

Analysis of the Transport Accessibility of the Forest Fund in the Kostroma region

A. Chudetsky

Central-European Forest Experimental Station, branch Russian Research Institute of Silviculture and Mechanization of Forestry, Leading Engineer, Kostroma, Russian Federation, a.chudetsky@mail.ru

E. Sidorenkova

Russian Research Institute of Silviculture and Mechanization of Forestry, Head of the Group of Geographic Information Technologies, Pushkino, Moscow region, Russian Federation, forestvniilm@yandex.ru

S. Makarov

Central-European Forest Experimental Station, branch Russian Research Institute of Silviculture and Mechanization of Forestry, Senior Researcher, Kostroma, Russian Federation, makarov_serg44@mail.ru

Keywords: transport accessibility of forests, forest roads, road density, southern taiga, European part of Russia, Kostroma region.

Kostroma region has a geographical location, characterized by the presence of adjacent borders with 5 regions of the Russian Federation, proximity to Moscow and Yaroslavl, passing of the main railways, waterways and highways pass through the region. Kostroma region is located in the southern taiga region of the European part of Russia. Problems of socio-economic development of the region include infrastructural restrictions associated with a sparse transport network in the north-eastern part and the unsatisfactory condition of a significant part of the horn and access roads, including forest roads. The development of the region's timber industry complex is constrained by the low density of forest roads with several large timber processing centers.

According to a preliminary assessment of the transport accessibility of the region's forests by road density, only 2 out of 21 forest districts have average transport accessibility, the rest have low (11 forest districts) and very low (7 forest districts) transport access, and the territory of 1 forestry is difficult to access. The density of roads in the forest fund varies from 2,0 to 10,8 km / 1000 ha. The main share of the road transport network is made up of unpaved roads (89,6 % of the total length).

As a result of field surveys of the state of forest roads of various types in several districts of the Kostroma region, a deterioration in the condition of forest roads is noted when moving away from federal and regional roads, from regional centers and paths connecting with large forest processing centers, and also depending on the type of landscape and hydrological terrain and other climatic features.