Original article

Analytical Review of the Quantitative and Qualitative Characteristics of Forests in the Russian Federation: Results of the First Cycle of the State Forest Inventory

Andrey N. Filipchuk[1]
Doctor of Agricultural Sciences

Nataliya V. Malysheva[2]
Candidate of Geographical Sciences

Tatiana A. Zolina[3]

Stanislav V. Fedorov[4]

Anton M. Berdov[5]
Candidate of Biological Sciences

Vladimir N. Kositsyn[6]
Candidate of Agricultural Sciences

Andrey N. Yugov[7]

Polina S. Kinigopulo[8]

Abstract. *The results of the first cycle of the State Forest Inventory (SFI) of the Russian Federation, completed in 2020, presented in the article. Accurate and reliable data on forest stock volume and their distribution by forest and non-forest land categories, species, ages, productivity and other parameters accepted in forest statistics have been obtained based on Permanent Sample Plot (PSP) measurements. Total stock volume in Russian forests is 112 billion m³ an actual error of 0.35 % with a probability of 0.95. In addition to traditional forest statistical data, SFI results contain detailed information on the undergrowth, the understory, vegetation diversity, course woody debris, litter, forest soil, non-timber resources and other forest ecosystem indicators that characterize the ecosystem services. In total, more than 100 forest indicators have been estimated for each PSP SFI. The analysis of the first SFI cycle results presented in the article is not comprehensive and complete. Further efforts will be required for overall assessment of the accuracy and reliability of the data obtained for forest zone units and administrative entities of Russia. Serious research will also be needed to adapt the obtained data for use in international reporting by the Russian Federation, including the*

[1] Russian Research Institute for Silviculture and Mechanization of Forestry, Deputy Director (Pushkino, Moscow region, Russian Federation), afilipchuk @yandex.ru

[2] Russian Research Institute for Silviculture and Mechanization of Forestry, Deputy Head of Department (Pushkino, Moscow region, Russian Federation), nat-malysheva@yandex.ru

[3] Russian Research Institute for Silviculture and Mechanization of Forestry, Leading Engineer (Pushkino, Moscow region, Russian Federation), tzolina@gmail.com

[4] Federal State Budget Institution (FGBU) «Roslesinforg», Head of the State Forest Inventory and Forest Accounting Department (Moscow, Russian Federation), sv@roslesinforg.ru

[5] Federal State Budget Institution (FGBU) «Roslesinforg», Head of Forest Assessment Division of the State Forest Inventory and Forest Accounting Department (Moscow, Russian Federation), berdov_roslesinforg@inbox.ru

[6] Federal Forestry Agency, Deputy Chief of the Land Tenure Arrangement and Forest Management Office – Head of the State Forest Inventory Department (Moscow, Russian Federation), lesoustr@rosleshoz.gov.ru

[7] Russian Research Institute for Silviculture and Mechanization of Forestry, Head of Sector (Pushkino, Moscow region, Russian Federation), ayugov@yandex.ru

[8] Russian Research Institute for Silviculture and Mechanization of Forestry, Leading Engineer (Pushkino, Moscow region, Russian Federation), aps5@mail.ru