Forest-LidaRioja | Forest inventory and fuel model map using remote sensing technologies



This project has created an updated cartography of the main forest species in La Rioja, collecting data such as the volume of wood, tree heights and vegetation structure for every 25x25m of land, with a very high level of resolution.

The Forest-LidaRioja operational group has been formed with the aim of developing a forest inventory and a fuel model map of La Rioja using remote sensing technologies. Among the main practical utilities, we can highlight the importance for improving sustainable forest management, since with accurate and updated data, better decisions can be made and actions in forest areas can be better planned. This project has allowed the development of methodologies and processes for the integration of different sources of information (mainly airborne LiDAR from PNOA 2016 data and OPTICA satellite information). These methods are supported by the development of algorithms that correlate by statistical methods precise terrain data with LiDAR data, requiring the realization of very well calibrated forest plots and measurements located with sub-meter precision in strategic points for each forest species and working area.

The main results of the Forest-LidaRioja Project are:

- Forest inventory of the forests of La Rioja.
- Mapping of fuel models of the forest area of La Rioja to plan preventive forest fire prevention work.
- Study of the evolution of poplar groves in the region and their supply potential.
- Technical training on the products generated for professionals interested in their practical use.

The products generated are open to the public so that anyone can download and use them.

DETALHES

ORIGEM DA MADEIRA
Floresta

TIPO DE MADEIRA
--

TIPO DE MADEIRA EM CAUSA
Wood standing

IMPACTE NO AMBIENTE E BIODIVERSIDADE
Difficult to estimate

IMPACTE NAS RECEITAS
--

POTENCIAL DE EXPLORAçãO
--

HUB
Pólo Sudoeste

IMPACTE ECONOMICO

POTENCIAL DE MOBILIZAçãO
Difficult to define, but if we base ourselves on the annual felling and the possibilities in La Rioja, it could be between 100,000 and 250,000 m3 of wood, but it would not be only through this system.

SUSTENTABILIDADE POTENCIAL - VALOR
Muito positivo

FACILIDADE DE IMPLEMENTAçãO
A very easy-to-use application has been created to make it user-friendly for everyone, with a basic variant for all audiences that is intuitive to use and a more advanced variant for technicians (the latter was accompanied by training).

FACILIDADE DE IMPLEMENTAçãO
Very Easy

PRE-REQUISITOS CHAVE
--

TIPO DE EVENTO EM QUE ESTE BPI TEM SIDO APRESENTADO
--

IMPACTE NO EMPREGO
Difficult to specify

CUSTOS DE IMPLEMENTAçãO (EURO - EUR)

High at the scale of forest users, facilitates many processes linked to public forest services and lowers inventory costs for both public and private users. 243000

CONHECIMENTOS ESPECIFICOS NECESSáRIOS

For the all public variant none, only knowledge of the location of the plot and internet access, for the technical variant knowledge of foresters and some rudiments of using the application.

MAIS DETALHES

DESAFIO ABORDADO

2. Melhorar as infra-estruturas e a capacidade dos actores públicos

PALAVRAS-CHAVE

Cartografía

Inventario forestal continúo

LiDAR

DOMíNIO

Inventário, avaliação e monitorização

Cortes, infraestruturas e logistica

SOLUçãO DIGITAL

Sim

TIPO DE SOLUçãO

Modelação, sistemas de apoio à decisão, simulaçã, optimização

INOVAçãO

Sim

PAíS DE ORIGEM

Espanha

ESCALA DE APLICAçãO

Regional/ sub-nacional

ANO DE INíCIO E FIM

2018 - 2020

DADOS DE CONTACTO

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REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

https://www.forest-lidarioja.info/

WEBSITE DO PROJETO

https://www.forest-lidarioja.info/grupo-operativo/

REFERêNCIA AO PROJETO

FEADER

RECURSOS

Spatial Data Infrastructures of the Government of La Rioja (IDErioja)

Application for consulting and extracting data from specific plots of land

LOGOTIPO DA BOA PRáTICA

LOGOTIPO DA ORGANIZAçãO PRINCIPAL

PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood 4.0

DATA DE ENTRADA

8 Set 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY