

Effects of Climate Change on Black Sea Level

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Effects of climate change on Black Sea level are infinitely large. The sea shores of the Black Sea are very sensitive with climate changes, where the sea level increased (2-3 mm/y), the storm season and intensity of it has changed, also changed temperature of sea surface and shores are washed more frequently than in the past.

For research it is used statistical, climatic, graphical analysis of meteorological and oceanographic data for Black Sea shore (Batumi, Poti, Supsa). According to meteorological and oceanographic observation data it is assessed and analyzed changes of air temperature, sea level, precipitation, stormy days.

With linear (by period of 60 years) approximate trend of Batumi annual temperature increased by $0.5^{\circ}\text{C}/60\text{y}$, sea level increased by $235\text{mm}/60\text{y}$, annual temperature of Poti increased by $0.7^{\circ}\text{C}/60\text{y}$, sea level increased by $1375\text{mm}/60\text{y}$.

With linear (by period of 50 years) approximate trend of Batumi precipitation decreased by $100\text{mm}/50\text{y}$. Poti precipitation increased by $450\text{mm}/50\text{y}$. With linear (by period of 30 years) approximate trend of Supsa average size of stormy days increased by $150\text{ day}/30\text{y}$.

Research results can be used to rate vulnerability of climate change and to create suitable events which will provide protection of Black Sea region from negative effects of climate change.