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.

DETAILS

HERKUNFT DES HOLZES
Wald

ART DES HOLZES
--

ART DES BETROFFENEN HOLZES
Wood standing

AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITäT
Difficult to estimate

EINKOMMENSEFFEKT
--

VERWERTUNGSPOTENZIAL
--

NABE
Drehkreuz Süd-West

WIRTSCHAFTLICHE AUSWIRKUNGEN

MOBILISIERUNGSPOTENZIAL
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.

POTENZIAL FüR NACHHALTIGKEIT - WERT
Sehr positiv

LEICHTE IMPLEMENTIERUNG
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).

LEICHTE IMPLEMENTIERUNG - BEWERTUNG
Very Easy

WICHTIGE VORAUSSETZUNGEN
--

ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE
--

ARBEITSPLATZEFFEKT
Difficult to specify

KOSTEN DER IMPLEMENTIERUNG (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

SPEZIFISCHES WISSEN ERFORDERLICH

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.

MEHR DETAILS

ANGESPROCHENE HERAUSFORDERUNG

2. Verbesserung der Infrastrukturen und Kapazitäten der öffentlichen Akteure

DOMäNE

Bestandsaufnahme, Bewertung, Überwachung

Holzernte, Infrastruktur, Logistik

ART DER LöSUNG

Modellierung, DSS, Simulation, Optimierung

SCHLüSSELWöRTER

Cartografía

Inventario forestal continúo

LiDAR

DIGITALE LöSUNG

Ja

INNOVATION

Ja

HERKUNFTSLAND

Spanien

UMFANG DER ANWENDUNG

Regional/sub-national

ANFANGS- UND ENDJAHR

2018 - 2020

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REFERENCES AND RESOURCES

HAUPT-WEBSITE

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

PROJEKT-WEBSITE

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

PROJEKT-REFERENZ

FEADER

RESSOURCEN

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

Application for consulting and extracting data from specific plots of land

LOGO DER BEST PRACTICE

LOGO DER HAUPTORGANISATION

PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood 4.0

BEITRAGSDATUM

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