



## Restoring degraded grassland: Orchards enrich school yards for prosperity



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### Introduction

This initiative focuses on the implementation of an orchard in the school yard of Lomanda II Sector (within Chipipa commune, Huambo province, Angola). The primary objective is to restore a degraded grassland ecosystem and promote environmental education within the school community. By integrating an orchard into the school yard, the Sustainable Land Management in Target Landscapes of Central Angola (ZAEC) project aims to provide a hands-on learning experience for students while addressing the environmental challenges faced by the local area. The establishment of this orchard is an initiative of ZAEC project, which has been carrying out a series of actions to reverse the negative trends of soil degradation in selected landscapes in the central region of Angola. This project combines sustainable and rational approaches to land planning, decision-making, and management with participatory methods to enhance the capacity of local stakeholders.

### Rationale

The decision to implement an orchard in the school yard stems from the need to restore the degraded grassland in Lomanda II Sector. The area has experienced significant ecological degradation due to various factors, such as deforestation, land degradation, and loss of biodiversity. By establishing an orchard, the project seeks to enhance the ecological value of the school yard, improve soil quality, and promote the importance of sustainable land management practices.



## Description

The implementation of the orchard involved several key steps. Firstly, a careful selection of tree species was made, considering local climate conditions and the suitability of the species for the restoration of grasslands. The school yard was prepared by clearing invasive species and creating suitable planting beds.

A notable feature of the orchard implementation was the installation of a drip irrigation system using repurposed pet bottles.

This innovative and sustainable approach ensured efficient water usage, addressing the water scarcity challenges in the arid region.

The school community participated in the installation process, with students and teachers learning about water conservation, sustainable farming practices, and creative reuse of materials



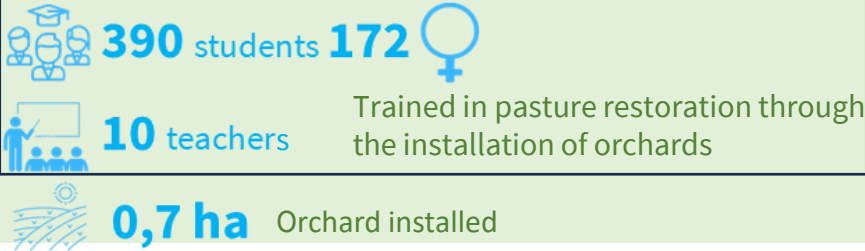
The project team conducted workshops and training sessions, engaging the students in setting up and maintaining the drip irrigation system using pet bottles. This practical learning experience fostered a sense of ownership and responsibility among the students, as they actively monitored the water supply and made necessary adjustments to ensure the orchard's healthy growth.







## Outcomes



Each plant has been equipped with a drip irrigation system using recycled PET bottles, ensuring efficient water distribution and conservation.

### Diverse trees planted



The orchard has brought a positive change to our school and the surrounding community. It has not only restored the degraded grassland but also provided valuable educational opportunities for our students. The drip irrigation system using pet bottles has been a remarkable innovation, enabling us to conserve water and teach our students about sustainability. Expressed the school director, Mr. Novato Chissingui Machado.

The quotes from students further exemplified the positive impact of the orchard in terms of education, environmental awareness, and empowerment.

Filomena Nhangue: "Seeing the orchard grow and thrive has made me realize the power of our actions. We can restore and protect our ecosystems if we work together and take responsibility for our planet."

Miguel Catumbela: "The drip irrigation system using pet bottles was so clever! It showed us how we can find solutions to environmental problems using everyday materials. I'm proud to be part of this project."

The project envision it replicated in 50 schools across the 10 sectors of Chipipa commune, fostering sustainable practices and creating a scalable model for community-wide adoption.

