

**Georgy Safonov, Center for Environmental Economics, National Research University
Higher School of Economics (HSE), Russian Federation**

**„What is needed to reduce emissions to mitigate climate change and the potential
contribution by the forest sector to deep decarbonization in Russia“**

Russian forestry plays an important role in the national carbon budget and perspective decarbonization of national economy. Being a substantial source of carbon sequestration of 650-700 MtCO₂ per annum in recent years, Russian forest is also a huge source of biomass that can be used for expansion of bioeconomy and substitution of carbon-intensive products. Though Russia has no official low-carbon development strategy and its GHG emission targets under the Paris Climate Agreement by 2030 are weak (25-30% below 1990 level), the recent economic modeling provides sound evidence of enormous potential for decarbonization in all key sectors of national economy. The scenario analysis reveals numerous opportunities for deep emission reduction of 80-87% below 1990 level by 2050, which corresponds to the “well below 20C target”. Different kinds of biofuels (wood pellets and briquettes, energetic biochar, liquid and gaseous biofuels) can provide 96-190 Mtoe of energy supply to substitute fossil fuels (12% of estimated final energy consumption in 2050). The role of other timber products in decarbonization still needs to be evaluated, but is potentially high in residential and commercial buildings sector (wooden houses, windows, construction materials), chemicals and bioplastics, and textiles. Transition of Russian economy toward decarbonization will require much stronger engagement of forest sector to reduce emissions and enhance sequestration of greenhouse gases. It will be especially important with respect to strengthening climate change impacts, such as losses of forest due to wildfires, expansion of diseases, extreme weather events, and at the same time growing demand for climate-neutral energy resources and products.

(PDF) Managing forests in the 21st century: Book of abstracts. Available from:

https://www.researchgate.net/publication/342625382_Managing_forests_in_the_21st_century_Book_of_abstracts [accessed Aug 10 2020].