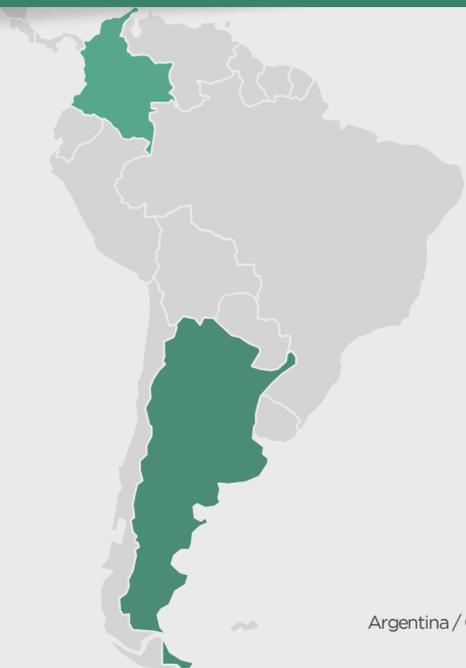




Development of regional microeconomies in the production of essential oils harvested in mining soils

Argentina and Colombia share arid environments where soil desertification is the main limiting factor. As an innovative contribution, the promotion of microeconomies from the use of plant biomass produced in remediated soils is proposed.



Argentina / Colombia

The implemented initiative

Regional microeconomies will be promoted through the use of plant biomass cultivated in mining soils for the production of essential oils and by-products of high added value. Niche markets for oils and their derived bio-inputs will be identified, a pilot area of ?? phytoremediation based on aromatics will be implemented in areas with mining activity or heavy

metal contamination. The main objective is to strengthen regional microeconomies through the family production of aromatic species and essential oils from Argentina and Colombia, increasing the productivity and sustainability of production systems and the use of raw materials in the framework of phytoremediation of mining soils.

The technological solution

1. MARKET STUDY. It will evaluate the production of essential oils in Latin America and the Caribbean (LAC) and the potential mining areas to be intervened. A study of national and international market projections will be carried out, and the socioeconomic and environmental impact of the proposed productive developments will be evaluated.
 2. REMEDIATION OF MINING SOILS USING AROMATICS. The bioprospecting of new native species tolerant to heavy metals that are of biotechnological interest will be carried out, they will be nurseryized and produced on

a pilot scale in their own nursery. Soil remediation tests will be carried out and its behavior will be evaluated up to the development of bio-inputs from biomass products. A mine closure protocol will be designed.
 3. DEVELOPMENT OF BIOINSUMS From the oils obtained from the biomass, cosmetics and bio-inputs for organic agriculture will be developed.
 4. DISSEMINATION OF KNOWLEDGE. Based on the dynamics of field schools, tools will be designed for the dissemination and democratization of the knowledge generated.



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

MÁS INFO



Results

The direct beneficiaries are 600 family farmers (250 from Argentina and 350 from Colombia). In Argentina, about 60 families belonging to 18 organizations will be directly benefited, promoted through the Municipality of Santa Rosa and the Secretariat of Family Agriculture of the province, in the towns of Santa Rosa, General Pico, Toay, Cachirulo and Anguil. In Colombia, the

beneficiaries correspond to 150 members associated with the Kankuamos Agroecological Producers Cooperative and 200 family farmers from new associations in the Caribbean region (Serranía del Perijá, Department of Cesar). The indirect beneficiaries are the rest of the actors in the value chain (distributors, merchants and the province).

Main donors



Participating Organizations

