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.

DéTAILS

ORIGINE DU BOIS

Forêt

TYPE DE BOIS

Grume

TYPE DE BOIS CONCERNé

Reforestation and creation of forest areas

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITé

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.

EFFET SUR LE REVENU

Very positive. Better forest management can generate more income.

POTENTIEL D'EXPLOITATION

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

POTENTIEL DE MOBILISATION

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POTENTIEL DE DURABILITé - VALEUR

Très positif

FACILITé D'IMPLéMENTATION

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FACILITé D'IMPLéMENTATION - ÉVALUATION

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PRéREQUIS CLéS

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

TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE

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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.

HUB

Pôle Sud-Ouest

EFFET SUR L'EMPLOI

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IMPACT éCONOMIQUE

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COûTS D'IMPLéMENTATION (EURO - €)

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CONNAISSANCES SPéCIFIQUES REQUISES

Use of digital tools.

PLUS DE DéTAILS

DéFI CONCERNé

1. Améliorer la résilience de la forêt et son adaptation au changement climatique

DOMAINE

Inventaire, diagnostic, monitoring

Getsion forestière, sylviculture, services écosystémiques, résilience

Perturbations forestières, risque, réponse aux calamités

TYPE DE SOLUTION

Modélisation, DSS, simulation, optimisation

MOTS-CLéS

Reforestation

database

forecasting

SOLUTION DIGITALE

Oui

INNOVATION

Oui

PAYS D'ORIGINE

Espagne

ECHELLE D'APPLICATION

Régionale/subnationale

DéBUT ET FIN D'ANNéE

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INFORMATIONS DE CONTACT

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REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

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

SITE WEB DU PROJET

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RESSOURCES

Presentación : Proyecto SISREP

RéFéRENCE DU PROJET

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