

عنوان مقاله:

(Influence of growing megacities on temperature trends (case study of Istanbul-Turkey vs. Isfahan-Iran

محل انتشار:

دومین کنفرانس ملی آب و هواشناسی ایران (سال: 1397)

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خلاصه مقاله:

Nowadays, megacities are hotspots for attribution of anthropogenic climate change. In the present study, statistical and satellite analyses are conducted to understand the temperature trend along with population and land-use changes. In this case, Istanbul as the largest city in Turkey, and Isfahan as the third megacity in Iran have been shown a rise of 1.7, and 1°C in the average annual temperature during the observation period of 1980-2015. This warming rate is further enhanced by the expansion of city areas over time. A notable rising temperature in Istanbul has been revealed after the 1940s which is in parallel with the beginning of industrialization era. Also, the second phase of the warming in both case studies found in the middle of 1980s which is approximately in parallel with anthropogenic greenhouse gas emissions. Moreover, increasing in minimum temperature at Istanbul area is more evident, while increasing in maximum temperature at Isfahan area is more pronounced. This difference could be an outcome of faster growing in urban populations as well as higher rate of urban land expansion in Istanbul. What is important is that the warming is associated with extensive population growth and accompanied the decrease in vegetation cover

كلمات كليدي:

Climate Change Impact, Warming Trend, Megacities, Istanbul, Isfahan

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