-added wool.

**Kahramanmaraş**

Adaptive grazing, climate-resilient wheat and integrated pest management.

**Kars**

Water harvesting, animal shelters and Zavot cattle product marketing.

**Nevşehir**

Conservation agriculture, local seeds and rotational grazing.

**Niğde**

Sustainable grazing, young shepherd training and resilient wheat.

**Tekirdağ**

Conservation agriculture, integrated pest management and recycling.

# Project Approach and Core Indicators

## PROJECT APPROACH

- National plan to promote nature-based solutions, including ecosystem-based adaptation, agroecology and climate-smart agriculture
- MRV and certification framework
- Value chains and branding that reward farmers
- Private-sector participation in product marketing

## CORE INDICATORS

**5,000 ha**

Land and ecosystems under restoration

**500,000 ha**

Land under improved management

**4,055,040 tCO<sub>2</sub>e**

Greenhouse gas emissions mitigated

**5,000 people**

Direct beneficiaries: 1,500 women and 3,500 men



# Priorities for Livelihood-Centred Climate Action

Five practical directions for locally grounded and inclusive rural resilience

## 1 Localize livelihood-centred climate action plans

Assess climate risks together with livelihood needs through participatory planning at village or district level.

FAO (2021), Toolkit for Local Adaptation Planning

## 2 Integrate nature-based solutions into livelihood systems

Agroforestry, rangeland rehabilitation and water harvesting can support income while delivering environmental benefits.

FAO (2022), Nature-based Solutions for Agricultural Development

## 3 Strengthen climate information and early warning systems

Timely information on weather events and climate risks helps farmers and rural actors prevent livelihood losses.

FAO (2022), Climate Services for Resilient Agriculture

## 4 Increase the participation of women and young farmers

Equitable adaptation requires better access to information, finance and technology for vulnerable rural groups.

FAO and IFAD (2020), Rural Youth and Women in Climate-Resilient Livelihoods

## 5 Make carbon farming and climate finance livelihood-centred

Carbon certification and payment mechanisms designed for smallholders can support both climate and livelihood goals.

Proposed policy direction



Climate action should protect both ecosystems and rural livelihoods.

# Thank You

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**Dr. Abdüssamet AYDIN**

Project Coordinator and Agricultural Specialist

**FAO Türkiye**

[abdussamet.aydin@fao.org](mailto:abdussamet.aydin@fao.org)

