

Drivers and Impacts of Climate Change Over Eastern Mediterranean

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Recent observations and modeling highlighted the Eastern Mediterranean (EM) as an important climate change hotspot. Over the last decades, the EM atmosphere is warming at a rate almost double the global average, while greenhouse gas emissions in the EM and Middle East regions are also growing at high rates. Seawater temperature is increasing rapidly and “marine heatwaves” have been frequently observed over the last years, thus facilitating the migration of invasive species as well as extreme events such as storms and floods. Recently, the IPCC highlighted that extreme weather events including wildfires, floods, drought frequency and severity, as well as aridity, agricultural and hydrological droughts, desertification, and sea-level rise will increase in the coming years. These events will affect infrastructures, human activities and economy in a wide range of sectors, including agriculture, forestry, health, ecosystem functioning, displacements and migration with important societal impacts.

During my talk I will provide an updated overview of the drivers affecting climate change in the region, and highlight the impacts of climate change at various societal sectors as well as the need for tools development for early warning systems.

Key words: Eastern Mediterranean, climate change, drivers, impacts, tools, early warning