

# SDG PROGRESS REPORT

on **SDG-13 CLIMATE ACTION**



# SDG PROGRESS REPORT

ISTANBUL MEDENIYET  
UNIVERSITY

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**SDG Icons**

<https://www.un.org/sustainabledevelopment/news/communications-material/>

**Sustainable Development Report Maps**

<https://dashboards.sdgindex.org/profiles/turkey>

**SDG Statics**

<https://unstats.un.org/sdgs/report/2023/progress-midpoint/>

<https://sdgs.un.org/goals>



There is no country in the world that is not experiencing first-hand the drastic effects of climate change. Greenhouse gas emissions continue to rise, and are now more than 50 percent higher than their 1990 level. Further, global warming is causing long-lasting changes to our climate system, which threatens irreversible consequences if we do not take action now.

The annual average losses from tsunamis, tropical cyclones and flooding amount to hundreds of billions of dollars, requiring an investment of US\$6 billion annually in disaster risk management alone. The goal aims to mobilize \$100 billion annually by 2020 to address the needs of developing countries and help mitigate climate-related disasters.

Helping more vulnerable regions, such as land locked countries and island states, adapt to climate change must go hand in hand with efforts to integrate disaster risk measures into national strategies. It is still possible, with the political will and a wide array of technological measures, to limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels. This requires urgent collective action.

**+1.1°C**

warming caused by human activities since the industrial age

**26 TRILLION \$**

in economic benefits could be triggered through bold climate action, by 2030



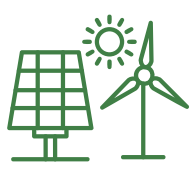
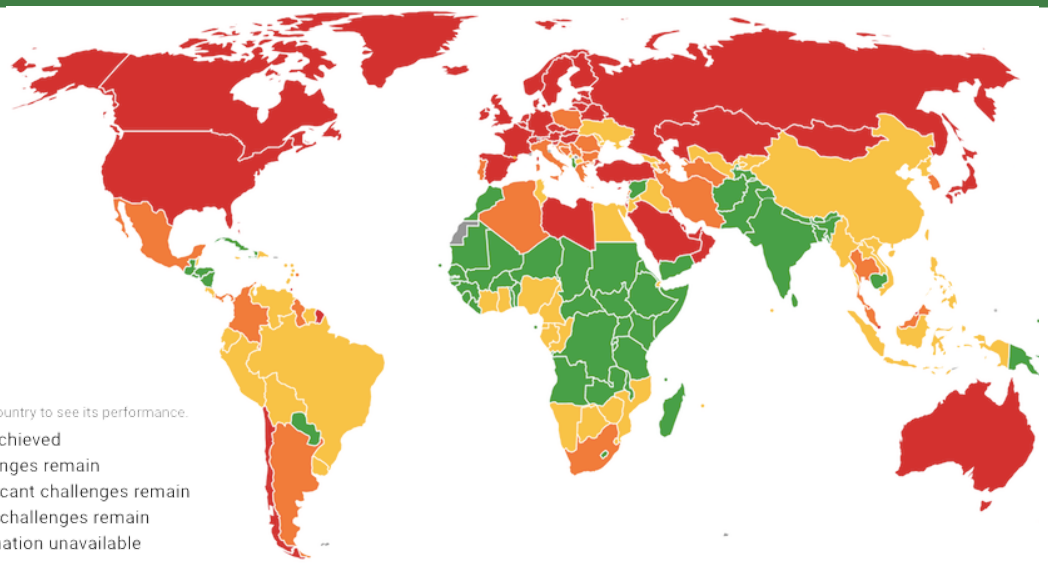
share of oceans in heat absorption

**+20 CM**

the global average sea level rose since 1880

**85 COUNTRIES**

have national disaster risk reduction strategies aligned to the Sendai Framework



2 projects were launched in 2022 to use renewable energy in campus areas



university climate ambassador



4 environmental trainings were held in 2022



2 local training programs on climate were organized in 2022

**145+ TREES**

planted in 2022 to neutralize released carbon



Istanbul Medeniyet University collaborates with numerous public institutions, research institutions, universities, local schools, and NGOs toward numerous goals that would help us achieve the objective of taking urgent action to combat climate change and its impacts.

As Istanbul Medeniyet University, we not only lead the society by carrying out activities to achieve Sustainable Development Goals (SDGs) at the institutional level and but also guide how the SDGs are applied at local, national, and international levels as a community through our collaboration efforts and support solving problems through our research projects.

Asst.Prof.Dr. Kadir TEMİZ, a faculty member of our University's Department of International Relations, gave a seminar titled "How Does the Climate Change Impact on Global Migration?" in the USA in cooperation with the Fulbright Enrichment program. In his speech, TEMİZ stated that climate change has created a global migration process due to the changes and destructions it creates in the production, economic structures and living spaces of the regions and discussed how and why this migration has become an important issue for international relations and foreign policy.

Prof.Dr. Pinar OBAKAN YERLIKAYA, a faculty member of the Department of Molecular Biology and Genetics served as a consultant for the project titled "Climate-Smart Food Innovation: Use of Plant and Seaweed Proteins from Upcycled Sources" (IPSUS). In the project, it is aimed to turn proteins obtained from plants and seaweed into opportunities for improving the nutritional value of foods and to research innovative approaches in sustainable food production against the negative effects of the climate crisis. In this context, the project selects six protein-rich foods that are important for the project partner countries and examines the qualitative and quantitative upcycling opportunities of foods throughout the food chain. The project partners include Istanbul Sabahattin Zaim University, Greenwich University from the UK, Parma University and SSICA from Italy, Ecole Nationale d'Agriculture de Meknes and Mohammed V University from Morocco, and BEIA Consult International from Romania, KEDGE Business School from France and Kaanlar Gıda A.Ş. from Turkey.

## Local Education Programmes on Climate

A workshop on renewable and clean energy production was held on the second day of Istanbul Medeniyet University Sustainability Week events. "ElectriCITY: Energy Preferences Game", a role game, which the participants produce energy policies as decision makers in the energy production of the city, was played at the workshop. The workshop was conducted by the Department of City and Regional Planning Research Assistant Ayça ÇELİKBİLEK and geological engineer Gökhan SAPMAZ. At the beginning of the workshop, general information about the energy system and energy management used in cities was given. In this context, the participants were informed about primary energy sources such as fossil fuels, renewable energy sources and other sources. Finally, in order to understand why energy policies are important for the environment, information was given to the participants about air pollutants, greenhouse gases and water consumption resulting from source selection in energy production. Thus, the participants were made to understand the importance of energy management in the global climate crisis. In the second part of the workshop, the game, which is a simple simulation of the energy system in cities, was introduced to the participants and the rules of the game were explained. During the game as in real life, the carbon costs of energy investments were increased and the participants were made to understand the effects of their energy choices on climate crisis. In the 6 different stages played in the game, two special stages were played where carbon emissions must be kept at a certain level and carbon trade can be made between groups. Thus, the issue of justice in climate crisis was discussed. At the end of the workshop, the total cost of the energy policies produced by each team for their city was calculated.



### Enerji ve Çevre: Neden Önemli?

ENERJİ İLE İLİŞKİLİ ETKİLER	
<b>Hava Kirlenitçiler*</b>	
NO <sub>x</sub>	%93
CO	%61
SO <sub>2</sub>	%81
PM <sub>2.5</sub>	%63
<b>Sera Gazları</b>	
CO <sub>2</sub>	%97
Metan	%42
Azot Oksit	%12
<b>Su Kullanımı</b>	
Tatlı yeryüzü suyu çekimlerinin %51'i elektrik enerjisi için kullanılmakta	
<small>* yakıt yalıtımı (elektrik, sanayi vd.), petrol ve ilgili endüstrileri ve otayolan için</small>	



# LEARNING

IMU

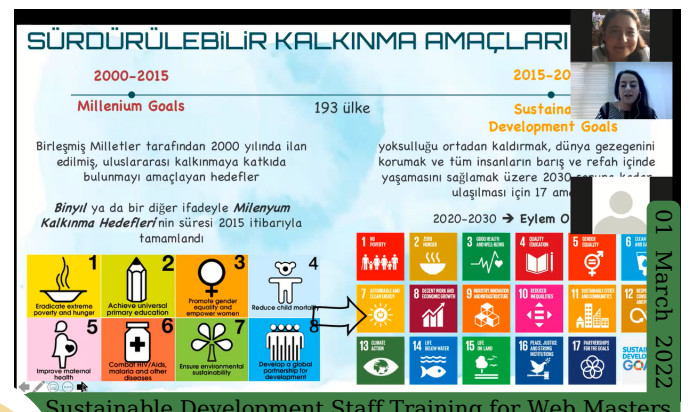
Learning processes are key in achieving SDGs. Thus, universities play a critical role both by training professionals who will prioritize SDGs in their future practices and by increasing local, national, and global capacity to successfully achieve SDGs. As Istanbul Medeniyet University, we are aware of our critical role and therefore, we primarily inform our students, the leaders and decision-makers of the future, about the Sustainable Development Goals through course contents, co-curricular activities and student club activities and strengthen their awareness. For this purpose, each of our faculties and departments prepares SDG-related course contents, including courses that address the Sustainable Development Goals holistically, as well as specific contributions that can be made by the expertise of the relevant professional field in which they provide training. In 2022, 11 bachelor degree courses related to SDG-13 were given at IMU. Some of these are listed below.



Faculty	Course
Arts and Humanities	SOS324 - Environmental Sociology
Education Sciences	ECE007 - Environmental Education and Sustainability in Early Childhood
	EBB061 - Sustainable Development and Education
Engineering and Natural Sciences	BYM313 - Industrial Ecology and Recycling
Health Sciences	BES249 - Ecology of Nutrition
Law	HUK342 - Environmental Law
Political Sciences	ULİ462 - Environmental Problems and the World
	MLY411 - Environmental Protection and Taxation

On March 1, 2022, two trainings were held for the editors of our university webpages, including a **sustainable development staff training** on the sustainable development goals (SDGs) and their relation to universities and a capacity building training on how to write news articles about the activities carried out in our university toward SDGs. In the first part of the workshop, Lect. Zehra SAVAN delivered a presentation on how to improve the organization and content of the news articles published on IMU webpages. During the applied training, the trainer introduced the general principles of news writing, the main components of a good news article, and the most common mistakes made when writing news articles in reference to particular examples from our webpages. In the second part of the workshop, our university Res.Asst. Ayça ÇELİKBİLEK made a presentation about the SDGs and responsible institution philosophy and the contribution of our university towards achieving these goals. She

stated that the 17 Sustainable Development Goals that guide today's strategies and are targeted to be achieved by the end of 2030 are built on the Millennium Development Goals, but also include new fields such as climate change, economic inequality, innovation, sustainable consumption, peace and justice. Afterwards, she touched upon the 17 SDGs and their sub-goals and explained the importance of these goals for a sustainable world. In the second part of the presentation, ÇELİKBİLEK provided the faculty webmasters of our University with information on how the studies carried out within the faculties and contributing to the Sustainable Development Goals will be written into news articles. She provided information on how to establish the relationship between the activities and Sustainable Development Goals, how SDGs should be handled in news content, and what kind of information should be conveyed to internal and external stakeholders.



# LEARNING

IMU

In the third workshop of the “Urban Workshops” organized by IMU, the “BioBlitz” event was held with the theme of sustainable city. **Spring observation of the workshop** titled “**Ecology in the City -BioBlitz: Validebağ Grove**” was conducted by wildlife biologist Nuh KUBILAY, geological engineer Gökhan SAPMAZ, and our University Res.Asst. Ayça ÇELİKBİLEK. In the event held in Üsküdar Validebağ Grove on April 30th, 2022, a total of 8 hours of observation was made. In the spring observation, 235 observations were made and 224 of them were recorded with photographs. One of the main purposes of BioBlitz IMU activities, which are designed not only as a nature observation but also as environmental education, is to contribute to the recognition and protection of the environment by developing correct attitudes, behaviors and skills in the local community. In this sense, the workshop contents aim to explore environmental problems, climate changes, resolve conflicts between nature and human beings and solve the problems caused by this conflict, and mobilize individuals and then communities in order to improve the environment. In order to achieve these goals, all participants were informed about the observed species and their characteristics.

**Summer observation of the workshop** titled “**Ecology in the City – BioBlitz: Validebağ Grove**” organized under BioBlitz IMU events was conducted by our University research assistant Ayça ÇELİKBİLEK, wildlife biologist/ornithologist Nuh KUBILAY and geological engineer Gökhan SAPMAZ. In the event held in Üsküdar Validebağ Grove on Saturday, August 06th, 2022, a total of 10 hours of observation was made. In the summer observation, which was organized as the sixth part of the BioBlitz events, 146 observations were made and 142 of them were recorded with photographs. In addition, information was given about the threats that rapid/unplanned urbanization and climate change will pose on these species and their habitats. Due to the high temperatures and low rainfall, mushroom and lichen observations and snail observations remained at a limited level in the summer observation. While one lichen and one snail species were recorded in the observation, it was determined that the majority of snails were in estivation. The workshops contributed to the citizens’ understanding of the importance of green areas and natural heritage areas, which are gradually decreasing in a big metropolitan area like Istanbul, and to the awareness that they share these areas with many living species.



## BIOBLITZ



### SÜRDÜRÜLEBİLİR Kent Atölyeleri

#### KENTTE EKOLOJİ: TÜR SAY Validebağ Korusu

Atölye Yürütücülere

**NUH KUBILAY**  
Ornitolog

**Ar.Gör. AYÇA ÇELİKBİLEK**  
Istanbul Medeniyet Üniversitesi

**GÖKHAN SAPMAZ**  
Jeoloji Mühendisi

06 August 2022  
Validebağ Korusu  
Summer Observation of the Workshop  
“Ecology in the City – BioBlitz: Validebağ Grove”

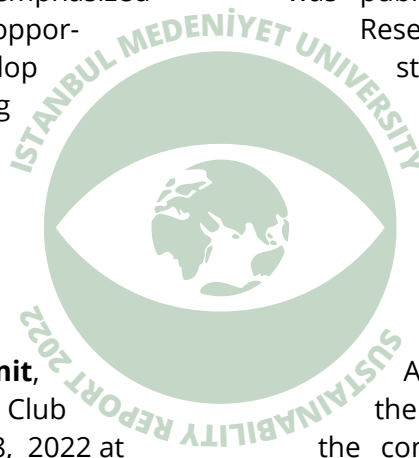


Istanbul Medeniyet University Psychology Club Social Responsibility team organized an event called **“Climate Crisis and Entrepreneurship Competencies #EntreComp”** on May 27, 2022. The event, the speakers of which were Elif AKSU and Şeyda Rûmeysa ŞAHBAZ, the Entrepreneurship Skills Disseminator Trainer, aimed at raising awareness about the climate crisis and enhancing participants’ entrepreneurial skills. During the event, AKSU provided participants with detailed information about the impacts of the climate crisis and proposed solutions. She emphasized that climate change has negative effects on a global scale, harming ecosystems, biodiversity, agriculture, water resources, and human health. ŞAHBAZ shared information about the strategies to combat the climate crisis and emphasized the importance of international agreements such as the Green Deal and the Paris Climate Agreement. She then focused on the role of entrepreneurship in addressing the climate crisis. She emphasized that the climate crisis brings many opportunities and entrepreneurs can develop sustainable solutions by utilizing these opportunities. Finally, she shared examples and strategies on how entrepreneurial skills can be utilized in the fight against the climate crisis.

The **Constitutional Law Summit**, organized by Gelişim Law Student Club was held on Monday, November 28, 2022 at IMU Ziraat Bank Central Library in our North Campus. A member of IMU Constitutional Law Department Asst.Prof.Dr. Feyzan OLGUNSOY discussed the protection of fundamental rights and freedoms in terms of the consequences of climate change in her speech titled **“Climate Change and Human Rights”**. She explained that climate change has consequences in the context of the right to health as well as environmental rights. Therefore, second generation rights violations occurring due to climate change can only be remedied within the scope of fundamental rights and freedoms that are jointly protected in the Constitution and the ECHR. In this context, she stated that states have positive obligations to prevent environmental pollution, protect the environment, and ensure access to legal remedies in ensuring climate justice.

The academic staff members of our university carry out research on strengthening resilience and adaptive capacity to climate-related disasters; integrating climate change measures into policies and planning; improving awareness-raising and capacity on climate change; implementing the United Nations Framework Convention on Climate Change; and promoting mechanisms for raising capacity for climate change-related planning and management, publish the results of their research and share them with other researchers, decision-makers, stakeholders, and the public as a foundation for policies toward achieving SDGs.

The article titled **“Dynamic relationship between international tourism, economic growth and environmental pollution in the OECD countries: evidence from panel VAR model”**, co-authored by Prof. Seyfettin ERDOĞAN, a faculty member of the Department of Economics of our university, was published in the Journal of Economic Research- Ekonomska Istraživanja. In the study, the effect of international tourism on economic growth and carbon emissions in OECD countries during the 1995-2020 period was examined using the Panel VAR model. In addition, the findings of the Granger Causality Model and Impulse Response Analysis were also included. As a result of their empirical analysis, the authors, including ERDOĞAN, reached the conclusion that carbon emissions and economic growth gave a positive and meaningful response to international tourism shocks. In other words, the findings revealed that tourism shocks not only increase economic growth but also cause more carbon emissions. The study also found that the negative impact of tourism shocks on environmental pollution is greater than its positive impact on economic growth. Based on the empirical results, the authors emphasized that policy makers should take action and take measures to reduce the impact of international tourism on environmental degradation. They suggested the development and dissemination of clean energy technologies in all tourism activities in order to reduce the negative impact of tourism on the environment.



The article titled **“Eco-friendly technologies, international tourism and carbon emissions: Evidence from the most visited countries”**, of which Prof. Seyfettin ERDOĞAN, a faculty member of the Department of Economics, is one of the authors, was published in the 180th issue of the Journal of Technological Forecasting and Social Change. In their study, ERDOĞAN et al. stated that there is a strong relationship between the tourism sector and carbon emissions, since all tourism activities, from transportation to accommodation and excessive consumption, are heavily based on fossil fuel use or electricity consumption. Therefore, they emphasized that the tourism sector causes a significant environmental footprint on a global scale. Stating that transportation is the primary source of carbon emissions, especially from international tourism, ERDOĞAN et al., in the study, examined the regulatory effect of environmentally friendly innovations on the transportation sector for the relationship between international tourism and carbon emissions. ERDOĞAN et al. emphasized that the empirical results obtained in the study are important for policy makers because the countries included in the analysis are committed to reducing their carbon emissions according to the Paris Agreement and the SDGs. They recommended these countries to attach more importance to innovative processes, especially in transportation, and to increase the share of innovation expenditures in GDP.

The book chapter titled **“The Importance of Carbon Emission of Manufacturing Companies on Sustainable Economic Development”**, co-authored by Assoc.Prof.Dr. Hakan KALKAVAN, a faculty member of our University's Department of Economics, was included in the book Globalization, Income Distribution and Sustainable Development published by Emerald Ink Publishing. The study primarily emphasized that carbon emissions are one of the most important issues that threaten the existence of the world and that the resulting climate change disrupts the balance of people and nature. The authors, who see manufacturing companies as an important actor that causes carbon emissions, focused on the relationship between manufacturing companies and carbon emissions

in the study. Based on their findings, the authors stated that governments should focus on other issues that have a stronger causal relationship with sustainable economic development. They also underlined that governments should conduct studies to determine the importance of companies' other activities for sustainable economic development. They stated that in this way, the amount of carbon emissions will be reduced and deficiencies in the factors affecting sustainable economic development will be identified.

The book chapter on clean energy technologies, titled **“Visible Range Activated Metal Oxide Photocatalysts in New and Emerging Energy Applications”**, co-authored by Prof.Dr. Çiğdem ŞAHİN, head of the Basic Sciences Department of Engineering at the Faculty of Engineering and Natural Sciences of our University, was published in the book “Green Photocatalytic Semiconductors-Recent Advances and Applications”.

The increase in world energy needs due to industrial developments and population growth also increases fossil fuel expenditures, which largely meet this need. However, since these resources are not renewable and their use causes environmental pollution and climate change, it has become necessary to find alternative energy sources. For this reason, the study aimed to draw attention to the use of environmentally friendly renewable energy sources by mentioning some new and developing energy sources. In the book chapter, new and developing energy applications using metal oxide photocatalysts were mentioned. The latest developments in environmentally friendly and energy efficient production methods used in the production of solar cells, solar fuels and photocatalytic hydrogen, in which solar energy is used as a source, were highlighted. This research contributed attracting attention to solar energy as a clean and renewable energy source among renewable energy systems. In addition, it was aimed that the study would benefit research in the field of clean energy technologies.

