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CHINA'S SATELLITE CARBON SINK MONITORING RESULTS AND NEXT GENERATION TECHNOLOGY PROSPECTS

Abstract

Carbon sinks accumulate CO2 from the atmosphere and cntribute to climate changemitigation. forests are considered to contain about 80 percent of the terrestrial ecosystem carbon sinksTo evaluate the carbon sinks of forests, the Terrestrial cosystem Carbon Inventory Satellite(TECiS), nicknamed Goumang was developed in China and launched in 4 August, 2022Adopting diversified remote sensing of including lidar, multi-direction, multi-spectrumhyper-spectrum and polarization, retrieval products of TEClS such as forest height, AGB and Sllare published after calibration and validation, The precision of forest mean height is better than1.5m where ground slope is less than 5 degree. AGB products in regional scale are inspected tobe better than 85percent. The result of carbon sink obtained by this satellite are introduced. Then, therequirements and tasks of the new generation of remote sensing satellite for carbon sinkestimation in China are put forward. Considering the technical difficulties in high-precision andquantitative remote sensing measurement of carbon sink, the task analysis process and the loadallocation scheme are given.