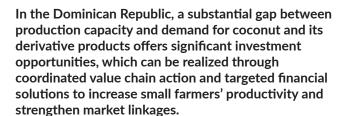


INVESTMENT BRIEF
COCONUT VALUE CHAIN

DOMINICAN REPUBLIC



These are the central findings of an Investment Prospectus focused on the coconut value chain in the Dominican Republic that was developed by partners in the Smallholder and Agri-SME Finance and Investment Network (SAFIN) in 2019.¹



The prospectus articulates three alternative investment options to realize these opportunities, namely:

- **1.** Designing a sector specific credit product adapted to the needs of local small producers
- 2. Creating a Productive Alliance linking value chain actors through a strictly regulated exchange of products and services
- 3. Structuring a patient investment fund providing long term capital for new trees and capacity building services for local producers.

Country and Value Chain Overview

The Dominican Republic has experienced some of the strongest economic growth in the Latin America and Caribbean region, averaging 6.3 percent annually between 2014 and 2018², in addition to controlled inflation (1.85% in 2019³). In terms of its investment climate, the country ranked 102nd in 2018 out of 190 in terms of the World Bank's "Doing Business" ranking, having made significant progress in *Protecting Minority Investors* (83rd) and the ease of *Trading Across Borders* (77th)⁴.

The global coconut value chain is characterized by rapidly growing demand, particularly for non-traditional products (i.e. food, sports drinks and coconut chemicals), which are constrained by limited production capacity. In the Dominican Republic, the positive market outlook has driven the exponential growth of coconut prices, with annual average farmgate and wholesale prices having increased by almost 600% during the same period⁵. However, while processing companies have ramped up

activities to exploit increased demand, local coconut production has continued to lag, despite significant efforts to increase the supply of raw materials, particularly since 2010. Production peaked in 2014 when it accounted for nearly 5% of the gross value of the country's agricultural production.

Today, the production area for coconut trees covers close to 38.000 ha, with about 80% of activities concentrated in the country's northern region. Coconut production is performed by smallholders harvesting from aging trees (avg. 30 to 50 years) on less than 5 ha of land. In many cases, the production of coconut trees is secondary to the farm's main activity, as they are often grown as a protective barrier for a different core crop (e.g. rice) or to take advantage of land where other crops will not grow (e.g. bananas). Some medium to large producers have developed well-managed monoculture systems, financed through their own capital and benefiting from technical

assistance. These include processing companies branching out into production to diversify their business lines or to ensure the supply of raw materials for their processing activities.

Processing companies (about 22 at the time of research) coordinate local and regional supply chains, including managing cold chain infrastructure and creating market links with buyers in export markets. They often work with local intermediaries to source coconuts, and in some cases either source directly from farmers or from their own production. Processing companies tend to have strong negotiating power over prices vis-à-vis producers, particularly given their multiple supply options, including imports. The shortage in the local supply of raw materials has led processors to import up to 50% of coconuts for the production of coco milk and cream.

Since 2010, regular and large scale imports from Guyana have exposed local farmers to regional competition.

Key challenges to coconut production6:

- Aging trees. The average age of trees used for coconut production in the Dominican Republic is estimated at about 50 years. Depending on the variety, trees tend to reach their maximum yield by their 8th year. However, production is halved by year 30. To increase production yields, an estimated 50% of trees need to be renovated (including diseased trees), which requires long term investment often unavailable to smallholder farmers.
- Limited access to agricultural finance. Smallholder coconut farmers are under-served by mainstream financial institutions due to the associated high costs and risks (see Financial Ecosystem below). Better access to credit and other financial services is critical for farmers to purchase the inputs and

equipment needed to improve production capacity, and access to long-term credit is particularly important to enable investment in tree renovation.

- Production sector fragmentation and limited market access. Only 20% of small producers are estimated to be active members of coconut producer associations, resulting in challenges related to farmer identification and product traceability, as well as in terms of farmers' access to markets and information. Producer organizations in the coconut sector often have limited capacity to deliver reliable services to improve farmers' productivity, such as access to quality inputs, training, financing, as well as product certification, storage or access to markets. Nevertheless, they play key roles as aggregators and often serve as an adequate intermediary for processors and financial service providers seeking to target coconut production.
- Pests and Diseases. The main risks affecting coconut production yields in the country are pests and diseases, including palm weevil, whitefly and red ring nematode. "Yellowing", in particular, can potentially destroy a full crop. However, hybrid and dwarf species are protected against this type of disease, although such varieties are not generally accessible to small producers due to their higher cost. Another mitigation approach involves diversification both in terms of the variety of coconut plants and type of crop planted, requiring technical knowledge that is not always accessible to smaller producers without training.
- Land titling. 46% of farms do not have legally registered titles to their land, preventing their owners from leveraging their property as collateral to access loans and exposing them to land theft or disputes.

Financial Ecosystem

Banco Agrícola is a government entity and the main financier of the Dominican agricultural sector. As of February 2019, the bank covered roughly 58% of the total financial system portfolio targeting the sector. The institution provides subsidized credit with strict conditions and heavy monitoring, to which smaller operations struggle to adhere due to limited resources, technical knowledge and financial literacy.

Supervised financial institutions are not very active in the sector, which accounts for just 1.8% of their total portfolio. Microfinance institutions that are members of the Dominican Microfinance Network (REDOMIF) report only 7.9% of their aggregated portfolio dedicated to agricultural and forestry investments⁷. The majority of financing

provided to small coconut producers is value chain-mediated, generally in the form of high-interest cash advances received from local off takers around 3—4 months prior to harvest for the future sale of their production.

Other products and services include agricultural insurance, which is available primarily through Aseguradora Agropecuaria Dominicana SA (AGRODOSA). AGRODOSA is the result of a public-private partnership, providing insurance policies at a cost of 4% to 8% of the total value, including a 25%-50% government subsidy.

As for savings, 56% of people over the age of 15 are reported to have savings accounts, which is slightly above the average (54%) for the region (Global Data Findex 2017).



Key challenges to financing coconut production:

- Coconut cultivation is relatively unknown to most financial institutions, including Banco Agrícola (0.45% of its total portfolio as of February 2019);
- Limited appetite for financing tree renovation, due to long production cycles (3 – 7 years);
- Producers are reluctant to accept the high interest rates charged by microfinance institutions (22% to 30%), which they compare to those charged by Banco Agrícola (8%).

Key Actors

Relevant government entities

Ministry of Agriculture

Government agency responsible for setting policies and strategies for the agricultural sector. Targeted support to specific agricultural activities and value chains is provided through programs and initiatives involving the provision of financing, support to production (e.g. input distribution) and commercialization, tax concessions, as well as the implementation of tariffs.

Dominican Agribusiness Board (JAD)

JAD is the largest industry organization in agriculture, bringing together over 160,000 producers across the Dominican Republic. Its objective is to support, encourage, promote and defend agricultural production. The organization works closely with the government to promote policy dialogue and the implementation of initiatives with cross-cutting impacts across the rural space in the areas of finance, land titling, food safety and health, innovation and technology transfer, and rural infrastructure.

Agricultural Bank of the Dominican Republic (Banco Agrícola)

The bank's objective is to finance productive activities in the sector to increase production, satisfy local food demand, and modernize the production of exportable items.

Special Fund for Agricultural Development

This program serves to strengthen small and medium agricultural producers' production capacity through concessional financing, in order to lower rural population poverty levels.

General Directorate of Agricultural Risks

This is the entity in charge of regulating and promoting the agricultural subsidy that the government grants to all farmers, and ensuring that crops are included in the Ministry of Agriculture's annual resolution.

Dominican Markets

This institution fosters the execution and efficient functioning of the National Food Network (RENA), ensuring that regional wholesale, retail and slaughterhouse markets attached to the network operate in a climate of organization, hygiene, safety, quality, competitiveness and social responsibility.

Financial Sector

- Aseguradora
 Agropecuaria
 Dominicana
 (AGRODOSA)
 www.agrodosa.com
- Banco Ademi
 bancoademi.com.do
- Banco Adopem de Ahorro y Crédito bancoadopem.com.do
- Banco de Reservas (BanReservas) www.banreservas.com
- Fondo Cooperativo para el Desarrollo Agroempresarial (FONDAGRO) fondagro.do

Processors and exporters

- Agroicaria
- Agroindustrial Urraca
- Caribex Dominicana
- CGS Foods Caribbean
- César Iglesias
- Coco Express
- Consorcio Cítricos Dominicanos
- Coolbevco, Envasados Comestibles
- Goya Dominicana
- Growrite Dominicana
- La Mundial del Coco
- Mercasid
- Peravia Industrial
- Procesadoras de Frutas y Vegetales
- Procesadora San Martín de Porres
- Productos del Trópico
- Productos EVA
- Solo Coco
- Tropijugos
- Virgin Nature
- Vizcaya Industrial

SAFIN Partners operating in Dominican Republic in the coconut value chain

European Commission

Since 2015, the European Union has financed "The Coconut Industry Development for the Caribbean" project aimed at improving the competitiveness of small coconut producers by identifying market opportunities, creating synergies between national and regional programs and improving access to advisory services to improve production. The project is carried out in nine countries of the Caribbean Forum (CARIFORUM). A key outcome includes roadmaps designed for the market-led development of the coconut and coconut products sector, as well as agreement on implementation plans.

International Trade Center (ITC)

ITC has led the "The Coconut Industry Development for the Caribbean" project since 2015, which it has implemented in the Dominican Republic together with the Dominican Business Board (JAD), the Caribbean Institute for Agricultural Research and Development (CARDI) and the Ministry of Agriculture. Key activities include supporting the formation and management of the National Coco Platform through facilitating teams of experts and exchanging knowledge with experienced practitioners globally (e.g. Philippines and India) and in the Caribbean (e.g. Guyana, Saint Lucia and Jamaica). Over the next 5 years, ITC's Alliances for Action program will focus on connecting small producers with other actors in the sector, including processors.

Dominican Agribusiness Board (JAD)

In the coconut sector, JAD's activities are performed under "The Coconut Industry Development for the Caribbean" project led by ITC. Serving as the Secretariat of the National Coconut Platform, which is chaired by the Ministry of Agriculture, JAD supports key activities to promote the development of the local coconut sector. These include training producers in financial education, good agricultural practices and nursery management, as well as the establishment of nurseries and demonstration plots to introduce new varieties.

International Fund for Agricultural Development (IFAD)

As part of its mission, IFAD has co-financed the actions of the Productive Rural Development Programme - PRORU-RAL. Although not targeting coconut producers exclusively, PRORURAL has supported⁸ women-led small producer organizations in creating and developing small productive units aimed at value addition in the coconut value chain.



Opportunities for Investment and Options for Financial Solutions

Subject to a return to more stable global market conditions in the aftermath of the COVID-19 epidemics, sustained growth in global demand for derivative coconut products is likely to continue to provide market opportunities for coconut processors in the Dominican Republic. The resulting gap in the supply and demand of raw materials provides a significant opportunity for investment, so long as the key challenges facing producers can be addressed. Improved access to finance by producers and producer organizations is one key element of the response to such challenges.

Coconut production has great potential for profitability. Under reasonable assumptions (see side box) the Investment Prospectus estimates an Internal Rate of Return (IRR) of 25.6%, including the cost of the land (IRR is 42.3% excluding this cost). Profitability is mainly related

to the large margin expected between low maintenance costs (\$ RD5.75 per unit) and the average sale price (\$ RD12 - \$ RD24 depending on demand conditions).

The Investment Prospectus identifies three alternative options to realize this potential through collaborative action by partners in the agricultural and financial sectors.

Each option addresses different key challenges to coconut production, namely the need for sector specific financial products, improved market linkages and long term capital to finance new trees.

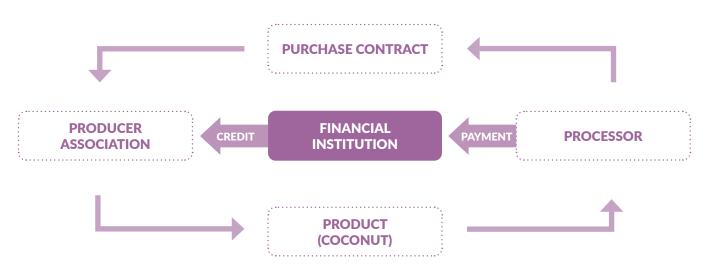
Option 1. Design of sector specific credit product

The objective is to incentivize local financial institutions to actively engage in financing coconut production activities, by supporting them in the design and/or funding of sector-specific debt products targeting associations of small producers acting as intermediaries for farmers. A suitable product may be designed as a value chain finance arrangement, with a purchase order from a processing company backing a loan to guarantee repayment

capacity. The processor would be responsible for repaying the financial institution based on the value of produce delivered by the association at harvest (see Figure 1).

Over time, successful loan repayment by farmers and associations would allow them to build a credit history and may draw other financial actors into this market segment.

Figure 1
Value chain specific credit product



Source: Fundación Capital

Option 2. Productive alliance for market linkages

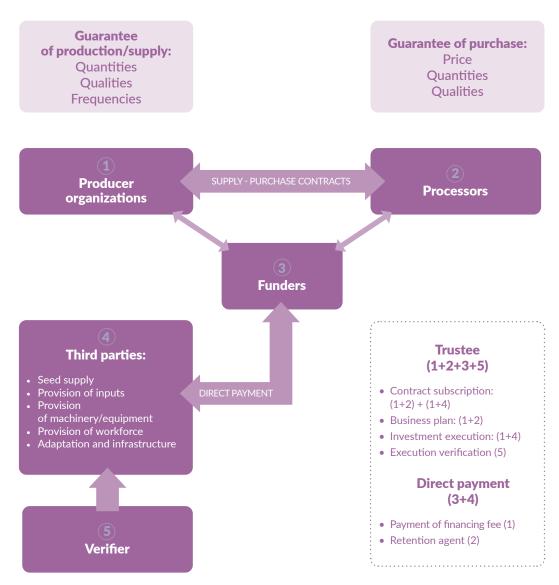
A productive alliance is a specific type of collaboration between a small producer organization and an agribusiness firm aimed at facilitating market access by associated smallholder producers in a value chain. The aim is to reduce technical, commercial, financial and/or social risks associated with the respective investment activities of the two main parties involved.

The proposed alliance for the Dominican coconut sector would serve to mobilize long-term finance to expand coconut production by planting trees, to be repaid by the sale of coconuts upon maturation. The alliance would include: small producers, a commercial entity (company that guarantees the purchase of coconuts for processing and provides technical assistance), a funder (from a scheme of reimbursable, non-reimbursable or mixed funds), suppliers of inputs and services, and verifiers (see Figure 2).

Figure 2
Prototype of productive alliance scheme

To ensure its success, the alliance would require three elements:

- 1. Specific targets for the number of hectares under production, the number of producers involved, the quantity of goods produced (to be entirely sold to the commercial entity), and the income per hectare once the new trees start producing (pre-set purchase price).
- 2. A portion of resources dedicated to strengthening producers' associations.
- 3. The assignment of fund management to a trustee in order to ensure transparency regarding the proper use of resources.



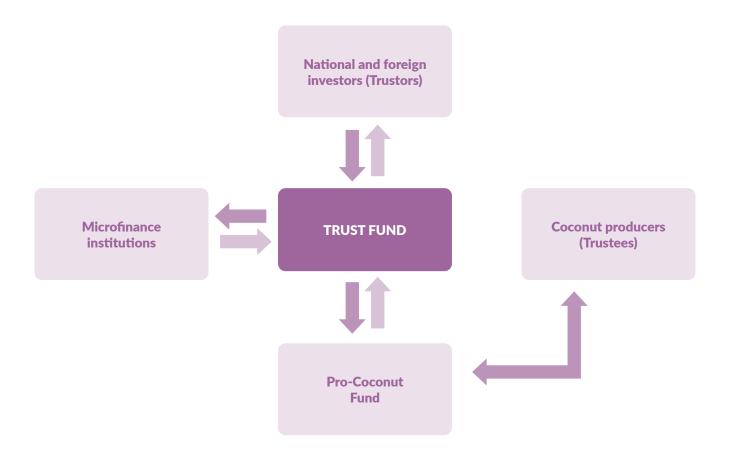


Option 3. Patient investment fund

In this option, a patient investment fund would be structured under a trust fund scheme. Both national and/or foreign investors (trustors) would have the ability to invest equity through a local investment company (fiduciary) managed for the benefit of coconut producers (trustees), which it could finance directly. Alternatively, the fund could invest a large portion of its equity (e.g. 80%) in less risky intermediaries (e.g. microfinance institutions). Both the remaining equity (e.g. 20%) and the returns on investments would be allocated to a separate "pro-coconut" fund dedicated to financing technical assistance and coconut production activities.

In this case, the investment fund could be structured in a way that guarantees the return of principal through the addition of a first loss and/or guarantee facility, thereby attracting more investors. However, a return on investments would depend on the performance of the pro-co-conut fund, which would invest in riskier agricultural activities that could potentially generate higher returns.

Figure 3
Patient investment fund



Source: Fundación Capital



Nbr. of Coconuts/ tarea	
Land /tarea	500
Nbr. trees /tarea	21
Nbr. Coconuts /tree	200
Nbr. Coconuts /tarea	4.200
Total Nbr. Coconuts	2.1 M

Other variables (cost/assu	Other variables (cost/assumptions) DOP	
Land value	40.000	
Cost of replanting	200	
Irrigation cost /yr	5.000	
Sale price (coconut)		
Losses	0%	
Labor	400	

Return from coconut produc	urn from coconut production/year	
After 3 years		
On year 4	60%	
On year 5	70%	
On year 6	80%	
On year 8	100%	
From year 30	50%	

Return of investment (DOP)

IRR	25.60%
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NPV	221 686	661

Payback period: 5,6 yrs

Notes

- The investment prospectus is SAFIN's signature country-level diagnostic tool. The document identifies transformative investment opportunities in agri-SME dense value chains to be addressed through coordinated action to improve agri-SME access to finance. This brief summarizes the analysis and findings of the Investment Prospectus covering the coconut value chain in the Dominican Republic (available for free download at: https://www.safinetwork.org/resource), which was commissioned by the SAFIN Secretariat and prepared by Fundación Capital with the support of the Junta Agroempresarial Dominicana (JAD) as country anchor. The document was published on 30 April 2019. The views expressed in the document do not express those of the IFAD or the SAFIN Secretariat team.
- $Source: https://www.worldbank.org/en/country/dominicanrepublic/overview \\ Source: https://www.statista.com/statistics/527466/inflation-rate-in-dominican-republic/$
- By 2020, however, the overall ranking had dropped to 115th, with a notable deterioration in the indicator related to Protecting Minority Investors (143rd), as well as some improvements in Trading Across Borders (66th) and Enforcing Contracts (133rd from 149th in 2018).
- Farmgate prices for coconuts increased an additional 62.5% between 2014 and 2019 http://agricultura.gob.do/ All estimates on coconut production, number of smallholder farmers and aging trees provided by JAD (April 2020)
- Source: http://redomif.org.do/wp-content/uploads/2018/07/Boleti%CC%81n-Estadi%CC%81sticas-REDOMIF.pdf
- The support of IFAD was complemented by resources from the Special Fund for Agricultural Development.

30 April 2020

Please visit our website www.safinetwork.org to access the complete version of all Investment Prospectuses published by SAFIN.







