

Automated Detection of Forest Cover and Forest Characteristics Kolichestvennykh of Municipal Shebekinskiy District of the Belgorod Region on Space

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Article on the topic of «Automated determination of quantitative characteristics of forest cover and forest Shebekinskogo municipal district of Belgorod oblast on space shooting Sentinel-2» is dedicated to the study of the use of remote sensing in determination of quantitative characteristics of forests.

The object of research is the territory of Shebekinskogo district of Belgorod oblast, area-186597 HA, is located in the forest-steppe zone.

The aim of the research is to determine the area of land covered with forest vegetation, forest cover and quantitative characteristics of forests of the study area method for automated interpretation of satellite imagery[2].

For the automated interpretation of classes of natural systems based on satellite imagery used publicly available satellite imagery Sentinel-2. Automated thematic interpretation was made object-oriented method in the program ScanEx IMAGE Processor V. 4.2. The main difference of this approach is using as a minimum unit of classification segments – homogeneous groups of pixels of the original image. The process of formation of the segments (segmentation) is controllable[1].

On the territory of the object of study selected 7 classes: water bodies, fields, coniferous, softwood, hardwoods, clear cuts, overgrown fields. As a result of research has identified classes of area covered with forest vegetation, highlighted by the image of Sentinel-2. The major share of forests (88,9 %) of hardwood plantations. Coniferous forests (with a predominance of Scots – pine) is 9.6 % of all identified as a result of the classification of forests.

The comparison of obtained data with the GLR showed that the area of identified forest classes more 44 %: data GLR – 33315 ha forest area according to the results of research 47979,6ha unrecorded Area of forests amounted to 14664,6 ha. The Average forest cover in the district according to the results of studies of 25.7 % versus 17,9%, according to HLB.

Referens

1. The Use of ALOS Space Imagery to Identify Areas of Former Agricultural Land Overgrown by Forest / E. A. Kurbanov [and etc.] // Geomatics. – 2010. – № 4. – P. 68–72.