

# Remote sensing based assessment of woody biomass and carbon storage in forests



## RemBioFor

*R&D project, which aim is to work out the complex method of defining selected forest stand descriptions as well as aboveground biomass and carbon sequestration, based on the use of remote sensing for the purposes of forest management planning.*

The aim of the project was to work out the complex method of defining selected forest stand descriptions as well as aboveground biomass and carbon sequestration, based on the use of remote sensing for the purposes of forest management planning.

Among main goals were:

- acquisition and processing of remote sensing, laboratory and field data,
- determining the amount of biomass and carbon in the forest based on radar data,
- development of methods for the inventory of selected stand descriptions, growing stock and biomass with the use of active remote sensing techniques,
- local correction of dendrometric volume equations based on terrestrial laser scanning data (TLS),
- development of the merchantable volume conversion factors into biomass and carbon.

Results of the project allow to: reduce time needed to carry out the work of the forest management, especially inventory of growing stock; obtain higher accuracy of the CO<sub>2</sub> balance, biomass and annual allowable cut calculations; determine growing stock for any forest area; reduce cost of field work in forest management.

## PODROBNOSTI

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PÔVOD DREVA

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DRUH DREVA

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UVAŽOVANÝ DRUH DREVA

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VPLYV NA ŽIVOTNÉ PROSTREDIE A BIODIVERZITU

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DOPAD NA PRÍJMY

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POTENCIÁL VYUŽITIA

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ROZBOČOVAČ

Stredovýchodný uzol

EKONOMICKÝ VPLYV

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POTREBA ŠPECIFICKÝCH ZNALOSTÍ

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MOBILIZAČNÝ POTENCIÁL

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POTENCIÁL UDRŽATEĽNOSTI - HODNOTA

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UĽAHČENIE IMPLMENTÁCIE

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UĽAHČENIE IMPLMENTÁCIE - HODNOTENIE

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Kľúčové PREPOKLADY

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TYP PODUJATIA, NA KTOROM BOL TENTO BPI PREZENTOVANÝ  
Návšteva v rámci štúdie (T2.3)

DOPAD NA ZAMESTNANOSŤ

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NÁKLADY NA IMPLEMENTÁCIU (EURO - €)

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## VIAC INFORMÁCIÍ

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### RIEŠENÁ VÝZVA

1. Zlepšenie odolnosti lesov a adaptácie na zmenu klímy

### DOMAIN

Inventarizácia, posudzovanie, monitoring/monitorovanie  
Lesné hospodárstvo/hospodárska úprava lesa, pestovanie lesa, ekosystémové služby, odolnosť  
Výskum a vývoj

### TYP RIEŠENIA

Modelovanie, simulácia, optimalizácia

### Kľúčové SLOVÁ

remote sensing techniques; carbon sequestration; forestry

### DIGITALNE RIEŠENIE

áno

### INOVÁCIE

Áno

### KRAJINA PôVODU

Poľsko

### ROZSAH APLIKÁCIE

Národný

### ZAČIATOK A KONIEC ROKA

2015 - 2018

## KONTAKTNÉ ÚDAJE

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### VLASTNÍK ALEBO AUTOR

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### REPORTÉR

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## REFERENCES AND RESOURCES

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### HLAVNÁ WEBSTRÁNKA

<http://rembiofor.pl/en/>

### ZDROJE

**Parkitna K., Krok G., Lisańczuk M., Mitelsztedt K., Ukalski K., Magnussen S., Markiewicz A., Miścicki S., Stereńczak K. 2021. Modelling growing stock volume of forest stands with the use of selected LiDAR Area Based Approaches in various predictive models. Forestry: An International Journal**

**PROJEKTOVÁ WEBSTRÁNKA**

<http://rembiofor.pl/en/>

**REFERENCIA PROJEKTU**

Remote sensing based assessment of woody biomass and carbon storage in forests (REMBIOFOR), National Centre for Research and Development within the program „Natural environment, agriculture and forestry” BIOSTRATEG, agreement no. BIOSTRATEG1/267755/4/NCBR/2015

LOGO NAJLPEŠEJ PRAXE

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LOGO HLAVNEJ ORGANIZÁCIE

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PROJEKT, V RÁMCI KTORÉHO BOL TENTO INFORMAČNÝ PREHĽAD VYTVORENÝ

Rosewood 4.0

DÁTUM ODOSLANIA

12 aug 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

