



A new approach to separate local vs. global climate change effects - the example of Dead-Sea evaporation

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The natural evaporation in the Dead-Sea is a very important meteorological parameter to the local industries at Sdom. It was found that the pan evaporation in Sdom has recently increased by 20-25%. We explore the reasons for this increase. It is found that both large-scale and local climatic changes have contributed to the evaporation increase in the Dead Sea, Sdom. The large-scale (global) change, potentially associated with the global warming, increases the frequency of the hot synoptic systems in the region. The local change is a result of the recent Dead-Sea drying, which reduced the local Dead-Sea breeze while intensifying the Mediterranean-Sea breeze penetrating the Dead Sea Valley. It is suggested that while the local effect was the dominant climatic change factor in the Dead-Sea Valley in the 1970-1990, the global effect becomes the dominant one in the more recent evaporation increase in the Dead-Sea. In general, the method presented here is a novel approach for the separation of a local contribution from the large-scale or global effect, exemplified here by the Dead-Sea evaporation.