

# 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

---

<b>RETO ABORDADO</b>	<b>DOMINIO</b>	<b>TIPO DE SOLUCIÓN</b>
2. Mejorar las infraestructuras y la capacidad de los agentes públicos	Inventario, evaluación, seguimiento Aprovechamiento, infraestructura, logística	Modelización, DSS, simulación, optimización
<b>PALABRAS CLAVE</b>	<b>SOLUCIÓN DIGITAL</b>	<b>INNOVACIÓN</b>
Cartografía Inventario forestal continuo LiDAR	Sí	Si
<b>PAÍS DE ORIGEN</b>	<b>ESCALA DE APLICACIÓN</b>	<b>AÑO DE INICIO Y FIN</b>
España	Regional/sub-nacional	2018 - 2020

## DATOS DE CONTACTO

---

### PROPIETARIO O AUTOR

Agresta S. Coop.  
David García  
dgarcia@agresta.org  
<https://agresta.org/>

### REPORTADOR

CESEFOR  
Ángela García de Arana  
[angela.garcia@cesefor.com](mailto:angela.garcia@cesefor.com)

## 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

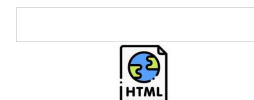


PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

FECHA DE MENSAJE

Rosewood 4.0

8 Sep 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

