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THE CACAO MARKET SYSTEM IN NICARAGUA

Opportunities for supporting renovation and rehabilitation

Jenny Wiegel
Martha del Río
Juan Fernando Gutiérrez
Luisa Claros
Derly Sánchez
Lorena Gómez
Carolina González
Byron Reyes

May 2020

About this document
This market system assessment was completed as part of the baseline assessment for the Maximizing Opportunities for Coffee and Cocoa in the Americas (MOCCA) project. For more details on how this market system snapshot was taken, see Wiegel et al., 2020. Coffee and Cacao Market Systems in the Americas: Opportunities for Supporting Renovation and Rehabilitation. The document can be found here: https://hdl.handle.net/10568/108108

Acknowledgements
The authors would like to acknowledge the assistance provided by TechnoServe (TNS) and Lutheran World Relief (LWR) during the planning stage and posterior implementation of field data collection in the project's countries of interest, as well as Rikolto staff in Ecuador. Special thanks go to Luisa Arredondo (TNS) for the guidance during the whole process.

We appreciate the time key informants dedicated to our interviews and are grateful for this. Without your valuable contribution, this work would have not been possible.

Disclaimer
The opinions and comments in this document do not necessarily reflect the opinion of the International Center for Tropical Agriculture, TechnoServe or Lutheran World Relief. Any errors are solely our fault.

About the authors
Jennifer Wiegel, Lorena Gómez, Carolina González and Byron Reyes work at the International Center for Tropical Agriculture (CIAT).
Luisa Claros is a visiting researcher at the International Center for Tropical Agriculture.
Martha del Río is a PhD student at the Liebniz Centre for Agricultural Landscape Research (ZALF).
Juan Fernando Gutiérrez works as an independent consultant.
Derly Sanchez works at Universidad del Rosario

Corresponding author: Jennifer Wiegel; j.wiegel@cgiar.org

This publication should be cited as: Wiegel, Jennifer; del Río, Martha; Gutiérrez, Juan Fernando; Claros, Luisa; Sánchez, Derly; Gómez, Lorena; González, Carolina; Reyes, Byron. (2020). The Cacao Market System in Nicaragua: Opportunities for Supporting Renovation and Rehabilitation. International Center for Tropical Agriculture (CIAT). Cali, Colombia.

Permanent link to cite or share this item: https://hdl.handle.net/10568/108120

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HOW TO READ THE COUNTRY SNAPSHOT

Country snapshots are a description of the baseline situation of the core market system for coffee or cacao in MOCCA countries at the **national** level based on rapid appraisals carried out in each country.[1] The level of detail presented is to some degree a reflection of the complexity and maturity of the sector in each country. We would not expect the market system for a new crop, in a small sector, in a small country, to necessarily be as developed as that for a historical crop, in a large sector, in a large country. Country Snapshots are available for coffee and cacao market systems in El Salvador, Guatemala, Honduras, Nicaragua and Peru, and also for the cacao market system in Ecuador. The tables and figures are described below in the order in which they appear in the country snapshots.

Figure: *Map* - The country map at the beginning of each snapshot uses shading to show the major cacao or coffee producing areas of the country by department/province.

Table: *Cacao or Coffee* in *Country* - provides general statistics on the country and on the sector to provide the reader with a basic contextualization of the different cases, for example the size of the sector and relative economic importance for the country. Data sources are described in the Appendix. We used sources for which similar data was available across countries. In some cases, particularly for Guatemala cacao data, we were unable to find consistent data across official sources.

Figure: The Market Map (Core Market System for *Cacao or Coffee* in *Country*) – The Market Map has three parts. The **center** shows the market chain and its principal competing channels. The market chain is the chain of economic actors (players) who own a product as it moves from primary producers to consumers. The arrows represent the flow of money, from left to right, as the product is purchased from one actor by another. Where possible, we have mapped this for different qualities of coffee/cacao and added numbers of actors or market share where available. This section helps to understand chain structure and to think about systemic efficiency. The **top** shows the rules and business environment including policies and institutions (influencers) that shape the market system. These are organized from left to right based on the year in which they became an influence on the market system, with the most recent on the left and the oldest on the right. This section helps identify policies or institutions that are influencing how the chain works. The **bottom** shows the services, for example business and extension services, that support the market chains operation at any point along the chain. These are organized as much as possible based on actors or part of the chain for which they provide a service, with services on the far right most relating to production and those on the far left most relating to exports. This section helps identify key services or missing services and link services with users within the chain.

Figures: Key Supporting Market Systems – These market system doughnut diagrams unpack some of the **supporting functions** for the coffee and cocoa market systems identified as areas for intervention in MOCCAs Theory of Change, including technical assistance, research, genetic material and financial services. The doughnut is a simplified Market Map where the center shows a generic supply and demand function for the support service of interest. The **top** of the doughnut shows the services that support the provision of the core service and the **bottom** of the doughnut shows the rules that shape the provision of the core service. Where this service or regulating function is predominantly associated with a single or few actors, and space permits, they are named. Using technical assistance as an example: Technical assistance provided to farmers is at the center of the diagram, and described briefly in the text underneath the diagram in terms of who provides the service, who pays for the service, the nature of the service, and the key supporting functions and regulations. In the top of the diagram we have listed supporting functions identified that enable technical assistance to be provided to farmers including training of extension agents, funding of technical assistance, production of content, research, etc. In the bottom of the diagram we have listed all of the rules, regulations, institutions that influence how technical assistance is provided to farmers, for example an entity that certifies technical assistance providers or dictates content or the methodology used to provide technical assistance to farmers.

[1] For more information on methods, see Wiegel et al., 2020. Coffee and Cacao Market Systems in the Americas: Opportunities for Supporting Renovation and Rehabilitation.

CACAO IN NICARAGUA

Figure 1 Main cacao producing areas

Table 1 Cacao in Nicaragua[2]

COUNTRY FACTS AND FIGURES	
Population (rural)	6,2 million (42% rural)
Farmers	261,321
GDP por capita	5,321 USD
HDI Rank	124 (medium)
Poverty (rural)	25% (50%)
PRODUCTION	
Cacao farmers, #	11,000
Associated farmers %	40-50%
Area harvested, Ha	9,907
Production, MT	6,600
Global rank among producing countries	25th
Yields, MT/Ha	0.666
Climate risk	12%
EXPORTS	
Exports, MT (beans)	1,872 (100%)
Exports, '000 U$	5,179
% of all export value	0.1
Principal markets	Guatemala 49% Germany 28% El Salvador 20% USA 2% Denmark 1%
Export Price Beans (USD/MT)	2,765
Quality (ICCO Annex classification)	100% fine and flavor
Certifications	UTZ, Organic, FT
CONSUMPTION	
Imports, MT, (beans)	166 (0%)
Imports as a percent of exports	9%

Nicaragua's cacao is approximately 65% washed (unfermented) cacao for the Central American market and 35% fermented cacao for export, mostly to Germany. Total production volumes are just 3% of Ecuador's production, making the country virtually irrelevant for cacao markets globally. Yet innovations in quality and flavor and the establishment of more than four large (2,000+ Ha) farms over the past 6 years have put Nicaragua on the map. Despite low productivity, innovations such as Ingemann's (previously Xoco) fine flavor cacaos based on carefully selected clones as well as the work of some cooperatives in partnership with buyers and experts to improve quality management from harvest through drying has led to Nicaragua winning several international Cocoa of Excellence and International Chocolate Award prizes, generating interest among the fine and flavor chocolate makers. The establishment of large farms by Ritter Sport, Bean and Company, and Cacao Oro starting in 2014 have also called attention to Nicaragua as an origin that will soon have more interesting volumes to offer, in addition to quality. Negative impacts of climate change in the coffee sector, along with studies that showed in 2012 declining suitability for coffee in many areas of the country have also driven expansion of cacao areas and entry of new players, namely strong coffee cooperatives like SOPPEXCCA who bring market skills from the coffee sector (exports, quality management,

[2] See Appendix for data sources.

differentiated markets) to the cacao sector. Areas harvested are projected to double and exports to triple between 2017 to 2022 (1).

Since 2010, the government of Nicaragua has given increasing attention and support to the cacao sector starting with a policy developed in 2012, joining of the ICCO in 2013, soliciting inclusion in the ICCO list of fine and flavor cacao origins in 2016, and reactivating the governments involvement in research and extension with large projects funded by Swiss Development Cooperation (SDC) and by IFAD (after a long absence following the decline of cacao production after the 1998 Hurricane Mitch, monilial infestation and low prices). In January 2018, the government began a consultative process to develop a national strategy for the sector together with the private sector. Dialogue has since been suspended but the government continues to develop the strategy and to give priority to cacao in agriculture sector investments (for example it figures strongly in the current U$75million Green Climate Fund proposal under development).

Ritter has been the dominant private sector actor for the past two decades, topping the list of exporters for cacao. Ritter is largely responsible for the strong and high-quality fermented cacao sector, having supported over the years numerous cooperatives to implement infrastructure and fermentation protocols for cacao. Ritter has also supported farmers to produce certified cacao, including organic, UTZ and FLO and consistently paid above market prices for Nicaraguan fermented cacao. Over the past 10 years, Ingemann, a Danish firm, as well as several cooperatives (CACAONICA, La Campesina) have emerged and begun exporting themselves, and Ecom has made important investments in the sector in order to grow their operations in cacao in Nicaragua. Prices within Nicaragua have been higher than international market prices due to the strong demand for Nicaraguan cacao in Central America, as well as the high prices Ritter pays for cacao. This, combined with relatively low and slow growing volumes has made it difficult for others to enter the market and compete. A few large intermediaries also move volumes of cacao to buyers from El Salvador and Guatemala, out of the wholesale markets in Matagalpa, a major production zone.

There have been several efforts to create a national coordinating entity for the sector. A national cacao roundtable functioned until around 2012, but without farmer representation. Cámara Nicaragüense de Cacaoteros (CANICACAO), representing cacao farmer organizations, was formed around 2016 with heavy support from NGOs working in the sector, but it became inactive when funding for staffing ran out in 2018. Asociación de Productores y Exportadores de Nicaragua (APEN), established in 2015 a Sectoral Commission for Cacao with diverse value chain actors to represent the sector and to promote dialogue and consensus around policies and initiatives to support the sector. This platform has been very active with broad participation from actors across the sector (except for public sector after 2018 crisis). A national entity that represents cacao farmers and their interests remains a gap in the system in general.

Current trends and concerns in the sector include issues related to productivity, profitability, genetic material and the structure of the market. Yields in Nicaragua are relatively low, largely related to low plant densities and high numbers of un productive plants in cacao plantations that can be linked to the use of seeds instead of grafting to establish new trees. There is growing awareness among the development community of the importance of genetic material selection for long term productivity of cacao plantations and increasingly more organized efforts to establish suppliers of verifiable genetic material. The major obstacle is having a certificate of origin to request certification. As almost no one in the country has this for either cacao or coffee, Instituto de Protección y Sanidad Agropecuaria (IPSA) is working to provide alternatives. CATIE supported introduction and establishment of clonal gardens with registered international clones before 2012 and work is being done to recover these investments.

Profitability is a major concern, particularly as most cacao farmers in Nicaragua farm other crops first, so cacao must compete favorably if they are to specialize. Evidence is increasingly showing that without income from associated agroforestry species or other on farm income, cacao becomes unprofitable, so much emphasis recently has been on the associated cropping systems with cacao. Market diversification beyond Ritter, as well as how the structure of the market may change as the larger plantations come online are important concerns as is the impact recent fiscal reforms are having on the sector particularly through increases in the cost of inputs and taxes on cooperatives. Finally, another concern is the need for shared governance in a time when the political context makes it difficult for different sectors to come to the table together.

RENOVATION AND REHABILITATION IN CACAO IN NICARAGUA

R&R is of high importance in the sector, in recognition of the low yields, low plant density, and low number of productive plants. Cacao has been heavily promoted over the past decade through a series of investments by the US, German and Swiss governments but the resulting plantations are far from their productive potential. Extension agents consider that only 20% of farmers implement R&R practices and the reasons are a mix of lack of investment funds, priority in other crops, and lack of knowledge. Greater understanding of the importance of genetic compatibility among trees for yields is just beginning to disseminate widely and there are still strong debates about whether propagation should be by seed or grafting with arguments on both sides. Similarly, there are still debates around what kind of material should be planted including whether the country should focus on flavor or should promote CCN51.

Climate adaptation is a growing concern in the sector as well as a growing opportunity to attract funds into the sector through diverse kinds of climate financing. This is relevant to R&R as the focus has been on plantation design, associated trees, and nutrition, all relevant to R&R. WCF, Rikolto, APEN, CIAT and others have been collaborating in development of adaptation strategies and practices for the sector and government institutions, including MARENA, increasingly frame their future projects and funding opportunities for the sector in terms of climate.

The regulation exists to certify genetic material, but to date no one has used it as no varieties, not even the one recently released by INTA, have been registered with IPSA. The CATIE PCC project built capacity and infrastructure in terms of clonal gardens and grafting with key farmer organizations who still manage those genetic banks today.

CORE MARKET SYSTEM FOR CACAO IN NICARAGUA

Just over half of Nicaraguan cacao is produced by small farmers and washed, before selling to intermediaries who eventually sell it to intermediaries in El Salvador or Guatemala. There is a growing domestic processing sector. On the one hand, you have chocolate makers like Momotombo buying fine flavor cacao for finished chocolates, and on the other hand you have processors like Café Soluble who process cacao for drinks and other processed foods. A second major flow is fermented certified cacao that is purchased by Ritter Sport for export to Germany. This cacao is purchased from cooperatives with a long history of collaboration where Ritter has provided support and technical assistance for post-harvest and for certifications. Cooperatives buy cacao from their members with the pulp and collectively ferment and dry the cacao to Ritter specifications. A third flow is the fine flavor cacao produced by farmers supplying Ingemann, or by farmer cooperatives who are exporting to fine chocolate makers. It is this

segment that has gained attention in the past few years due to several international recognitions and buyer interest from these small fine flavor buyers has increased.

The sector is not heavily regulated, with much of the rules coming from a. buyers i.e. Ritter and Guanuca; b. certifiers, and c. market quality standards, which vary by buyer. The major support functions that are present include technical assistance, largely provided over the past decade by donor funds implemented by NGOs in collaboration with private sector, promotion of Nicaraguan cacao internationally through government and NGO efforts; and sector knowledge management through national cacao forums and other sector wide events. Large plantations and projects delivering seedlings have generated a demand for mass production of genetic material. Ecom particularly, as well as Transplanta, have driven innovation in technologies for mass multiplication of genetic materials for planting in the laboratory and through innovative grafting methods. Inputs and finance are incipient support systems, along with research.

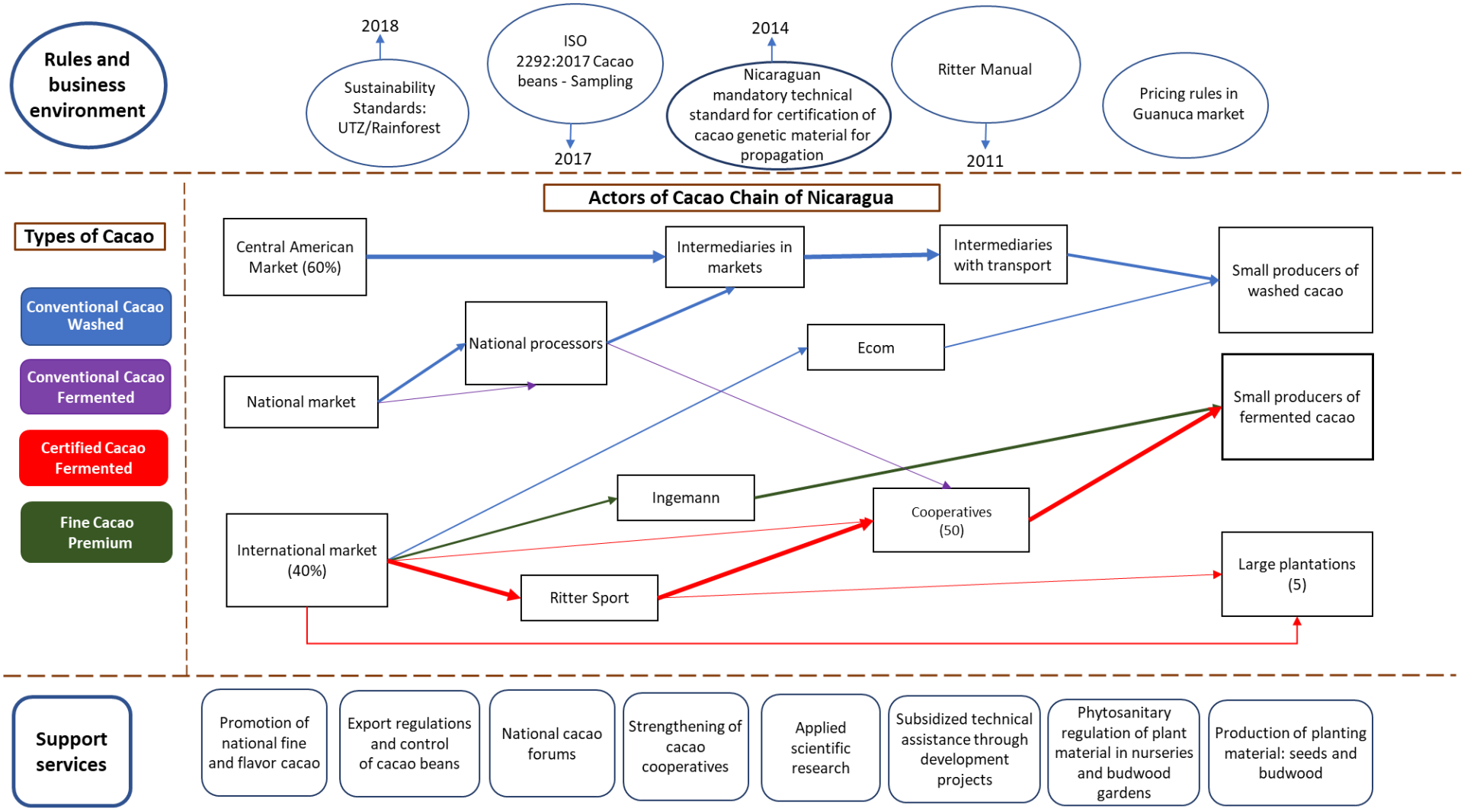

Figure 2 Core market system for cacao in Nicaragua

KEY SUPPORTING MARKET SYSTEMS

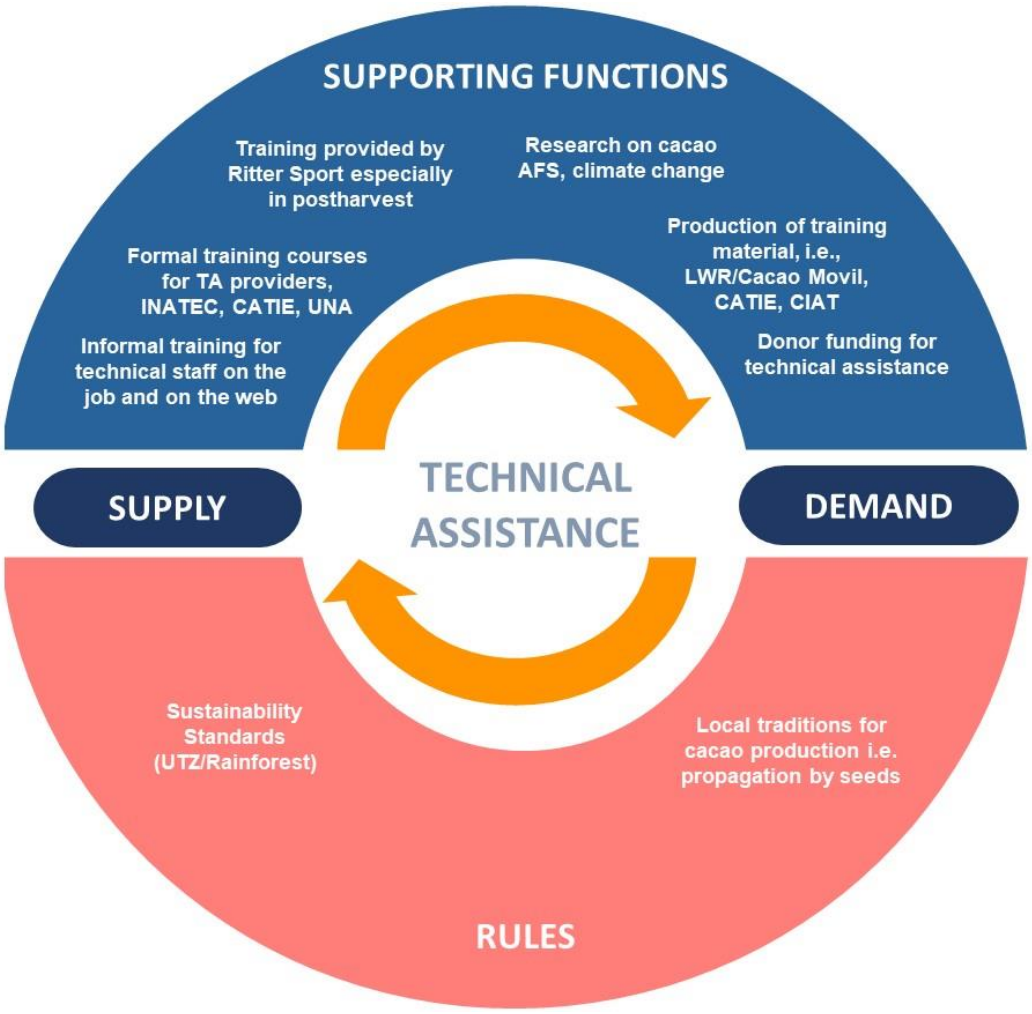

Figure 3 Market system for technical assistance for cacao in Nicaragua

Technical assistance is provided by a mix of extension agents and lead farmers hired by government, NGOs, cooperatives and buyers. TA is provided in groups and FFS, demonstration plots, and Cacao Móvil are important technical and methodological inputs. Government TA is funded through IFAD loans and, until recently, by donors (COSUDE). NGOs and cooperatives (many) have been funded by donors and a few through commercial margins/certifications. Buyers (Ritter Sport, Ingemann, Ecom) provide TA as part of their commercial business, for certifications or through donors including multilateral banks. R&R content focuses around assessment and replacement of unproductive plants but there is still difference of opinion around appropriate propagation methods, genetic material, and agroforestry designs. Post-harvest, farm diagnostics and increasingly climate (Ingemann, WCF, Rikolto, CIAT) are important topics.

Most TA providers are trained on the job, on the internet or through courses (formal education for agronomists does not include much on cacao). Several diploma courses have been offered through INATEC as well as CATIE/national universities. Technical materials and tools are also available to support

TA. Almost all TA providers in our focus group work in coffee and cacao. Funding for TA made available by donors has been an important support function as well as some research that has fed into TA.

As UTZ certification has expanded, those standards have influenced TA content in the sector. TA providers have also had to adapt content based on strong local traditions around cacao production, particularly the dominance of production from seed in some areas.

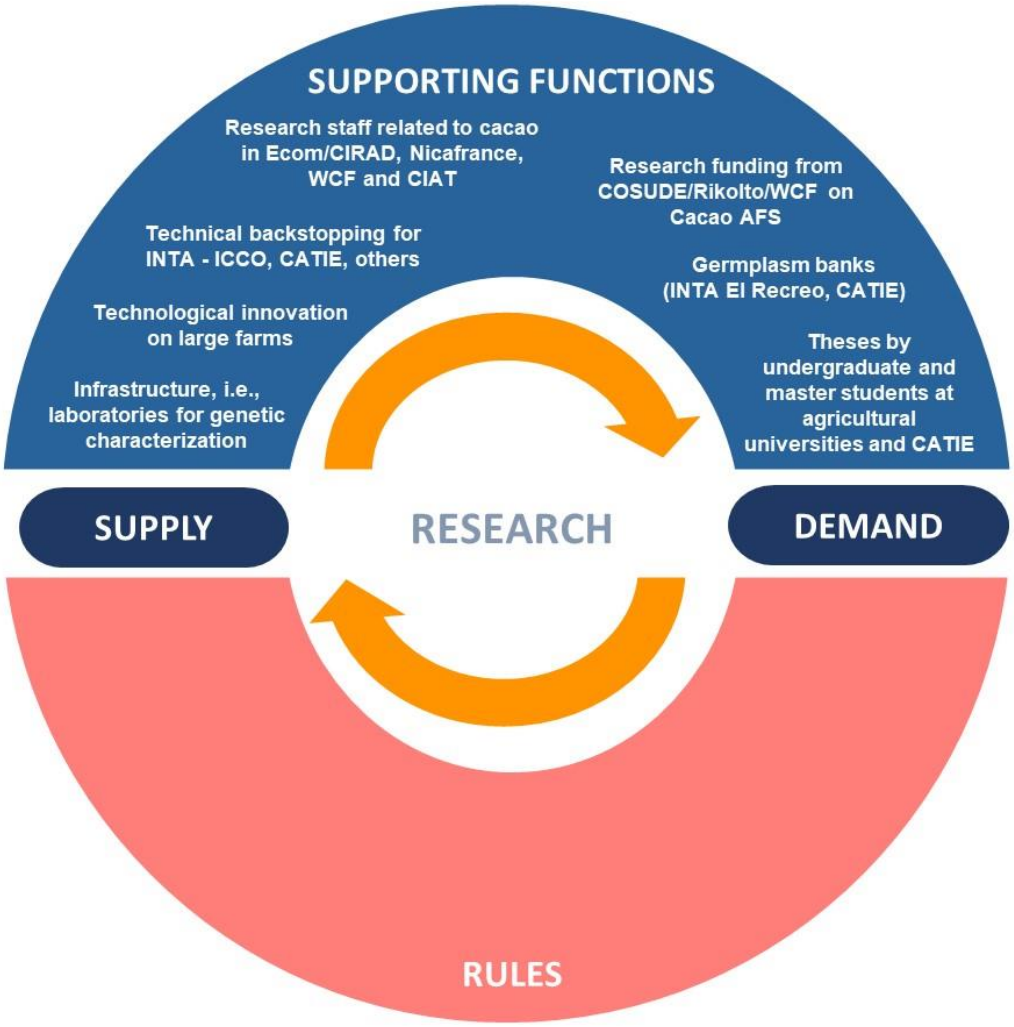

Figure 4 Market system for research in cacao in Nicaragua

Research in Nicaragua in cacao is largely limited to INTA's work on characterization of genetic material. There is some work on agroforestry systems, climate change and post-harvest processing. There are few scientists in the country working currently on cacao research, though there are good connections to international research networks. Ecom in collaboration with CIRAD has done work on propagation methods, which is now in dissemination phase. Ingemann has ongoing work on biochemical processes in fermentation with the University of Copenhagen. UNA has some MSc theses on agroecology and soils. Rikolto, WCF and CIAT are collaborating on research related to climate change. Nicafrance, affiliated with Ecom and CIRAD, is interested in beginning research in cacao. Ritter and others with large plantations are also interested in doing research on their farms to improve agronomic practices with a particular interest

in fertility management. Research is disseminated to next users largely through public events, visits, publications and the internet, but not well connected to TA. Not all research is public.

Support functions include infrastructure (available germplasm, existing farmer plots and large farms, laboratories at universities and private sector), small funds for research (APEN, Rikolto, WCF), and international collaborations (CIRAD, ICCO, CATIE, others). Coordination and dissemination functions are missing. There are not particular rules that seem to influence cacao research in Nicaragua.

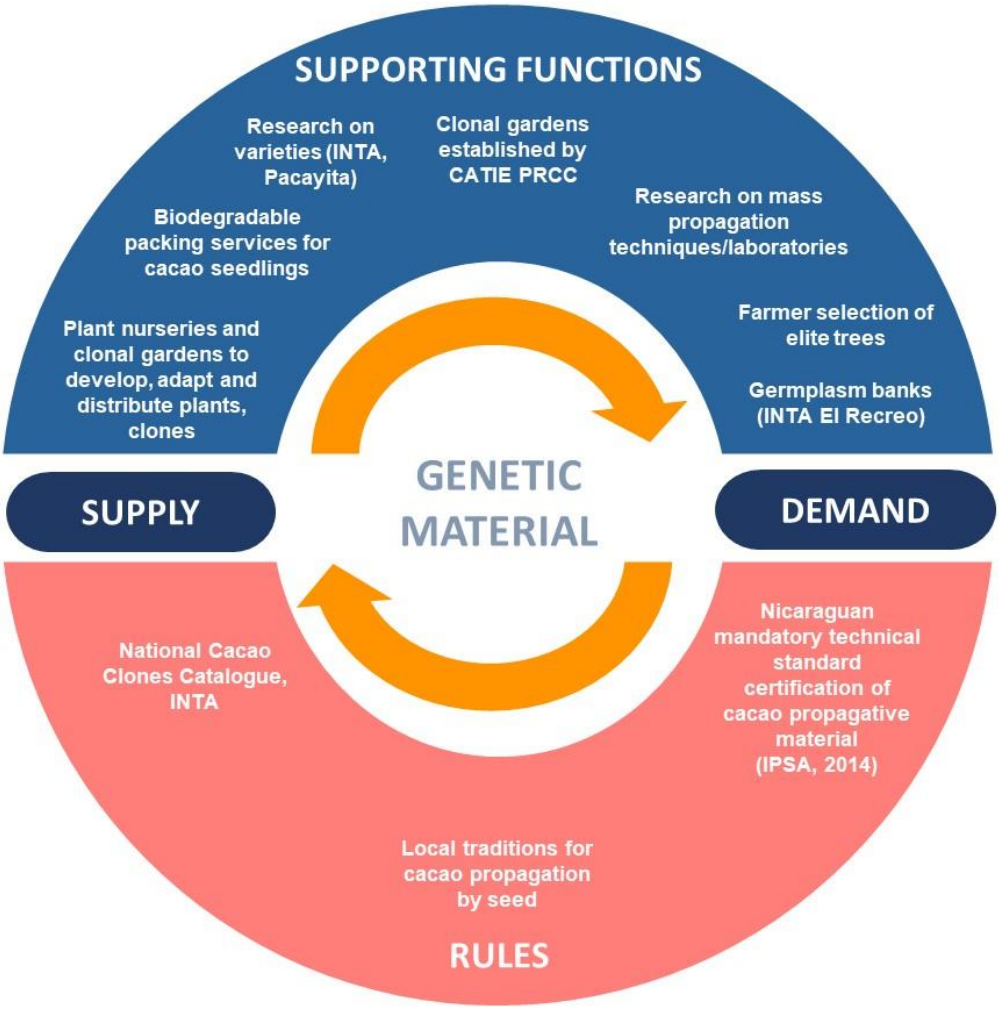

Figure 5 Market system for genetic material for cacao in Nicaragua

Genetic material - Seeds for cacao are provided by INTA at El Recreo, by farmers from their own farms or from *supertrees* found in different production regions, and by a growing number of other sources. Budwood is produced on at least ten clonal gardens, including: INTA's large collection at El Rama; gardens established by cooperatives with support from CATIE in the late 2000s; additional gardens established by cooperatives with support from many sources; and buyers who have established their own clonal gardens for propagation for their own farms and commercial production. Seedlings are produced by farmers, cooperatives, and large commercial nurseries (Ecom/EXPASA and Mercon/Transplanta) linked to buyers. Initially these served internal demands of cooperatives or the companies, but now they supply large plantations, government projects, as well as smaller development projects. While many farmers, particularly in traditional cacao producing areas, continue to plant cacao from seed, the use of

international clones and propagation by grafting is increasing, along with the offer of good quality seedlings. Most small farmers access high quality seedlings through cooperatives or NGOs subsidized by development funds.

The identification of elite trees in different regions, the geographical spread of clonal gardens, techniques for propagation of cacao plants at small and large scale, research on varieties by INTA, as well as distribution networks among providers all support availability of genetic material for farmers.

A certification process for propagation of cacao genetic material was developed in 2014 but has yet to be applied given the absence of certificates of origin for most genetic material already in the country, and the lack of registered varieties. INTA is the only certified supplier of genetic material for cacao.

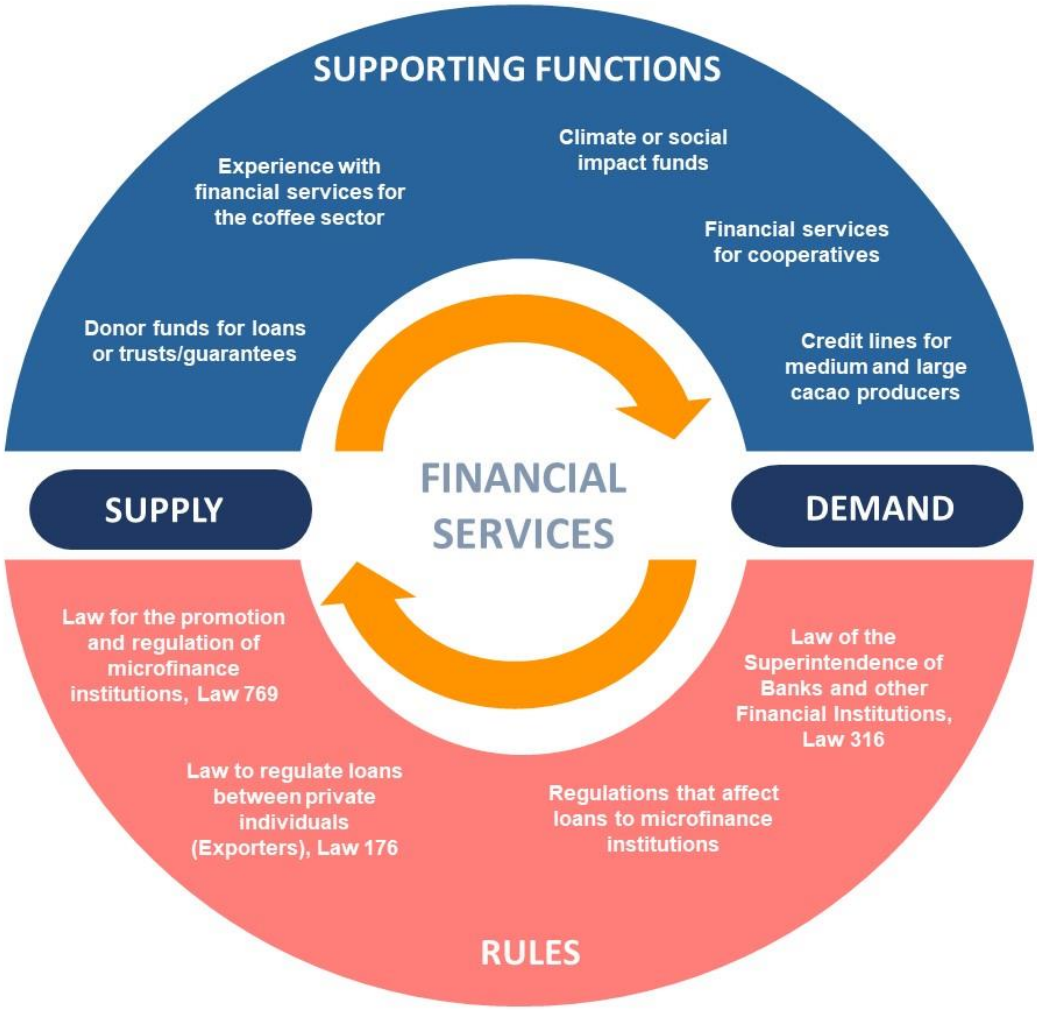

Figure 6 Market system for financial services for cacao in Nicaragua

Financial services for cacao farmers in Nicaragua are limited and most farmers do not have access to credit for cacao. A few microfinance institutions (FDL, FUNDESER) have small cacao portfolios, based on experience in the coffee sector. Cooperatives such as SOPPEXCCA have financial products for cacao including new areas and will provide lessons for R&R financing in cacao. Commercial banks (LaFise) are interested but do not have enough information to build out products and their requirements will likely exclude small farmers. Buyers and intermediaries do not seem to be an important source of credit for

cacao. Social lenders such as Root Capital are just beginning to support cacao cooperatives with commercial credit, but cacao cooperatives are much less credit-ready than coffee cooperatives. Funding for credit comes from second tier government bank Banco Produzcamos, development banks (IDB), and other second tier lenders for cooperatives or MFIs.
Support services available for coffee can be leveraged for cacao. Climate funds provide a preferential window for cacao and IDB and BCIE are already working on proposals to leverage these funds for financial services in cacao. Financial services to cooperatives, including capacity building to manage credit is an important support service. In the current context, cooperatives are better positioned to reach their members with financial services than commercial banks or microfinance institutions. This is particularly true given the sociopolitical situation of the country has raised risk ratings, and the low coffee prices are having a negative impact on the supply of credit to the agricultural sector.

Regulations that affect the terms of financial services including national laws as well as rules that govern interest rates and terms of loans to MFIs, cooperatives, and climate funds affect services for farmers.

RELEVANT INITIATIVES IN THE SECTOR

- **PROCACAO, 2015-2021, approx. U$6million, ONUDI, MEFCCA, APENN:** This project has been supporting renovation and establishment of cacao plantations, technical assistance and credit in the RACCN mining triangle. Organización de las Naciones Unidas para el Desarrollo Industrial (ONUDI) leads implementation in the mining triangle, in coordination with Ministerio de la Economía Familiar, Comunitaria, Cooperativa y Asociativa (MEFCCA) and farmer cooperatives in the region. APENN implements a component of the project to create a sector wide national commission to bring different actors together to prioritize policies and programs for the sector and improve Nicaragua's competitiveness.
- **ADAPTA, 2016-2020, $2.6 million, INGEMANN, ChristianAid, Humboldt, BID, NDF:** This project seeks to build climate resilience in the cocoa sector by collecting and analyzing information on climate and its effects on cacao plantations in different agroclimatic zones in order to generate improved recommendations and decision support information for cacao farmers.
- **Bioclima, 2020-2027, $100 million grant and loan, FAO, MARENA, BCIE, Green Climate Fund:** This approved concept note proposes to contribute to meeting Nicaragua's climate commitments by slowing deforestation around major natural reserves on the Caribbean side of Nicaragua. The project proposes to do so, in part, by supporting the development of profitable cacao agroforestry production systems in the buffer zones of the reserves as a way to stabilize the population, improve livelihoods, and reduce the need for illegal deforestation.

ENTRY POINTS FOR MOCCA

- **Climate resilient cacao** – Take advantage of the diversity of activities centered around climate resilience and cacao, including R&R, to establish a research agenda and dissemination network. This could include Ingemann investments under ADAPTA in improving weather information for cocoa farmers, WCF/Rikolto/CIAT work on climate impacts and adaptation practices, and Rikolto/WCF work with local partners to monitor demo plots of cacao agroforestry systems with novel system designs to generate evidence for different production systems including productivity and profitability to

better inform new investments. *Possible partners: Ingemann/Adapta, WCF, Rikolto, CIAT, cooperatives.*

- **Consolidating Nicaragua's position as a fine and flavor origin** – Great strides have been made in demonstrating that Nicaraguan cooperatives are capable of producing very high-quality cacaos of different flavor profiles (see results of recent Cocoa of Excellence and International Chocolate Awards). Ritter Sport aside, the volumes of Nicaraguan cacao that is sold at a price differential is very low. As the larger plantations come on board over the next few years and dominate exports from Nicaragua, there is an opportunity and a challenge. The opportunity is to use this momentum to interest buyers who come for those volumes but may also pick up some of the smaller more differentiated cacaos from small farmers as well or to use the larger plantations as a vehicle for market access. The challenge is that their production will quickly redefine Nicaragua's reputation as a cacao exporting country and smaller farmers and cooperatives will become much smaller players in that landscape. There are solid lessons learned and networks in the industry established by LWR, Ingemann, Ritter, and associated cooperatives about quality management and differentiated markets, but capacity still needs to be built for taking this to the scale required to have a long term beneficial impact on the small holder sector as a whole, as opposed to one off purchases after a prize is won. LWR's proposed quality standards work under MOCCA with Bioversity is a part of this. The Cocoa Flavor Map is another important contribution which needs to be more widely shared within the sector.

  Sector governance and small farmer representation – As larger plantations come to define the sector in terms of export volumes, it will be important to establish a strong sector governance that ensures regulations that benefit small and large cacao farmers, and not one at the expense of the other. Working with APEN to strengthen the National Cacao Commission and integrating the larger plantations into this will be one important strategy. The strong network of cooperatives throughout the country could serve as the base to construct representation within the sector.

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1. **Strategy Working Group.** *Presentación de Avances: Plan de Acción de la Estrategia Nacional de Desarrollo de la Cacaocultura Nicaragüense.* Managua : s.n., 2018.

APPENDIX: Sources used for table included in the country snapshot

Data	Source
Population (rural)	FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/OA Data for 2017
Farmers	Instituto Nacional de Información de Desarrollo (2011). IV Censo Nacional Agropecuario Nicaragua. http://www.inide.gob.ni/Cenagro/INFIVCENAGRO/IVCENAGROINFORME/assets/basic-html/page14.html
GDP per capita	WDI World Bank (2019). Data online: https://data.worldbank.org/indicator/ny.gdp.pcap.cd Data for 2017
HDI Rank	Data - Human Development Reports – UNDP (2019). Data, online at http://hdr.undp.org/en/data# Data for 2017
Poverty (rural)	WDI World Bank (2019). Data online: https://datos.bancomundial.org/indicator/SI.POV.NAHC?view=chart Data for 2016 (2014)
Cacao farmers, #	MIFIC, 2018. Presentación de avances: Plan de Acción de la Estrategia Nacional de Desarrollo de la Cacaocultura Nicaraguense.
Associated farmers, %	Key informant interviews
Area harvested, Ha	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data for 2017
Production, MT	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data for 2017
Global rank among producing countries	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019 online at http://www.fao.org/faostat/es/#data/ Data for 2017, countries ranked by Production, MT.
Yields, MT/Ha	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data for 2017, calculated as Production/Area harvested.
Climate risk	Calculated as percent of currently suitable land requiring transformational adaptation by 2050 using data from: Bunn, C; Lundy, M; Wiegel, J; Castro-Llanos, F. 2019. Impacto del cambio climático en la producción de cacao para Centroamérica y El Caribe. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia, available at: https://cgspace.cgiar.org/handle/10568/101293
Exports, MT (beans)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data for 2016. Total cacao exports (cacao exports unprocessed/beans)

Exports,'000 USD	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data for 2016
% of all export value	Total export value: WDI World Bank (2019). Data online: https://datos.bancomundial.org/indicator/SI.POV.NAHC?view=chart Cacao export value: Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/TP Data for 2016. Calculated as Value of all crop exports/Value of total exports
Principal markets	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data on exporting partners from: 2015
Export Price Beans (USD/MT)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data from 2016. Calculated as Exports,'000 USD/Exports, MT
Quality COFFEE	Based on classification in the ICCO Annex C of Fine and Flavor producing countries. Is based on expert assessment of quality potential not actually cacao sold at differentiated prices. https://www.icco.org/about-us/international-cocoa-agreements/cat_view/30-related-documents/215-fine-or-flavour-cocoa.html
Certifications	Key informant interviews, major certifications used.
Imports, MT, (beans)	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data from 2016, Total imports (bean imports)
Imports/Exports, volume	Organización de las Naciones Unidas para la Alimentación – FAO. FAOSTAT 2019, online at http://www.fao.org/faostat/es/#data/ Data from 2016. Calculated as Imports, MT/ Exports, MT

COFFEE & CACAO

MARKET SYSTEMS IN THE AMERICAS

This study was commisioned by TechnoServe as part of the baseline assesment for the Maximizing Opportunities in Coffee and Cacao in the Americas (MOCCA) project.

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