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.

DETALLES

ORIGEN DE LA MADERA

Bosque

TIPO DE MADERA

--

TIPO DE MADERA AFECTADA

Wood standing

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

Difficult to estimate

EFECTO SOBRE LOS INGRESOS

--

POTENCIAL DE EXPLOTACIóN

--

HUB

Centro del Suroeste

IMPACTO ECONóMICO

POTENCIAL DE MOVILIZACIóN

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.

POTENCIAL DE SOSTENIBILIDAD - VALOR

Muy positivo

FACILIDAD DE APLICACIóN

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).

FACILIDAD DE IMPLEMENTACIóN - EVALUACIóN

Very Easy

PREREQUISITOS CLAVE

--

TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

--

EFECTO SOBRE EL EMPLEO

Difficult to specify

COSTES DE IMPLEMENTACIóN (EURO - €)

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

CONOCIMIENTOS ESPECíFICOS NECESARIOS

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.

MáS DETALLES

RETO ABORDADO

2. Mejorar las infraestructuras y la capacidad de los agentes públicos

DOMINIO

Inventario, evaluación, seguimiento

Aprovechamiento, infraestructura, logística

TIPO DE SOLUCIóN

Modelización, DSS, simulación, optimización

PALABRAS CLAVE

Cartografía

Inventario forestal continúo

LiDAR

SOLUCIóN DIGITAL

Sí

INNOVACIóN

Si

PAíS DE ORIGEN

España

ESCALA DE APLICACIóN

Regional/sub-nacional

AñO DE INICIO Y FIN

2018 - 2020

DATOS DE CONTACTO

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REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL

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

SITIO WEB DEL PROYECTO

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

REFERENCIA DEL PROYECTO

FEADER

RECURSOS

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

Application for consulting and extracting data from specific plots of land

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