

impact of meteorological conditions on atmospheric pollution (tbilisi as an example)

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annotation

Air pollution is one of the global problem of the modern world, which causes climate change and has a direct impact on human health and living environment. As a result, the social environment and the state of health deteriorate, which already has a global character and covers the entire planet. The paper presents the result of the monitoring of the ingredients polluting the atmosphere of Tbilisi (March 17-21), when fog was observed in the city territory, which was accompanied by a sharp deterioration of vision. The synoptic situation that caused the mentioned situation was determined.

The aim of the diploma thesis is to determine the qualitative state of atmospheric air of the city Tbilisi and qualitative and quantitative assessment, for the following major pollutant constituents: particulate matter (PM₁₀ and PM_{2.5}), nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxide (SO₂) and carbon dioxide (CO), estimate using monitoring data.

The paper presents the dynamics of the quantitative change of aerosols in the atmosphere by separate pollutant sources. Research has established that the ecological state of the atmosphere depends on synoptic situations, meteorological conditions (inversion, isothermy), as well as the specificity and intensity of pollution source, in the complex microclimatic and physico-geographical conditions of Tbilisi.