

# 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), 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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There is a unique in Eastern Europe hydro-station in spruce forests, and it is located in the experimental forest range of the institute. The observations over the hydrological regime in the forest area have been executed there already for more then 40 years. These observations are the part of experiments on research of forestry activities' influence over the area water balance. Also scientists of the institute conduct researches on assessment of influence of different ways of original timber transportation over the forest environment (tree stands, soil, undergrowth).





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**Ways to reduce energy costs for transporting timber to consumers**



**The dependence of the resistivity of traffic for different types of roads**



**Reducing the distance of the primary transportation of timber**



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## Elaboration of legal documents on forest management



Forest Code of Ukraine (2004)

Recommendations on use of mobile cable timber transport systems in mountainous harvesting (2006)

Rules of main cutting in the mountainous forests of Carpathians (2008)

State Program “Forests of Ukraine” (2009)



State target program of complex flood protection of Dnister, Prut and Siret river basins.

Recommendations on transformation of vegetation in the inundation zones of flood protection reservoir over Transcarpathian rivers





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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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**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.*

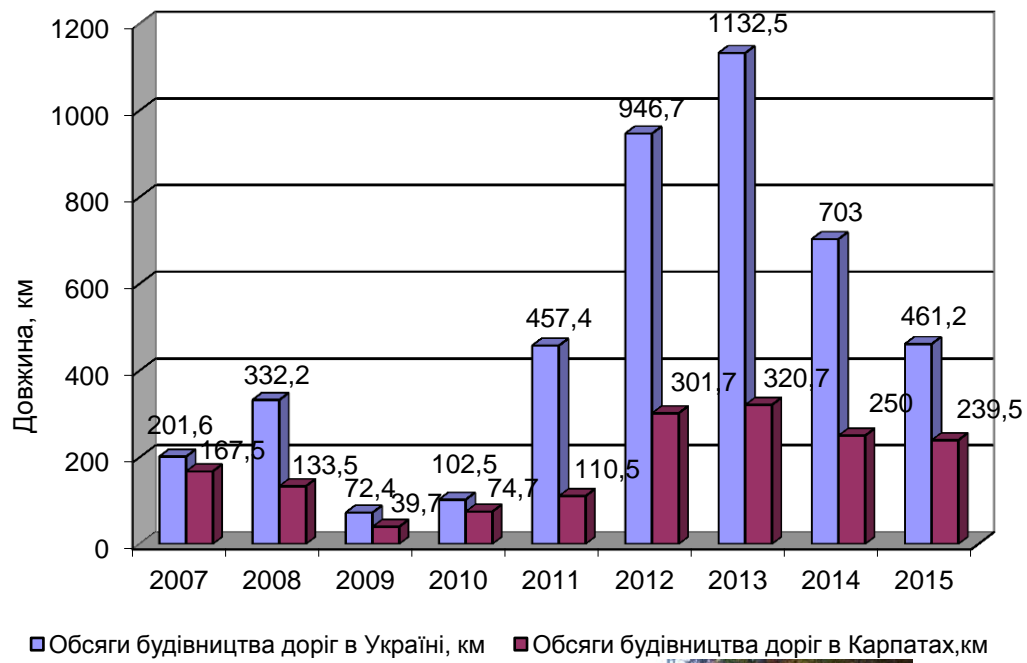




# ВДОСКОНАЛЕННЯ ЛІСОТРАНСПОРТНОЇ МЕРЕЖІ ГІРСЬКИХ ТЕРИТОРІЙ ЯК ОСНОВНИЙ ФАКТОР ЗАПРОВАДЖЕННЯ СТАЛОГО УПРАВЛІННЯ ЛІСАМИ



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.





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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 routes 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!

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