



Cacao for Peace: A Community Development Approach to Improve the Colombian Cacao Supply Chain



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Overview of Cacao for Peace

“The overall objective of the project is to improve the cacao supply chain in Colombia by **strengthening key agricultural institutions** in the public and private sectors through **cooperative research, technical assistance, and extension education.**”



Methodology

- The ***physical cacao flows*** – from farm to processor to end user
- The ***prices received for cacao*** along the chain, including the costs related to procurement and processing
- The ***actors along the chain*** – including their roles, behaviors and recommendations for increasing efficiency
- The ***contextual issues and considerations*** that affect market outcomes, including production, processing, and confectionary





THE CACAO SUPPLY CHAIN *Following the bean to finished product*

Inputs

- Plant materials
 - Shade trees/plantains
 - Tools
 - Fertilizer, compost
 - Chemical controls
 - Irrigation
 - Fermentation & drying structures
 - Land
- ~ Ave. farm size is 13.9 ha with 3.1 ha planted in cacao.**
~ 165,006 ha of cacao (2016).*

Cacao producer

- Activities: Site preparation, planting, pruning, renovation, maintenance, on-farm fermentation and drying, and transporting cacao.
- Certifications: Rainforest Alliance, Organic, Fair Trade.
- National production ~ 54,798 MT (2016)

Commercialization

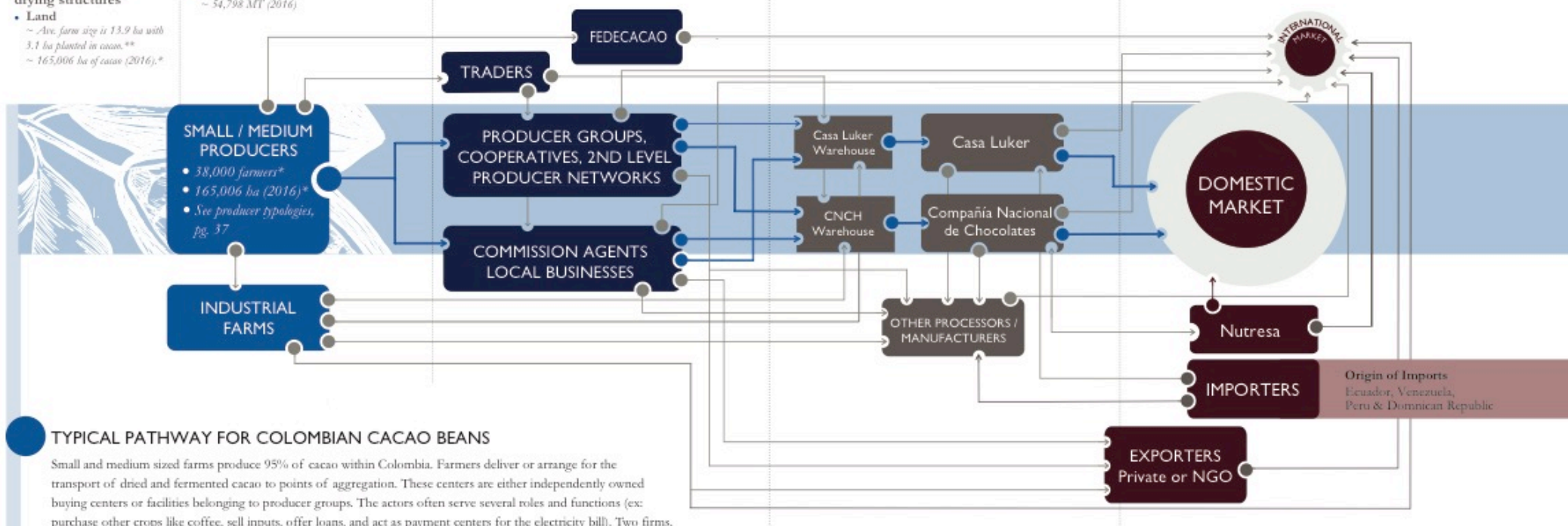
- Transportation
- Sifting impurities
- Quality control & testing
- Fermenting & drying
- Differentiation by quality, origin, flavor, certifications, or client specifications.

Cacao Processing & Chocolate manufacture

- Cocoa butter, powder, paste, nibs, liquor, couverture, chocolate mass
- Chocolate confections

Markets

- Internal demand for cacao reached 71,568 MT in 2016. 16,770 MT of cacao beans and cocoa products were imported. 24,300 MT were exported. Internal consumption was 47,268 MT.*
- Fedecacao recently began buying and exporting cacao beans. Exports have increased from 125 MT in 2013 to 1,075 MT in 2016.*
- Export Destinations: Europe (51.2%), North America (30.2%), Asia (16.6%), Central & South America (1.6%)***.



TYPICAL PATHWAY FOR COLOMBIAN CACAO BEANS

Small and medium sized farms produce 95% of cacao within Colombia. Farmers deliver or arrange for the transport of dried and fermented cacao to points of aggregation. These centers are either independently owned buying centers or facilities belonging to producer groups. The actors often serve several roles and functions (ex: purchase other crops like coffee, sell inputs, offer loans, and act as payment centers for the electricity bill). Two firms, Casa Luker and Nutresa, purchase between 80-90% of cacao production. Contracts are not used though agreements to purchase may be in place. The firms purchase between 30-55% of the cacao directly from farmers' organizations and the rest from independent buyers who are typically affiliated with one of the two firms. The cacao is transported via truck to regionally located company warehouses and transported to factories located in urban areas when needed. The companies process close to half of the cacao for drinking chocolate preparations for sale on the domestic market.

* Source: Fedecacao, 2017

** Source: Fedecacao survey (2016) of 5,397 farmers in seven departments (Antioquia, Arauca, Huila, Tolima, Nariño, N. de Santander, & Santander).

*** Source: COMTRADE, 2017; Note: Between 2012-2015, Africa and Oceania accounted for only 100MT of exports so they are excluded.

Note: This diagram only describes the functional aspects of the supply chain. The researchers utilized a wider vision of the market chain that included business organizations, supporting services, and the economic framework. This "follow the bean" pathway operates in this larger context.

LOWER VOLUME PATHWAYS FOR COLOMBIAN CACAO BEANS

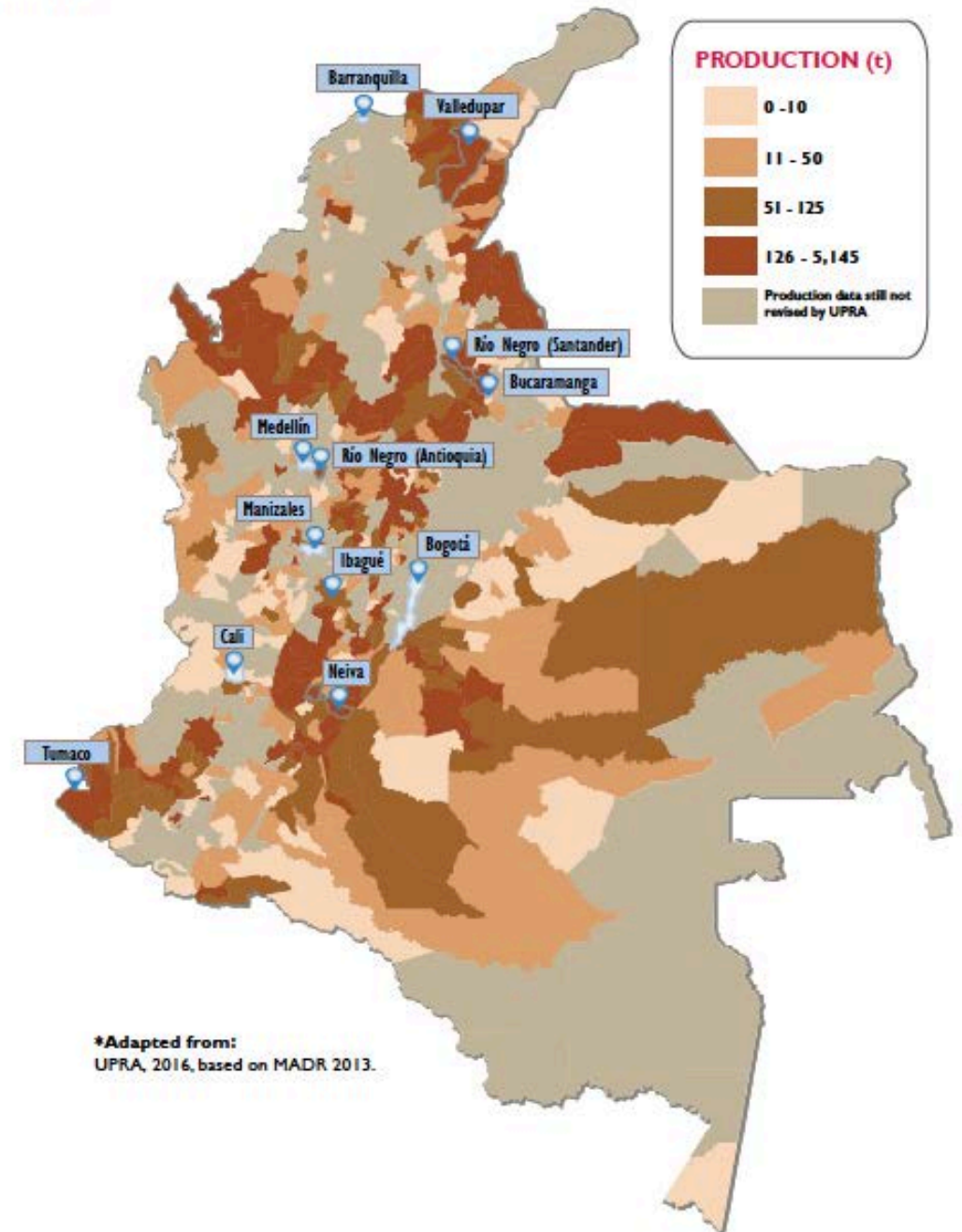
While increasing in number, large-scale plantations only produce a small percentage of the cacao. Some propose using the large farms as training, buying, and fermentation centers to support surrounding small cacao farmers. Some small producers, especially ones in remote areas, rely on agents to sell their cacao. Fedecacao has begun to purchase cacao from farmers and producer groups with the goal of exporting. Craft bean-to-bar clients require beans *en baba* to control the fermentation process to specific standards, and selling wet beans is seen as a way to support farmers with limited experience with cacao and equipment to properly ferment. Many alternative pathways exist to shorten the chain between producer and consumer and to enter higher-value domestic and international markets.



Cacao in Colombia (2016)

- Area- 165,006 ha
- Producers- 38,000
- Production - 56,785 MT
- Domestic Consumption - 46,989 MT
- Exports – 22,539 MT
- Imports – 12,743 MT

FIGURE 1. CACAO PRODUCTION BY MUNICIPALITY, 2013
(in Metric Tons, TM)



*Adapted from:
UPRA, 2016, based on MADR 2013.

Cacao Production and Conflict Zones in Colombia

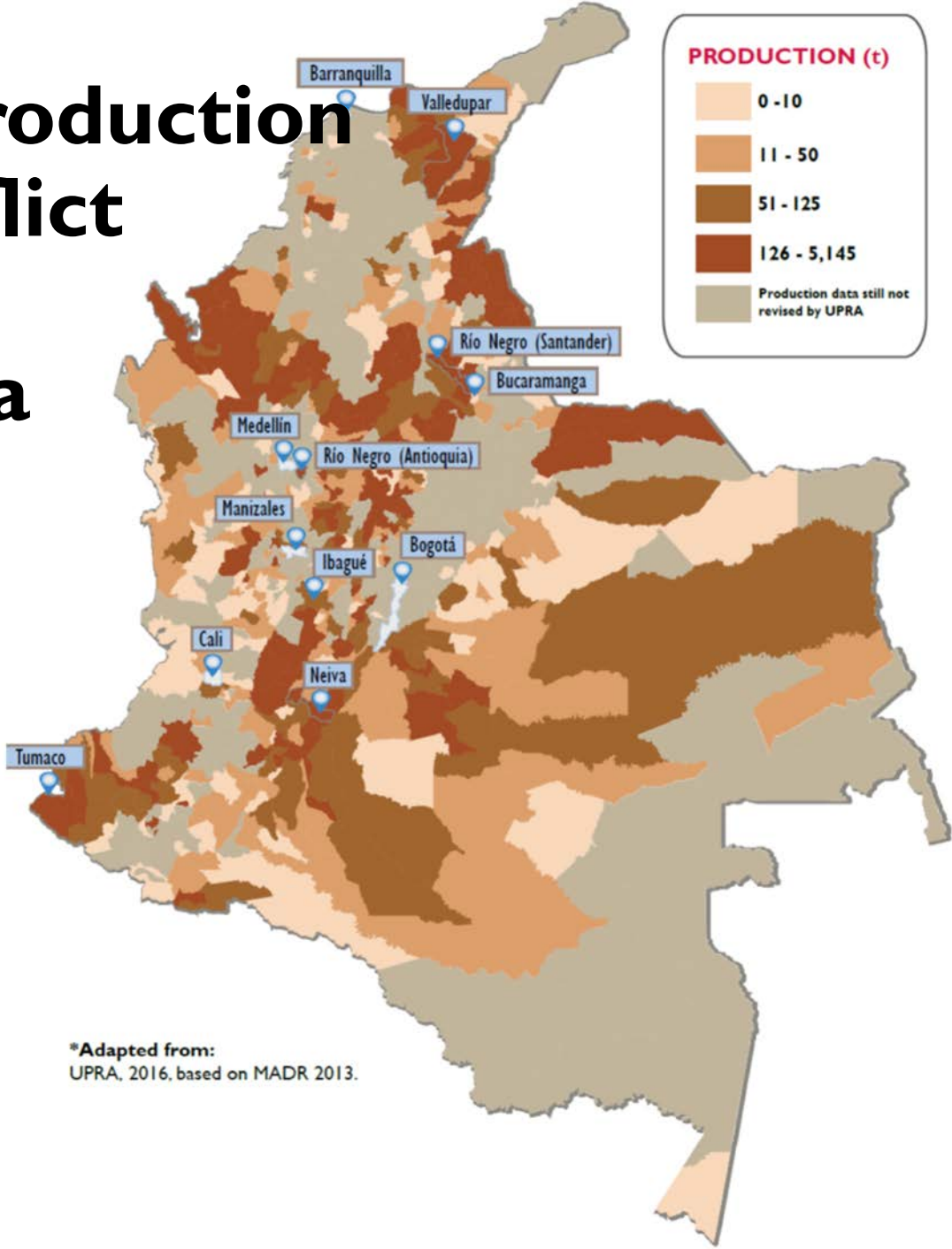
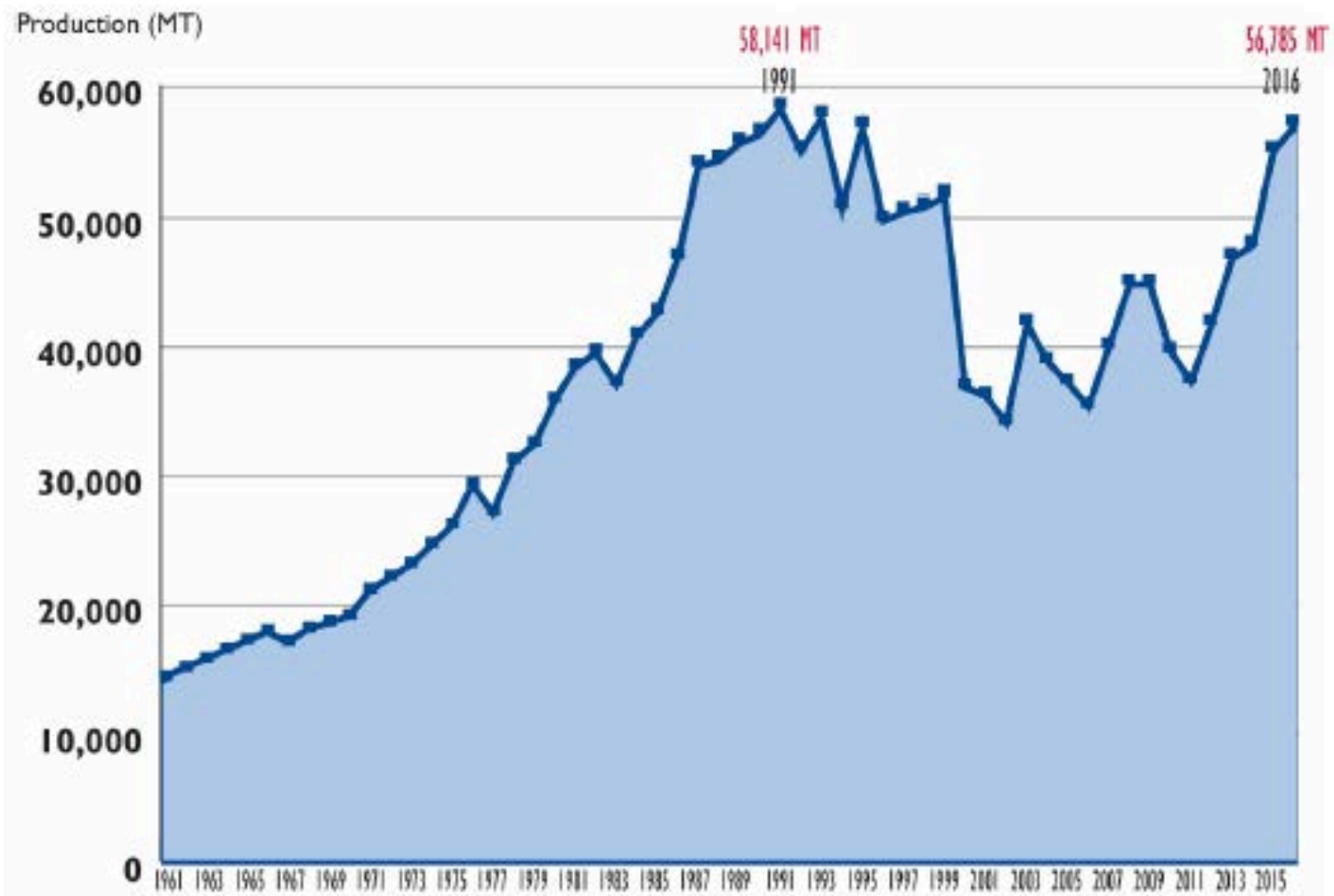


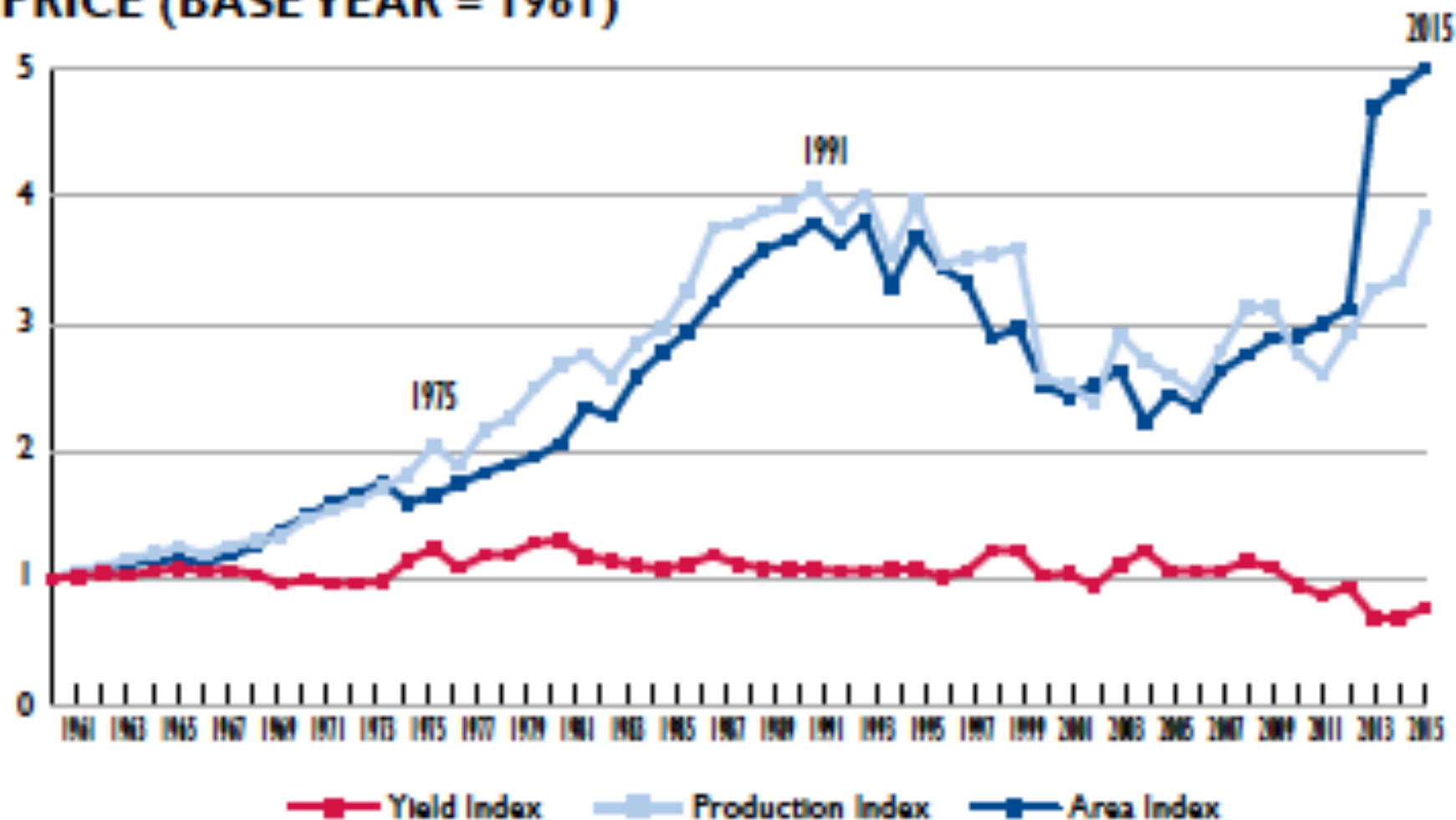


Figure 2. COLOMBIAN CACAO PRODUCTION, (1961- 2016)
(in Metric Tons, MT)



Source: FAOSTAT, 2017; Fedecacao, 2017.

FIGURE 3. INDEX OF COLOMBIAN CACAO PRODUCTION, AREA HARVESTED, YIELD AND ANNUAL AVERAGE ICCO PRICE (BASE YEAR = 1961)



Source: FAOSTAT, 2017



Table 6

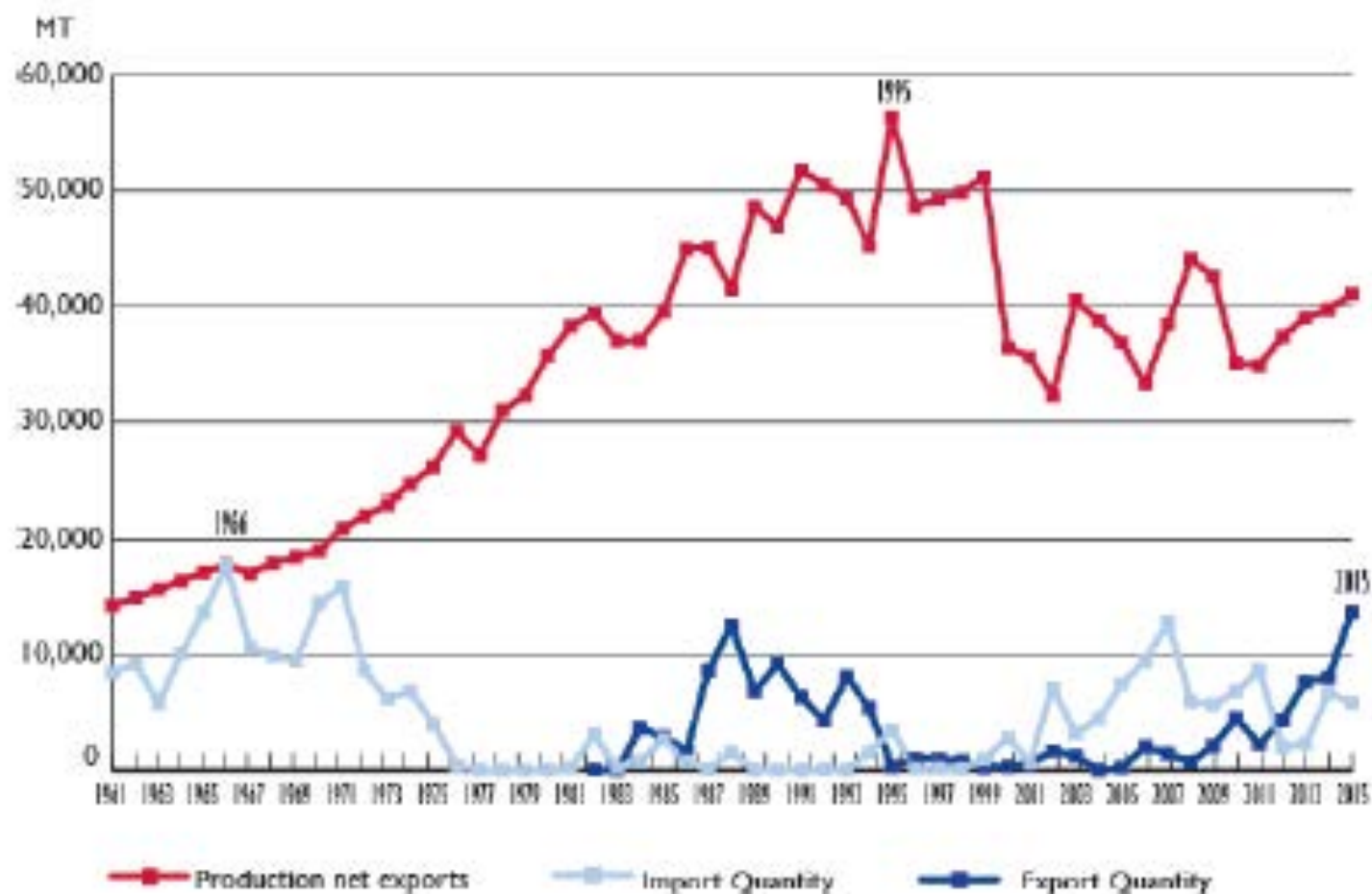
COMPARING CACAO AREA PLANTED, PRODUCTION, AND YIELD BY CONFLICT/NON-CONFLICT AREAS AND SANTANDER.

Zone	Item	Area Planted (ha)	Production (MT)	Yield (kg/ha)
Non-Conflict Areas	Quantity	37505	13651	364
	Share	22.7%	24.9%	
Conflict Areas	Quantity	76001	18720	246
	Share	46.1%	34.2%	
Santander	Quantity	51500	22424	435
	Share	31.2%	40.9%	

Source: Fedecacao, 2016 and Author's Calculations

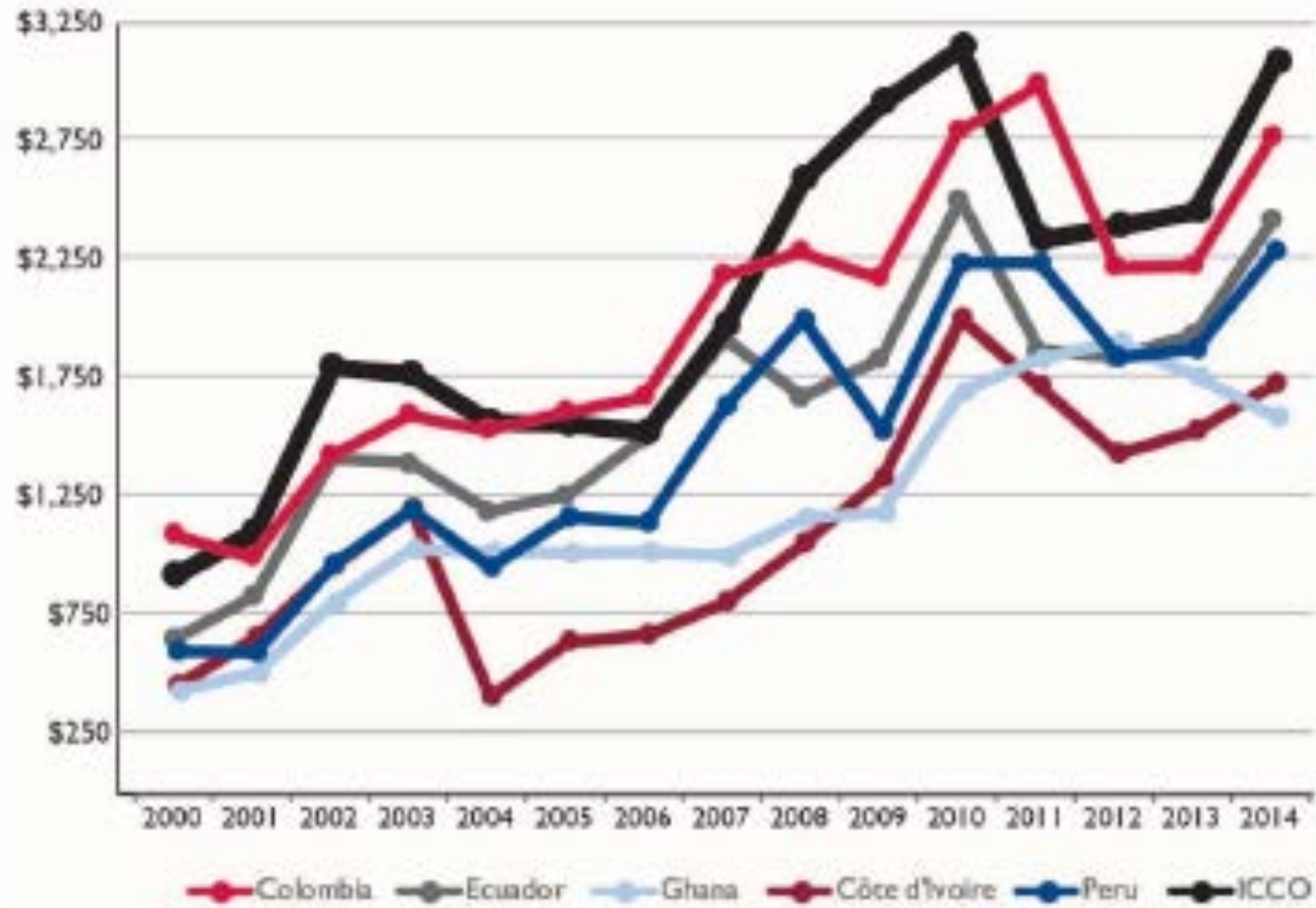


Figure 5. COLOMBIAN CACAO PRODUCTS (NET OF EXPORTS), EXPORTS AND IMPORTS IN METRIC TONS (MT), 1961 – 2015



Source: FAOSTAT, 2017; Comtrade, 2017. Note: the production net exports plus exports equals total Colombian production (supply). In contrast, production net exports plus imports equals total Colombian consumption (demand).

Figure 9. ANNUAL AVERAGE CACAO PRODUCER PRICES (AT PURCHASING CENTERS) in US\$/MT for select countries, 2000 - 2014



Source: FAOSTAT, 2017 and author's calculations based on news reports in Factiva



PRODUCCIÓN MUNDIAL DE CACAO

TOP 25 IMPORTERS OF CACAO BEANS

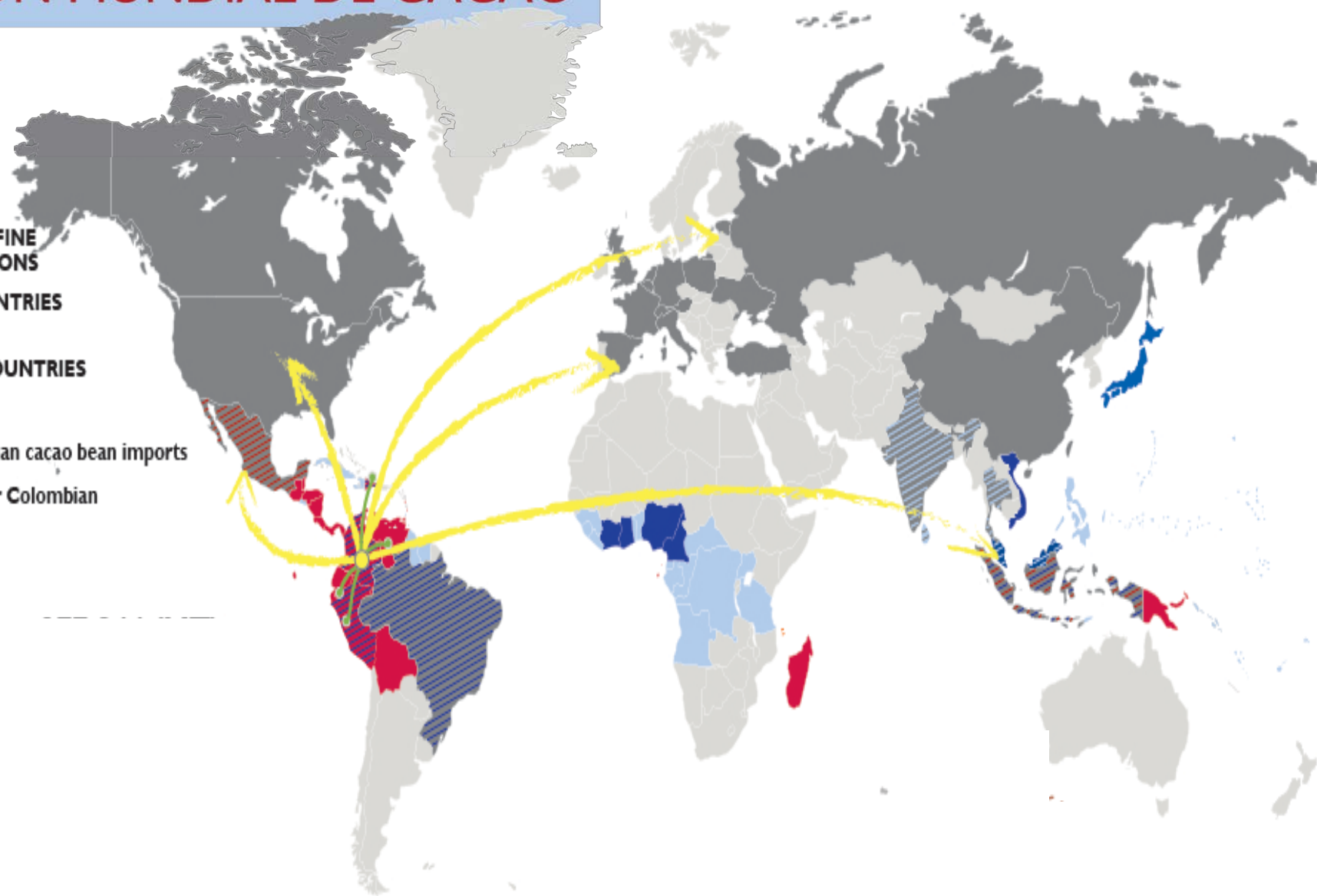
COUNTRIES WITH ICCO 'FINE AND FLAVOR' DESIGNATIONS

TOP 10 PRODUCING COUNTRIES (47,999 MT)

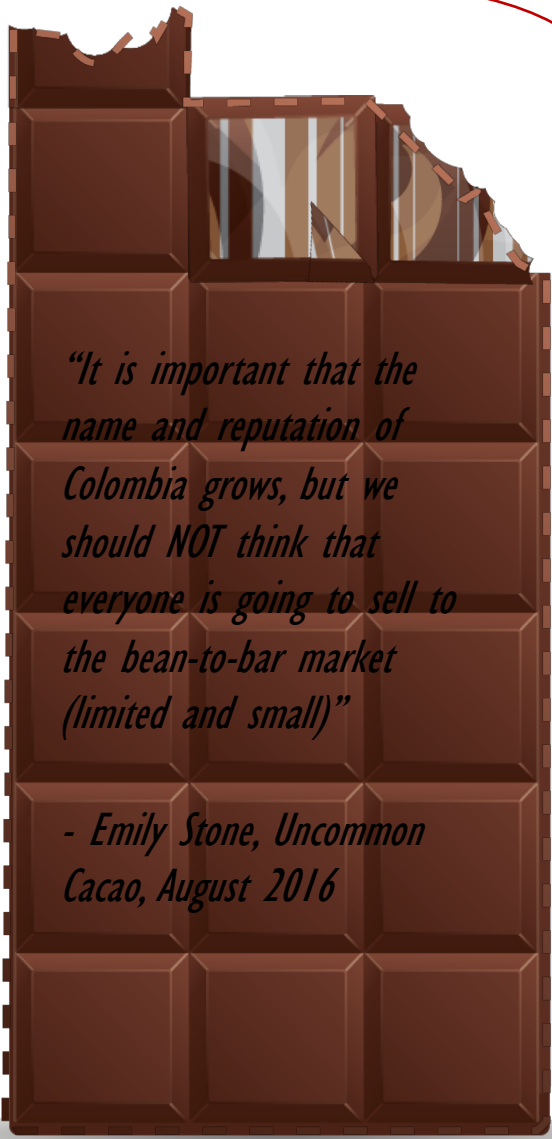
TOP 11-26 PRODUCING COUNTRIES (5,000 - 45,100 MT)

Origin countries for Colombian cacao bean imports

Top destination countries for Colombian cacao bean exports



CACAO GLOBAL PRODUCTION



"It is important that the name and reputation of Colombia grows, but we should NOT think that everyone is going to sell to the bean-to-bar market (limited and small)"

- Emily Stone, Uncommon Cacao, August 2016

Sources:
*ICCO, 2017
**based on the authors' calculations using the FAOSTAT and COMTRADE databases, the percentages for fine-and-flavor indicated by ICCO

21,600 (TM) Cacao used for "Bean to Bar"
Estimate between 9,000- 45,000 (MT)

**'Bean to bar' (BtB):
300 businesses in the world, process between 30-200 metric tons of beans per year.

250,828 (MT)

**An estimate of the exportations of fine and flavor cacao beans

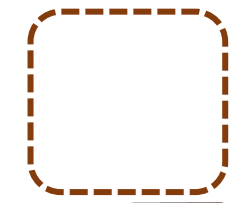
377,844 (MT)

**An estimate of the total amount of fine and flavor cacao beans in the world

4,450,263 (MT)

*GLOBAL PRODUCTION

< 1% of global production



= 250,000 MT of cacao



= Fine and Flavor Cacao

= Bulk Cacao

Current (2017) Cacao Supply and Demand in Colombia

- There is sufficient supply to cover internal demand
- Global markets are interested in Colombian cacao
- Net exports of cacao beans are now more than imports
- The quantity of intermediate products are almost nearly identical, the value of exports is a little bit higher





Effects of Cacao Expansion

- Increased costs for commercialization
- Lack of sufficient technical assistance
- Into areas of post-conflict (security)
- Beginning cacao farmers
- Aging of population
- Lack of available labor force
- Land tenure issues
- Land prices

Extension Services for Cacao Farmers

- Technical assistance has usually focused on production and post-harvest practices.
- Largely based on one-on-one interactions with farmers - resource-intensive and expensive approach
- Multiple national organizations and international development agencies provide technical assistance services
- Lack coordinated, validated, or consistent extension programs to ensure a clear message is delivered in a format that is best for the farmer





Extension Services for Cacao Farmers

- Mismatch between the financial support structure for technical assistance services
- Cacao is often grown with multiple crops but services are offered from providers primarily interested in increasing cacao yields and quality.
- Programs involving youth and training the next generation of producers are almost entirely absent.
- Difficulties in training new farmers and establishing supporting institutions in regions where cacao production is not common
- The need for long term technical assistance and institution building



*The current technical assistance system is **costly, unstable, inconsistent, unevenly distributed, and disconnected** from research, innovation, and education*



The decision to hold a stakeholder gathering...

Community Development principles of inclusion, stakeholder involvement

Significant financial interests jockeying

Key source of knowledge

Interviews showed need and interest in building relationships and trust



Facilitative Workshop Objectives

- ✦ Create a shared vision for a thriving cacao sector that will reduce poverty and promote peace
- ✦ Engage actors of the sector in building relationships and trust
- ✦ Collect and share information about issues, needs, and opportunities within the cacao sector
- ✦ Identifying key strategies and actions to begin to achieve the vision
- ✦ Increase buy-in for stakeholder-driven recommendations
- ✦ Inform potential international partners of recommendations

Outcome of the Workshop

Key Strategies: to Improve the Cacao Supply Chain in Colombia:

- Increase the **productivity, sustainability, and competitiveness** of the cacao sector
- Convert the farmer associations in **competitive and sustainable rural businesses**
- Strengthen the sector to be able to **respond to the markets** with consistent quality and volume
- Improve the **institutional architecture** of the cacao sector



Lessons Learned

- Face-to-face discussion and deliberation can help create buy-in when a group shares a common goal.
- Thoughtful planning and design of a facilitated meeting can help ensure inclusive participation, minimize uneven power dynamics, and manage conflict.
- Group process takes time. Our plans were ambitious for the timeframe.
- Facilitation tracks the pace of the group and adjusts as the process in conversation with the group.
- In complex situations, this can help the group to take ownership of the process as well as the outcomes of it.





Conclusions - Markets

- Take advantage of a strong internal market
- Transaction costs vary by segment and the stakeholder in the supply chain must choose
- Create analytical and research capacity
- Create a brand for cacao from Colombia (Juan Valdez for coffee)



Conclusions – Coordination



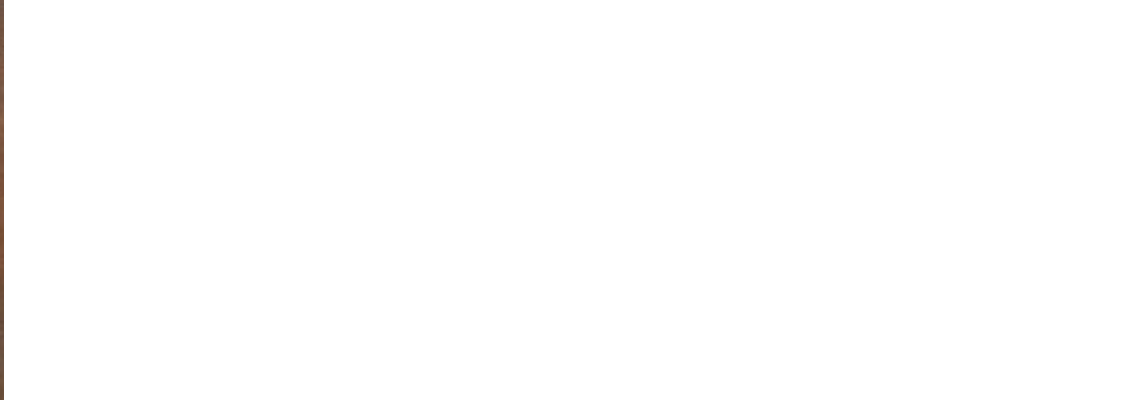
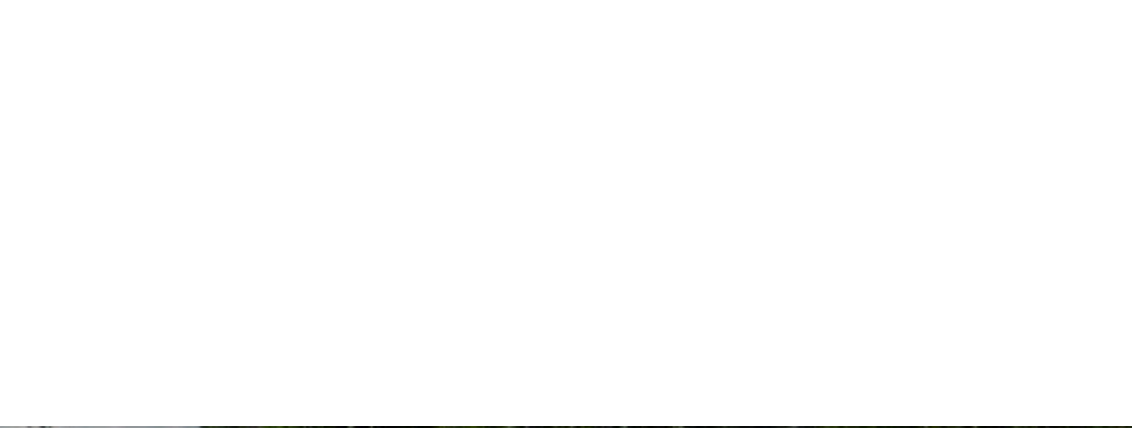
- Consejo Nacional de Cacao
- Fedecacao
- Strategy that clarifies roles and responsibilities
- Avoid inefficiencies and overlap
- Enhance coordination and collaboration amongst national and regional actors



Conclusions - Extension

- Extension services along the supply chain (farm, post harvest, marketing, processing, transportation, export, finances, business planning,)
- Coordination among multiple institutions – Universities, Corpoica, UMATA, Fedecacao, Casa Luker, Nutresa, international and national organizations
- Diverse farming systems that are part of farm portfolio
- Extension programs focused on finding solutions to labor, beginning farmers, youth, infrastructure, access to information, conflict areas
- Mobile and cellular information systems





Conclusions – Farmers Associations

- Define roles and responsibilities
- Identify and promote successful small business models
- Strengthen the offering of technical assistance through associations
- Promote processes of exchange to facilitate knowledge transfer between associations
- Investments in strengthening producer organizations to become viable rural businesses
- Provide clear market signals and incentives for improved best management practices







Thank you!



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