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Studying the Natural and Anthropogenic Factors of Climate Change

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A project titled "Natural and anthropogenic factors of climate change – analyzes of global and local periodical components and long-term forecasts" funded by the Bulgarian National Science Fund allows us to review and stream studies of Bulgarian scientists in order to identify the role of natural and anthropogenic factors causing climate change in global or regional scale. The Natural factors act in long time and show long-term periodicity, while the anthropogenic influence records are only of hundred or tens of years duration. Traditionally, the paleoclimates are field of geological research, solar-terrestrial relations are field of physicists and anthropogenic records of meteorological and atmospheric composition parameters are field of variety of professions. In this project we look for links and analogies among these different fields of research, but also perform studies in the different fields. A model of Kilifarska et al relates the near surface temperatures with ozone content in the lower troposphere, which depends on the penetration of cosmic rays and solar winds. Chapanov is studying climate and solar parameters records spectra and finds common periodicity. Alexandrov et al perform research on the climatological data available in Bulgaria and on some climate projections data. Barantiev et al study local coastal climates of the wind and turbulence vertical profiles.

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