

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.

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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

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TIPO DE MADERA

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TIPO DE MADERA AFECTADA

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IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

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EFFECTO SOBRE LOS INGRESOS

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POTENCIAL DE EXPLOTACIÓN

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HUB

Eje Centro-Este

IMPACTO ECONÓMICO

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CONOCIMIENTOS ESPECÍFICOS NECESARIOS

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POTENCIAL DE MOVILIZACIÓN

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POTENCIAL DE SOSTENIBILIDAD - VALOR

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FACILIDAD DE APLICACIÓN

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FACILIDAD DE IMPLEMENTACIÓN - EVALUACIÓN

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PREREQUISITOS CLAVE

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TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

Visita de estudio (T2.3)

EFFECTO SOBRE EL EMPLEO

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COSTES DE IMPLEMENTACIÓN (EURO - €)

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MÁS DETALLES

| RETO ABORDADO | DOMINIO | TIPO DE SOLUCIÓN |
|--|---|---|
| 1. Mejorar la resistencia y la adaptación de los bosques al cambio climático | Inventario, evaluación, seguimiento Gestión forestal, silvicultura, servicios ecosistémicos, resiliencia Investigación y desarrollo | Modelización, DSS, simulación, optimización |
| PALABRAS CLAVE | SOLUCIÓN DIGITAL | INNOVACIÓN |
| remote sensing techniques; carbon sequestration; forestry | Sí | Si |
| PAÍS DE ORIGEN | ESCALA DE APLICACIÓN | AÑO DE INICIO Y FIN |
| Polonia | Nacional | 2015 - 2018 |

DATOS DE CONTACTO

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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

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY



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