

Strengthening the competitiveness of mango producers in Colombia and Peru through the integral utilization of the fruit and the development of new products

COLOMBIA, PERU



Webstory



Technological solution

The project will develop a technological solution based on the integral utilization of mango through the use of second-grade fruit from the agricultural value chain that cannot be exported, as well as processing residues such as peels and seeds, to generate innovative products. This will be achieved through the development of the following components: I) Enhancement of mango peel utilization through the study of its chemical composition and bioactive compounds in Colombia and Peru. II) Design of innovative products derived from mango pulp and seed to expand the target market for producers. III) Conducting a technical, economic, and environmental feasibility study for the integral utilization of mango fruit. IV) Transfer of the developed knowledge to producers, entrepreneurs, and the academic community.



Technological description

The project seeks to improve the competitiveness of mango producers in Colombia and Peru through the integral utilization of the fruit, using its residues (peel and seed) to develop innovative products. It focuses on generating added value through the research of compounds present in the peel and seed, aiming at their application in new products for potential use in the food and non-food industries. The project will deliver the technical-economic feasibility, environmental assessment, and life cycle analysis for four products developed at an artisanal level. The protocols will be shared with producers as production alternatives to generate new markets, promoting the competitiveness and sustainability of this important agricultural value chain.



Impacts and results

Through the implementation of this project, the following results will be achieved: Enhance the use of mango peel through the study of its chemical composition and bioactive compounds in Colombia and Peru. Design innovative products from mango pulp and seed to expand the target market for producers. Conduct a technical, economic, and environmental feasibility study for the integral utilization of mango fruit. Transfer the developed knowledge to producers, entrepreneurs, and the academic community.



4

Human talent development, undergraduate and master's theses.



4

Functional characterization of mango peel and seed, two varieties per country



4

Technical-economic feasibility assessments for the production of innovative products (2 per country)



6

Three outreach workshops will be conducted per country.



1000

Beneficiaries per country



4

Designs of innovative products