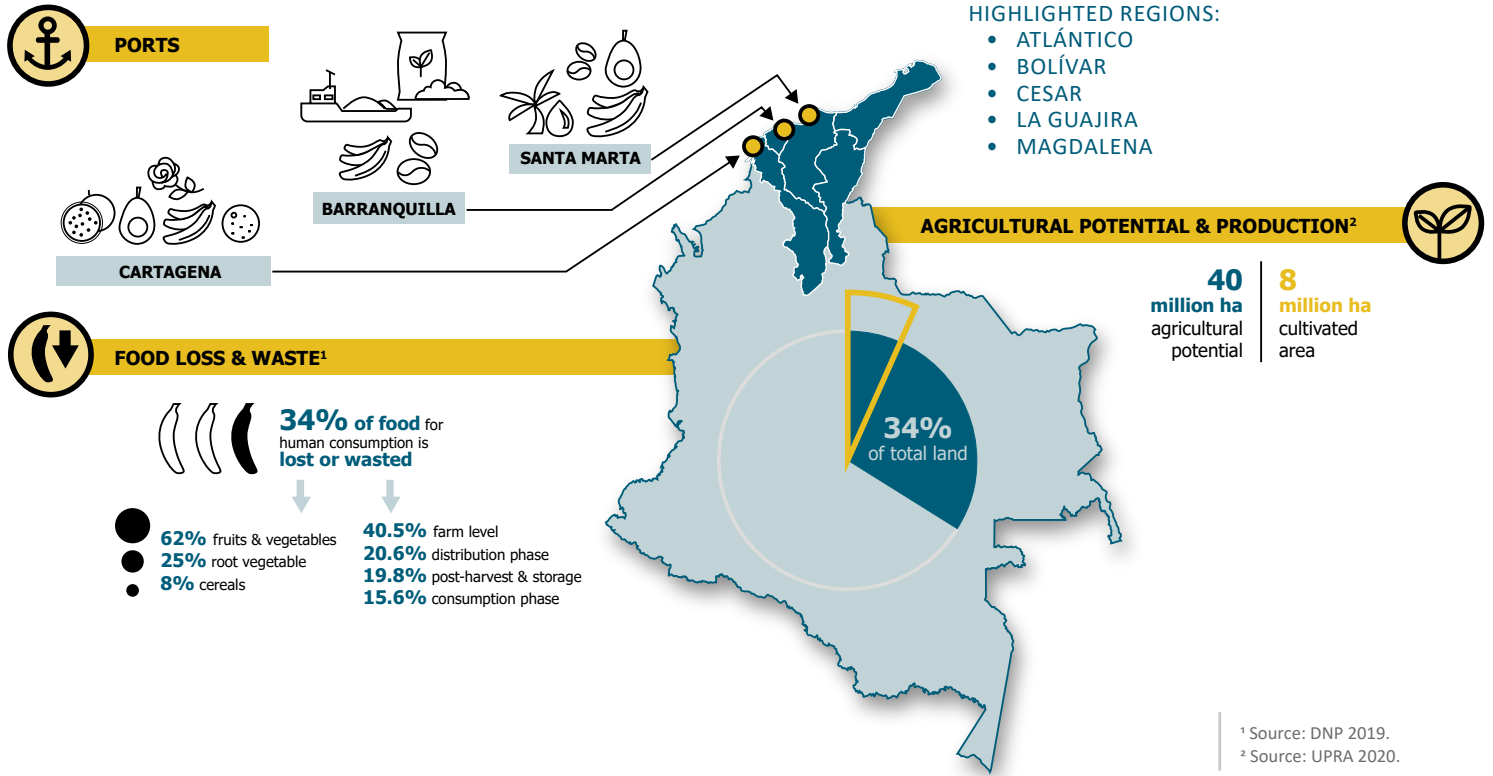


# AGRO-LOGISTICS BOTTLENECKS AND OPPORTUNITIES IN THE COLOMBIAN CARIBBEAN

September 2022



## BOTTLENECKS IDENTIFIED

### 1. Production phase

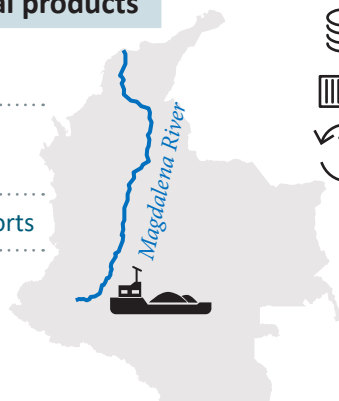
- Limited knowledge (technical and business)
- Low formality and associativity
- High input costs

### 2. Producer to consumer

- Too high number of intermediaries
- Bad state of (tertiary) roads
- Low availability, high costs of transport
- Lack of value capturing by producers

### 3. Fluvial transport of fresh agricultural products

- Low competitiveness for small volumes
- 4.5 days vs 36-48 hours (from Barrancabermeja to Barranquilla)
- Unavailability of cold chains at fluvial ports
- Limited navigability of Magdalena River



### 4. Ports operations

- Lack of coordination and standardized inspections
- Global logistics challenges
- Inadequate infrastructure in small ports

### 5. Export

- High costs, requirements and bureaucracy for small producers
- Increased shipping costs

### 6. Export to Caribbean islands via sea freight

- Expensive because of small volumes
- Limited cargo consolidation practices
- Very limited import volumes back to Colombia

## BUSINESS CASES

### Mango processing



- Magdalena average mango production 74,000 t/year
- Main cultivated varieties: Mango *de azúcar* and *común*
- High product losses due to lack of buyers
- Processing plant can work with other fruits
- 20-32% potential margins in 4 years
- Potential by-product: mango seed oil

### Cashew production and processing



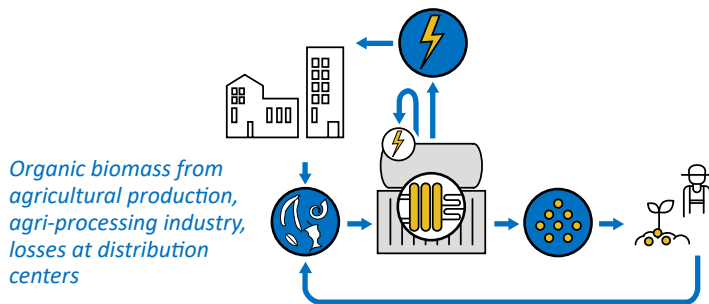
- Agrosavia's clonal varieties: yields up to 1800 kg/ha
- Climatological suitability of the five regions
- Potential of becoming the industry frontrunner in the country
- Production and processing to export cashew kernels
- Potential by-product: cashew apple juice

### Solutions for increased efficiency in small scale productions



- Training, K2K, sale and distribution of technologies
- Own organic fertilizer production
- Digital solutions for farmers
- Soil humidity sensor for more efficient irrigation

## BUSINESS CASE: Organic waste transformation to energy & fertilizer



**Recommendation:** perform a comprehensive waste streams analysis to verify the potential of waste-to-energy transformation, and to identify other waste transformation opportunities (e.g. into bio-based materials).

### ALLOWS FOR SAVINGS IN:



- Waste management costs
- Energy costs
- Fertilizers costs

## ROADMAP towards integrated transport and logistics between Colombia and Dutch Caribbean

- Importers on the islands are suffering from **rising prices** of both products and shipping (in line with the global trend of the past two years)
- Dutch Caribbean islands confront even higher shipping costs, as they offer **limited (re)export products**: ships that arrive on the islands go back rather empty
- **Growing interest** in switching imports towards **more affordable** and geographically **closer** countries

