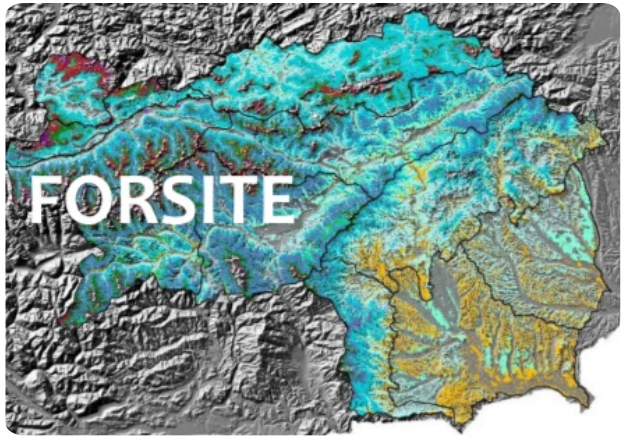
FORSITE | Dynamic ecological forest site classification



A lack of forest site information in Styria asks for a new approach to forest site classification and mapping. In this project the forest site classification will be based on a GIS-based geo-ecological stratification model.

A lack of forest site information in Styria created a need for a new approach to forest site classification and mapping, considering the changing climatic conditions, which will affect the classification of forest sites and the choice of tree species. Theoretical concepts for a new approach in "dynamic site classification" existed, but the implementation of an integrated site and forest classification in for the whole forest area in Styria has been a scientific challenge. In this project the forest site classification is based on a GIS-based geo-ecological stratification model. The database is based on a digital elevation model, a geological base map, digitally available site and climate data as well as empirical site parameters. A map of forest types is derived based on several thematic maps, including information about energy, water and nutrient balance. Those parameters are modeled on the basis of point and area related data, which are then combined into forest types with a uniform combination of factors. The model allows a stratification of the forest types on all sites based on digital geo-ecological parameters. In addition to the ecological facts, each forest type is characterized by a description of silvicultural guidelines containing information on the appropriate choice of tree species, potential hazards and adaptation methods. These guidelines also describe previous experiences with the tree species and their mixtures, and will provide recommendations for the future forest management with regard to climate change.

MORE DETAILS

CHALLENGE ADDRESSED

1.- Improve forest resilience and adaption to climate change

DOMAIN

Forest management, ecosystem, resilience

TYPE OF SOLUTION

Modelling, simulation, optimization

KEYWORDS

Silviculture; Forest ecology; Forest growth; Soil science; Tree Secies suitability; climate change; Site classification; Silvicultural Guidelines;

DIGITAL SOLUTION

Yes

INNOVATION

Yes

COUNTRY OF ORIGIN

Austria

SCALE OF APPLICATION

Regional/sub-national

START AND END YEAR

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CONTACT DATA

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https://forschung.boku.ac.at/fis/suchen.projekt_uebersicht?sprache_in=en&menue_id_in=300&id_in=12683

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REFERENCES AND RESOURCES

MAIN WEBSITE

https://forschung.boku.ac.at/fis/suchen.projekt_uebersicht

RESOURCES

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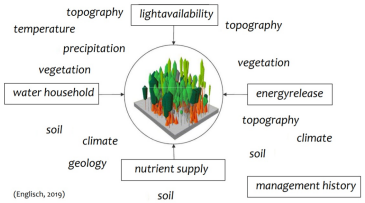
PROJECT WEBSITE

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PROJECT REFERENCE

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LOGO OF BEST PRACTICE



LOGO OF MAIN ORGANIZATION

PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

POST DATE

11 Aug 2021

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