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Method of croplands dynamics mapping in river basins of the european part of Russia for the period of 1985-2015

Ivanov M., Prishchepov A., Golosov V., Zalyaliev R., Efimov K., Kondrat'eva A., Kinyashova A., Ionova Y.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The work is devoted to the technique of mapping of cultivated and abandoned croplands in areas of the European territory of Russia of different climate, landscape and geomorphological conditions. A technological scheme of croplands visual interpretation based on Landsat 5 and 8 multi-seasonal images for two time slices (mid-1980s and the modern period of 2013-2015) is described. Classification keys of various types of croplands are introduced: spring crops, winter crops, fallow, abandoned croplands. A technique of croplands digitizing based on the principles used in the CORINE Land Cover 2000 (CLC2000) project is presented. Vector layers of cultivated croplands for the two considered periods are obtained. Validation of the results based on high-resolution satellite imagery is performed.

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Keywords

Cropland, European part of Russia, Land use dynamics, Landsat

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