

Regional Micro-Economies Development in the Production of Essential Oils in Mineral Soils

ARGENTINA / COLOMBIA

 Webstory



The technological solution

As an innovative contribution, the strategy proposes the promotion of regional microeconomies based on the use of plant biomass produced in remediated soils, to obtain essential oils and by-products with high added value, without the risk of contamination by heavy metals.



Description

In addition, in a framework of technological innovation, formulations and commercial prototypes of agro-inputs and cosmetic products based on essential oils will be developed, as an opportunity for the sustainable intensification of agriculture, incorporation into value chains and development of competitive territories in a equity and sustainability



Results

From a modular execution, with multiple concurrent lines of action, we have achieved the proposed results in all the objectives. Thus, we identified more than 1,000 mining sites as potential aromatic production sites, which will eventually feed the market niches for essential oils and natural cosmetics identified in our market study carried out at the local, regional and international levels. This production of aromatics is part of a process of phytoremediation of mining soils, based on the synergistic use of plants and microorganisms. In this sense, we achieved quantitative improvements in the efficiency of the phytoremediation process and the appropriation of the necessary knowledge for the collection of native aromatic plant material for the production of essential oils and the nursery of at least 4 aromatic species, 2 of which were reported as new plant species tolerant to metals. Of these species, 3 were successfully implanted in dump or lead-contaminated soils.

12

Candidate plants for Phytoremediation (a new tolerant species reported)

+8000

Plants produced in native plant nurseries

+2300

ml of essential oils distilled

3

Phytoremediation pilot scale sites

2

Doctoral theses

6

Workshops with farmers

ABOUT FONTAGRO

FONTAGRO is a unique cooperation mechanism for agricultural innovation in Latin America and the Caribbean (ALC) and Spain, that works through regional platforms. It is composed of 15 countries that have contributed capital exceeding 100 million dollars and the Inter-American Development Bank (IDB), which is its legal representative.

ORIGIN OF RESOURCES



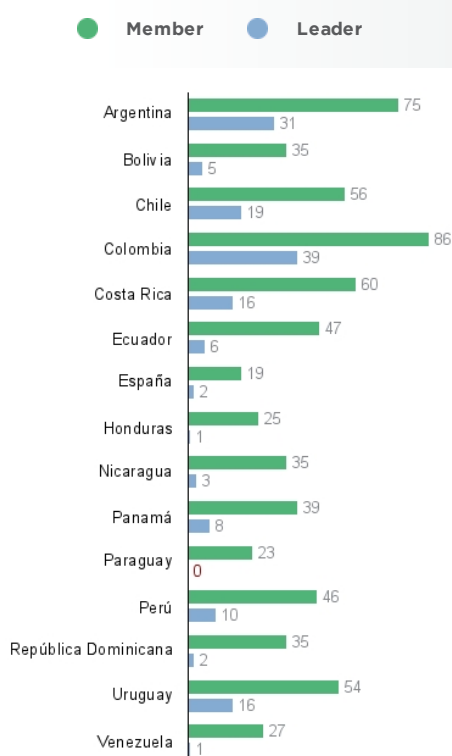
● **Counterpart contribution**
93.177.555

● **FONTAGRO**
28.989.468

● **IDB**
9.922.700

● **Other agencies**
9.809.078

PARTICIPATION AND ROLE IN CONSORTIUMS SINCE 1998



FONTAGRO IN NUMBERS

193 Number of projects approved

141.9 Approved total amount US\$
MILLONES

9.8 Contribution from other agencies
MILLONES

32 Benefited countries

63 Generated technologies

15 New technologies for ALC

8 Technology of global relevance

MEMBER COUNTRIES

