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

OPPRINNELSE FOR TRE

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TYPE TRE

--

TYPE TRE INVOLVERT

--

PåVIRKNING På MILJø OG BIOLOGISK MANGFOLD

--

INNTEKTSEFFEKT

--

UTNYTTELSESPOTENSIAL

--

HUB

Central-East Hub

ØKONOMISK PåVIRKNING

--

SPESIFIKKE KUNNSKAPSBEHOV

--

MOBILISERINGSPOTENSIAL

--

BæREKRAFTPOTENSIAL - VERDI

--

ENKEL IMPLEMENTERING

--

ENKEL IMPLEMENTERING - EVALUERING

--

VIKTIGE FORUTSETNINGER

--

TYPE BEGIVENHET DER DENNE BPI HAR BLITT OMTALT

Studiebesøk (T2.3)

EFFEKT På ARBEIDSPLASSER

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KOSTNADER MED IMPLEMENTERING (EURO - €)

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MER INFORMASJON

UTFORDRING ADRESSERT

1. Forbedre skogens robusthet og tilpasningsevne til klimaendringer

DOMENE

Inventering, vurdering, overvåking

Skogforvaltning, skogskjøtsel, økosystemtjenester

Forskning og utvikling

TYPE LØSNING

Modellering, DSS, simulering, optimalisering

NØKKELORD

remote sensing techniques; carbon sequestration; forestry

DIGITAL LØSNING

Ja

INNOVASJON

Ja

OPPRINELSESLAND

Polen

POTENSIALE

Nasjonal

START OG SLUTT åR

2015 - 2018

KONTAKT INFORMASJON

EIER ELLER FORFATTER

Instytut Badawczy Leśnictwa

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RAPPORTØR

Łukasiewicz Research Network - Wood Technology Institute (ITD)

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REFERENCES AND RESOURCES

HJEMMESIDE (HOVEDSIDE)

http://rembiofor.pl/en/

RESSURSER

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

PROSJEKTETS HJEMMESIDE

http://rembiofor.pl/en/

REFERANSE TIL PROSJEKT

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 FOR BESTE PRAKSIS

LOGO FOR HOVEDORGANISASJON

PROSJEKT SOM DETTE FAKTAARKET ER OPPRETTET UNDER

Rosewood 4.0

INNLEGGSDATO

12 aug 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY