



The Green Deserts - The Green Deserts: new planting techniques for tree cultivation in desertified environments to face Climate Change

LIFE09 ENV/ES/000447



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Project description:

Background

A variety of interconnected issues relate to climate change impacts. These include increasing levels of CO₂ in the atmosphere, traffic related emissions, soil degradation and subsequent loss of agricultural capacity and landscape, as well as loss of bio-diversity and eco-systems. One of the most devastating consequences of climate change is the desertification of areas that have previously provided important functions in terms of carbon sequestration, food production and landscape conservation. Tree planting can help overcome these problems and innovative planting techniques are required to properly regenerate some degraded areas.

Objectives

The project's main objective is to demonstrate the feasibility and effectiveness of new tree planting techniques in desertified, poor and/or rocky areas.

Innovative 'waterbox' technology (Twinboxx) will be applied to restore the sponge function of degraded soils and reinforce soils' existing capacities for supporting plant life. Waterboxes will be tested to assess their suitability as a means of capturing rain and condensation for use in cultivating Hedera (ivy) plants along roadsides, where the plants are intended to absorb traffic-related air particulates and CO₂.

The project intends to demonstrate the waterbox technology's capacity to: improve soils by stimulating the natural capacities of plants; increase success rates of planting in eroded and desert areas to above 95%; reconstruct forests; absorb large amounts of CO₂ emissions; restore eco-systems facilitating the planting of indigenous and endangered species in desertified or otherwise damaged territories; reduce water and energy use, as the technology does not require any type of irrigation; restore desertified agricultural land to economic profitability, thus increasing economic opportunities in rural areas and combating their abandonment; and possibly facilitate all-year planting, offering long-term employment and larger time spans for cultivation and reforestation.

Expected results

Results are expected to include:

- 90 % success rate of the species planted in April surviving and growing well after 3-4 years;
- Confirmation of the financial feasibility of Twinboxx technology compared with commercial alternatives;
- 80 % survival rate of species planted in July using the Twinboxx technology;
- Confirmation that the new technology does not have a negative impact on existing water resources.

Results

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Environmental issues addressed:

Keywords

soil degradation, restoration measure, desertification,

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Beneficiaries:

Coordinator	Transfer Latin Business ConsultancyS.L.
Type of organisation	SME Small and medium sized enterprise
Description	Transfer Latin Business Consultancy S.L (TRANSFER) is a consultancy of Dutch origin that supports companies in setting up their business in foreign markets. It includes specialist experience in the promotion of environmental technology and renewable energies in Spain.
Partners	AquaPro BV, Spain Sylma BVBA, Spain Universidad de Valladolid, Spain Diputación de Valladolid, Spain Diputación de León, Spain City council of San Mateo de Gállego (Zaragoza), Spain City council of Riofrio de Aliste (Zamora), Spain

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Administrative data:

Project reference	LIFE09 ENV/ES/000447
Duration	01-SEP-2010 to 31-AUG -2015
Total budget	2,074,518.00 €
EU contribution	1,007,997.00 €
Project location	Cataluña

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