Benefits of Crop Wild Relatives *in-situ* conservation to rural communities

CWRs as a key player for active, innovative and outdoor rural education

Introduction

Rural population's perception of the value of in situ *CWRs conservation is essential to its long-term sustainability.*

One of the threats for CWRs is land abandonment, with all that this entails. Rural exodus is ultimately due to a perception among the rural population that there is a lack of opportunities for personal or professional growth. It all begins during childhood, and education in rural areas plays a key role here.

Objectives

The overall objective is to link biodiversity conservation (of CWRs in this case) with improving the quality of life of the rural population, whilst ensuring that the research carried out in a given territory benefits the people living there as directly as possible.

By connecting researchers with schools located in the area where the CWRs's *in-situ* conservation is taking place, and by facilitating collaboration between them, they can co-create educational scenarios and resources based on the CWRs that enrich the activities of public schools using an innovative pedagogical approach. The objective is the process of co-creation itself, which brings the science carried out in our land directly and in a meaningful way to the people living here, especially the younger generations. Co-creating active, locally-based educational activities and resources, with CWRs as the central theme, raises public awareness of the value of CWRs whilst helping to improve the quality of rural education thereby ensuring the survival of CWRs populations.

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Results

Researchers and teachers (San Martín primary school, Garganta la Olla, Extremadura) have co-created an educational intervention for a whole academic year based on CWRs consisting of:

1) an experimental school garden with crops and their corresponding CWRs, which serves as a learning scenario for different subject areas (art, natural sciences, mathematics, etc.);
2) a field notebook to complement the garden;
3) a field visit to the Aprisco genetic reserve where teachers and students carried out monitoring activities;
4) activities involving the local community (nature tourist guides, artists, etc.) with children as end users.

The whole intervention (activities and materials) has been co-evaluated with teachers and students at the end of the academic year. Improvements identified are ready to be implemented next academic year to scale up the activity for other schools in the region.

Recommendations

Having highly motivated academics – and, if possible, those with experience of participatory processes – as well as educational institutions with an innovative approach will facilitate collaboration.
When choosing species for the school garden, we recommend starting by identifying the CWRs species present in the area (preferably those found in a nearby genetic reserve) and, ideally, those related to crops familiar to the students (which they might grow in their own gardens at home).
Pay attention to sowing and harvesting dates (ideally, they should be sown at the same time) and to any pre-sowing treatments that may be required for CWRs.
We recommend having a professional facilitator who oversees both the co-creation activities (co-diagnosis, co-design, co-production, co-evaluation) and communication between both parties. Paying attention to the human aspect of the collaboration is key.

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