

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 CO₂ balance, biomass and annual allowable cut calculations; determine growing stock for any forest area; reduce cost of field work in forest management.

DETALLES

ORIGEN DE LA MADERA

--

TIPO DE MADERA

--

TIPO DE MADERA AFECTADA

--

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

--

EFFECTO SOBRE LOS INGRESOS

--

POTENCIAL DE EXPLOTACIÓN

--

HUB

Eje Centro-Este

IMPACTO ECONÓMICO

--

CONOCIMIENTOS ESPECÍFICOS NECESARIOS

--

POTENCIAL DE MOVILIZACIÓN

--

POTENCIAL DE SOSTENIBILIDAD - VALOR

--

FACILIDAD DE APLICACIÓN

--

FACILIDAD DE IMPLEMENTACIÓN - EVALUACIÓN

--

PREREQUISITOS CLAVE

--

TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

Visita de estudio (T2.3)

EFFECTO SOBRE EL EMPLEO

--

COSTES DE IMPLEMENTACIÓN (EURO - €)

--

MÁS DETALLES

RETO ABORDADO

1. Mejorar la resistencia y la adaptación de los bosques al cambio climático

DOMINIO

Inventario, evaluación, seguimiento
Gestión forestal, silvicultura, servicios
ecosistémicos, resiliencia
Investigación y desarrollo

TIPO DE SOLUCIÓN

Modelización, DSS, simulación, optimización

PALABRAS CLAVE

remote sensing techniques; carbon sequestration; forestry

SOLUCIÓN DIGITAL

Sí

INNOVACIÓN

Si

PAÍS DE ORIGEN

Polonia

ESCALA DE APLICACIÓN

Nacional

AÑO DE INICIO Y FIN

2015 - 2018

DATOS DE CONTACTO

PROPIETARIO O AUTOR

Institut Badawczy Leśnictwa
Krzysztof Stereńczak
K.Sterenczak@ibles.waw.pl
<https://www.ibles.pl/>

REPORTADOR

Łukasiewicz Research Network - Wood Technology Institute (ITD)
Dobrochna Augustyniak-Wysocka
dobrochna.augustyniak@itd.lukasiewicz.gov.pl

REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL

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

RECURSOS

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

SITIO WEB DEL PROYECTO

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

REFERENCIA DEL PROYECTO

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 DE LA BUENA PRÁCTICA



LOGOTIPO DE LA ORGANIZACIÓN PRINCIPAL

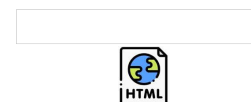


PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood 4.0

FECHA DE MENSAJE

12 Ago 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

