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Some Features of Climate Change in the Coastal Zone of Adjara

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Abstract: Ajara stands out among Georgia's other regions due to its unique physical and geographical conditions. The strong humid subtropical climate, beginning with seaside beaches and swampy lowlands and ending with Alpine meadows - a set of diverse landscapes, rich water, and forest resources, almost evenly distributed resorts and other resort-related places throughout the entire territory of the region - the wealth concentrated in a relatively small area resulting in a growing interest in the economy and natural ecosystems of Ajara. It is crucial to investigate the dynamics of climatic parameters in the Adjara region. The dynamics of air temperature and sea level changes from 1956 to 2015 were analyzed at a distance to assess the level of climate change in the Adjara region. The study was based on observation data from the National Environment Agency and weather stations operating on the Black Sea coast in the past and present. Long-term meteorological data processing was analyzed statistically, climatologically, and graphically to determine climatic changes. As a result of the research, it was discovered that the air temperature in the Ajara coastal area fluctuates dramatically against the backdrop of global climate change, with noticeable warming and cooling periods. The average annual temperature in Adjara's coastal zone (Batumi and Kobuleti) is 14.65 °C/30 years (1986-2015). Batumi's 30-year average temperature is 0.5 degrees Celsius higher than Kobuleti's. When temperatures on the Adjara coast were compared over two thirty-year periods (1956-1985 and 1986-2015), it was discovered that they increased by 0.49-0.69 °C/60 years, while sea level increased by 235 mm/60 years.

Keywords: Climate change, Batumi, Black Sea, Temperature, Sea level.