

IMPROVEMENT OF FOREST TRANSPORT NETWORK OF MOUNTAIN AREAS AS PRIMARY FACTOR TO ELABORATE SUSTAINABLE FOREST MANAGEMENT

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The Ukrainian Research Institute for Mountain Forestry (UkrRIMF) established in 1963, is an institute of the State Forestry Committee of Ukraine and the National Academy of Science of Ukraine. UkrRIMF focuses on developing a scientific basis for the management of mountainous forests and for forest legislation in Ukraine and it is main state institution in this sphere. The institute comprises: 4 scientific laboratories (Forest reforestation and selection; Forestry; Forest ecology and forest protection; Environmentally forest technology and transport), Experimental forestry unit.



The main research areas are biodiversity and structure of mountain forests, hydrology and protection of water basin areas, technology of wood harvesting, forest roads and forest road network; natural and artificial reforestation, biology and control of forest insects and diseases, selection and introduction of seeds, selection of tree populations, monitoring of forest ecosystems, closed to nature forestry.

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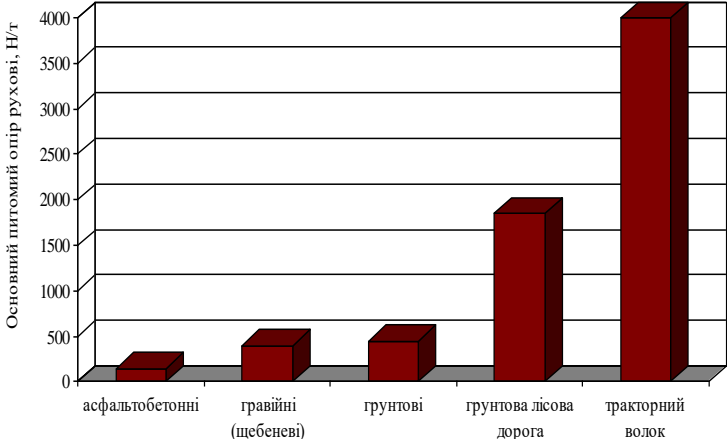
Creation of normative base

UkrRIMF provides scientific support to the processes of implementation of sustainable forest management in the Carpathian region of Ukraine. The normative basis for forestry work (reforestation, guard and protection of the forest, various types of felling, establishment of forest infrastructure) is being developed. At the end of 2018 was created “Roadmap improving forest management in the Ukrainian Carpathians based on close to nature forestry”.



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harmful emissions into the atmosphere during transportation timber



The dependence of the resistivity of moving for different types of roads



Reducing the distance of the primary transportation of timber

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“STRATEGIC ACTION PLAN FOR THE IMPLEMENTATION OF THE PROTOCOL ON SUSTAINABLE FOREST MANAGEMENT”
is adopted in 2014 at the Fourth Conference of Carpathian Convention

Objective 9 – Improvement of forest-transporting infrastructure of mountain forests

Pursuant to Articles 1, 3, 9, 14 and 15 of the Protocol the Parties shall:

Action 9. 1. Adopt measures to construct new forest roads in mountain forests where necessary and to improve technical condition of the existing roads.

Results expected:

- a) Questions of construction of forest roads included in National Forest Program or another national strategic document;*
- b) Normative documents regulating the parameters of mountain forest roads may be developed and adopted at the national level;*
- c) Guidelines on planning forest-transporting networks in mountain forests may be developed and adopted at the national level;*
- d) Experiences shared on the optimization of forest roads network.*



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State Forestry Agency of Ukraine carries out purposeful measures to improve the road network in forests including Carpathians, where conservation technologies applied mostly uses excavators and Austrian experience to build roadbed on slopes.

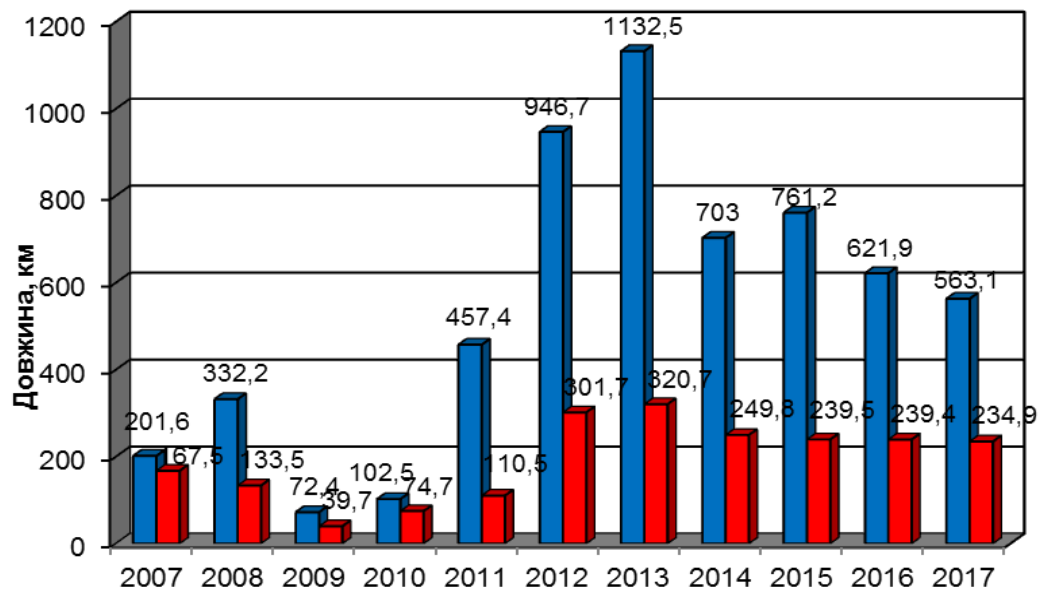
Action 9. 2. Adopt measures to improve ways of primary transportation of wood.

Results expected:

- a) Experiences shared and projects to promote the use of effective methods of primary wood transportation developed;*
- b) Optimization of cableway systems increased;*
- c) Experiences shared on the optimization of network of ways of primary wood transportation.*



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■ Обсяги будівництва доріг в Україні, км
 ■ Обсяги будівництва доріг в Карпатах, км



Державне агентство лісових ресурсів України
 Національна академія наук України
 Український науково-дослідний інститут гірського лісівництва ім. П.С.Пастернака

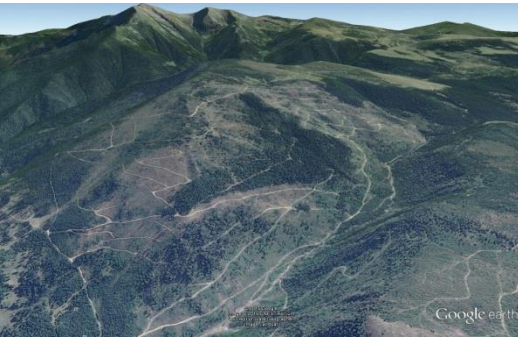
**РЕКОМЕНДАЦІЇ
 З УДОСКОНАЛЕННЯ ТЕХНОЛОГІЇ
 ЛІСОЗАГОТІВЛІ ПРИ РІЗНИХ
 СПОСОБАХ РУБОК В ГІРСЬКИХ
 ЛІСАХ УКРАЇНСЬКИХ КАРПАТ**

УкрНДГірліс

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Melioration of skid trails in mountain forests

Nowadays, when caterpillars and wheeled tractors remain the main skidding machinery in the forests of the same country in Carpathians an extensive network of skidding trails has been formed. Forest environment is significantly affected due to the destruction of soil cover and subsequent increase of erosion processes during and after the logging. To solve this problem in UkrRIMF has begun studies aimed at testing forestry melioration processes for skidding trails in mountain forests and creating practical guidelines for forest enterprises.



Romania



Ukraine



Slovakia



— лісові дороги; — волоки; 📍 дослідні ділянки



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Conclusions and suggestions

1. In recent decades forestry sector is represented as the most favorable for the rapid and effective implementation of the principles of the green economy to improve welfare and social justice with a significant reduction of environmental risks.
2. According to sustainable management there is a possibility to contribute of forestry poverty reduction, biodiversity, providing a wide range of goods and services for present and future generations in the context of climate change.
3. Transportation of timber as part of the logging process causing a significant impact on the forest environment and requires further improvement by developing of forest roads.
4. Optimum transport infrastructure of forests will significantly reduce the volume of cargo transportation of the primary timber that will cause not only effectiveness of logging but also will reduce the volume of erosion and improve the hydrological role of forest areas.
5. The requirements for transport ways in the forests considering measures aimed at integration of forestry and water management and the prevention of climate change remains relevant at the international level.





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Thank for your attention!

**Dr. Volodymyr Korzhov
(UkrRIMF)**