

FOREWORD by TÜBA PRESIDENT

It is with great pleasure and a sense of responsibility that I welcome you to the “Science Diplomacy for Sustainable Development Symposium,” jointly organized by the Turkish Academy of Sciences (TÜBA) and the Association of Academies and Societies of Sciences in Asia (AASSA) on June 28-29, 2024, in Ankara, Türkiye. This symposium has been organized to serve as a crucial platform to bring together experts, policymakers, and stakeholders, united by a common goal: to explore and harness the power of science diplomacy in addressing the challenges that our world faces today.

In an era where global issues such as pandemics, climate change, migration, and pollution do not recognize national borders, the need for international cooperation has undoubtedly become urgent. Science diplomacy, by its very nature, provides a unique avenue for transcending political divides and fostering collaborative efforts. It is through scientific dialogue and partnerships that we can develop innovative solutions and policies to promote sustainable development and ensure a better future for all.

This symposium underscores the vital role of science in promoting peace, security, and prosperity. By facilitating the exchange of knowledge and resources, it highlights the importance of interdisciplinary and international networks in addressing the complex and interconnected challenges of our time. The collective wisdom and expertise shared during this event will undoubtedly contribute to strengthening national innovation systems and advancing global sustainability goals.

The participation of policymakers, diplomats, representatives from regional organizations, scientists, researchers, members of science academies and societies, and academia enriches the discourse and fosters a comprehensive approach to sustainable development. Your insights and contributions are invaluable in shaping a future where science and technology drive progress and inclusivity.

As we come together to discuss and collaborate, let us reaffirm our commitment to using science diplomacy as a crucial instrument for enhancing international cooperation and building resilient, sustainable societies. I extend my heartfelt gratitude to all the participants, speakers, and TÜBA staff as well as AASSA for their contribution, support and participation.

Prof. Dr. Muzaffer Şeker
President
Turkish Academy of Sciences

FOREWORD by AASSA PRESIDENT

This international symposium, jointly organized by Association of Academies and Societies of Sciences in Asia (AASSA) and Turkish Academy of Sciences (TÜBA) focuses upon science diplomacy for sustainable development. It also deals with the contribution of science academies as agents of diplomacy towards science diplomacy and sustainable development.

Conventionally speaking, diplomacy means the conduct of relations between recognized actors by their agents through public channels and peaceful means. Traditionally, diplomacy has been confined to peaceful interactions among legal-political bodies. Nowadays, diplomacy has come to designate a broad meaning referring to the interactions between not just legal-political bodies of states but also among varied bodies of states and non-state actors. Moreover, the sphere of diplomacy is no longer confined its traditional focus on matters of high politics, it has now widened to include diverse issues among which are scientific cooperation and sustainable development.

The issues regarding sustainability and sustainable development have been subjects of significant discussion in the last four decades. The increase in human population, uneven development among and within the societies, huge disruption caused by epidemics, pandemics, wars, and displacements of large human groups and limits of our resources make sustainability even more urgent in our day. As these issues transcend the legal-political boundaries, it is an imperative that we must embark upon a global mobilization and cooperation to tackle with them. Science being universal and science academies being the most prominent science organizations, science diplomacy carried out by science academies is well positioned to make a significant contribution in this respect.

AASSA aims at being a platform for science diplomacy efforts and has always been attentive to sustainability and sustainable development goals. This symposium will, I am sure, foster those efforts and goals. I would like to thank all participants for their valuable contributions. I would also record my thanks to TUBA for organizing and hosting the symposium and pledge the continuous support of AASSA.

Prof. Dr. Ahmet Nuri Yurdusev
Acting President
Association of Academies and Societies of Sciences in Asia

SYMPOSIUM ORGANIZING COMMITTEE

Prof. Dr. Muzaffer Şeker | Turkish Academy of Sciences

Prof. Dr. Ahmet Nuri Yurdusev | Association of Academies and Societies of Sciences in Asia

Prof. Dr. Hasan Mandal | Scientific and Technological Research Council of Türkiye

Prof. Dr. Meliha Altunışık | TÜBA Full Member | Middle East Technical University

Prof. Dr. Pınar Bilgin | TÜBA Full Member | Bilkent University

Prof. Dr. Ayşegül Komsuoğlu Çıtıptıoğlu | TÜBA Full Member | İstanbul Nişantaşı University

Prof. Dr. K. Arzum Erdem Gürsan | TÜBA Full Member | Ege University

Prof. Dr. İlkey Erdoğan Orhan | TÜBA Full Member | Gazi University

Prof. Dr. Candan Tamerler | TÜBA Full Member | The University of Kansas

Prof. Dr. Çağrı Erhan | Altınbaş University

Dr. E. William Colglazier | The American Association for Advancement of Science

COOPERATING INSTITUTIONS



TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES



PROGRAM

June 28, 2024

Hacettepe University Sıhhiye Cultural Center, R Hall

09:00-09:30 Registration

09:30-10:00 Opening Remarks

10:00-10:30 **Keynote Speech**

Dr. E. William Colglazier, Center for Science Diplomacy, the American Association for Advancement of Science

Science Diplomacy for Sustainable Development: Successes and Challenges

10:30-11:00 **Keynote Speech**

Prof. Dr. Hüseyin Şeker, Birmingham City University

Enabling and Empowering Science Diplomacy through Big Data, Artificial Intelligence and Digital Transformation

11:00-12:30 **SESSION I**

Chair: Murat Yavuz Ateş, Republic of Türkiye Ministry of Foreign Affairs

11:00-11:20 Prof. Dr. Hasan Mandal, Scientific and Technological Research Council of Türkiye (TÜBİTAK)

Addressing Global Challenges with Science Diplomacy in Co-Creation Based Collaboration

11:20-11:40 Prof. Dr. Abdülkadir Balıkçı, Turkish Energy, Nuclear and Mineral Research Agency (TENMAK)

The Aspect of Sustainable Development Goals and Science Diplomacy Regarding Energy Transition and Critical Minerals

11:40-12:00 Dr. Rahman Nurdun, Turkish Cooperation and Coordination Agency (TİKA)

Enhancing Global Development through Science Diplomacy: Türkiye's Contribution to the UN Sustainable Development Goals

12:00-12:20 Murat Yavuz Ateş, Republic of Türkiye Ministry of Foreign Affairs

Global Governance of Emerging and Disruptive Technologies and the Role of Science Diplomacy

12:20-12:30 Discussion

12:30-14:00 **Lunch Break**

14:00-15:30 SESSION II

Chair: Prof. Dr. Mehmet Akif Kireçci, ECO Educational Institute

14:00-14:20 Prof. Dr. Birol Akgün, Turkish Maarif Foundation

Science Diplomacy and Turkish Maarif Foundation

14:20-14:40 Gulzar Karybekova, Centre of Actual Problems and Development, Public Foundation, Kyrgyzstan

Sustainable Development Goals and Science Diplomacy: A Path towards Global Cooperation

14:40-15:00 Mustafa Başkara, Ankara University National Center for the Sea and Maritime Law

Sea and Maritime Law from the Perspective of Science Diplomacy and Global Governance

15:00-15:20 Deniz Eldeniz & Meltem Hafızmehtetoğlu & Özlem Yalçınkaya, Bezmialem Vakıf University

The Role and Importance of Libraries in Science Diplomacy in the Context of Sustainable Development

15:20-15:30 Discussion

15:30-15:50 Coffee Break

15:50-17:00 SESSION III

Convener: Dr. Atilla Yılmaz, TÜBİTAK MAM Polar Research Institute

15:50-16:10 Fazlı Çorman, Republic of Türkiye Ministry of Foreign Affairs

An Evaluation of Türkiye's Arctic Relations on the Basis of the Türkiye-Norway Case

16:10-16:30 Prof. Dr. Burcu Özsoy, TÜBİTAK MAM Polar Research Institute

Milestones of Turkish Polar Research: A Summary of Recent Advances

- 16:30-16:50 Assoc. Prof. Ebru Caymaz, Çanakkale Onsekiz Mart University
Science Diplomacy and Capacity Building: A Roadmap for the 5th International Polar Year
- 16:50-17:00 Discussion
- 17:00-19:30 City Tour
- 19:30-21:00 Dinner at *Ankara Evi*

June 29, 2024

Hacettepe University Sıhhiye Cultural Center, R Hall

09:00-10:30 SESSION IV

Chair: Prof. Dr. Meliha Altunışık, Middle East Technical University

- 09:00-09:20 Assist. Prof. Jovana Milic, University of Fribourg; Global Young Academy
Science Advice and Science Diplomacy: What Can Young Academies Contribute to Public Engagement
- 09:20-09:40 Dr. Özlem Tuğçe Keleş, İstanbul Gelişim University
In The Context of Science Diplomacy: “Climate Change” A New Communication Tool
- 09:40-10:00 Prof. Dr. M. Levent Kurnaz, Boğaziçi University
Measuring Performance for Sustainable Development Goals: A Comparative Study from Social, Economic, and Environmental Perspectives
- 10:00-10:20 Prof. Dr. Işıl Kurnaz, Gebze Technical University
Science Communication and Science Advice requires specific tools – How Can We Help Early Career Researchers
- 10:20-10:30 Discussion
- 10:30-10:50 Coffee Break

10:50-12:30 SESSION V

Chair: Prof. Dr. Kudret Bülbül, Ankara Medipol University

10:50-11:10 Prof. Dr. Anjana Singh, Nepal Academy of Science and Technology

Sustainable Development in Nepal via Science Diplomacy

11:10-11:30 Assist. Prof. Shujaullah Aman, the Academy of Sciences of Afghanistan

Immigration for Sustainable Development: A Science Diplomacy Perspective

11:30-11:50 Ayşegül Özkan & Prof. Dr. Nazan Aktaş, Selçuk University

The Role of Science Diplomacy in Achieving SDG2: Zero Hunger

11:50-12:10 Dr. Mücahit Sami Küçüküktüğü, Selçuk University

Global Media Representation of Campus Protests in American Universities in the Resolution of the Gaza Conflict

12:10-12:30 Prof. Dr. Finarya Legoh, Indonesian Academy of Sciences

Science Communication and Public Engagement in Diplomatic Endeavours: Fostering Youth Provision to Define Future World

12:30-12:50 SYMPOSIUM EVALUATION & CLOSING REMARKS

12:50-13.50 Lunch

KEYNOTE SPEECH

Dr. E. William Colglazier, Center for Science Diplomacy, the American Association for Advancement of Science

Science Diplomacy for Sustainable Development: Successes and Challenges

Science and engineering practitioners with their knowledge can be a powerful asset to advance national and global diplomacy, and diplomacy can help to advance the worldwide scientific and engineering enterprise. Science and engineering diplomacy has become increasingly important with the acceleration of the scientific and technological revolution. An amazing array of new technologies have been created that offer great opportunities as well as pose significant threats and disruptions. Science and engineering diplomacy is essential to realize the benefits and manage the risks. In 2015 when the countries of the world ratified the United Nations 2030 Agenda with 17 Sustainable Development Goals (SDGs), they created a political definition of “sustainable development.” Harnessing science, technology, and innovation was viewed as essential to turn the aspirational rhetoric into real action, creating another need for science and engineering diplomacy. We are now faced with significant setbacks coming from the pandemic, climate change, conflicts, wars, and other emerging social, economic, and environmental stresses. While we cannot count on science and engineering alone to save us, science and engineering diplomacy combined with international scientific engagement and increased funding for research can help to manage these new challenges and provide technologies that can assist in operationalizing sustainable development to benefit all people and the planet.

Dr. E. William Colglazier

Dr. Colglazier is Editor-in-Chief of Science & Diplomacy at the American Association for the Advancement of Science (AAAS). He served as Science and Technology Adviser to the U.S. Secretary of State from 2011 to 2014. For seventeen years earlier he was Executive Officer of the U.S. National Academy of Sciences and National Research Council helping to oversee reports that advise the U.S. government and public. From 2016 to 2018 he co-chaired the Ten Member Group at the UN to advise on science, technology, and innovation for helping to achieve the 17 SDGs. He received his Ph.D. in theoretical physics from Caltech in 1971, and worked at the Stanford Linear Accelerator Center, the Institute for Advanced Study in Princeton, the Center for Science and International Affairs at Harvard's Kennedy School of Government, and as a professor of physics at the University of Tennessee. He is a Fellow of the AAAS, the American Physical Society, and the International Science Council. He serves on the International Advisory Board of the Alexander von Humboldt Foundation, and for the U.S. National Academies he co-chairs the Global Science Diplomacy Roundtable and is a member of the Science and Technology for Sustainability Roundtable.

KEYNOTE SPEECH

Prof. Dr. Hüseyin Şeker, Birmingham City University

Enabling and Empowering Science Diplomacy through Big Data, Artificial Intelligence and Digital Transformation

In an increasingly interconnected world, national and global challenges such as climate change, pandemics, food and water security, conflicts, and socio-economic inequalities demand coordinated and innovative solutions. Science diplomacy is pivotal in addressing these complex issues. However, there is a need to integrate all possible means on a global scale. The confluence of big data, artificial intelligence (AI), and digital transformation significantly empowers science diplomacy, providing sophisticated tools and methodologies that enable global cooperation for informed decision-making and more effective actions.

With the advancement of technology, the volume of data generated and collected from diverse sources has increased exponentially. This wealth of data is now playing a crucial role in offering a comprehensive understanding of global phenomena and subsequently formulating evidence-based policies on a global scale. For instance, in environmental science, big data analytics improve climate modelling, enable real-time environmental monitoring, and support international agreements. Another recent example is the collaborative effort between public and commercial organizations to collect, share and analyse the COVID-19 data sets during the pandemic.

AI amplifies these capabilities by processing large complex datasets with unparalleled speed. One recent example is, during the COVID-19 pandemic, that AI was instrumental in tracking the virus's spread and mutations, modelling infection rates, facilitating informed public health interventions and developing vaccines rapidly. Given this example, AI-driven models can help identify emerging health threats, optimise pandemic response strategies, and potentially expedite the development of medical interventions. Such collective applications in partnership with public and commercial organisations demonstrate AI's critical role in collectively and timely responding to a public health problem and enhancing global health security and resilience.

Digital transformation, encompassing the integration of digital technologies across various sectors, further supports science diplomacy by facilitating seamless communication and collaboration across borders. Digital platforms enable real-time data sharing, virtual meetings, and collaborative research, transcending geographical barriers and fostering a global scientific community. Initiatives like the European Open Science Cloud illustrate how digital transformation can streamline international data-informed research efforts, promoting collaboration and inclusivity in scientific endeavours.

By leveraging big data, AI, and digital transformation, science diplomacy is empowered to tackle both national and global challenges more effectively. These technologies enable precise, timely, and coordinated actions, enhancing the scientific basis of diplomatic efforts. This integrated approach fosters global cooperation, strengthens scientific and technological capacities, leads evidence-based policymaking, and contributes to sustainable development and global resilience. Ultimately, the synergy between science diplomacy and advanced technologies in the age of big

data, AI, and digital transformation not only addresses immediate global challenges but also builds a foundation for a more interconnected and resilient world.

Prof. Dr. Hüseyin Şeker

Dr Huseyin Seker is a research-oriented and enterprise-focused academic and manager with both academic and industry experiences in data science, artificial intelligence, machine learning, and emerging & disruptive technologies & systems. He has published well over 100 peer-reviewed articles, developed, and deployed several data-driven AI tools, and has been involved with a portfolio of collaborative research, enterprise, and teaching & learning projects of over £25M as PI, Co-I and international researcher in collaboration with universities and companies in the UK and abroad. He was one of the founding members of the UK's flagship project, The Institute of Coding. He has co- founded an artificial intelligence fintech company, Bubo.AI, where he is the Chief Data Scientist and Scientific Advisor. He has also co-founded a global organisation the Association for Smart Cognitive Cities. Dr Seker has recently served as a member of the NHS England Expert Review Panel for Digital Academy's Artificial Intelligence Gap Analysis as a part of NHS England Artificial Intelligence and Digital Healthcare Technologies Capability Framework. Dr Seker was named among the top 1% of global researchers in Bioinformatics for productivity in 2024 by ScholarGPS. He is regularly invited to speak at prestigious academic and industry-led events and serve as a judge for digital tech-industry excellence awards.

Dr Seker is currently working as a Professor of Computing Sciences and Associate Dean (Research, Innovation & Enterprise) for the Faculty of Computing, Engineering, and the Built Environment in Birmingham City University (Birmingham, UK).

June 28, 2024

11:00-12:30 SESSION I

11:00-11:20

Prof. Dr. Hasan Mandal, Scientific and Technological Research Council of Türkiye (TÜBİTAK)

Addressing Global Challenges with Science Diplomacy in Co-Creation Based Collaboration

Addressing complex global challenges that are intertwined with climate change and sustainable development requires increasing the impact and extent of science diplomacy. The level of global warming has already reached more than 1.14°C above pre-industrial levels and climate change takes place within the triple planetary crisis along with biodiversity loss and environmental pollution. There are important strides to be made in satisfying multiple targets within the framework of the Sustainable Development Goals by 2030. In this context, the global community has high expectations that R&D and innovation oriented processes will increase effective solutions while timing and urgency is of paramount importance. Against this urgency and the need for accelerating progress, The Scientific and Technological Research Council of Türkiye (TÜBİTAK) has been advancing a co-creation based collaboration approach to address climate change and sustainable development that directly extends to science diplomacy. This approach extends to all four corners of the world with bilateral scientific and technological cooperation spanning 73 countries and 105 institutions with joint calls that involve relevant themes for mobilizing the R&D and innovation ecosystem. Moreover, TÜBİTAK is presiding over the World Association of Industrial and Technological Research Organizations and will co-host the next Annual Meeting of the Global Research Council with a focus on addressing global challenges through an approach of working together with co-creation. Science diplomacy is actively increased in multiple other international platforms, including the Turkic Science Academy and the International Alliance of Science Organizations. New post-doctoral fellowships are launched to enable the mobility of co-creation based human resources that are conducting research to address the Sustainable Development Goals. These advances in science diplomacy for addressing climate change and sustainable development come at a time when the world needs it the most to be able to ensure a more sustainable future. The experiences and leadership of TÜBİTAK will be useful for diffusing similar processes around the world and support the process of accelerating the impact of collaborative efforts for sustainable solutions.

Prof. Dr. Hasan Mandal

Prof. Hasan Mandal attained his Ph.D. degree from Newcastle University in 1992. Post-doctoral studies were undertaken at Newcastle University (1992-1994) and Karlsruhe University (1997-1998) as an Alexander Humboldt scholar. In 1994, Mandal became Assistant Professor in the Department of Ceramic Engineering at Anadolu University, receiving an Associate Professor status in 1996 and tenured professor status in 2001. With more than 140 publications, over 75 in SCI journals, an h-index of 24, 1884 citations, and 6 international patents, Prof. Mandal holds various national and international awards, including the TÜBİTAK Science Award. He is a member of TÜBA, World Academy of Ceramics, and Academia Europaea. Prof. Mandal was appointed as a member of the Council of Higher Education (CoHE) in March 2015, elected to the Executive Board of CoHE in April 2015, and the Deputy Chairman of CoHE in July 2016. Prof. Mandal served in these positions until January 2018 and as Deputy Rector of Sabancı University from January to February 2018. He was assigned as the President of TÜBİTAK on February 22, 2018, appointed as a member of the Presidential Science, Technology and Innovation Policies Council on October 8, 2018, and elected as the acting president on November 1, 2018. He was elected as a board member of the Council of Higher Education in April 2019. The second term of Prof. Mandal as the President of TÜBİTAK through appointment commenced on February 21, 2022. The World Association of Industrial and Technological Research Organizations (WAITRO) as an international organization founded under the auspices of the United Nations is presided by Prof. Mandal since 2023.

11:00-12:30 SESSION I

11:20-11:40

Prof. Dr. Abdülkadir Balıkçı, Turkish Energy, Nuclear and Mineral Research Agency (TENMAK)

The Aspect of Sustainable Development Goals and Science Diplomacy Regarding Energy Transition and Critical Minerals

The Sustainable Development Goals (SDGs), particularly Goal 7 which aims to guarantee universal access to cheap, dependable, sustainable, and modern energy, play a crucial role in the process of transitioning to a more sustainable energy system. The shift from fossil fuels to renewable energy sources effectively mitigates greenhouse gas emissions and mitigates the impact of climate change. Science diplomacy facilitates the resolution of global challenges such as energy security and climate change via the promotion of international collaboration and the exchange of knowledge.

Wind turbines, solar panels, and electric automobiles necessitate the use of lithium, cobalt, and rare earth metals. The transition to a more environmentally friendly economy on a worldwide scale will increase the demand for these minerals. Nevertheless, the extraction and refinement of these minerals give rise to environmental and socioeconomic concerns. In order to mitigate the negative impacts on biodiversity, water quality, and social stability, it is imperative that the supply chains for these minerals are made sustainable.

The primary focus of energy diplomacy should be to expedite a fair and comprehensive worldwide shift towards sustainable energy, ensuring that no individual or group is excluded. Promoting energy efficiency, renewable technologies, and well-functioning global markets is crucial in resolving the geopolitical concerns associated with fossil fuels.

Science diplomacy necessitates engaging in talks and cooperation to exchange optimal methodologies, technologies, and concepts for achieving a sustainable energy transition. This includes the management of energy policies and the provision of social protection. International collaboration is crucial for the sustainable and ethical extraction and utilization of minerals, since it enables the application of acceptable criteria.

The interactions between the SDGs, science diplomacy, energy transition, and key minerals are complex. In order to achieve a sustainable energy future that is fair, ecologically friendly, and respects human rights, it is essential for governments, businesses, academics, and civil society to collaborate. This initiative will have a significant impact on the achievement of Sustainable Development Goals (SDGs) and global sustainability.

Prof. Dr. Abdülkadir Balıkçı

Prof. Dr. Abdulkadir Balıkçı graduated from Gazi University in 1992. In 1993, he went to the United States with a YÖK scholarship for his master's and doctoral studies. He received his master's degree in 1996 and his doctorate degree in 2003 from New York University Tandon School of Engineering (New York Polytechnic University) Department of Electrical and Computer Engineering. He returned home in 2004 and started working as a lecturer in the Electronics Engineering Department of Gebze Technical University (Gebze High Technology Institute) and still continues his academic activities at the same university. Prof. Dr. Balıkçı worked as an electrical transmission systems Planning Engineer at New England - ISO company in the United States between 2000 and 2003. Between April 2014 and August 2020, he served as the Institute Director of TÜBİTAK Marmara Research Center Energy Institute. In November 2019, he established the Rail Transportation Technologies Institute (RUTE) in cooperation with TÜBİTAK and TCDD to carry out R&D activities in the field of railway technologies, and continued his duty as the founding Institute Director and Chairman of the Board of Directors of this Institute until August 2020. He was appointed as the founding President of the Turkish Energy, Nuclear and Mining Research Corporation in August 2020, and as the President of the Institution and Chairman of the Executive Board in January 2021. Prof. Dr. Abdulkadir Balıkçı's academic study subjects are Lithium-Based Battery Management Systems, Energy Storage Technologies, Electric Vehicle Technologies, Electric Power Systems, Electric Machines, Power Electronics, Electromagnetic Launch Systems and Renewable Energy Systems, etc. can be listed as.

Prof. Dr. Balıkçı speaks English well, is married and has three children.

11:00-12:30 SESSION I

11:40-12:00

Dr. Rahman Nurdun, Turkish Cooperation and Coordination Agency (TİKA)

Enhancing Global Development through Science Diplomacy: Türkiye's Contribution to the UN Sustainable Development Goals

In today's interconnected world, Science Diplomacy emerges as a crucial tool for addressing pressing global challenges, particularly in areas such as environmental sustainability, public health, food security, and water safety. As nations strive to achieve the ambitious targets set forth by the United Nations Sustainable Development Goals (SDGs), collaborative efforts bolstered by scientific expertise become indispensable.

Türkiye, recognizing the significance of Science Diplomacy, has embarked on a proactive approach to contribute to the attainment of the SDGs. Central to this effort is the Turkish Cooperation and Coordination Agency (TİKA), serving as Türkiye's principal aid agency. With a presence spanning over 150 countries, TİKA strategically implements projects and programs aimed at sharing Türkiye's knowledge and expertise, particularly in sectors where it holds comparative advantages – health, vocational training, and agriculture.

This abstract delves into the intricate linkages between science and the UN SDGs, highlighting the pivotal role of Science Diplomacy in advancing global development agendas. It underscores Türkiye's commitment to leveraging its resources and capabilities to foster sustainable progress worldwide.

Drawing upon concrete case studies from African nations like Somalia, Sudan, Libya, and Niger, this abstract elucidates TİKA's impactful contributions to Science Diplomacy. Through targeted interventions, Türkiye actively addresses the unique challenges faced by these countries, ranging from healthcare infrastructure development to agricultural capacity-building. By fostering knowledge exchange and technical cooperation, TİKA cultivates mutually beneficial partnerships, fostering resilience and promoting inclusive development.

In conclusion, this abstract reiterates Türkiye's unwavering dedication to the achievement of the SDGs. Through Science Diplomacy initiatives spearheaded by TİKA, Türkiye emerges as a proactive global actor, demonstrating its commitment to leaving no one behind. As the world navigates complex socio-economic and environmental challenges, collaborative endeavors fortified by scientific diplomacy stand as beacons of hope, paving the way towards a more equitable and sustainable future.

Dr. Rahman Nurdun

Dr. Rahman Nurdun obtained his undergraduate degree from Shanghai Jiao Tong University between 1983 and 1987, his master's degree from the School of Oriental and African Studies at the University of London in 1994-1995, and completed his doctorate at Hacettepe University in Ankara in 2002.

He began his professional career as a specialist at TİKA in 2000. Later, he served as a policy adviser for the OECD MENA Investment Program between 2004 and 2005, and for the OECD Democratic Governance Partnership Program between 2009 and 2010. He served as the Head of the TİKA Ulaanbaatar Program Coordination Office between 2010 and 2011, and then as the Head of the Department for East and South Asia, the Pacific, and Latin America between 2014 and 2018.

In January 2019, he was appointed Vice President of the Turkish Cooperation and Coordination Agency. Additionally, he serves as a part-time faculty member in the Department of International Relations at Hacettepe University. His academic work mainly focuses on international development as well as politics in Asia-Pacific region.

11:00-12:30 SESSION I

12:00-12:20

Murat Yavuz Ateş

Global Governance of Emerging and Disruptive Technologies and the Role of Science Diplomacy

Advancements in compute power, the availability of large amounts of usable data and the application of advanced algorithms has caused a rapid progress in Artificial Intelligence (AI). The rate of advancement seems to be ever increasing. Also other emerging and disruptive technologies (EDT), such as quantum computing, biotechnologies are reaching critical levels of maturity. The advancements in AI will no doubt further increase the advancements in these other EDTs. The advancements in all these technologies are having deep impact on our personal, economic, social lives as well as the environment, bringing unforeseen opportunities as well as great risks and threats. In order to make sure that humanity can benefit the most from these technologies and at the same time humanity and the planet is protected from the harmful risks, there is need for global governance.

Diplomats together with scientists are working intensely around the globe in various platforms such as the UN General Assembly, UNESCO, the OECD, European Council, G-7 etc., as well as through international summits, bilateral and regional mechanisms to establish global governance. In addition to the achievements and challenges, the ethical rules and principles that these technologies entail are discussed in the paper.

Murat Yavuz Ateş

Ambassador Murat Yavuz Ateş, is the Acting Director General for Science and Technology Policies at the Turkish Ministry of Foreign Affairs.

He has served in various departments of the Ministry of Foreign Affairs since 1986 under such titles as Head of Department of International Organizations, Deputy Director General for Energy, Water, Environmental Issues, and Deputy Undersecretary for Economic Issues, as well as Special Coordinator for Science and Technology Diplomacy.

Abroad he has been appointed to various Turkish representations including the Turkish Embassy in Tokyo (as Counselor), the Turkish Permanent Mission to the OECD (as Counselor and Turkish Energy Advisor to the International Energy Agency), Turkish Consulate General in Dubai (as Consul General), the Turkish Embassy to Myanmar (as Ambassador) and Turkish Embassy to Brazil (as Ambassador).

Ambassador Ateş holds BA and MA degrees from the University of Ankara in international relations and a Master of Arts in Law and Diplomacy (MALD) degree from, Fletcher School of Law and Diplomacy, Tufts University.

14:00-15:30 SESSION II

14:00-14:20

Prof. Dr. Birol Akgün

Science Diplomacy and Turkish Maarif Foundation

14:00-15:30 SESSION II

14:20-14:40

Gulzar Karybekova, Centre of Actual Problems and Development, Public Foundation,
Kyrgyzstan

Sustainable Development Goals and Science Diplomacy: A Path towards Global Cooperation

The Sustainable Development Goals (SDGs) represent an ambitious agenda for addressing the world's most pressing social, economic, and environmental challenges. Achieving these goals requires concerted efforts and cooperation among nations, which can be facilitated through science diplomacy. This paper examines the role of science diplomacy in advancing the SDGs, focusing on its potential to foster collaboration, build trust, and facilitate knowledge exchange among diverse stakeholders. Drawing on theoretical frameworks from political science, international relations, and sustainable development studies, the paper explores the concept of science diplomacy and its relevance to the implementation of the SDGs. It analyzes case studies and best practices from some countries to illustrate how science diplomacy can contribute to achieving specific SDGs, such as promoting ensuring access to clean water, and combating climate change.

The paper also discusses the challenges and opportunities associated with integrating science diplomacy into national and international policy frameworks. By highlighting the importance of science diplomacy in advancing the SDGs, this paper aims to inform policymakers, scientists, and practitioners about the potential benefits of leveraging science and technology for sustainable development and global cooperation.

Gulzar Karybekova

Ms. Karybekova is the Director of Centre of Actual Problems and Development, Public Fund, based in Kyrgyzstan. She earned her higher University Degree at the Diplomatic Academy of the Ministry of Foreign Affairs of the Russian Federation in 2011 with the major of International Relations and received Bachelor Degree in Law at the Kyrgyz State National University in 2001 and studied for one more year to 5-year University Diploma of Specialist. In 2013, she was awarded the Diploma of Inter-Parliamentary Assembly of Commonwealth of Independent States (Saint-Petersburg, Russia) and made Fellowship of Doctoral Program at the Hague Academy of International Law (Hague, the Netherlands) in 2022. Previously, she worked for the National Academy of Sciences of the Kyrgyz Republic in political-legal fields Institute and has several scientific publications, participated as a speaker and moderator in international conferences & workshops, seminars & forums in Asia-Pacific and European countries.

14:00-15:30 SESSION II

14:40-15:00

Mustafa Başkara, Ankara University National Center for the Sea and Maritime Law

Sea and Maritime Law from the Perspective of Science Diplomacy and Global Governance

As terrestrial resources prove insufficient to meet the needs of the growing global population, the utilization of technological advancements has rendered the seas a significant component of sustainable development. The concept of the blue economy offers a wide range of development opportunities from fisheries to renewable energy. To maximize the benefits derived from the seas, it is essential to plan the legal infrastructure of all initiatives at both national and global levels. The sea and maritime law, which is applied to marine areas characterized by higher risks, substantial investment requirements, and conflicting interests, emerges as a distinct and uniform branch of international law. Considering that the norms of the sea and maritime law have been codified in international meetings from the customary rules practiced by individuals and states concerning the seas, it is evident that science diplomacy plays a crucial role in guiding efforts towards sustainable development and environmental protection in this field. In this context, a robust science diplomacy is necessary to adapt to numerous innovations in the sea and maritime law, such as maritime autonomous surface ships (MASS), offshore multi-purpose platform technologies, and decarbonization targets.

Within the framework of this study, the balance between sustainable development goals and the protection of the marine environment and ecosystem will be examined through the lens of international academic research and state practices. Additionally, the process of ensuring the sustainability of the seas while making them available for the benefit of humanity will be scrutinized. This will include an analysis of the dialogues and negotiations among intergovernmental organizations, civil society actors, and individuals from social, economic, and political perspectives, highlighting the development of the sea and maritime law in the light of global governance.

Mustafa Bařkara

Mustafa Bařkara, after obtaining his bachelor's degree in law from Ankara University in 2013, completed his master's degree in International Maritime Law at Queen Mary University of London in 2016. Currently, he is pursuing his Ph.D. in Maritime Law at Ankara University.

He began his professional career with an internship at the International Maritime Organization (IMO IMLI) in 2016, significantly enhancing his knowledge in maritime law through this training. Subsequently, from 2017 to 2021, he started his academic career as a research assistant at the Faculty of Law of Ankara Social Sciences University.

Between 2020 and 2022, Mustafa Bařkara served as a consultant to the Minister at the Ministry of Justice of the Republic of Turkey, contributing to shaping legal policies.

Additionally, since January 28, 2021, he has been serving as the CEO of Ankara University National Center for the Sea and Maritime Law (DEHUKAM). Through his role at DEHUKAM, he plays a significant role in shaping Turkish maritime law and policies. Furthermore, since 2023, Mustafa Bařkara has continued his role as the Director of the Climate Change Regional Activity Centre (CC/RAC) under the UNEP/MAP Barcelona Convention, hosted by Trkiye, focusing on climate change activities.

14:00-15:30 SESSION II

15:00-15:20

Deniz Eldeniz & Meltem Hafızmehtetođlu & Özlem Yalçınkaya, Bezmialem Vakıf University

The Role and Importance of Libraries in Science Diplomacy in the Context of Sustainable Development

The concept of science diplomacy has a very important place in our age, which is described as the age of science. With globalization, the scientific studies of researchers play a role in establishing international interactions and relations through the language of science, which is a universal language, thus contributing to foreign policy in terms of science and technology. The concept of science diplomacy, in addition to foreign policy processes, has been effective in promoting sustainable development by using science as a lifelong process and means of communication. An important aspect of sustainable development goals is to combat global environmental threats. Science diplomacy can use science and scientific cooperation against these threats to improve international prosperity. In this way, it encourages the achievement of sustainable development goals for the common benefit of humanity by establishing international collaborations and partnerships in science and technology and contributes to the development of relations by increasing civil society interaction.

This study was prepared within the scope of the main themes of the symposium, "Sustainable Development Goals and Science Diplomacy". The literature review method was used as the methodology in the study. Within the scope of the study, the importance of the concept of science diplomacy for the sustainable development goals and the role of libraries in this context were examined. The role and importance of libraries in standardizing scientific study outputs and data on a global scale through various applications and sharing them with users has been researched. In this study, the importance of science diplomacy for a sustainable future and the contributions of libraries, which serve as public information repositories and institutional memory, to the sustainable development goals in terms of scientific communication and scientific collaboration in terms of storing and protecting scientific data as well as transferring this information to the society, will be examined. The role of libraries and their relationship with sustainable development in the phenomenon of science diplomacy, which means the use of science and international scientific collaborations to develop relations between countries and to solve common global problems, will be explained.

Deniz Eldeniz

She completed her undergraduate degree in American Culture and Literature department at Istanbul University in 2021. In 2023, she completed her master's degree at Marmara University Turkic Studies Institute, Department of Information and Document Management. She is continuing her PhD at Marmara University Turkic Studies Institute Information and Document Management department. Deniz Eldeniz started working at Bezmialem Vakif University Directorate of Library and Documentation in 2024. She continues to work on Electronic Document Management System (EBYS), electronic signature processes, academic identity processes and sustainability studies.

Meltem Hafızmehtetođlu

She completed her undergraduate degree in Information and Document Management department at Istanbul University in 2021. Meltem Hafızmehtetođlu, who started working at Bezmialem Vakif University Library and Documentation Directorate in the same year. She continues her work on the corporate academic archive system, electronic document management system, official correspondence rules, university rankings and sustainability.

Özlem Yalçınkaya

She completed her undergraduate degree at Marmara University Information and Records Management Department in 2007. She completed her master's degree at Information and Records Management department of Institute of Turkic Studies the same university. While she works as the library director at Bezmialem Vakif University Library and Documentation Directorate, she also works as a Lecturer in the Medical Documentation and Secretarial Program in Vocational School of Health Services of the same university. She takes an active role in many different positions such as Chief Coordinator, Quality Commission Chairman, Education Commission member, Internship Commission member, Continuing Education Center board member, Strategy Development and Planning Commission team member, Occupational Health and Safety Commission board member, Barrier Free Student Unit board member, Open Access Institutional Archive commission member, Sorting and Disposal Commission member, Project Specialist. She continues her work on open science, open access, sustainability, university rankings, bibliometrics, and electronic records management system.

15:50-17:00 SESSION III

15:50-16:10

Fazlı Çorman, Republic of Türkiye Ministry of Foreign Affairs

An Evaluation of Türkiye's Arctic Relations on the Basis of the Türkiye-Norway Case

Due to increasing global interest in Arctic-related issues, a wide diversity of governance issues ranging from Arctic policies, international law, the science-policy interface, regional cooperation to indigenous rights, as well as sustainable development in the Arctic have taken remarkable attention in recent years. The non-Arctic states consecutively publish research-oriented policies for the Arctic in which their presence has mainly been legitimized by addressing the global effects of human-induced climate change while the Arctic states have gradually reinforced the Arctic Council in response. Owing to its unique governance framework – regional, national, and international levels as well as the EU – the regional cooperation process has been predicated on a soft law-based trend that focuses on stimulating non-legally binding guidelines, best practices, and recommendations. Contrary to general view, Türkiye's relations with the Arctic states have deep roots dating back to the Second International Polar Year (1932-33). Besides, Türkiye's bilateral relations were established with Norway in 1926. The commercial relations with Norway have further gained momentum since the 2000s, especially in terms of the energy and shipping sectors. Furthermore, Türkiye's decision to ratify the Svalbard Treaty presents its determination to become an active non-Arctic state in the region. Accordingly, this study examines Türkiye's Arctic relations on the basis of the Türkiye – Norway case.

Fazlı Çorman

Ambassador Çorman was born in 1963 in Ankara. He studied at the Departments of Political Science and Economics of the Middle East Technical University and joined Turkish Ministry of Foreign Affairs in 1985. He worked in various units at the Ministry during his early career including Cyprus, Information and Middle East Departments, and the Office of Special Representative for Iraq. He served abroad in Thessaloniki, Muscat, Tokyo, and Ottawa and then as Deputy Permanent Representative of the Turkish Mission to UN in New York in 2007-11. He was Turkish Ambassador to Yemen between 2011-16 which was followed by his appointment as Director General (Political) for South Asia responsible from Iraq, Iran, Afghanistan, Pakistan, India and the sub-Continent, at the Turkish Ministry of Foreign Affairs. He served as Turkish Ambassador in Norway, accredited also to Iceland between 2019 and 2023, that is where he became acquainted with Arctic affairs that eventually brought him to our Panel. Ambassador Çorman is currently working in Ankara as a Member of the Board of Inspectors of the Turkish Ministry of Foreign Affairs. He is married to Mrs. F. Gülhan Çorman and they have one son.

15:50-17:00 SESSION III

16:10-16:30

Prof. Dr. Burcu Özsoy, TÜBİTAK Marmara Research Center & İstanbul Technical University

Milestones of Turkish Polar Research: A Summary of Recent Advances

Antarctica, with its unique ecosystems and geographical isolation, provides an unparalleled environment for scientific research across various disciplines, while the Arctic is heavily impacted by global climate change and anthropogenic pressures. Both polar regions are integral to Earth's natural processes, particularly in the regulation of ocean currents and climate systems. Considering these regions are key components of the global climate system, degradation in these areas are of global concern since the impacts of climate change is not only limited to high-latitude regions. Although Türkiye acceded to the Antarctic Treaty in 1995, Turkish scientists have been involved in polar research since 1960s. These initiatives gained substantial momentum after national polar research activities were put under the auspices of the Presidency of the Republic of Türkiye. As an outcome, the first coordinated national effort was marked by the First Turkish Antarctic Scientific Expedition in 2017, meanwhile the first Turkish Arctic scientific expedition was in 2019. In addition to these initiatives, bilateral international agreements were signed with many programs on logistic and scientific cooperation in polar regions, which allowed Turkish researchers to join expeditions and work at other countries' research stations. Up to date, eight Antarctic and three Arctic national scientific expeditions were conducted and over a hundred Turkish scientists had the opportunity to conduct research in these challenging regions. These efforts were crowned by numerous scientific articles published in reputable international journals. This study presents a summary of recent advances and milestones in the Turkish polar research activities, with an emphasis to science diplomacy.

Prof. Dr. Burcu Özsoy

Prof. Dr. Özsoy began her career as a lecturer at Istanbul Technical University's Maritime Faculty in 2001. In 2005, she commenced her doctoral studies at the University of Texas at San Antonio (UTSA). By completing her doctorate on tracking the sea ice surrounding the Antarctic continent using satellite images, she had the opportunity to collaborate with national and international scientists, including those at the NASA Goddard Space Flight Center. In 2015, she founded the Polar Research Center (PolReC) at Istanbul Technical University. Özsoy is the director of the TUBITAK Marmara Research Center (MAM) Polar Research Institute, which was established in 2019, and the President of TUBITAK MAM.

15:50-17:00 SESSION III

16:30-16:50

Assoc. Prof. Ebru Caymaz, Çanakkale Onsekiz Mart University

Science Diplomacy and Capacity Building: A Roadmap for the 5th International Polar Year

In recent years, an increasing number of high-level political negotiations have been assisted by academicians and scientists which highlighted the essential role of scientific collaborations while addressing global challenges such as climate change, migration, and protracted crises. The number of science diplomacy studies investigating the potential of the science and technology nexus to enhance a sustainable future has also increased as well. Since the international scientific networks contain a substantial constellation of stakeholders ranging from international scientific organizations and research councils to regional charities involved in funding, capacity building within these networks necessitates a holistic framework. Besides, aligning scientific outputs and technological developments with political interests presents a unique challenge for policymakers and scientists. On the other hand, international scientific networks on polar research have become prominent examples in terms of addressing climate change through science diplomacy. By virtue of the fact that the conceptualization of science diplomacy has been predicated on the Antarctic Treaties Summit, Türkiye's polar science diplomacy process is selected as a case in this study. Therefore, this study aims to reveal a roadmap for the 5th international polar year by presenting the antecedents, dimensions, application methods, and future prospects of Türkiye's polar science diplomacy.

Assoc. Prof. Ebru Caymaz

Assoc. Prof. Ebru Caymaz works at Çanakkale Onsekiz Mart University. She completed her master's degree in Defense Resources Management at ATASAREN, a part of the National Defense University (between 2010 and 2012), and her first PhD in Business Administration at Marmara University. In order to conduct multidisciplinary research, she completed her second PhD lectures at the Department of International Relations - National Defense University. Caymaz's main research areas are Science Diplomacy, Arctic Governance, and Indigenous People. In 2019, she became an international researcher of the US-based Arctic Institute and has published three research papers since then. In 2022, she participated in an international project about Russian indigenous communities organized by Yamal Research Centre and St. Petersburg State University. Caymaz has participated several Arctic expeditions and conducted multidisciplinary field studies since 2015. Owing to her previous studies, Caymaz is elected to the Steering Committee of the Scientific Committee for Antarctic Research (SCAR) and the Fourth International Conference on Arctic Research Planning (ICARP IV) Scientific Cooperation and Diplomacy Working Group. She is also a member of APECS, International Arctic Social Sciences Association, and Polar Educators.

Dr. Atilla Yılmaz

Dr. Atilla Yılmaz graduated from the Shipbuilding and Ocean Engineering Department of Istanbul Technical University in 2008. He focused his studies on marine pollution research during both his master's and PhD programs within the same department. Currently serving as a chief researcher at the Polar Research Institute of TÜBİTAK Marmara Research Center, Dr. Yılmaz is involved in coordination & implementation of environmental legislation for Turkish polar research activities, as well as environmental monitoring studies for determination of anthropogenic impacts in polar regions. Additionally, Dr. Yılmaz represents Türkiye in various international forums, serving as a delegate in meetings convened by organizations such as ATCM (Antarctic Treaty Consultative Meeting), CEP (Committee for Environmental Protection), SCAR (Scientific Committee on Antarctic Research), and European Polar Board.

June 29, 2024

09:00-10:30 SESSION IV

09:00-09:20

Assist. Prof. Jovana Milic, University of Fribourg, Global Young Academy (GYA)

Science Advice and Science Diplomacy: What can young academies contribute to public engagement?

The GYA was established in 2010 and brings together passionate young scientists, selected for their scientific excellence and commitment to engage with society. The GYA and its members recognise that solving today's and future global challenges requires collaborative efforts that surpass geographical and disciplinary boundaries. Such collaborations call for reshaping dialogues and bridging socio-cultural gaps. To do that, several working groups within the Science and Society theme focus on issues of relevance to a more sustainable future, such as Science Advice group that aims to train, educate and inform early-career researchers about international science-policy interfaces. In this talk we will present some of the ongoing projects and discuss the different tools researchers can use for public engagement and science diplomacy issues.

Assist. Prof. Jovana Milic

Jovana Milic leads the Smart Energy Materials Group at the Adopthe Merkle Institute since September 2020 as Swiss National Foundation PRIMA Fellow and Assist Prof at the University of Fribourg in Switzerland. She obtained her PhD in Chemistry at ETH Zurich and worked as a postdoctoral researcher in EPFL. Her research interests include smart materials, energy conversion, sustainable development and science for policy and diplomacy, and she is currently the co-lead of Science Advice working group at GYA.

09:00-10:30 SESSION IV

09:20-09:40

Dr. Özlem Tuğçe Keleş, İstanbul Gelişim University

In The Context of Science Diplomacy: “Climate Change” A New Communication Tool

Beyond its conceptual contribution to the literature, science diplomacy appears as a method for countries to use information as a power in the context of public diplomacy. As a part of sustainable development goals, climate targets are a soft power for the communication processes of countries in the context of public diplomacy, as it is an issue that affects all countries first-hand. Strategic communication approaches play an important role in transforming scientific research and approaches into a diplomacy tool. In this framework, the fact that countries use mass media as a way of expressing their responsibilities against climate change points to an instrumentality both in the context of public diplomacy and in the context of science diplomacy. When evaluated through this approach, this study will analyze the news coverage of Turkey's official statements during the United Nations climate summit COP28 process according to the framing theory and evaluate the reputation management process of the news on climate change in the context of public diplomacy and science diplomacy. With this sample, the discussion of how climate change is made a part of reputation management in the context of public diplomacy with the mediation of science diplomacy media in the context of public diplomacy while carrying the concerns of countries in the common denominator will be revealed.

Dr. Özlem Tuğçe Keleş

Dr. Lecturer Özlem Tuğçe Keleş completed her undergraduate education at Kadir Has University, Faculty of Communication, Department of Cinema TV with a degree and completed her Master's program in Communication Sciences at Kadir Has University with a thesis titled “Local fiction, adaptation, remake: Science fiction in the Yeşilçam era” at Kadir Has University. Özlem Tuğçe Keleş, who graduated from Yeditepe University Media Studies PhD program in 2019 with her thesis on the history of cinema and early Turkish cinema titled “Tebaadan Ulusa Erken Dönem Türk Sineması Tarihselleştir Ön Öneri”, received the Future Filmmaker award in 2010. Keleş, who works on communication research, sociology of communication, cinema and history, continues to work on feature-length screenplays. Özlem Tuğçe Keleş is an Assistant Professor at Istanbul Gelişim University, Department of Cinema and Television.

09:00-10:30 SESSION IV

09:40-10:00

Dalya N. Çatalçekiç^a, E. Merve Samancı^b, Nazan An^c, M. Tufan Turp^d, Işıl Aksan Kurnaz^e & M. Levent Kurnaz^f

^{a,b,c,d,f} Boğaziçi University

^eGebze Technical University

Measuring Performance for Sustainable Development Goals: A Comparative Study from Social, Economic, and Environmental Perspectives

Sustainable Development Goals (SDGs), put forward by the United Nations (UN), emerged with the aim of creating a more sustainable world in terms of social, economic and environmental (SEE). The SEE position of countries in achieving the Global Goals is determined by measurements and reporting containing various indices. This study examines the adequacy, consistency, weaknesses and strengths of the SDG Index created by the Sustainable Solutions Network and used to measure the SDGs and other global indices. In this context, more than thirty indices in the SEE fields used to measure SDGs were investigated and the indices containing current data of recent years were evaluated. In addition, SEE weights, performances and relationships of SDG indicators and indices were discussed, and in this context, comparisons were made between different country communities. Evaluation results indicate that the index diversity and weightings of indices with standard dimensions differ. While the compiled indices have at least one SEE dimension and they also support the other two dimensions. Comparing the country communities, differences were observed between the countries' scores with similar geographical characteristics in the same region, and it was determined that this situation resulted from by differences in the countries' income levels. However, the failure of countries with high GNP to succeed in social, economic and environmental dimensions draws attention to the fact that economic strength solely is not sufficient. Findings in the indices underlines that developing countries generally focus on economic growth while ignoring environmental and social impacts.

In addition, the study investigated the contribution of science diplomacy to the achievements of SDGs and the relationship between them, taking into account the framework that the SDGs provide to science diplomacy. Achieving the SDGs in the countries is closely related to science diplomacy. The dynamic relationship between them is based on science diplomacy proving on a scientific basis the contribution that the achievement of the SDGs will make to countries. On the other hand, SDGs support science diplomacy efforts through guidance, contributing to mutual development with a globally recognized framework with high impact.

Prof. Dr. M. Levent Kurnaz

For years Prof. Dr. M. Levent Kurnaz, a researcher, educator, and innovator has left a mark on various corners of the scientific world. His journey started from the Electrical and Electronics Engineering Department of Boğaziçi University, followed by pursuing master's and doctoral degrees in physics. In 1994, after completing his doctorate at the University of Pittsburgh, he stepped into the world of science and conducted postdoctoral studies in chemistry at Tulane University. In 1997, he decided to continue his academic career in the Physics Department of Boğaziçi University, a decision that led him to the professorship he holds today. Known for his research focused on various topics such as sustainability, regional climate change modeling, and the effects of climate change, Kurnaz also manages the Boğaziçi University Center for Climate Change and Policy Implementation and Research. In this role, he focuses on overcoming the obstacles to climate change and developing policies that will help society cope with this great challenge. Stressing the importance of collaboration by saying "We cannot do it alone," Prof. Dr. Kurnaz emphasizes the need to create value together with all stakeholders committed to the issue, including the public, NGOs, brands, and student unions.

09:00-10:30 SESSION IV

10:00-10:20

Prof. Dr. Işıl Kurnaz, Gebze Technical University

Science Communication and Science Advice requires specific tools – How Can We Help Early Career Researchers

Science communication is at the heart of public outreach, science advice and science diplomacy, which researchers of all ages must engage in. We are mostly familiar with dissemination in scientific circuits, be it congresses, symposia, workshops or papers, however we are less equipped and familiar with communicating our science to the public, policymakers or funders. It is important to provide early career researchers with appropriate tools and guidance in that regard. In this talk, we will present some best practices, and discuss how different cultural gaps can be bridged via young researchers.

Prof. Dr. Işıl Kurnaz

Isil Kurnaz received her BSc in Molecular Biology and Genetics at Boğazici University, followed by PhD in Biochemistry n University of London and postdoc in University of Manchester. She established her laboratory on Molecular Neurobiology at Yeditepe University, and since 2014 she works at Gebze Technical University as the Founding Director of Institute of Biotechnology. She is a previous TUBA GEBIP awardee, L'Oreal for Women in Science awardee, and a GYA alumna. She has worked in the Science Education for Youth, Bio2Bio and Science Advice working groups in GYA. She also served as a term member of European Dana Alliance for the Brain and organized Brain Awareness Week activities in İstanbul and Kocaeli area as a public outreach event for several years. She is a devote advocate of science communication and diplomacy.

10:50-12:30 SESSION V

10:50-11:10

Prof. Dr. Anjana Singh

Sustainable Development in Nepal via Science Diplomacy

Nepal is an under developing country planned to achieve development by 2026. Nepal has targeted for achieving Sustainable Development Goals (SDGs, 2016–2030) and middle-income country (MIC) status by 2030. Science, Technology and Innovation (STI) for sustainable development and prosperity of the nation is explained by National Science, Technology and Innovation Policy, 2019. Science Diplomacy is the process of developing relationship among the nations with the use of STI through collaborative research, development, innovation, academic partnership, and exchanges. It is an important tool for achieving SDGs by 2030 by resolving challenges and promoting international cooperation, coordination and collaboration. Science diplomacy should be an essential measure of Nepal's foreign policy which may support scientists and technologists to contribute to scientific based solutions to problems; promote need based scientific collaboration and activities. Nepal must incorporate STI diplomacy for sustainable development to meet development via science diplomacy.

Prof. Dr. Anjana Singh

Dr. Anjana (Maharjan) Singh, Professor at Central Department of Microbiology, Tribhuvan University, Nepal, 1994. Her PhD is from Jawaharlal Nehru University, India, 2004; post-doctoral from University of Virginia in 2008-09; has 13 national/international awards, had been the head of department from 2004-2008; 2012-2016, academician of NAST. Involved in committees at NAST: Management, Biological, Research and Publications, Service commission, editorial board of Nepal Journal of Science and Technology, and coordinator of Women Scientists Forum Nepal, national/international publications are 147; Masters' thesis supervised-109; PhDs supervised/co-supervised 6, ongoing 3; peer reviewer of 10 journals. Serves as executive board member of AASSA-WISE committee since 2015.-2019 Attended workshops like AASSA/IAP in India, 2013, 2014, 2019, Turkey 2014; Korea, 2015; Bangladesh 2016; Malaysia 2018, Indonesia 2021, Srilanka 2023, executive member of Board of Studies, South Asian University (2016-2018), attended 107 national/international workshops/conferences/symposiums, also a member of cluster committee of UGC, Nepal (2015-2019), peer reviewer -12 journals.

10:50-12:30 SESSION V

11:10-11:30

Assist. Prof. Shujaullah Aman, the Academy of Sciences of Afghanistan

Immigration for Sustainable Development: A Science Diplomacy Perspective

This paper provides a comprehensive overview of the intersection of immigration and sustainable development, highlighting the potential of science diplomacy to address the challenges and opportunities associated with immigration. The abstract and introduction effectively set the stage for the paper, emphasizing the importance of understanding the relationship between immigration and sustainable development in an increasingly interconnected world. The paper is organized into three main sections, each of which provides a thorough examination of a specific aspect of immigration and sustainable development. First of all, provides a detailed analysis of the role of immigration in sustainable development, covering economic, social, and cultural dynamics, as well as environmental considerations. The section effectively synthesizes empirical evidence and case studies to demonstrate the potential benefits of immigration for sustainable development. Secondly, explores the role of science diplomacy in shaping immigration policies, highlighting the importance of evidence-based decision-making, data collection and analysis, and stakeholder engagement. The section provides a clear and concise overview of the ways in which science diplomacy can contribute to the development of effective immigration policies. Third, addresses the challenges and opportunities associated with immigration and sustainable development, emphasizing the need for global cooperation, policy integration, and the importance of addressing the complexities of immigration in a holistic and sustainable manner.

The conclusion effectively summarizes the main arguments of the paper, highlighting the critical role of science diplomacy in promoting sustainable immigration practices that contribute to overall development goals. The paper provides a comprehensive and nuanced analysis of the complex relationships between immigration and sustainable development. The use of empirical evidence and case studies adds depth and credibility to the analysis. The paper effectively highlights the importance of science diplomacy in addressing the challenges associated with immigration and sustainable development. The organization and structure of the paper are clear and logical, making it easy to follow and understand. In this study, based on strategy partnership approach and using descriptive- analytic methodology (combination of quantitative and qualitative methods) Overall, the paper provides a valuable contribution to the literature have been employed, with meticulous collection and analysis of reputable sources such as scholarly articles, books, reports, case studies, and relevant databases, on immigration and sustainable development, highlighting the critical role of science diplomacy in promoting sustainable and equitable immigration practices.

Assist. Prof. Shujaullah Aman

Shujaullah Aman was born on May 20, 1983, in the Qasba area, District 15 of Kabul province, and hails from Alingar district of Laghman province, Afghanistan. He completed his primary, middle, and secondary education at Prof. Abdul Ahmed Javed (Qasba) High School, graduating with the highest marks in 2001. He earned his B.A. degree from the Economics faculty of Nangarhar University in 2006. During his university years, he also undertook short-term and one-year studies, obtaining diplomas in English, Computer, Administration, and Business. In 2009, he won a master's scholarship to India through an open competition and began his master's studies in economics at Panjab University Chandigarh, India. He completed his MA in Economics there in 2012. Alongside his university studies, he worked as a teacher in short-term educational courses. In 2008, through an open competition, he was appointed Chief Manager of Monitoring and Evaluation of Afghanistan's Administration and Accounting Institutes in the Ministry of Education and also became a member of the academic board. As a member of the academic staff of the Ministry of Education, he taught as a lecturer in the educational institutes of Kabul administration and accounting, business, and the professional teachers training academy. In 2015, he participated in the examination for the provincial administrations of the Ministry of Finance through an open competition. After achieving high marks, he was appointed as head of the Revenue Department in Maidan Wardak Province. Currently, he works as an assistant professor with the Sciences Academy of Afghanistan.

10:50-12:30 SESSION V

11:30-11:50

Ayşegül Özkan & Prof. Dr. Nazan Aktaş, Selçuk University,

The Role of Science Diplomacy in Achieving SDG2: Zero Hunger

The Sustainable Development Goals (SDGs) aim to develop solutions to the important problems societies face by drawing a comprehensive framework. With the SDG2 "zero hunger" target, efforts to ensure global food security, improve nutrition, and make agriculture sustainable are supported.

Science diplomacy plays important roles at critical points in the realization of SDG2. The most basic step to be taken in developing effective solution strategies is to understand the problem in all its aspects by addressing it scientifically. Science diplomacy and scientific and diplomatic processes should support each other bi-directionally. The use of science diplomacy in facilitating cooperation in various fields contributes to the dissemination of international research projects, R&D studies, technological developments, and progress towards the goal of SDG2. Seed and plant banks are established and international investments in sustainable agriculture are encouraged. The importance of global policies for solving problems in the food system is emphasized.

Through science diplomacy, scientific knowledge is shared more internationally, and good practices and models can become widespread among countries. For a correct and common goal, science can also contribute to the improvement of diplomatic relations by building international bridges. Science diplomacy can be effective in creating a temperate environment in response to some diplomatic crises such as wars, and can also contribute to solutions in situations such as economic crises and epidemics. Using science as a tool has the potential to protect progress toward SDG2 and prevent regression. Evidence-based scientific data should guide us when creating policies to achieve SDG2. Removing trade embargoes between countries and increasing the efficiency of global food markets contributes to meeting the food supply of societies and supports the achievement of the goal of ending hunger. Countries are expected to support and participate in science diplomacy in achieving the SDG2 goal of zero hunger. Collaborations should be increased in order to use the potential power of science diplomacy in achieving the global goal of "SDG2 - Zero Hunger".

Ayşegül Özkan

Ayşegül Özkan graduated first in her class from the Department of Nutrition and Dietetics at Selçuk University in 2021. Her master's thesis focused on food security and intuitive eating. During her undergraduate and masters studies, she served as a student assistant and participated as a researcher in various projects and studies. Ayşegül Özkan was a TÜBİTAK scholar during her master's education and continues to be a TÜBİTAK scholar in her doctoral education. She provides scientific consultancy for a nutrition and dietetics initiative based in California, USA. She is currently continuing her PhD, which she started at the Department of Nutrition and Dietetics at Selçuk University in 2023.

Prof. Dr. Nazan Aktaş

Prof. Dr. Nazan Aktaş completed her graduate education in the Department of Nutrition Sciences at Ankara University. Since 1998, she has been working at Selçuk University. She has coordinated various European Union projects and has worked as a Visiting Scholar at Columbia University in the USA. Prof. Dr. Nazan Aktaş's main areas of interest include community nutrition, nutrition education and counseling, sustainable food and nutrition, food systems, food loss and waste, and food security. She has published her work in numerous national and international journals, books, and conferences and has supervised 24 master's theses. She is a member of the Konya Provincial Adequate and Balanced Nutrition Board and the Konya Provincial Lifelong Learning Board. Currently, she serves as the Head of the Department of Nutrition and Dietetics at the Faculty of Health Sciences of Selçuk University and as the Head of the Community Nutrition Division.

10:50-12:30 SESSION V

11:50-12:10

Dr. Mücahit Sami Küçüktığı, Selçuk University

Global Media Representation of Campus Protests in American Universities in the Resolution of the Gaza Conflict

Starting on October 7, 2023, the Gaza events are one of the most important international problems affecting the agenda of Turkey and the world. The human tragedy in Gaza, which went beyond the problem of the conflict to genocide, deeply affected not only sensitive politicians, statesmen and journalists, but also the world of science. The April 17, 2024 protests in support of Gaza, which started at Columbia University, one of the best universities in the US, and the subsequent actions carried out with scientific solidarity in American and European Universities are important in terms of demonstrating the power of science, academia and student solidarity in conflict resolution. While we have scientific analyses on the solutions offered by science against problems such as the climate crisis and coronavirus, it is seen that scientific analyses have not been made on the actions against the human tragedy in Gaza and the way these actions are reflected in the media. This study aims to reveal how the protests in support of Gaza, especially in American and European universities, are covered by global media outlets. Within the scope of the research, American CNN, British BBC, Russian RT, Chinese CGTN, Qatari Al Jazeera, Turkish TRT World, Israeli The Times of Israel news websites were analyzed between April and May 2024, when student and academic protests at universities were intense. As a result of the detailed quantitative and qualitative content analysis of global news sites within the framework of Herman and Chomsky's propaganda themes, it was determined that there were differences in the presentation, visuals and word analysis of the news. As a result of the analysis, it was determined that the student protests in universities, supported by scientists, led to a significant difference in the resolution of the conflict in the context of the Gaza crisis and led to a break in America's policy towards Israel.

Dr. M¼cahit Sami K¼¼¼kt¼¼¼

Dr. K¼¼¼kt¼¼¼ was born on January 2, 1976, in İzmir. He completed his Ph.D. at Selçuk University, Faculty of Communication, with a focus on Local Political Elites. Currently, he is conducting research in the fields of Political Communication, Crisis Communication, and Digital Communication. He has authored three books, including "Konya within the Scope of Sustainable Development Goals," which has been translated into English. Additionally, he has published nearly 30 papers, articles, and studies.

10:50-12:30 SESSION V

12:10-12:30

Prof. Dr. Finarya Legoh, Indonesian Academy of Sciences

Science Communication and Public Engagement in Diplomatic Endeavours: Fostering Youth Provision to Define Future World

Science communication becomes more crucial nowadays, especially when global problems and complex challenges raised, such as: natural disasters, pandemic, climate change effects, etc.; while science diplomacy is a way of describing scientific work to solve societal problems, engage relations and fostering scientific cooperation. In the case of global problems raised up, scientific cooperation becomes vital and most importantly how the works and its information resonate to community and can be absorbed and digested by them.

Many think that science diplomacy endeavours provide only for scientists, policymakers and community. However, method on fostering innovation, science and technology cooperation by engaging youth globally is found effectively appropriate. Considering youths are our next generation responsible to maintain sustainability of our planet earth, that they should be equipped with proper knowledge and behaviour.

The tools provision can be programs on scientific challenge and creativity, mind odyssey, science camp, etc. The factual objectives emphasized to build international network and friendship, share creativity, knowledge and disseminate findings, and connect to community. The framework is designed to specifically solve the real environmental and humanitarian problems, such as: pandemic, climate change, social conflict and war, clean and renewable energy, etc. The obligation arranged to a mixed group or individual, combined with intense discussion on how they consider to tackle the problems hand-in-hand, by integral role of science and technology and convene to the impact on social, economy and culture circumstances.

These practical approaches are quite promising as the youths are adequately talented to innovate and enhance knowledge in science and technology, raising curiosity and empathy to the surroundings, fostering both individual and team-work, developing future collaboration among participants and friends, influencing families, relatives and communities. The programs provide youths with experiences that allow them to work as real scientists and to communicate their work to community, they are represented as science envoys to divine the future world.

Prof. Dr. Finarya Legoh

Dr. Legoh has been working since 2019 at Indonesian Academy of Sciences (APII) as Head of International Relation & Funding. In 2022, she became Secretary of Science20 Indonesia Presidency. Since 2021, she has served as Chairperson of SHARE Communication Committee (Science, Health, Agriculture, Risk and Environment), within AASSA (Association of Academies & Societies of Sciences in Asia). Since 2020, she has served as Senior Program Officer at Southeast Asia – Europe Joint Funding Scheme (SEA-EU JFS) Secretariat; as member of working group of Southeast Asia Science Advice Network (SEA SAN). Dr. Legoh is a senior lecturer at Faculty of Engineering University Indonesia, for building technology, sustainable architecture S&T, gained PhD in Applied Acoustics from Salford University, UK. She has worked at Agency for Assessment & Application of Technology for various research & S&T management (1982-1999), 2012-2019 as Principal Engineer. Between 1999 and 2012 she worked at Ministry of Research and Technology, Indonesia, in disseminating & communicating S&T to public, industry and stakeholders, and advisor & trainer for researchers.