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.

DETALJER

VEDENS URSPRUNG

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TRäTYP

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TYP AV TRä

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PåVERKAN På MILJö & BIOLOGISK MåNGFALD

--

EKONOMISK EFFEKT

--

KOMMERSIELL POTENTIAL

--

NAV

Centrala och östra navet

EKONOMISK PåVERKAN

--

SPECIFIKA KUNSKAPSBEHOV

--

MOBILISERINGSPOTENTIAL

--

HåLLBARHETS POTENTIAL - VäRDE

--

ENKEL IMPLEMENTERING

--

ENKEL IMPLEMENTERING - UTVäRDERING

--

NYCKEL FöRUTSäTTNINGAR

--

TYP AV EVENEMANG DäR DENNA BPI HAR PRESENTERATS

Studiebesök (T2.3)

EFFEKT ANTAL ANSTäLLDA

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KOSTNADER FöR IMPLEMENTERING (EURO - €)

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MER INFORMATION

UTMANING SOM ADRESSERAS

1. Förbättra skogens motståndskraft och anpassning till klimatförändringar

DOMäN

Inventering, värdering, övervakning

Skogsförvaltning, skogskjötsel, ekosystemtjänster

Forskning och utveckling

TYPE AV LöSNING

Modellering, DSS, simulering, optimering

NYCKELORD

remote sensing techniques; carbon sequestration; forestry

DIGITAL LöSNING

Ja

INNOVASION

Ja

UPPHOVSLAND

Polen

POTENTIAL

Nationell

START OCH SLUTåR

2015 - 2018

KONTAKT INFORMASION

ÄGARE ELLER FöRFATTARE

Instytut Badawczy Leśnictwa

Krzysztof Stereńczak

K.Sterenczak@ibles.waw.pl

https://www.ibles.pl/

RAPPORTöR

Łukasiewicz Research Network - Wood Technology Institute (ITD)

Dobrochna Augustyniak-Wysocka

dobrochna.augustyniak@itd.lukasiewicz.gov.pl

REFERENCES AND RESOURCES

HEMSIDA (HUVUDSIDA)

http://rembiofor.pl/en/

PROJEKTETS HEMSIDA

RESURSER

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

http://rembiofor.pl/en/

PROJEKTREFERENS

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 FöR BEST PRACTICE

LOGO, HUVUDORGANISATION

PROJEKT SOM DETTA FACTSHEET SKAPATS INOM

Rosewood 4.0

DATUM FöR INLäGG

12 aug 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY