



## Mango: A fruit with multiple business opportunities

The project aims to enhance the competitiveness of mango producers in Colombia and Peru through the integral use of the fruit, developing new products from waste, with a focus on sustainability and value-added generation

Strengthening the competitiveness of mango producers in Colombia and Peru through the comprehensive use of the fruit and the development of new products

### Initiative

The project aims to enhance the competitiveness of mango producers in Colombia and Peru by leveraging the entire fruit, using its by-products (peel and seed) to develop innovative products. It focuses on adding value through research on the compounds present in the peel and seed, seeking their application in new products for potential use in both the food and non-

food industries. The project will assess the technical, economic, environmental, and life cycle feasibility of four products developed at an artisanal level, with protocols to be shared with producers as production alternatives to generate new markets, aiming to improve the competitiveness and sustainability of this important agro-chain.







Comprehensive Use of Mango to Increase the Competitiveness of Producers in Colombia and Peru through the Development of Innovative and Sustainable Waste Products

### Tech solution

The project will develop a technological solution based on the integral use of mango by utilizing agro-chain residues that cannot be exported, such as peels and seeds, to generate innovative products. This will be achieved through the development of the following components: (I) Enhancement of the use of mango peel by studying its chemical composition

and bioactive compounds in Colombia and Peru. (II) Design of innovative products from mango pulp and seed to expand the producers' target market. (III) Conducting a technical, economic, and environmental feasibility study for the integral use of the mango fruit. (IV) Transferring the knowledge developed 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

#### Development of project components

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MORE INFO



### Impacts and Results

- Analysis of the chemical composition and bioactive compounds present in mango peel in both countries. This will include the collection of mango peel samples from different regions and varieties, with the aim of applying the findings in the cosmetics industry.
- Research and development of new products that fully utilize the nutritional and functional properties of mango pulp and seed, to offer

- healthy and attractive options to consumers.
- Study of technical, economic, and environmental feasibility for the comprehensive use of mango fruit.
- Training and outreach activities directed at various stakeholders. Meetings and workshops for producers and entrepreneurs to provide practical and useful information to improve their production processes and develop new products.

#### Main Donors



#### Organizations

