SISREP | Management and analysis of reforestations on agricultural land

SISREP is a project that has developed an advanced statistical model that allows predictive and descriptive analyses to be carried out using a forestation survival prediction tool to ensure the success of new plantations. SISREP is based on the use of knowledge from historical in-situ visits to predict the probability of success of future plantations using machine learning techniques, and on a database with more than 50,000 observations referring to forestations carried out from 1993 to the present day.

The main objective of SISREP is to make use of the information obtained during inspections in the framework of aid for afforestation and the creation of forest areas in Castilla y León in order to:

- Use of the information obtained in the field for the management of the controlled files.
- Creation of a centralised and geo-referenced database with information on the state of plantations.
- To be able to predict, by means of artificial intelligence techniques, the success of future plantations.
- With the knowledge extracted, review and improve the planning of future actions, allowing the implementation of the most appropriate technical conditions for the new environmental circumstances.

To this end, an infrastructure has been designed and implemented that allows the digitalisation of the entire workflow, from data collection in the field to the use of these data in advanced statistical analysis tools.

The data collected in the field are for example species, altitude, density, slope, method, orientation, age, lithography, with or without sowing, or area.

DETAILS

HERKUNFT DES HOLZES

Wald

ART DES HOLZES

Stammholz

ART DES BETROFFENEN HOLZES

Reforestation and creation of forest areas

AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITäT

SISREP enables better forest management and ensures the success of new tree plantations, thus improving the preservation of the environment and the creation of new forest ecosystems.

Therefore, the project has a very positive impact on the environment and biodiversity.

EINKOMMENSEFFEKT

Very positive. Better forest management can generate more income.

VERWERTUNGSPOTENZIAL

Very positive, as SISREP is a support system for forest management in multiple variants, as well as a valuable aid to both private owners and managers in the task of creating new forests and, in the medium term, managing specific aspects of existing ones.

The use of data derived from the daily management of administrations is a

MOBILISIERUNGSPOTENZIAL

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POTENZIAL FüR NACHHALTIGKEIT - WERT

Sehr positiv

LEICHTE IMPLEMENTIERUNG

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LEICHTE IMPLEMENTIERUNG - BEWERTUNG

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WICHTIGE VORAUSSETZUNGEN

In order to carry out this project, it would be necessary to have a solid database, compiled over a number of years.

ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE

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highly valuable source of information that can help to improve the services offered by these administrations. To this end, the digitisation of processes becomes a fundamental and indispensable task.

NABE

Drehkreuz Süd-West

ARBEITSPLATZEFFEKT

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WIRTSCHAFTLICHE AUSWIRKUNGEN

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KOSTEN DER IMPLEMENTIERUNG (EURO - €)

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SPEZIFISCHES WISSEN ERFORDERLICH

Use of digital tools.

MEHR DETAILS

ANGESPROCHENE HERAUSFORDERUNG

1. Verbesserung der Widerstandsfähigkeit der Wälder und ihrer Anpassung an den Klimawandel

DOMäNE

Bestandsaufnahme, Bewertung, Überwachung

Waldmanagement, Waldbau, Ökosystemleistungen, Resilienz

Waldstörungen, Risiken, Katastrophenschutz

ART DER LöSUNG

Modellierung, DSS, Simulation, Optimierung

SCHLüSSELWöRTER

Reforestation

database

forecasting

DIGITALE LöSUNG

Ja

INNOVATION

Ja

HERKUNFTSLAND

Spanien

UMFANG DER ANWENDUNG

Regional/sub-national

ANFANGS- UND ENDJAHR

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REFERENCES AND RESOURCES

HAUPT-WEBSITE

https://www.pfcyl.es/sites/default/files/biblioteca/documentos/ficha_sisrep.pdf

PROJEKT-WEBSITE

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PROJEKT-REFERENZ

RESSOURCEN

Presentación : Proyecto SISREP

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

cesefor
Centro de Servicios y Promoción Forestal
y de su Industria de Castilla y León

EFI