

February 21, 2025

Towards the 2050 Carbon
Neutrality Target

CLIMAAX and PATHWAYS2RESILIENCE PROJECTS LAUNCH and STAKEHOLDER WORKSHOP on ADAPTATION STRATEGIES

Impacts of Climate Change on Key Economic and Environmental Sectors



CLIMAAX
climate ready regions



**ŞANLIURFA
BÜYÜKŞEHİR
BELEDİYESİ**



ŞANLIURFA METROPOLITAN MUNICIPALITY

Phone

0 (414) 318 51 00

Faks

0 (414) 316 08 62

Address

Bamyasuyu Neighborhood
154th Street No:2 Haliliye /
Şanlıurfa

E-mail

bilgi@sanliurfa.bel.tr

Website

www.sanliurfa.bel.tr

Social Media Accounts

X Hesaplarımız
@sanliurfabld
@sbbf285411

FOREWORD

As Şanlıurfa Metropolitan Municipality, we have taken a significant step toward combating climate change and building resilient cities by securing grant support through the *Climaax* and *Pathways2Resilience* projects.

Within the scope of these European Union-supported initiatives, we aim to enhance Şanlıurfa's resilience to the impacts of climate change. The journey began with our official **Project Launch Ceremony** and **Stakeholder Engagement Meeting**, which marked the initial milestone of this process.

In this publication, we are pleased to share key highlights, visual moments from the event, and the outcomes we derived from this important gathering.



Funded by the
European Union



SAYFA

Mayor of Şanlıurfa Metropolitan Municipality Mehmet Kasım GÜLPINAR	4
Head of Climate Change and Zero Waste Department, Şanlıurfa Metropolitan Municipality Sercan GELENER	5
Director of Climate Change Branch Mehmet DEMİR	5
Project Manager, MSc. in Electrical and Electronics Engineering Hakan DUMAN	6
Technical Leader of the CLIMAAX Project Tamer ATALAY	6
EU4ETTR Turkey Team Leader & MLGP4CLIMATE Coordinator Ms. Daiva MATONIENĖ	7
Vice President of EUROSOLAR & Faculty Member at Marmara University Prof. Dr. Tanay Sıdkı Uyar	8
Faculty Member at Akdeniz University Prof. Dr. Tuncer DEMİR	8
Representative of the Climate Change Directorate Ali Cem Deniz.	9
Workshop Groups and Outputs	10

**MAYOR GÜLPINAR:**

'TOGETHER, WE WILL BUILD A MORE RESILIENT, SUSTAINABLE, AND LIVABLE ŞANLIURFA'

During the launch of the **Climaax** and **Pathways2Resilience** projects and the stakeholder workshop held on **February 21**, Mayor Gülpınar emphasized the following:

"Our world is increasingly experiencing the impacts of climate change.

Rising temperatures, extreme weather events, droughts, and the depletion of water resources are compelling us to build more resilient and sustainable cities. In Şanlıurfa, the average temperature has increased by **1.5°C** over the last 50 years, while the precipitation rate has decreased by **20%**.

Despite this decline in total precipitation, due to climate change, extreme rainfall events concentrated in a single day have become more frequent, leading to a rise in floods and flash flooding.

We all remember the flood disaster that struck Şanlıurfa most recently on **February 14–15, 2023**. As a city that plays a vital role in agricultural production, these climatic changes exert significant pressure on our water resources and productivity. At this point, local governments have a critical responsibility to act."



Mayor Gülpınar further noted: "To demonstrate our commitment to these goals, we have taken decisive steps on both national and international platforms. By the end of **2024**, we officially approved our **2050 Carbon Neutrality Target** through the Şanlıurfa Metropolitan Municipal Council. Additionally, on the international level, we joined the **Global Covenant of Mayors (GCoM)**, pledging to achieve climate neutrality by 2050. We continue to move forward with strong determination to realize this vision."

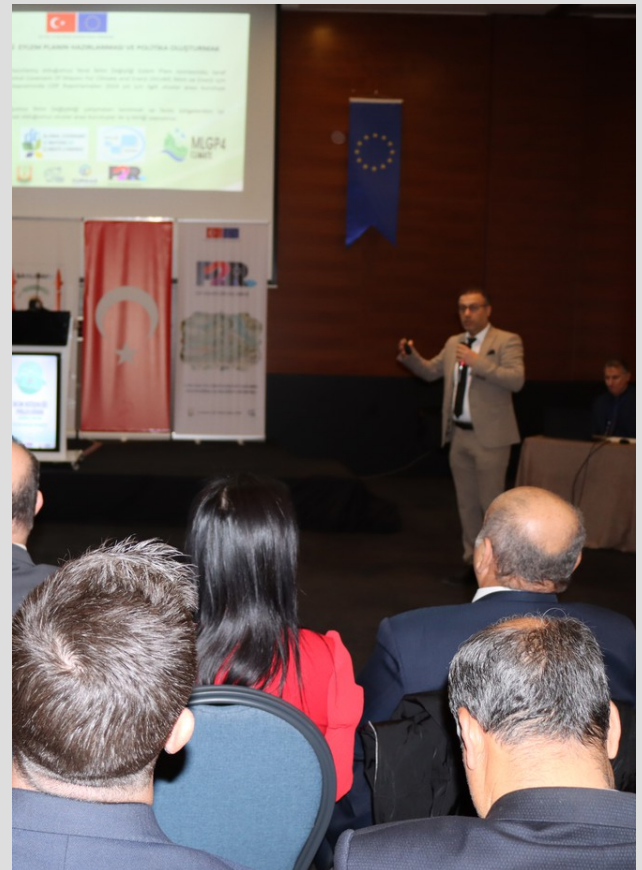


WE ARE PLANNING TO
IMPLEMENT NEW PROJECTS
TO REDUCE OUR CARBON
FOOTPRINT.

On February 21, during the launch of the Climaax and Pathways2Resilience projects and the stakeholder workshop, Sercan GELENER, Head of the Department of Climate Change and Zero Waste at Şanlıurfa Metropolitan Municipality, stated:

"As Şanlıurfa Metropolitan Municipality, we are taking significant steps to mitigate the adverse impacts of climate change and safeguard the future of our city. Through the Greenhouse Gas Inventory Report and the Local Climate Change Action Plan prepared specifically for our province, we have defined strategies for both emission reduction and climate change adaptation. Furthermore, we are continuously developing innovative and transformative projects to enhance the city's resilience to climate-related challenges. The Climaax and Pathways2Resilience projects will play a key role in operationalizing these strategies. Through these projects, we aim to better assess climate-related risks in our region, strengthen our adaptive and resilience capacities, and develop innovative solutions for a more sustainable future."

During the meeting, Mehmet DEMİR, Branch Manager of Climate Change at Şanlıurfa Metropolitan Municipality, shared detailed information on the municipality's objectives, targets, and action programs related to both climate change adaptation and mitigation efforts.





Following the development of the Local Climate Change Action Plan prepared by our institution for Şanlıurfa, the CDP reporting for the year 2024 has been submitted to the relevant international organization within the framework of the Global Covenant of Mayors for Climate and Energy (GCoM), to which we are a signatory and committed. Additionally, to both promote the climate change initiatives we have undertaken at the local level and to observe best practices from other regions, we actively collaborate with international organizations with which we are partners.

During the Launch and Stakeholder Workshop Meeting, our P2R Project Manager Mr. Hakan DUMAN and CLIMAAX Project Technical Lead Mr. Tamer ATALAY provided a detailed presentation on both the CLIMAAX and Pathways2Resilience projects. The *Pathways2Resilience* (P2R) project, titled “A Pathway to Climate Resilient Şanlıurfa,” will run for 18 months and aims to develop innovative solutions for enhancing the city's climate resilience, build institutional and technical capacity, and diversify financial resources.



CLIMAAX and PATHWAYS2RESİLİENCE (P2R) PROJECTS

The CLIMAAX and Pathways2Resilience (P2R) projects are initiatives funded under the European Union's Horizon Europe programme. Both projects aim to support regions and communities in enhancing their resilience and adaptive capacity to the impacts of climate change.

Why Do We Need Adaptation to Climate Change?

7



EU4ETTR Türkiye Team Leader and MLGP4CLIMATE Coordinator, Ms. Daiva MATONIENE, stated:

“The 2024 Europe Report on Health and Climate Change highlights that unprecedented warming requires unprecedented action. Cities play a key role in building a climate-resilient future; stronger adaptation targets can accelerate progress.”

“Cities play a critical role in achieving climate neutrality by 2050, which is the main goal of the European Green Deal. Although they cover only 4% of EU territory, they are home to 75% of EU citizens. Moreover, cities consume over 65% of the world’s energy and are responsible for more than 70% of global CO₂ emissions.

Since climate change mitigation largely depends on urban action, we need to support cities in accelerating their green and digital transitions. In particular, European cities can make a significant contribution to the Green Deal goal of reducing emissions by 55% by 2030, which—more practically—means offering citizens cleaner air, safer transportation, and reduced traffic congestion and noise.”



P2R KICK-OFF MEETING

Şanlıurfa Metropolitan Municipality is the sole representative from Turkey.



"One of the esteemed participants of the Launch and Stakeholder Workshop Meeting, **Prof. Dr. Tanay Sıdkı Uyar** – Vice President of EUROSOLAR and Faculty Member at Marmara University – addressed the question: '**Why is it important to monitor the implementation of SECAP?**'"

- Establishing a monitoring process that enables you to track progress towards the targets defined in your Sustainable Energy and Climate Action Plan (SECAP) is a key component of the Covenant of Mayors commitments.
- Such a process allows you to follow up on the impacts of the actions outlined in your plan and compare the projected versus actual outcomes in terms of energy savings, renewable energy production, CO₂ emissions reduction, and enhanced resilience to climate change impacts.
- The monitoring process should be defined during the development of your action plan and can be further refined as an ongoing and iterative process.

Prof. Dr. Tuncer DEMİR **Akdeniz University:**

Provided insights on **Regional Risk and Vulnerability Assessment** and **Potential Adaptation Actions for Different Sectors**. He addressed the following **Urban Heat Island (UHI) Adaptation Measures** to mitigate the impacts of increased urban temperatures:

- Construction of **Cool and Green Roofs**
- **Urban Greening** and **Tree Planting Initiatives**
- **Climate-Resilient Urban Design**
- **Heat-Adapted Building Standards**
- Application of **Cool Pavements** and **Permeable Surfaces**
- Implementation of **Heat Warning Systems** and **Public Health Interventions**
- **Public Engagement** and **Educational Programs**
- **Data Monitoring** and **Analytical Tools** for informed decision-making





Another Distinguished Participant of the Launch and Stakeholder Workshop Meeting:
Directorate of Climate Change / Mr. Ali Cem DENİZ:

Provided insights on the impacts of climate change, national climate projection studies, Türkiye's vulnerability and risk assessments, as well as the functionalities and applications of the National Climate Portal.

According to WMO (2025), the global mean surface temperature in 2024 was approximately 1.55 °C higher than the pre-industrial average.



Developed in alignment with the Climate-ADAPT platform of the European Environment Agency (EEA) and adaptation platforms of 18 EEA member countries, the Climate Portal has been customized based on the specific needs and priorities of Türkiye.

WORKSHOP GROUPS AND THEIR OUTPUTS

10

At the end of the program, we conducted a participatory workshop with our valuable stakeholders. In this session, key sectors such as agriculture and livestock, tourism and cultural heritage, water pollution, public health and air quality, green spaces, and urban planning were addressed. Sector-specific recommendations were collected through focused discussions.



AGRICULTURE AND LIVESTOCK GROUP

- Transitioning irrigation systems to pressurized irrigation technologies
- Protection of underground water reserves
- Utilizing rainwater harvesting technologies in agriculture
- Preventing stubble burning to reduce desertification
- Supporting drought-resistant crop patterns
- Promoting good agricultural practices through state support — particularly in the region's cotton production, encouraging organic and naturally colored cotton

- Supporting silk farming as an alternative agricultural product
- Providing state incentives to support small family farms
- Promoting the cultivation of regionally appropriate aromatic plants and sericulture (silkworm farming)
- Improving housing, education, and healthcare conditions for seasonal agricultural workers
- Expanding green areas and creating social rehabilitation spaces

TOURISM AND CULTURAL HERITAGE GROUP

- **Increasing and enhancing green spaces** along tourism routes through afforestation
- **Promoting the use of renewable energy-powered transport vehicles**
- **Converting at least one transportation vehicle along the Göbeklitepe tourism route** to an electric bus
- **Introducing heat pump-based cooling systems in touristic areas** such as Balıklıgöl and traditional marketplace zones
- **Organizing evening museum hours and cultural nights** to promote Şanlıurfa's heritage and to provide public relief from extreme summer heat conditions.
- **Diversifying tourism activities at Göbeklitepe** by introducing an alternative lighting system powered by renewable energy sources to enable evening visits.
- **Transitioning historic bazaars to green electricity**, ensuring that the energy demand of traditional markets is met through renewable sources.
- **Implementing an Ephesus-model approach** to increase tourist numbers while reducing operational costs through the use of green energy.
- **Introducing an incentive scheme using environmental recognition flags** — businesses that adopt clean energy practices may be awarded a *Green Flag*, while those that implement zero waste and anti-waste measures could receive a *Blue Flag*. These recognitions may be accompanied by benefits such as **discounts on water utility bills** as a form of reward and encouragement.



WATER POLLUTION WORKING GROUP

- Implement **water-saving practices** in agricultural activities.
- Provide **training and support for farmers** on efficient water use.
- Promote the **harvesting and storage of rainwater** in suitable urban areas.
- Ensure the **treatment and reuse of wastewater**, and expand its application in appropriate sectors.
- Emphasize that **limited access to clean water** may result in increased **food insecurity**.
- Conduct **awareness campaigns and educational programs** on water conservation.
- Transition **open-channel irrigation systems to closed-pipe systems** in agriculture.
- Upgrade existing infrastructure to **prevent water losses** caused by pipe leakages in buildings.
- Increase **urban green areas** and support **reforestation efforts**.
- Promote **rain gardens and permeable surfaces** in public parks and urban roads.
- Establish **Water Management Protocols, Joint Watershed Governance, and Early Warning Systems** for major water bodies such as the **Euphrates and Tigris Rivers**.
- Develop an integrated and **sustainable water management strategy**.
- Encourage the **use of rainwater harvesting systems** in existing buildings.
- Mandate the **integration of water efficiency systems** into national **building regulations and codes**.



URBAN GREEN SPACES WORKING GROUP

- Urban **green areas should be increased**, taking into account the **irrigation requirements** of these areas.
- Develop **long-term afforestation strategies**, and detail plans in **short-, medium-, and long-term** phases.
- Introduce a **mandatory green space allocation** in building permit regulations.
- Prioritize the use of **native and drought-tolerant plant species** in landscaping practices.
- Promote the integration of **sponge city concepts, mulching, composting, and blue-green infrastructure** into public parks.



- Establish **community gardens and urban allotments** within parks and green areas to create **income opportunities for disadvantaged groups**.
 - Plant **productive tree species**, such as **pistachio and olive trees**, in public parks.
 - Design parks to be **accessible for people with disabilities and elderly residents**.
 - Expand **municipal tree sapling production facilities**.
- These planning principles should be implemented with the aim of enhancing **urban quality of life**, ensuring the **protection of ecological balance**, and building a **sustainable urban future**.

URBAN PLANNING WORKING GROUP

1. Transportation and Accessibility

- Urban transportation planning should ensure **safe, inclusive systems** for vulnerable groups, incorporating **public transportation, bicycle lanes, and pedestrian pathways**.
- In **historic city centers**, lighting systems should be improved to increase safety, and spaces should be revitalized to ensure **urban continuity and functionality**. (*Solar-powered lighting can be considered.*)
- The **Divan Yolu** should be closed to motorized traffic to **promote pedestrian movement**.
- The **quality of public transportation** should be enhanced, and a **light rail system** should be developed.
- **Sidewalks should be widened** and **bicycle infrastructure** expanded.
- **Charging stations** should be increased to promote the use of **electric public and private vehicles**.

2. Urban Transformation and Planning

- **Zoning expansion** should be directed toward the **Karaköprü and airport axis**, while **new development** should be **discouraged** toward **Harran and Akçakale directions**.
- **Informal settlements** should be included in **urban transformation programs** and converted into **green public spaces**.
- Construction should be **restricted in stream beds** and **flood-prone areas** to mitigate disaster risk.



PUBLIC HEALTH AND AIR POLLUTION WORKING GROUP

- Preventive measures and strategic planning should address **air pollution sources** such as **traffic, fossil fuel combustion, desert dust, stubble burning, low-quality coal, emissions from ovens and furnaces, and poorly located industrial facilities**.
- **Coal usage should be reduced**, while promoting **solar panels, geothermal energy, and other renewable energy sources**.
- **Rail systems** should be adopted in urban transport to reduce **traffic-related pollutants**. **Public transport** must be expanded and made more accessible.
- **Industrial air emissions** must be subject to **stricter monitoring and regulation**.
- **Vulnerable groups**, particularly the **elderly and those in fragile health**, are more severely affected by air pollution and climate change impacts.
- Promotion of **zero-emission vehicles** should be prioritized in urban mobility strategies.
- Given that **healthcare is costly and often inaccessible** in many areas of Türkiye, it is recommended to establish a **cancer research and treatment center**, alongside **public awareness campaigns** about air pollution-related diseases.
- As **air pollution is a primary driver of greenhouse gas emissions**, tackling **air quality issues** is directly aligned with **climate change mitigation**.
- **Mobile air quality monitoring stations** should be installed to ensure continuous and localized **greenhouse gas and pollutant measurement**.



**WE EXTEND OUR SINCERE THANKS TO ALL
PARTICIPANTS FOR THEIR VALUABLE
CONTRIBUTIONS.**