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20th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region - October 26-27, 2020

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Foreword

The MESAEP biannual symposium on the state of the environment and its impact on the quality of life in the Mediterranean region has been established over the last fourty plus years as a scientific institution in the Euro-Mediterranean basin. The 20th symposium was meant to celebrate the 40 years of MESAEP, a track record that makes MESAEP the oldest scientific society catering for the environment in the region. The main topic of the 20th MESAEP symposium was climate change, its impacts and how to adapt and/or mitigate it. Participation and interest were very large by the whole Mediterranean scientific community and beyond. And then, SARS-CoV-2 stroke.

Originally we rescheduled the Symposium from the Spring to the Fall of 2020 hoping that the pandemic would have been controlled by then; when we realized that this would not be the case we transformed the Symposium to a fully virtual event that took place on October 26-27, 2020. Participation was high this time around as well, with more than 200 papers presented in oral and poster form from across the Mediterranean. In fact, the virtual character of the 20th Symposium of MESAEP facilitated many of our colleagues to present their work and allowed us to appreciate the high level of innovative and environmentally and socially relevant work that is being done across the Mediterranean basin.

A large part of the scientific contributions of the MESAEP community to the 20th Symposium focused on environment and health questions, including environmental and health inequalities and the socio-economic determinants of exposure, as well as new and emerging technologies for environmental and health applications. A special part of the Symposium focused on climate change mitigation and air pollution abatement in the quest to explore win-win solutions to these problems. This special session was organized in collaboration with the ICARUS consortium, funded by the European Commission's Horizon 2020 framework programme for research and innovation. Other sessions of interest focused on traditional MESAEP themes, such as indoor and outdoor air pollution, water and soil pollution and control, environmental economics, policy and education and other various environmental themes. Of particular interest were sessions focusing on the circular economy and promoting the UN sustainable development goals in the region, tackling issues such as sustainable natural resource and waste management; energy, environment and sustainability; and natural and man-made environmental disasters.

The scientific contributions to the 20th MESAEP Symposium were overall of high calibre and explored very pertinent environmental and societal questions to which modern day science strives to produce a comprehensive evidence basis. Going through the abstract book you will have the chance to see for yourselves that the MESAEP community produces very relevant research results that address some of the most important questions regarding environment, sustainability and life quality in the region. Significant effort is also being made to render these findings usable by policy makers to promote evidence-based policy making in environmental and life quality protection. I hope that you will find this abstract book interesting to read and that you will appreciate the work done by scientists in the Mediterranean and the rest of Europe in this regard.



Prof. Denis A. Sarigiannis, MESAEP President

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ORAL PRESENTATIONS

Environmental and health inequities – socio-economic determinants of exposure

Determination of Resilience Levels of Cities in The East of Turkey According to Climate Chance Scenarios

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In general, the scale of global climate change models is too large to evaluate a city. Therefore, the responsible national authorities make estimates for smaller areas. The size and population of cities in the east of Turkey are smaller and less industrialized compared to the cities in western. In this context, carbon emissions of cities in the east of Turkey less than the east of Turkey. The main sources of carbon are domestic heating and traffic. In this study; It is aimed to determine the future climate change expectations of cities by taking into account the results of unscaled luxury climate change models (Regional Climate Projection; RCP8.5 and 4.5). The study area is located east of the city of Erzurum in Turkey. For Erzurum city, past trends and current situation were evaluated in some influencing factors (increase in land use, population, number of motor vehicles, construction site construction area temperature). In order to determine the resistance level of Erzurum to climate change; Population size, urban macroform expansion, number of motor vehicles, indoor area per person ratio and temperature increase were analyzed and a climate change projection was created. As a result of the research; It has been observed that climate change is a very important problem for the future of Erzurum, which is a winter tourism center along with Palandöken Mountain, and that the increasing temperature and changes in the precipitation regime will adversely affect the tourism sector.

Keywords: Climate change, urban areas, Regional Climate Change Projection, Turkey