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CALCULATION OF AREA SOIL TEMPERATURE AND ECONOMIC EVALUATION OF THE AREA
USING SATELLITE PHOTOS

Abstract

It is known that land, being one of the valuable resources of mankind, provides both people with food and has a significant impact on climate components. The temperature of the earth's surface is considered to be an important measure in terms of keeping the energy exchange between the earth's surface and the atmosphere under control. Land surface temperature plays an important role in many environmental modelling. This includes weather forecasts, global warming, temperature changes etc. Measurement of soil surface temperature using satellite images is based on electromagnetic radiation of the soil surface. Thermal methods are based on the thermal inertia and moisture of the soil. The thermal regime of the soil is formed under the influence of climate, relief, vegetation and snow cover. The main indicator is the soil temperature. The temperature depends on the amount of solar radiation and the physical properties of the soil itself. The effect of the relief is manifested in the uneven fall of radiation on smooth and different surfaces. In our research, we have analyzed the temperature of the soil of the area with aerospace images using Geographical Information Systems (GIS).