A new solution for the management of up-to-date forest resource information in Russia

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Testing of an unmanned drone in Russia. Credit: Eugene Lopatin/Luke

Natural Resources Institute Finland (Luke) is developing a competitive solution for the production and use of up-to-date forest resource information in the Russian market. The development work combines Finnish forest planning competence with forest resource data collected

by unmanned drones.

The aim is to reduce the amount of field work and the resultant costs by combining information from three sources in the collection of forest resource data: satellite imagery, imaging by unmanned drones and sample plot measurements.

"The forest resource data collection method under development is competitive and innovative in conditions where roads are poor and road network coverage limits measurements in the field. Up-to-date data on forest resources is available for less than ten per cent of Russia's forest area. Outdated forest resource data of questionable quality is a problem, since, in the worst case scenario, companies are forced to base their investment decisions on guesswork," says Eugene Lopatin, senior scientist at Luke.

The solution is being developed under the new project "Eastern Finnish competence provides a competitive solution for the management of up-to-date forest resource information in Russia" (ISKRA), a study of the cost-efficiency of the latest technology and adapting Finnish forest planning solutions to Russian conditions. Forest resource data collection will be piloted in forest areas leased by a Finnish company in the Republic of Karelia.

To promote the export of know-how, the project will produce a forest stand simulator in Russian that can be used to demonstrate the effects of different forest management alternatives on total roundwood removals and economic profitability, for example. In addition, optimised forest management options will be produced for a pilot company and a prototype program developed for the preparation of a Russian forest plan.

Creating demand in Russia, Finnish forest expertise

appreciated

Russia is a large and developing market area for Finnish forest bioeconomic know-how, particularly since the goal of Russia's forest policy is to adopt intensive forestry methods, in which Finland is seen as a benchmark. Finnish forestry know-how is well known and appreciated in Russia, but the export of Finnish expertise has been relatively modest. Access to the Russian market requires better productisation of know-how and references.

"The transition to intensive forestry is necessary, particularly in north-west Russia which has a large timber-processing industry. All forest stands that are accessible in economically viable terms have been harvested in forests leased by companies. To secure their future timber supply, companies must therefore begin intensive timber production. Up-to-date information on forest resources is a basic requirement for this. Since there are several thousands of forest-leasing companies in Russia, the project's products are in demand," says Sari Karvinen, research scientist at Luke.

The development and testing of a method suitable for Russia is being facilitated by funding from the European Regional Development Fund and the Regional Council of North Karelia. Companies will continue with the commercialisation of the results after the project.

Provided by Natural Resources Institute Finland

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