

# Use of the diversity of the calabash (*Crescentia cujete* L.): a multi-purpose tree for Colombia and Tropical America

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## GENERAL OBJECTIVE

Promote the calabash (*Crescentia cujete* L.) as a vegetative genetic resource, native of Colombia, with a sustainable use for small farmers in the dry regions and/or areas prone to desertification or degradation.

## SPECIFIC OBJECTIVES

- Compile bibliographic information about the calabash (*Crescentia cujete* L.).
- Analyze eco-geographically the distribution of the calabash in Colombia.
- Collect germplasm in five regions of Colombia (Orinoquía, Caribbean, Andes, Pacific, and Amazon).
- Recover small farmer knowledge about agronomy and uses of the calabash.
- Vegetatively propagate the calabash in artisanal form, identifying genetic variation and environmental influences on the success of the propagation.
- Determine the variation of agro-morphological characteristics of the nutritional and genetic quality between and within procedences.

## EXPECTED RESULTS

- Compilation of information on biology, ecology, distribution, and uses with emphasis on local knowledge of the calabash (*Crescentia cujete* L.).
- An ex situ collection of germplasm of the Colombian calabash started.
- Knowledge about the ecological adaptation of the calabash, showing its distribution and potential use in Colombia.
- Knowledge of the agro-morphological variation between and within procedences.
- Knowledge of the nutritional variation of the fruit between and within procedences.
- Knowledge of the genetic variation between procedences through the use of molecular markers.
- Protocol of an efficient propagation process of the calabash



## BENEFICIARIES

The main beneficiaries will be small farmers in the establishment zones and of the different regions of Colombia where the calabash is used. They will have access to knowledge about this genetic resource that could provide new and innovative sources of income for the population, on integrating research with the sustainable use of the species. In this way, researchers of the following stages of the study will be benefited with the germplasm and the information collected, starting from small farmer knowledge of other regions of the country.



## METHODOLOGY

The Project will be carried out in five regions of Colombia: Caribbean, Andes, Orinoquía, Amazon, and Pacific.

Collection of information and germplasm  
Eco-geographic study  
Morphological characterization  
Characterization of nutritional quality  
Vegetative propagation  
Data analysis



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