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.

PODROBNOSTI

IZVOR LESA

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TIP LESA

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VRSTA OBRAVNAVANEGA LESA

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VPLIV NA OKOLJE IN BIODIVERZITETO

--

VPLIV NA PRIHODKE

--

POTENCIAL IZKORIŠČANJA

--

VOZLIŠČE

Srednje-vzhodno vozlišče

GOSPODARSKI VPLIV

--

POTREBNO SPECIFIČNO ZNANJE

--

POTENCIAL ZA MOBILIZACIJO

--

TRAJNOST - VREDNOST

--

ENOSTAVNOST IZVEDBE

--

ENOSTAVNOST IZVEDBE - OCENJEVANJE

--

KLJUČNI PREDPOGOJI

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VRSTA DOGODKA, NA KATEREM JE BIL PREDSTAVLJEN TA BPI

Študijski obisk (T2.3)

VPLIV NA DELOVNA MESTA

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STROŠKI IZVEDBE (EURO - €)

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VEč PODROBNOSTI

IZZIV

1. Izboljšava odpornosti gozdov in prilagoditev na klimatske spremembe

DOMENA

Inventura, ocena, monitoring

Gojenje gozdov, gospodarjenje z gozdovi, odpornost, ekosistemske storitve

Raziskave in razvoj

TIP REŠITVE

Modeliranje, DSS, simulacija, optimizacija

KLJUČNE BESEDE

remote sensing techniques; carbon sequestration; forestry

DIGITALNE REŠITVE

Da

INOVACIJA

Da

IZVORNA DRŽAVA

Polska

OBSEG UPORABE

Nacionalni

ZAČETNO IN KONČNO LETO

2015 - 2018

KONTAKTN PODATKI

LASTNIK OZ. AVTOR

Instytut Badawczy Leśnictwa

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POROČEVALEC

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REFERENCES AND RESOURCES

SPLETNA STRAN

http://rembiofor.pl/en/

VIRI

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

SPLETNA STRAN 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

LOGOTIP DOBRE PRAKSE

LOGOTIP GLAVNE ORGANIZACIJE

PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood 4.0

DATUM OBJAVE

12 Aug 2021

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