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_2 balance, biomass and annual allowable cut calculations; determine growing stock for any forest area; reduce cost of field work in forest management.

DETALJI

PODRIJETLO DRVA
--

VRSTA DRVA
--

ODGOVARAJUĆA VRSTA DRVA
--

UTJECAJ NA OKOLIŠ I BIORAZNOLIKOST
--

UČINAK NA PRIHOD
--

POTENCIJAL ISKORISTIVOSTI
--

SREDIŠTE
Centralno-istočno čvorište

GOSPODARSKI UČINAK
--

POTREBNA POSEBNA ZNANJA
--

POTENCIJAL ZA POVEĆANJE UPORABE DRVA
--

POTENCIJAL ODRŽIVOSTI - VRIJEDNOST
--

JEDNOSTAVNOST PROVEDBE
--

JEDNOSTAVNOST PROVEDBE - EVALUACIJA
--

KLJUČNI PREDUVJETI
--

VRSTA DOGAĐAJA NA KOJEM JE PRIKAZAN OVAJ BPI
Studijski posjet (T2.3)

UČINAK NA ZAPOŠLJIVOST
--

TROŠKOVI PROVEDBE (EURO - €)
--

VIŠE DETALJA

IZAZOV

1. Poboljšanje otpornosti šuma i prilagodbe klimatskim promjenama

DOMENA

Popis, procjena, praćenje

Upravljanje šumama, uzgoj šuma, usluge ekosustava, otpornost

Istraživanje i razvoj

VRSTA RJEŠENJA

Modeliranje, sustav za podršku odlučivanju, simulacija, optimizacija

KLJUČNE RIJEČI

remote sensing techniques; carbon sequestration; forestry

DIGITALNO RJEŠENJE

Da

INOVACIJA

Da

ZEMLJA PODRIJETLA

Poljska

PODRUČJE PRIMJENE

Nacionalna

POČETAK I KRAJ GODINE

2015 - 2018

KONTAKT PODATCI

VLASNIK ILI AUTOR

Instytut Badawczy Leśnictwa

Krzysztof Stereńczak

K.Sterenczak@ibles.waw.pl

https://www.ibles.pl/

IZVJESTITELJ

Łukasiewicz Research Network - Wood Technology Institute (ITD)

Dobrochna Augustyniak-Wysocka

dobrochna.augustyniak@itd.lukasiewicz.gov.pl

REFERENCES AND RESOURCES

GLAVNA WEB STRANICA

http://rembiofor.pl/en/

IZVORI

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 of Forest Research

WEB STRANICA PROJEKTA

http://rembiofor.pl/en/

REFERENCA PROJEKTA

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 PRIMJERA DOBRE PRAKSE

LOGO GLAVNE ORGANIZACIJE

PROJEKT U OKVIRU KOJEG JE INFORMATIVNI LIST KREIRAN

Rosewood 4.0

DATUM UNOSA

12 kol 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY