

gravel (macadam) type, providing for a traffic density of up to 300 motor vehicles at speeds of up to 100 kilometres per hour.

The state of the roads is also adversely affected by such factors as lack of dependable drainage, weak compaction of the earth materials and an elevated moisture content of the latter. Unfortunately, this was not given full consideration when formulating the prevailing "Technical and Economic Factors for the Planning of Logging Enterprises".

Analyses and experience in the operation of roads with flexible interlayers in the Archangel, Kalinin and Tyumen' Oblasts and the Krasnoyarsk Krai indicate that the new design is conducive to the preservation of a smooth surface and improves the quality of the road. In our sector, there is currently a cautious approach to the use of interlayers made of woven and non-woven synthetic materials in the form of used cloth and metal gauze, and also of the burlap-lined paper developed by the Segezha Pulp and Paper Combine which could be produced in large quantities.

The new design for logging roads includes a gravel (macadam) surface and flexible interlayers. Additional sub-surface "support" is obtainable by using synthetic gauze with a mesh ranging from 0.05 to 0.4 metres, felling residues etc. Depending on the actual conditions prevailing, the use of such designs will make it possible to curtail earth works by 20 to 60 per cent, decrease timber consumption to between a half and a third, and what is most important, lengthen by 1.5- to 2-fold the service life of major logging roads without disturbing the ecology, while preserving the surface vegetation over an area of about two hectares per kilometre of road.