



Alliances for Action Jamaican coconut value chains

**Investment Prospectus scoping for smallholder and agri-rural SME
finance and investment**

DRAFT FOR DISCUSSION – February 2018

*Prepared by Tanja Havemann in collaboration with ITC under the EU funded
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I. Introduction, aim and objectives of this work

The International Trade Centre (ITC)¹ Inclusive Agribusiness and Trade Team is responsible for facilitating and implementing inclusive sector and value chain development through the implementation of the Alliances for Action² methodology. ITC is partnering with the Government of Jamaica and several local firms to develop and implement a local Alliances for Action program. This is supported by the EU under a regional Coconut Industry Development program. The aforementioned EU funded program, titled "Coconut industry development for the Caribbean", aims at increasing food availability and reinforcing incomes of small scale farmers.³ The project specifically focuses on enhancing the competitiveness of small-scale coconut producers through better regional integration and improved production performance. This project is being implemented in collaboration with the Caribbean Agricultural Research and Development Institute (CARDI)⁴.

Within this program, ITC is primarily focused on: identifying market opportunities, developing and agreeing value chain plans, and developing synergies and collaborations with existing regional and national programs to enhance regional integration of markets and access to information and advisory services on finance, trade, agriculture, management and markets facilitated for small producers. This specific project draws on work carried out by ITC, CARDI and Duke University in collaboration with Jamaican stakeholders, in particular the report titled "Connecting to the World through Regional Value Chains: Partnership Opportunities in Coconut Value Chain for the Small Caribbean Economies".⁵ In Jamaica; ITC and CARDI are coordinating this project with the Jamaican government, the Coconut Industry Board and local partners on Jamaican coconut value chains.

As part of the project and in collaboration with National Stakeholder Platforms, several productive and commercial Value Chain Alliances (under Alliances for Action) are being facilitated. These alliances focus on Coconuts and associated crops and have both a territorial and industry development focus. To support this process, strong investment and financial inclusion methodologies and instruments are required. Following participatory market led approaches ITC and the national stakeholders have identified several finance and investment-related barriers and priorities in relation to the Alliances for Action: The focus of the coconut initiative in Jamaica is the tender (jelly / green) coconut value chain, both in terms of seedlings and processing.

Concurrently the UN International Fund for Agricultural Development (IFAD) has launched the Smallholder and Agri-food SME Finance and Investment Network (SAFIN)⁶, to which ITC is a partner. SAFIN has launched an "investment prospectus" methodology. The purpose of this consultancy project is to begin to test the SAFIN "investment prospectus" methodology for inclusive finance and investment supply and demand assessment in Jamaica and to enable decision making by Jamaican stakeholders in relation to support policies, investment and TA packages. In addition to this study ITC and industry stakeholders commissioned a Cost Benefit Analysis for each of the selected product market combinations.

The aim of this study is to identify potential investment solutions to mobilize finance for Jamaican coconut value chains, particularly those involving smallholders and MSMEs. The objectives of this study were to conduct an Investment Prospectus (IP) scoping using the initial SAFIN framework and leveraging the work done to date by the Alliances for Action program in Jamaica, and to suggest potential finance and investment mobilization structures for the three priority business and investments areas prioritized by industry stakeholders in the context of the Alliances for Action work and as indicated in the 2016 Caribbean coconut value chains report. The SAFIN IP scoping component should include a rapid assessment of finance supply and demand, and key stakeholders related to smallholder farmer and agri-rural MSMEs

in Jamaica. It should also seek to apply the various frameworks suggested, e.g. the theory of change.

Thus, the first section provides a rapid assessment of the economic conditions, including key agricultural policies. It also summarizes important government stakeholders, summarizes the first results from a coconut farmer characterization study, and describes the landscape with respect to access to finance, in particular for the smallholder and agri-rural MSME sub-sector. The following section of this report focusses on the demand side, notably in the context of the 3 identified potential business and investment opportunities. It is in the context of these three opportunities that the SAFIN IP theory of change framework is applied, and potential structures illustrated with which new funds could be mobilized. The following information is recommended as part of the "Investment Prospectus" (IP) introduction, i.e. an initial scoping for an IP, rather than for the full document. A general overview of what such an IP would contain for the Jamaican context is summarized below.

Table 1: IP summary for the Jamaican coconut sector

IP introduction	Content
Focus of this IP	<p>Jamaican coconut value chains, specifically as it relates to:</p> <ul style="list-style-type: none"> Seedling production: production of a reliable and high-quality supply of seedlings Processing: local value chains for small-scale coconut water bottlers, coconut water processors for exporter, other coconut products
Purpose of the IP	<p>Contribute to: analysis, investment planning, policy facilitation, stakeholder identification and engagement, resource mobilization and impact monitoring in order to facilitate collaboration leading to finance for investment in support of target group(s) by:</p> <ul style="list-style-type: none"> Providing an overview of the smallholder and agri-food SME sector in the respective geography; Describing relevant policies, laws and regulations and the key features of the institutional environment; Identifying key opportunities to increase or better target existing investment flows by and for smallholders and agri-food SMEs, related to specific markets, value chains, specific enterprises or projects; Detailing how the existing financial ecosystem matches these opportunities and the existing gaps, including both the role of public development finance and the role of private financial institutions, and; Highlighting and providing contacts to industry associations, government bodies, or other institutions that may be useful to a potential financier, investor, or investment-supporting institution.
SME definition applied	<p>The Jamaican MSME definition, according to the December 2016 MSME Entrepreneurship Policy, includes business with up to 50 employees, up to J\$ 425m (ca. USD 3.4m) in total annual sales / turnover⁷</p>
Other comments	<p>For the complete IP, this section should be complemented with:</p> <ul style="list-style-type: none"> Theory of Change developed with key stakeholders; A brief country overview; A brief summary of the sector (N.B. an extensive summary is available from ITC / Duke University); Advice on key stakeholders and contact points.

II. General background

Jamaica's GDP in 2016 was ca. US\$ 14bn and growing at a rate of ca. 1.4% p.a.⁸ In 2016, the Jamaican unemployment rate was 13.2%. Unemployment generally is around 11%, with a significant number (over 20%) being among youth.⁹ The Jamaican Dollar averages around 125 – 137 to the US\$. Inflation was 4.6% at September 2017¹⁰, primarily driven by agricultural prices, electricity, fuel and transportation costs. Jamaica's main earnings come from the export of bauxite / alumina, tourism and remittances.

The Jamaican economy is vulnerable to international crude oil prices, international commodity prices (e.g. for bauxite as an export, food imports), and climate change, among other factors. Agriculture's contribution to GDP is ca. 8%.¹¹ Of this, coffee, citrus (fresh fruits), pimento, cocoa and bananas are the main export crops. Jamaica is highly vulnerable to climate change, with severe droughts and vulnerability to extreme weather (hurricanes, tropical storms). In 2017 droughts and floods impacted Jamaica's agriculture sector. In Jamaica, 18% of the active population is employed in agriculture, and 46% of the population lives in rural areas.¹² More than 75% of Jamaica's land is on a slope of 10 degrees or more, severely limiting its use for agricultural production. Soil erosion is a major issue. Smallholders represent over 80% of the total number of farmers, but account for only 16% of the total land under agriculture.¹³

Jamaican sovereign debt is rated at B stable (Fitch) / B3 stable (Moody's) / B stable (S&P)¹⁴, i.e. sub investment grade. In January 2018 Fitch revised the outlook for Jamaica from "Stable" to "Positive".¹⁵ In August 2017, Jamaica raised USD 869m by re-opening two Eurobonds maturing in 2028 (coupon of 6.75%) and 2045 (coupon of 7.785%) at a premium – with the 2028 with a yield to maturity of 5% and the 2045 with a yield to maturity of 6.45%, indicating increasing international investor confidence in Jamaica as the government continues to tackle its high debt levels. Jamaican 180-day T-Bills yields 3 months ahead were 6.4% in September 2017.¹⁶

Jamaica had accumulated significant international debt, leading to an intervention by the international development and monetary community (IMF) in 2013.¹⁷ Part of this intervention included reducing government expenditures, including dismantling several commodity boards such as the Coconut Industry Board (CIB). The International Monetary Fund (IMF) Board approved a three-year Precautionary Stand-By Arrangement with the Government of Jamaica for US\$ 1.64 billion following the successful implementation of the Extended Fund Facility (EFF) programme.¹⁸ During the period 19% of Jamaican people were living below the poverty line, as defined by Statistical Institute of Jamaica.¹⁹

There is a direct link between agriculture and the improvement of the economy and the sustainability of rural livelihoods. Interventions have been introduced to reduce red tape and improve the investment climate. There are no limits on foreign ownership and there is no discrimination against foreign investors. A range of incentives promoting investment exist, including fiscal incentives, income tax relief, customs tariff and stamp duty relief.²⁰ Special tax incentives also exist for companies that list on the Jamaican junior stock exchange (income tax exemption in the first 5 years).²¹ In 2015 the government also introduced the Special Economic Zone Act.²² There are no restrictive policies on foreign currency or remittances.

Agriculture policy overview

Jamaica's agricultural sector is an important contributor to the national economy and accounted for 7.3% of GDP contribution in 2016. The sector employs approximately 18% of the labor force and is a source of income for a large segment of the population, particularly the rural poor.²³ Jamaica is no exception among the Caribbean countries in relation to the main challenges facing the agricultural sector development, including access to credit,

praedial larceny, unclear land tenure, irrigation, availability of quality planting material, and a fragmented production and supply base.

The National Development Vision 2030 Plan is Jamaica's overarching plan which is geared towards attaining developed country status by 2030. The Vision 2030 Jamaica – National Development Plan is implemented through mid-term (4-year) Socio-Economic Policy Framework documents, the current period is 2015-2018. Vision 2030 has 4 National Goals, 15 National Outcomes and 67 Indicators with Targets.²⁴

The focus of the Agricultural Policy is on food import substitution and export development. Emphasis is on reducing the food import bill and aggressively implementing the food import substitution strategy that gives priority to selected commodities such as Irish Potatoes and Onions. Other agricultural products of strategic importance are yam, sweet potato, livestock (poultry), papaya, ackee and marine products. Importance is also given to the food and nutrition security policy which will ensure that all people, at all times, have safe and economic access to food. Another area of focus is on agriculture disaster risk management.²⁵

Annual goals are set out in the yearly Operation Plan. The priorities for the current plan are: (1) sustainable agriculture in the face of climate change, (2) development of a modern and internationally competitive sector, and (3) promotion of food security and safety (use of best practices, international standards). The Government uses the agricultural production index and poverty levels in rural areas as indicators. The Vision 2030 Agriculture Sector Plan also encompasses the creation of agro-parks, i.e. defined areas for PPPs where facilities are created and managed to bring underutilized rural land and labor into a more efficient agricultural production system (as of Sept. 2016, 9 were in operation). Agro-processing is a government priority.²⁶

Other associated relevant plans include the Natural Resources Plan (includes the climate change strategy), the Food and Nutrition Security Policy (FNSP), National Food & Nutrition Security Action Plan (NFNSAP), and National Land Policy. The National Seed Policy (2017), which is also relevant, states that the GoJ will create the framework for establishment of seed multiplication programmes by the private sector using Certified Outgrower Schemes. It states that GoJ will facilitate access to credit and land for private sector investment in seed multiplication programmes.²⁷ This will further be supported by GoJ extension schemes. A Seed Certification Agency will also be created.

In general, policy instruments are implemented through the following: tax concessions and waivers of taxes and duties, high import duties for selected agri-food commodities, subsidized loans through the Development Bank of Jamaica (DBJ), budget transfers (grants) through various programs implemented by relevant government departments.

Government implementing agencies

Key government institutions in the context of this work include:

Ministry of Industry, Commerce, Agriculture & Fisheries (MICAFA)²⁸

- RADA (Rural Agricultural Development Authority), which provides technical advice to farmers, agricultural information, training and counselling services and collects data on supply and demand in key markets. It also disburses budget funds in key areas, including grants in the form of inputs (fertilizers, seeds, seedlings, etc.). RADA provides consultations on marketing strategies and facilitates marketing co-operatives / groups.²⁹
- Department of Cooperatives & Friendly Societies: regulates and supervises the National People's Co-operative Bank (NPCB) and other approved organizations, thereby enhancing their expansion and development of agricultural activities.³⁰

- Others: Bureau of Standards, Jamaica Business Development Corporation, JAMPRO, Micro Investment Development Agency, Self Start Fund, Trade Board, Botanical Gardens, Citrus Protection Agency, Dairy Development Board, 4H Club, Agricultural Society, National Irrigation Commission, Sugar Corporation of Jamaica, Sugar Industry Authority, Export Division, Veterinary Board. The previous Ministry of Agriculture also governed the various Industry Boards, these are now being dismantled - the regulatory functions will reside with the government.

Ministry of Economic Growth and Job Creation³¹

- National Land Agency (NLA)³²
- Statistical Institute of Jamaica (STATIN)³³

Ministry of Finance and the Public Service³⁴

- Development Bank of Jamaica (DBJ): this includes the Jamaica Private Equity and Venture Capital Association and the Jamaica Venture Capital Programme (JVCP) in which the DBJ is an anchor investor that has invested in 2 funds: Portland JSX Limited II and Caribbean Mezzanine Fund 1. Portland Private Equity is led by Michael Lee-Chin, Caribbean Mezzanine Fund 1 was formed by Eppley Ltd. and NCB Capital Markets Ltd. DBJ also provides direct loans and loans through Approved Financial Institutions and partial guarantees as well as support for PPPs. It also manages the Access to Finance (A2F) project to mobilize finance for MSMEs through a variety of instruments.³⁵
- Bank of Jamaica (BoJ)³⁶
- Export Import Bank of Jamaica³⁷
- Other include: Jamaican Bankers Association, Jamaica Business Development Centre, Jamaica Chamber of Commerce, Jamaica Exporters Association, Financial Services Commission, Planning Institute of Jamaica, which manages external partnerships including to international conventions and collates information on key indicators

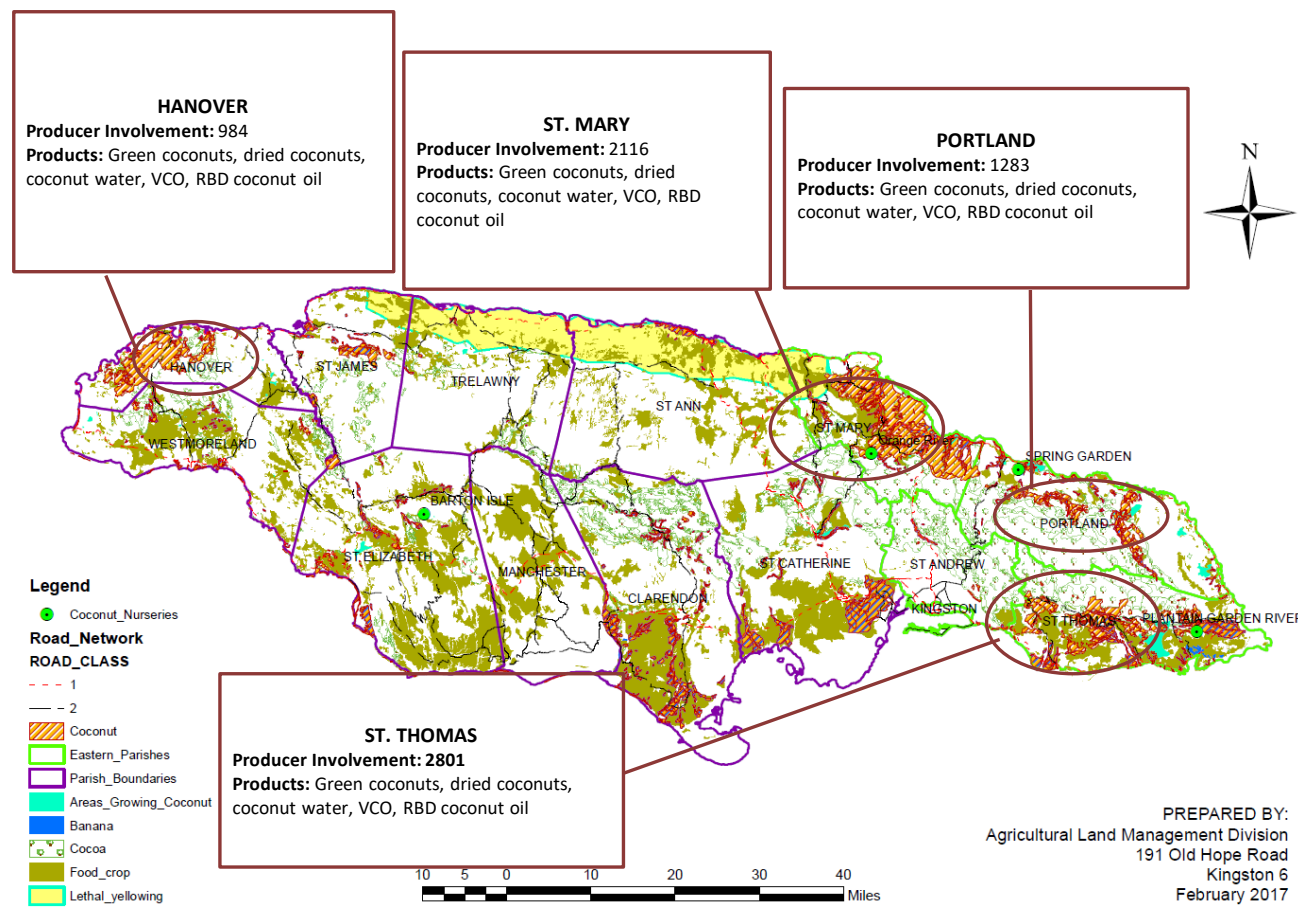
Farmer characterization

In 2017 ITC in collaboration with several partners carried out a farmer characterization study, where 81 farmers were interviewed in 4 parishes (St. Thomas, Portland, St. Mary, and Hanover). The survey focused on coconut farmers and investigated farmers productive and commercialization systems with particular attention on crop diversification and intercropping.

The average farm age was 61 years old, and 86% were male. The majority had attained “ordinary level” of education (47%). There was a relatively even split between those that were married and single. The main farm products were coconut, followed by livestock and poultry and banana. The average acreage under coconut was between 25 – 30 acres. Most farmers had their land as registered freehold (54%), 39% had freehold without documents. Most farmers sold their products through an agent (80%). The most frequent issue cited by farmers in the context of coconut production was pests, followed by high costs of production / farm maintenance, larceny and last availability of seedlings. Most farmers suggested that the best interventions would be, in order of popularity, plant treatment (pest control and nutrition), technical assistance, replanting, farmer surveillance groups, with seedling production and planting material intervention being suggested the least. The primary market-related issues cited by farmers were price fluctuation, lack of organized markets, and last high supply / competition. Most farmers suggested seeking new markets, followed by selling to processors and last creating more stable demand. Most farmers grow a hybrid variety (Maypan) and had trees below the age of maturity. Farmers produced between 600 – over 1,000 green nuts per month, and 200 – just over 600 dry nuts per month.

Just over half of farmers surveyed were unwilling to produce according to buyer preferences. Most also were relatively inflexible, choosing not to try other crops when prices were more attractive. Farmers indicated they would try a new activity on a small case before committing, however 22% said they would “not try something that you don’t know”. All farmers surveyed financed their own production, i.e. none had bank finance. Most felt that loans were risky but necessary (38%), yet 30% felt they are an unnecessary risk. More than 90% had not previously obtained a loan, and ca. 80% do not keep financial records. Most farmers rely on coconuts, followed by plantain and banana for their incomes, of which this goes to fund their business and meet household expenditures. Most of the farmers surveyed were supported by the Ministry of Agriculture, followed by the CIB.

Figure 1: Coconut farmer engagement (from ITC Alliances for Action farmer characterization study)



III. The Jamaican finance & investment landscape

The Bank of Jamaica (Central Bank) regulates the financial system and supports the development of the local financial system. This includes the regulation of licensed deposit taking entities, foreign exchange traders and remittance companies. The Bank of Jamaica supervises commercial banks, primary dealers, merchant banks, building societies, remittance companies, and credit bureaus.³⁸ The Financial Services Commission (FSC) regulates non-deposit taking financial institutions such as insurance companies, securities firms / dealers, unit trusts, private pension funds, and mutual funds.³⁹

The Bank of Jamaica publishes regular updates on the economic and fiscal situation in Jamaica. They also support the implementation of the Vision 2030 National Financial Inclusion Strategy (NFIS).⁴⁰ This is overseen by a National Financial Inclusion Council. The vision of the NFIS for the period 2016-2020 is that very adult and enterprise has access to and is able to make full use of a range of adequate, quality and affordable financial services. The pillars of this plan are: financial access and usage, financial resilience, financing for growth, and responsible finance and a cross-cutting theme on supporting infrastructure. Specific challenges that this plan was created to address includes:

- Low usage of accounts and electronic transactions instruments, in part due to high perceived cost
- That households struggle to be financially resilient as they lack suitable and accessible savings, affordable insurance, and retirement products, and that businesses and farms can benefit from insurance products that meet their needs
- Lack of appropriate credit and financial opportunities for people, businesses and farms
- Low confidence in the financial system by ca. half the population, and a lack of general understanding of personal finance

General conditions

The local finance and investment landscape has been improving. Local equity markets have been growing in terms of volumes and liquidity, and there has generally been increasing local investor interest in company listings due to the continued expansion of listed entities and IPOs on both the main and junior exchanges (BoJ). The Government, through the Development Bank of Jamaica, has sought to build the private equity and venture capital market in Jamaica, most recently through a call for proposals attached to investments from the Government in new funds.

In terms of credit, private sector credit availability has generally been increased in the past 24 months, in particular influenced by two new entrants into the local market. This has led to an overall easing of credit terms (BoJ). Despite this development, there has been a general moderation of credit towards MSMEs, in particular in local currency loans.

Jamaican agriculture finance & investment landscape

As a sector, Jamaican agriculture is relatively concentrated among a few corporations, with several large players dominating, e.g. Grace Kennedy, Jamaica Producers (JP), LASCO, Jamaica Broilers, and CB Group. Several of these groups source from local MSMEs and small-scale primary producers. If and when they involve such primary producers, they also operate their own facilities and have a controlling position in their supply chain to help manage supplier risks. Most key inputs, e.g. fertilizers, fuel, are imported and thus create volatility for local production costs, in particular when these are primarily locally bought and consumed. High import barriers on certain foods, e.g. bananas, drive the local market. Local production costs are heightened as a result of high input costs and larceny. Export costs from Jamaica are also relatively high (ITC).

Various finance and investment categories are described below, with particular emphasis on relevance to the agricultural sector, specifically for smallholder farmers and agro-rural Micro, Small and Medium-sized Enterprises (MSMEs). These are also summarized in Table 2.

1. Savings, loans and credit

Deposit taking credit organizations are regulated by the BoJ. According to the BoJ, there are currently 8 commercial banks operating in Jamaica, and 2 building societies. Commercial banks, merchant banks and other investment intermediaries support larger firms to access debt and provide services such as factoring to larger clients. Only a few banks have focused on agriculture, and in particular the MSME segment. The BoJ publishes a quarterly credit report on the state of the market. Interest rates stated in the most recent report (July – September 2017) are illustrated in Figure 2 below.

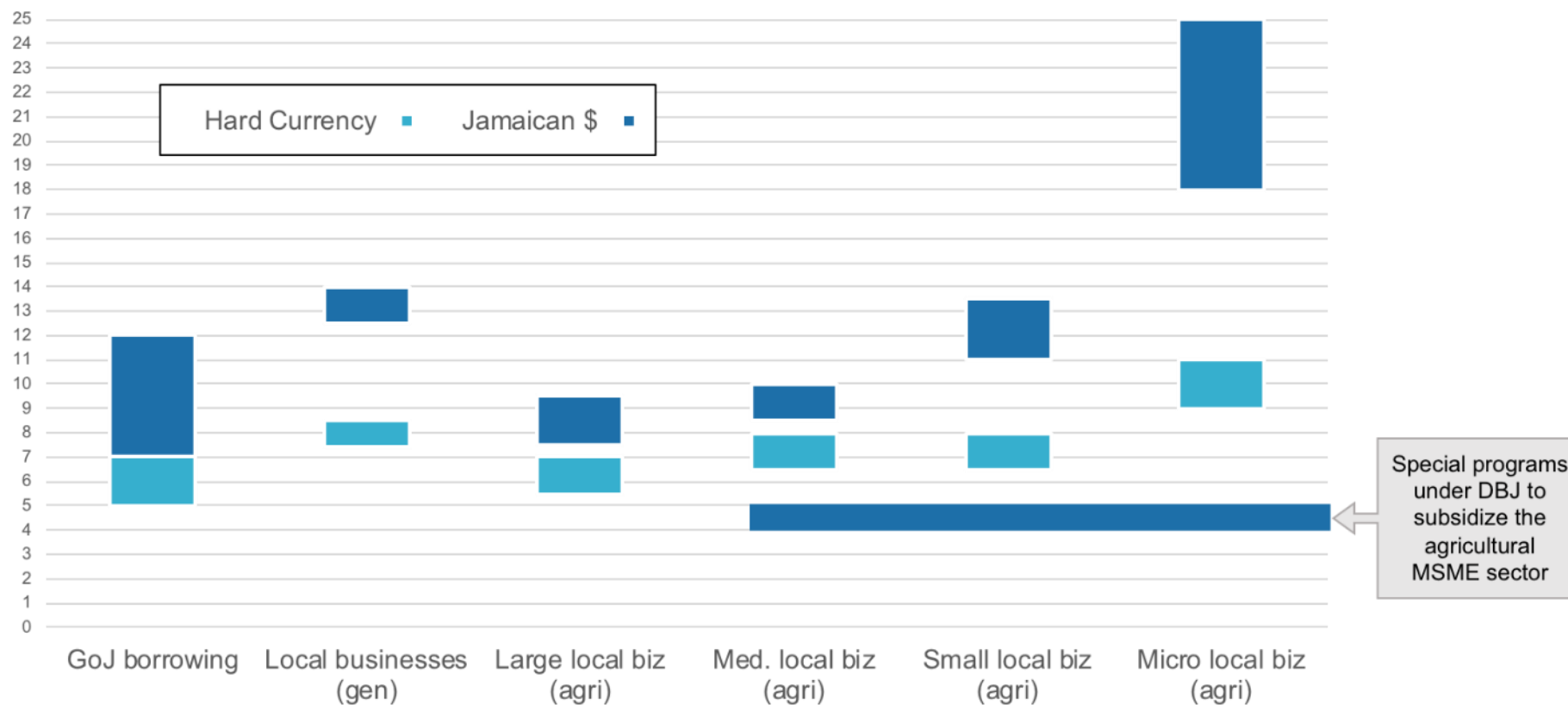
Credit unions are in the process of becoming regulated under the BoJ (under the Credit Union Act). However, the main coordinating point for credit unions remains as the Jamaica Co-operative Credit Union League (JCCUL).⁴¹ As of Dec. 31st, 2016, there were 32 credit unions in Jamaica. These organizations are underwritten by the Government insurance scheme for banks, the Jamaica Deposit Insurance Corporation (JDIC).

In terms of alternative small-scale credit opportunities, there are over 30 Micro Finance Institutions (MFIs) in Jamaica, and there have been tests with Peer to Peer (P2P) lending and crowdfunding, though this has not been particularly successful as yet.

The organizations that are active in the MSME space are supported by the Development Bank of Jamaica (DBJ), which has several programs to promote services to agricultural MSMEs and smallholder farmers. These are described under section 4 below.

Savings, loans and credit organizations could help to support to the agricultural MSMEs sector and smallholder farmers, for example through partnerships with credit providers (e.g. banks, MFIs, credit unions) to channel money to specific borrowers that are active in agriculture, specifically that are within coconut agricultural value chains. This could be supported by the DBJ program, and potentially with guarantees or other forms of support from corporates e.g. in the form of receivables-based financing. However, there are several challenges to overcome, including basic financial literacy, book keeping and relatively high opportunity costs. DBJ would be a key partner in such a structure.

Figure 2: Overview of interest rates in Jamaica



Authors own diagram, based on local interviews (Nov 2017) and the most recent BoJ Credit Conditions Survey Report (July - September 2017)
 Micro Biz: turnover < US\$ 100k, Small Biz: turnover 100k – 5m, Med. Biz: 5m – 25m, Large biz: > 25m. Further information on other sub-sectors are available in the [BoJ Credit Conditions](#) Survey Reports.

2. Equity

There are likely few near term equity opportunities in the MSME sector. Most organizations seem to be relatively informal and financed with own equity. At a lead firm level, both private and public sources seem accessible. The interest of local lead firms to invest in MSMEs, e.g. to consolidate local processing is unknown. While there is an increasingly active local equity market in Jamaica, investors are relatively conservative. Equity returns are relatively high, and an opportunity would have to give investors' confidence that risk-adjusted returns are comparable to other opportunities to interest them. There seem to be new specialized investment programs supported by the government to promote new funds, but this is relatively nascent and has not focused on the agricultural sector to date. Creating a new firm, e.g. a consolidation of local processors or a privatized Coconut Industry Board, would likely appeal most to private strategic investors, and only if an appropriate resource base could be demonstrated (e.g. management capacity, existing asset base e.g. in the form of land, existing contracts, access to technological know-how). Once this new business has demonstrated that it can be profitable, additional equity could be sought e.g. from local stock markets.

3. Institutional investors

There are relatively few institutional investors in Jamaica, and management seems concentrated among a few groups, notably Sagicor, GraceKennedy, and others. These organizations are likely to indirectly support agriculture, e.g. through equity or debt positions in major local agricultural corporates and local financial services companies. Depending on the structure, counterpart, volume and expected risk-adjusted return, these investors could participate in a new financial product in support of Jamaica's coconut sector, e.g. a rated bond issued by a reputable, known counterpart.

4. Concessionary capital

Government supported concessionary capital is available, i.e. grants, sub-market rate loans and catalytic equity capital. For example, grants through the World Bank Development Bank of Jamaica (DBJ) supported Supply Chain Development Grant Programme and DBJ Growth Loan. The DBJ facilitates access to credit through the People's Cooperative (PC) Bank and other Approved Financial Institutions (AFIs) e.g. Bank of Nova, National Commercial.⁴² Loans are provided for potentially viable agriculture and agro-processing projects. The uptake of loans in local currency funds was \$924.7m in 2016 compared with \$425.3m in 2015. (ESSJ 2016). The number of loans disbursed in 2016 totaled 1,898 relative to 961 in 2015. This increase was mainly attributed to the greater uptake of loans for the poultry subindustry. Loans for agricultural projects totaled \$834.7m compared with \$348.3m in 2015. The uptake of loans for Agro-Processing activities moved to \$90.0m from \$77.0m in the previous year. For agricultural projects, there were increases in the uptake of loans for Livestock and the Micro Financing Industry which outweighed the declines recorded for the categories Crops and Farm Infrastructure & Vehicle.

AFIs such as Jamaica National Building Society is providing access to financing to the Agricultural Sector for amounts ranging from \$200,000 to \$5m in respect to climate change adaptation activities and the project's viability. This fund will be made available to businesses in the agriculture and tourism sectors and ought to augment climate change resilience through the use of adaptive or mitigation strategies with respect to the effects of climate change. Loans will be made to individuals or registered entities (Sole Proprietorship, Partnership or Registered Company). Loans of \$2m and over will require the possession of a valid tax compliance certificate. In addition to being used to lessen the effects of climate change on the environment, financing is also geared towards energy efficiency techniques (e.g. use of greenhouse farming, flood control techniques, drip irrigation systems, solar systems, rainwater

harvesting systems, greenhouse gas energy reduction systems) or to overhaul and adapt production strategies that will reduce the use of fossil fuels energy demand.

- Client can borrow \$200,000 to \$5m
- Up to forty eight (48) months to repay
- Up to six (6) months moratorium available (on principal)
- Interest rate: 4.0% reducing balance per year

In addition, there are also several international bilateral and multilateral development agencies that are active in Jamaica. These include the World Bank Group, Inter-American Development Bank (IADB), Caribbean Development Bank and the European Investment Bank (EIB). Several UN organizations are also active, including some that act as Accredited Entities to multilateral funding pools, such as the Global Environment Facility (GEF) and the Green Climate Fund (GCF). Note that UNDP has been particularly active and has been successful in securing such funding in Jamaica.⁴³

Concessionary capital will likely be required for any structure to mobilize more support to Jamaica's coconut sector (and agro-MSME sector in general). The specific need should be considered first (e.g. location, type of funding required and use of funds, existing resources), then an appropriate partner institution identified. Concessionary capital will be easier to mobilize if there are clear non-financial targets and sound monitoring methodologies, e.g. on financial inclusion, climate mitigation, farmer livelihoods.

5. *Remittances*

Jamaica relies heavily on remittances, and volumes flowing into the country from Jamaicans living abroad has increased year-on-year since 2009. In 2016 Jamaicans received USD 2.2 bn from abroad, an increase of USD 65.5 million from 2015. Most of these funds are transferred from the US, but significant flows also come from the United Kingdom, Canada, and the Cayman Islands.⁴⁴ The average cost of a USD 200 transaction is 6.2%.⁴⁵ According to the Caribbean Policy Research Institute (CaPRI), the Jamaican diaspora contributes significantly to the Jamaican economy in addition to providing remittances, e.g. through investment, tourism, trade and business facilitation and philanthropy.⁴⁶

There are opportunities for leveraging the diaspora for investment. Most of these require government support, e.g. from BoJ. Sample structures include diaspora bonds, diaspora investment, insurance and pension funds (e.g. Kenyans Abroad Investment Fund, Rwanda Diaspora Mutual Fund, Global Diaspora Investment Fund), diaspora venture capital initiative (e.g. India Investment Initiative supported by USAID and Calvert), insurance products sold to members of diaspora, Diaspora Direct Investment (DDI) initiatives, securitization of future remittance flows.⁴⁷ The Government of Jamaica has considered a Jamaican Diaspora Bond, but the status of this is unclear.⁴⁸

Private initiatives to tap into the diaspora also exist. These include diaspora banking products. JN Bank in Jamaica launched a JN Diaspora Certificate of Deposit in March, with a tenure of 1-5 years and targeted to Jamaicans living in the UK, US and Canada. Of this specific product, 2% of the interest income earned by individual investors will be matched by JN Bank and contributed to social enterprises engaged in the SN Foundation's Social Enterprise Boost Initiative.⁴⁹ Another example that may be relevant is the remittances for solar energy program developed by BASE in Haiti, in partnership with IADB and Arc Finance. This program is currently being replicated in Bolivia and Tajikistan and Kyrgyzstan.⁵⁰

Utilizing a structure that can garner support from the diaspora for smallholder farmers and agro-rural MSMEs in Jamaica may be possible, but would depend on the underlying structure, implementing partners, governance and impact outcomes, among other factors.

6. Insurance

The government has several insurance programs to support the economy, including to underwrite local deposit-taking organizations (JDIC), which is funded by local deposit-taking organizations⁵¹, and participation in the regional risk pooling facility Caribbean Catastrophe Risk Insurance Facility (CCRIF)⁵².

Jamaica contributes ca. USD 6.3m a year in insurance premiums to CCRIF. The Jamaican government is working with the World Bank and general insurance companies to develop an adequate and effective disaster risk financing strategy, in response to concerns that CCRIF coverage is not sufficient to support the country in the face of major potential losses. This World Bank program will likely explore a wider range of potential options to improve Jamaica's resilience, in particular in the face of climate change. This new program is expected to explore a Disaster Risk Management Development Policy Loan with a Catastrophe-Deferred Drawdown Option (similar to what was structured in the Philippines) or a Catastrophe Bonds (e.g. similar to the MultiCat Mexico and Swiss Re initiative), potentially covering the Caribbean region.⁵³

The private insurance market in Jamaica is relatively stable, with a modest year on year increase in the policyholder base. Most of the activity is in universal and health insurance. In 2016 there were a few large commercial claims as there was a relatively benign hurricane season.⁵⁴ Low property prices meant a modest increase in insurance linked to properties. The Insurance Association of Jamaica publishes regular statistics on the market, but this is not specifically targeted to the agricultural or MSME segment.

An initiative launched in 2013 targeted to the agricultural sector has also been launched, i.e. the Livelihood Protection Policy (LPP) being offered by GK Insurance (previously named JIIC) covers loss of income due to heavy rains or high wind speed. Other partners in this program include the St. Thomas Credit Union, and the Munich Climate Insurance Initiative (MCII), CCRIF, MicroEnsure and Munich Re.⁵⁵ Farmers and persons living in areas that are susceptible to catastrophes can benefit from insurance coverage under a policy developed by GK Insurance. The product is a parametric insurance which pays out in response to defined triggers. This means the insurer can quickly establish how much it owes the policyholder, providing faster, smoother payouts. The product is being administered by the National People's Cooperative Bank to the farming community from the annual premium under the LPP ranges from \$6,600 to \$66,000 Jamaican Dollars while coverage ranges from \$50,000 to \$500,000. These figures indicate that we are looking at small and medium enterprises. From discussions, farmers and other MSME's have been utilizing the facility. This program would be relevant to explore in the context of any new initiative that seeks to engage smallholder farmers and MSMEs.

7. Digital / mobile money

There is relatively low penetration of digital / mobile money and related services in Jamaica. JCCUL (Conec) was first on the market with a mobile wallet service but this has been pulled due to low uptake. According to discussions with local groups, there seems to be high levels of distrust of these services, despite high rates of cell phone penetration. This may be interesting to explore further in the context of Jamaica's NFIS, high rates of cell-phone penetration, relatively high rates of literacy and potential for improving cost-effectiveness.

Others

Collateral registry

Jamaica has a National Security Interests in Personal Property Registry (NSIPP), managed by the Companies Office.⁵⁶ While interest is rising, this is most commonly used for motor vehicles. NSIPP was established in 2013 under the Security in Personal Interests Property Act, replacing the Registry of Charges. It is meant as a central point for assessing if collateral offered up as security for investment is unencumbered. This takes the form of an electronic database, accessible from 2015. The Government has tried to promote the use of alternative collateral such as livestock and crops, but this has not yet taken off (comprise less than 1% of collateral). The main challenges identified are the absence of a secondary market for collateral pledged and the valuation of non-traditional collateral. The Ministry of Agriculture is working on resolving valuation issues for the farming sector.⁵⁷

Credit bureau

A credit bureau is an agency that collects credit information from lenders and other relevant credit information sources on a borrower's credit history and provides that information for a fee to prospective lenders. The Credit Reporting Act 2010 provides for the licensing and operations of credit bureaus in Jamaica.⁵⁸ Several credit bureaus operate in Jamaica, these include Creditinfo⁵⁹ and CRIF NM Credit Assure⁶⁰. These companies are regulated by the BoJ. Jamaica does not have a government-owned credit registry.

Table 2: overview of finance and investment sources in Jamaica

Category	Product type	Context	Organizations
1. Credit / loans / debt	Bank facilities: loans, overdrafts, credit lines	Distinction between deposit and non-deposit-taking banks. Several accredited FIs that are lending using government (DBJ) lines.	Scotia, CIBC, First Global Bank Ltd, NCB, Sagicor Bank etc
	Receivables based finance: factoring, forfeiting, L/Cs, PO, invoice financing, export / trade finance	The World Bank supported Access to Finance (A2F) project (2018-2023) will conduct a market feasibility for factoring. EXIM Bank is interested to further explore and develop this market. In 2017 local MFI sprint announced its intention to begin factoring. NCB is a partner to the IFC Global Trade Finance Program, which should facilitate the offering of such solutions to SMEs. This IFC program provides partial & full guarantees.	EXIM Bank, Sprint MFI, NCB, JMMB Group, First Global Bank Ltd., Scotiabank, Sagicor Group, First Global Bank Ltd (Grace Kennedy) etc.
	Leasing	There seems to be few leasing options in the agricultural sector. The government is trying to promote this.	Sagicor Group, MFG Trust etc.
	Credit unions	These are not-for-profit cooperatives whose members can borrow from pooled deposits at low interest rates. There are 32 credit unions in Jamaica. As of end 2016 these accounted for J\$ 74bn in savings, J\$ 64bn in loans, had J\$ 96bn in assets and 1.0m members.	Over 32 credit unions including Jamaica Broilers etc.
	Peer to Peer / crowd funding	JNBS with the Branson Centre launched a local crowdfunding platform. ISupportJamaica is another crowd funding platform. The FSC is developing regulatory framework.	JNSBL, ISupportJamaica

	Microfinance Institutions (MFIs)	Over 30 MFIs, sector increasingly regulated. Several MFIs benefit from DBJ lines (with capped rates), e.g. dedicated line from EIB (7% EUR with J\$ FX risk). Typical interest rates of 40-75% in J\$	Mundo Finance (NCB Group), Access
	Corporate bonds, notes & securitizations, private credit	In 2016 Jamaica Merchant Voucher & NCB issued receivables-based securities (credit cards) as rated Cayman SPVs in a US private placement. It was arranged by Westwood Capital. Jamaica Producers (JP) have also recently issued a local private note. Issuers generally unwilling to issue in hard currency do to FX spreads with J\$ and availability of J\$ finance.	NCB, Synergos, Citi Bank
2. Equity	Equity funds, equity-based holding companies, VC, angels	Recent launch of the local IADB-supported PE & VC association, spearheaded by DBJ. Challenge for traditional PE is market fragmentation and small deal size, making it difficult to scale. There are few venture funds. An angel network exists.	Portland PE, DBJ, Proven, Branson Centre (Montego Bay), Norbrook Equity, DBJ (as government seed investor)
	Stock market listing (public equity)	There are 7 indices, including a junior index. Anecdotal, local IPOs do well. The junior stock exchange grown to over 30 companies. Liquidity continues to improve. Leading investment banks include Proven and Synergos. Companies listed on the junior exchange benefit from a 10 year tax incentive: zero corporate income tax in the first 5 years followed by 50% in the following period.	JSE, Synergos, Proven, SSL

3. Institutional investors	Pension funds	There are relatively few pension funds, and management seems heavily concentrated among a few groups. They have however been successful in investing in local IPOs and listed companies.	Sagicor (1/3 of local pensions market), Prime Asset Management
	Insurance companies	NCB (National Commercial Bank) has the most sizeable portfolio, it is unclear what their investment criteria or strategies are.	BCIC, AGI, JN General, GraceKennedy, Key Insurance
4. Concessionary / special interest funders	Government of Jamaica	Provides several funding lines in the form of grants, credit, guarantees and equity support. These are primarily through grant funds, directly (through DBJ) and accredited financial intermediaries.	JSIF, DBJ
	Local foundations / non-governmental funders	There are relatively few local foundations. In terms of international funders, groups such as UNDP and The Nature Conservancy are active.	Digicel Foundation, Desnoes & Geddes Foundation (Red Stripe), Reset, Seprod Foundation
	Development finance institutions	Jamaica receives support from the WBG, IADB, Caribbean Development Bank. Main bilateral donors are Canada, US, EC, UK.	WBG, IADB, EIB
	Other international funders	Jamaica has hosted 16 GEF projects at a national level (worth ca. USD 23m), the primary focus of these have been land degradation and biodiversity. GEF partners active in Jamaica area UNDP, UNEP, IADB & WBG. Jamaica has received a readiness grant from the GCF in order to prepare a call for proposals.	GEF, Green Climate Fund, UNDP, UNEP, IADB, WBG, Ministry of Water, Land, Environment, Climate Change
5. Remittances	Remittances	Remittance providers are regulated under the BoJ. Total annual remittance flows in 2016 was over USD 2	GraceKennedy Remittance Service, Alliance Financial

		bn The largest source is the US followed by the UK and Canada. Fees through traditional sources are high and approaches such as Transfer wise are not yet available. There are no investment vehicles in Jamaica that harness remittance flows.	Services, Jamaica Cooperative Credit Union League...
6. Insurance	General agriculture insurance	This has been available to larger groups, e.g. Industry Boards, corporates. However, availability has reduced (or become too expensive) in recent years due to adverse weather and losses.	N/A
	Index-based / parametric insurance / micro-insurance & risk pooling	Index based insurance solutions are being sought for Wind Index-Based Insurance (for coffee), CRAIC / CCRIF. However the most recent hurricane season failed to trigger parametric coverage even though damage was severe. There are problems with reaching sufficient demand in island states, and setting the triggers at an appropriate level.	Munich Re, ILO, CCRIF, WBG
7. Digital / mobile money	Mobile payments	JCCUL (Conec) was first on the market with a mobile wallet service but this has been pulled due to poor performance. There seems to be high levels of distrust of these services, despite high rates of cell phone penetration. A bitcoin wallet provider (Caricoins, now renamed Mpago) was in discussion with BoJ in 2016 to introduce a localized bitcoin exchange. It does not seem like this progressed.	Quisk (NCB Financial Group), GK-Mpay (GraceKennedy), BoJ (regulator)

IV. Opportunities in the Jamaican coconut sector

An assessment of the local, regional and global coconut value chains, commissioned by ITC and Industry stakeholders revealed rapidly growing market demand in traditional and non-traditional coconut products.¹ The analysis was conducted using a participatory approach with a view to identifying 'inclusive growth' opportunities in the coconut sector in Jamaica and the Caribbean region. Breakthroughs in processing technology and consumer awareness about the health benefits of coconut have remarkably expanded markets for traditional and non-traditional coconut products. The continuous growth of global demand for coconut water for example has increased and projected to grow more at 25% per year during 2015-2019. This market trend is also mirrored in the Caribbean region where coconut-related exports have actually contributed in stimulating intra-regional trade in the context of regional value chains.

Although demand at global and regional levels is set to grow, supply bottlenecks are the growth constraining factors, rooted in persistent low investment in now aging and unproductive coconut plantations and in the case of Jamaica very vulnerable to lethal yellowing disease. In consequence; supply growth has been sluggish and remained stagnant in origin countries due to financial and technological constraints contributing to slow pace of seedling production.

Jamaica, as is a regional-hub country in terms of trade infrastructure, private sector capabilities, and more importantly with respect to coconut-related research and development capacity, is poised to take the opportunity and usher its national industry to generate economic growth, employment and export revenue.

In Jamaica the domestic markets are focused on fresh coconut water production and there are significant MSME operators producing and selling coconut water and Virgin Coconut Oil. In addition several lead firms involved processing coconut products are either exploring new coconut product-market development as well as combination of vertical integration and out grower systems in order to target domestic, regional and international markets.

As a result of the market opportunity assessment undertaken by ITC in 2016 and the priorities set through the Alliances for Action participatory process, stakeholders in Jamaica have selected the tender coconut value chain, and in particular on three potential opportunities:

- A. Development of a coconut seedling business
- B. Development of a business focused on processing of coconut water for local consumption
- C. Development of a business that processes and exports coconut water

Detailed Cost Benefit analysis and business planning is being undertaken for each of the three options identified above as part of the Alliances for Action work. Coconut value chains in Jamaica

¹ Connecting to the World Market Through Regional Value Chains: Partnership Opportunities in Coconut Value Chain for the Small Caribbean Economies: https://gvcc.duke.edu/wp-content/uploads/ITC_Report_Caribbean_Coconut_Global_Value_Chain_2016.pdf

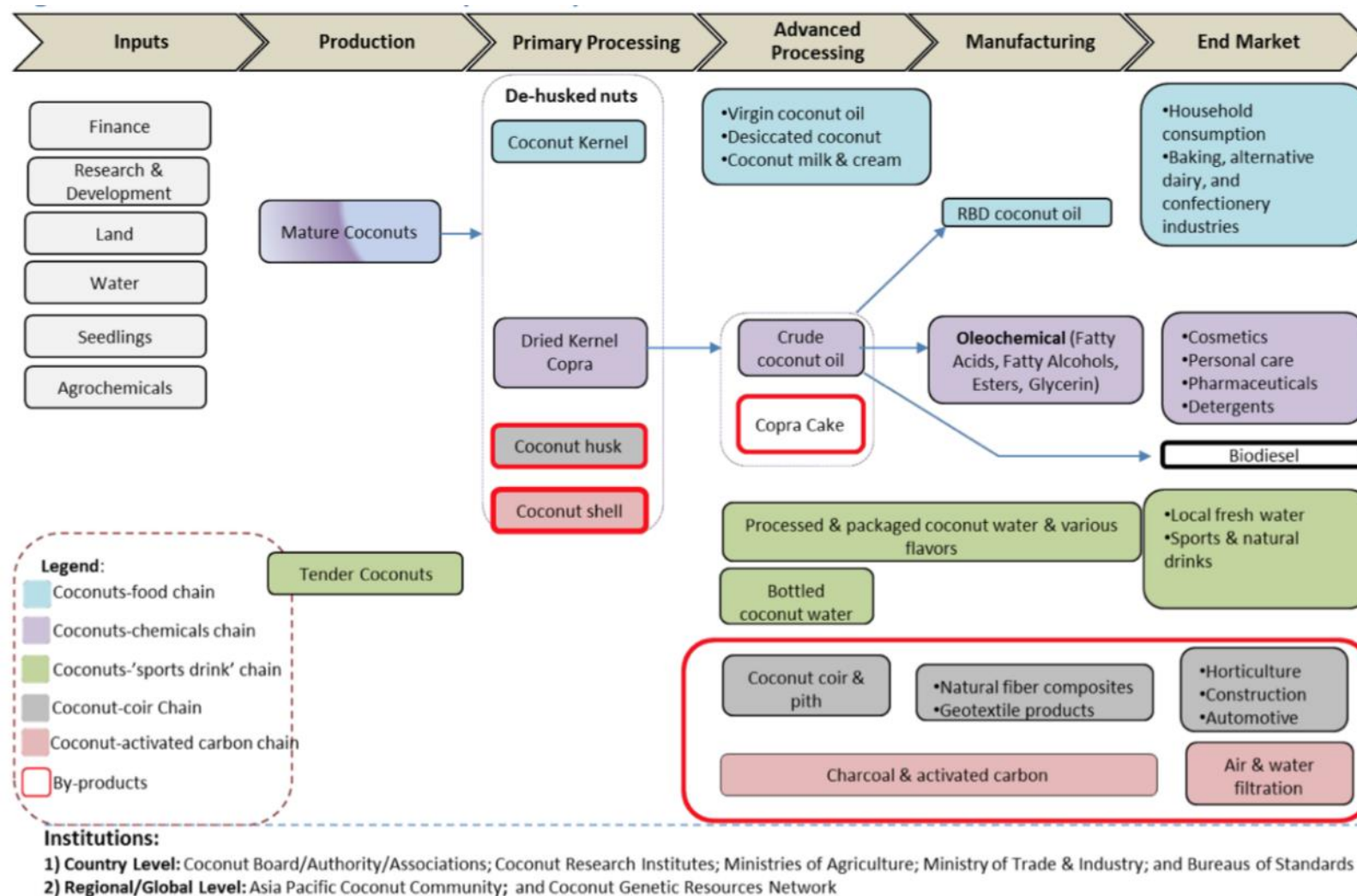
. The Caribbean coconut value chain was characterized as illustrated in Figure 3 below.

Some of the highlights of this report are that:

- Jamaica is a leading regional coconut producer but exports relatively little. Copra oil is imported. Local bottling is the main utilization and is mostly done by informal MSMEs dealing with small—scale farmers with little coordination.
- Jamaica has the leading coconut R&D facilities in the region.
- Local players see an opportunity for exporting Virgin Coconut Oil (VCO) from mature coconuts, but this is primarily from own plantations, rather than vertically integrated with smallholder farmers and SMEs. The challenge with utilizing mature coconuts is that they are on the tree for longer, and thus more susceptible to theft.
- CIB sources from farmers and facilitates sales and value addition, and thus plays an important role in linking the value chain.
- Jamaica seems well-positioned to export coconut water, though this has some technical issues (e.g. processing, sourcing of tender coconuts). Other challenges identified include: poor access to seedlings, multiple under-resourced and uncoordinated channels of technical service delivery (RADA, JAS, industry boards), uncertain future of the CIB, lack of industry statistics, weak market intelligence and export promotion, absence of regulatory efforts for standardization and certification, and the risk of praedial larceny (theft).

It is important to note that according to the ITC farmer characterization survey and other secondary information, smallholder farmers that grow coconuts in Jamaica also produce a mix of other agricultural produce, so farmer incomes are diversified. Annuals that can be intercropped with coconut are: Pepper, Banana / plantain, Yams / cassava, Sweet potato, Cow peas, Amaranth, Orchids (vanilla), Pineapple, Ginger, Turmeric. Perennials that are intercropped with coconut include: Cocoa, Coffee, fruit trees: mango, spice trees (Cardamom, Nutmeg, Clove, Cinnamon, Allspice / pimento). Coconut farmers also typically produce livestock and may engage in apiculture (honey production).

Figure 3: Coconut value chain: input-output structure⁶¹



As a result of the 2016 report and the priorities set through the Alliances for Action participatory process, the focus of this study is on the tender coconut value chain, and in particular on three potential opportunities:

- D. Development of a coconut seedling business
- E. Development of a business focused on processing of coconut water for local consumption
- F. Development of a business that processes and exports coconut water

These three options were discussed with other Alliances for Action potential local partners, in addition to MICAF and the CIB. These included the Scientific Research Council (SRC)⁶² and potential lead firms. In particular GraceKennedy⁶³ provided input on their interest and conditions for engaging in a partnership.

GraceKennedy would expect the following in order to consider providing contracts to farmers, farmer assistance, grants and or loans:

- reliable supply of coconuts with adequate water content (24,000 nuts / day with 0.25 – 0.3 mL water);
- competitive price at farm gate;
- available technology to extend the shelf life;
- development of a nut collection depot;
- model to engage smallholder farmers;
- they would also consider an import program to complement local nut purchase.

GraceKennedy also highlighted the need for identifying the “right” coconut for fresh coconut water and would like to see a technical profile of Jamaican coconuts vs. imported coconuts, and taste profile (including the influence of variety, age and location on flavor). This would, for example, be part of a protocol for identifying suitable coconuts. GraceKennedy provided a letter of intent to the Alliances for Action program in Jamaica in July 2017.

Recent developments

Since the publication of the 2016 study, several changes have occurred in Jamaica, which influences the potential for these 3 potential business and investment opportunities. Notably a key partner, the CIB is affected by a new regulatory set-up (the Jamaica Agricultural Commodities Regulatory Authority – JACRA⁶⁴) imposed as part of the IMF support to Jamaica. JACRA will regulate key potential inter-crops in addition to cocoa, including coffee, pimento, ginger, and nutmeg. The various commodity boards, including CIB, have been dismantled and a change in their regulatory function implemented. Notably for CIB, this means a current lack of clarity on core assets that could help fund a new enterprise (the Seprod shares). As part of the ITC consultancy, a recent trip to Jamaica by Duke University, Clarmondial and CARDI interviewed several key stakeholders in the coconut industry. This included the standards agency, which is also in a period of flux due to reorganization.

Based on the conversations with local Alliance for Action stakeholders, the following finance and investment-related barriers seem to exist:

- Smallholder farmers have little or no experience with accessing financing opportunities, few credit opportunities are available in rural areas, there are relatively long lead times for some types of agriculture to become profitable (e.g. green field agriculture), markets are relatively unorganized, weather risk can undermine payments, farmers may not have access to collateral.
- For MSMEs, many of the same challenges exist, but in addition many do not keep records for potential funders to assess.

- For larger companies, there is uncertainty about adequate supply, in particular of suitable varieties, export costs are relatively high, and there is uncertainty about suitable technologies to compete with other beverage products (e.g. isotonic).

The CIB commissioned a business plan for converting the operations into a stand-alone entity. This was produced by PWC and published in October 2017. Authored by PWC for CIB as a strategic business and capital expenditure plan to support the expansion of the coconut industry. The summary findings were that:

- Improving the sector requires significant replanting, which requires fiscal / government support to (a) acquire additional land for seedling & nursery operations, and development of new production through private sector Joint Ventures (JVs) (likely with cocoa) for green coconut water & VCO, (b) conduct investment promotion, and (c) attract new farmers. It also suggests increased support to R&D.
- The envisaged 7-year development plan, have projected capex needs of ca. J\$ 3bn, Property Plant & Equipment (PPE) of J\$1.96bn and agricultural crop establishment & maintenance costs of J\$ 1.06bn. Within capex PPE, water supply & irrigation followed by new nursery development are the highest cost items.
- CIB is expected to provide J\$ 2.75 bn (91%) of this, e.g. by contributing part of their existing asset base. However, this is dependent on control of the CIB assets and available debt financing (46% of overall need, also secured by CIB assets). Private sector JV's are to be found for the remainder.
- Assumptions are on an 11-year basis, using a 17.5% discount rate, terminal value at year 10, inflation of 5% p.a.
- The expected profitability of each of these business segments (in order of most profitable to least profitable): Cocoa fermentation (61.8%), VCO (52.9%), green coconut water (43.5%), amalgamated operations (29.1%), seed garden, nursery & farm (20.4%). Note these percentages refer to Internal Rate of Return (IRR) after terminal value.
- The costs of implementing the plan are unclear (management & administration)

It is clear that despite the current uncertainty, the CIB has the opportunity to retain a key role in Jamaica's coconut value chain (as well as other commodities), in particular given its technical knowledge, farmer (supplier) network and asset base.

In addition to GraceKennedy, another large local corporate (Jamaican Producers – JP⁶⁵) expressed interest in expanding into the coconut water market (for export). However, they indicated that this would require stable supply and technology to ensure freshness and durability. JP has a large land banks with coconut plantations which could be utilized in combination with outgrower schemes. Both JP and GraceKennedy are developing stronger relations with CIB and local SMEs and farmers in other value chains (e.g. fresh produce).

Local funders, in particular DBJ and Exim Bank, expressed an interest in assessing potential funding opportunities and welcomed discussions on how they could participate in a transaction. However, for them to evaluate a specific opportunity there must be clarity on certain key features of a specific transaction e.g. investment volume, security, type of funding, counterpart, and sufficient comfort on potential revenue streams and executing management capacity. These funders expressed a particular interest to engage if a larger local corporate was engaged in the transaction.

Financing needs in coconut value chains

Operators within coconut value chains need a mix of finance and investment. This includes equity and long-term debt for land, infrastructure and equipment. It also includes short term debt for purchase of inputs, labor, transport, working capital and other operating expenses. Grants or concessionary capital for technical assistance and improving the agricultural operating conditions are likely also required (e.g. for training, shared infrastructure).

In terms of the production aspect, funds are required to secure:

- Suitable land
- Appropriate human resources (seasonal, managerial, security)
- High-quality seedlings (coconuts & any inter-cropped products)
- Agricultural inputs
- Access & processing infrastructure (roads, storage)

More technology-focused funding may also be needed, e.g. in the form of R&D to improve existing processes or better valorize waste streams. Funds may be needed to secure:

- Technological know-how e.g. coconut water processing technology
- Geo-textiles & composites technology
- Activated charcoal technology
- Advanced breeding & multiplication technologies
- Monitoring technology, e.g. for supply chain transparency and reduce theft

Capital needs may be ameliorated by strategic partnerships, e.g. advance purchase commitments with buyers, or partnerships with technology owners and land owners. The roles that each of the groups may have in facilitating access to finance and investment under the three potential business opportunities are summarized below.

Table 3: Potential roles of coconut value chain stakeholders [Draft for Discussion]

<i>Stakeholder</i>	<i>Role</i>	<i>Potential access to finance</i>	<i>Potential enablers</i>
Seedling SPV	Produce and distribute disease resistant quality declared seedlings, operate nurseries, do R&D on coconuts & intercrops	CIB (TBD), SPV equity investors, debt secured by existing nurseries	Government (as guarantors, market makers), development funders (concessional funders), research organizations (support R&D), large scale private buyers (facilitate access to credit)
Farmers	Buy seedlings, multiply seedlings; produce coconuts	Personal bank loans, own equity, potential pre-finance from buyers, local cooperatives / credit unions	RADA, existing credit unions, private buyers (technical assistance, access to market)
Small scale coconut water processors	Buy coconuts, process for local buyers	Personal & SME bank loans, own equity	Standards bureau, infrastructure providers (e.g. cold stores), SME finance lines, distributors as buyers (depending on their payment terms)
Processors for export, existing brands	Buy coconuts for export	Own equity, bank loans, corporate bonds	Government (policy to reduce export costs, facilitate trade), technology providers (freshness), international buyers (payment terms and investment in marketing)
New processing entity	Buy coconuts for processing (water), extend credit to small-scale producers	CIB (TBD), SPV equity investors, debt secured by existing assets	Government (standards & trade policy, infrastructure e.g. under agro-park), concessional creditors, Government guarantees for funding lines

Seedling business development

As identified by the 2016 study, there is a shortage of coconut seedlings. To keep up with rapidly increasing market demand, there is an urgent need to invest in more efficient breeding and distributing coconut seedlings that are disease resistant and are well suited to specific business needs (e.g. VCO, water, desiccated coconut). However, coconut seedling production is relatively resource intensive, and so there seems to be an opportunity for considering faster multiplication solutions, i.e. tissue culture and cloning.

This business opportunity would be based on a partnership between a technology owner (e.g. SRC and international research centers such as CICY in Mexico), outreach and implementation partner (e.g. CIB) and potentially an off-taker. SRC has a tissue culture lab. CIB produces coconut seedlings that are distributed to farmers free of charge, and it is believed that this could be transformed into a business whereby farmers pay for high-quality seedlings. CIB owns several nursery sites, and already has a good relationship with most coconut farmers. A potential model is illustrated in Figure 4 below.

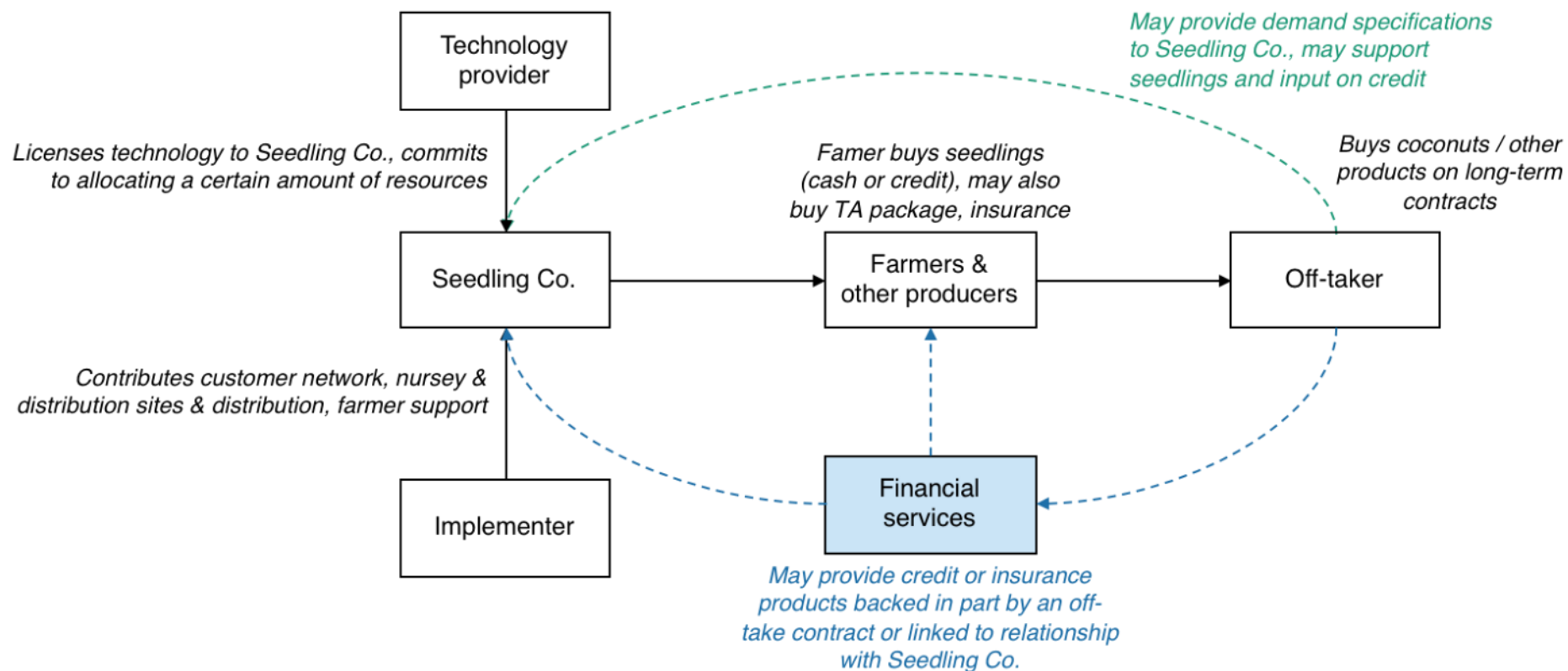
This model may also include variations such as equity participation by key off-takers (though managing a potential conflict of interest would be necessary), or by farmers. This latter model could also then enable the creation of a new, dedicated credit union.

Some of the analysis for this new Seedling Co. has already been done in the CIB business plan, however there are additional information gaps and assumptions that would need to be checked. These include:

- the existing asset base of the joint venture partners, e.g. land, nursery & seedling operations, technology, to understand to what extent funds and / or land is a limiting factor;
- an assessment of the tissue culture technology, and what coconut varieties to focus on as a matter of priority;
- assess funding needs, including management resources and the expected needs during ramp up vs. the steady state;
- assess market potential in Jamaica and in the region, and farmer willingness to pay, including willingness to produce according to specifications. Note that it may be worth considering Seedling Co as an entity that distributes various types of seedlings, including for cocoa;
- assess the willingness of off-takers to enter into long-term contracts, and on what basis;
- availability of government support / endorsement, e.g. concessionary funding facilities, tax / investment shields, other support e.g. marketing & investment promotion, agro-parks - this should help to facilitate funds from multi-lateral and bilateral funding partners and facilities. Note that partnership or endorsement from groups such as RADA should also be sought;
- Potential to create non-financial impacts e.g. on farmer livelihoods, biodiversity to fully leverage international funding sources;
- Interest from local financial institutions to support this initiative, and under what conditions.

In terms of potential impacts on smallholder farmers and agro-rural MSMEs, this business could potentially help to support access to appropriate inputs and technical advice to farmers. Depending on the arrangements with off-takers, it could also stabilize farmer livelihoods, e.g. through longer-term contracting arrangements, professionalize farmers and improve access to services generally. There could also be environmental benefits, e.g. promoting agro biodiversity on farms, preventing soil erosion and promoting climate smart agriculture.

Figure 4: Potential new Seedling Co.



Processing of coconut water for local consumption

There is a relatively large local coconut water market, which is highly fragmented and dominated primarily by MSMEs. One approach to ensure adequate margins, supply and demand is to pursue consolidation and support formalization of this local industry. Note that this must go hand-in-hand with increased regulation of the industry to maintain standards, e.g. as part of the new governance of food health and safety standards.

This business opportunity could take the form illustrated in Figure 5, i.e. a new entity that aggregates demand and supports access to adequate working capital and infrastructure for MSMEs and their suppliers (smallholder farmers). This would need to be initiated through consolidating demand through securing longer-term off-take contracts / supply arrangements with buyers such as supermarket chains, and hotel chains. This would likely require specifications on price, quantity and quality, and some investment in basic infrastructure for processing and storage to maintain minimum standards.

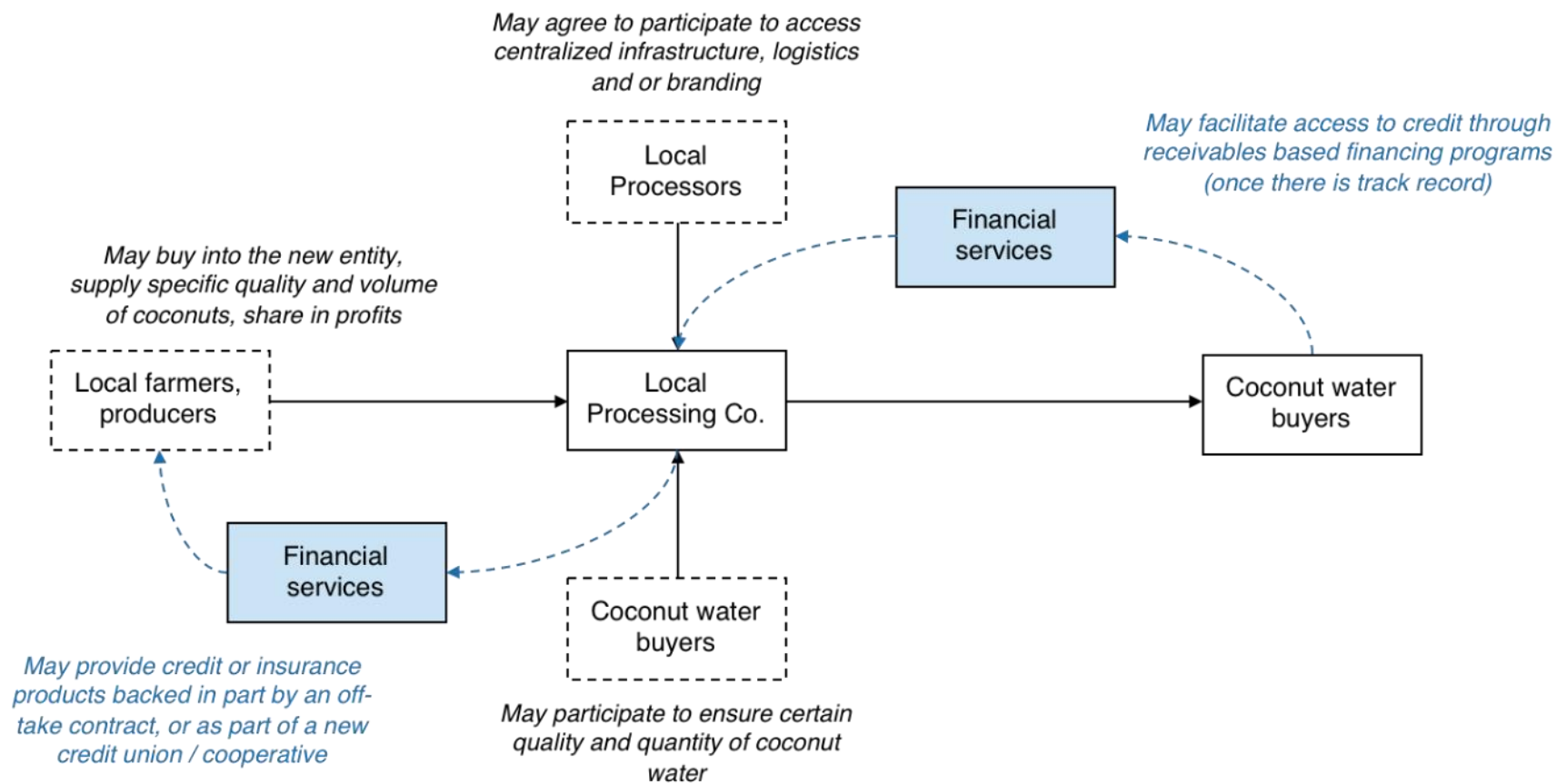
This consolidation of local processors may be more or less formalized, including under a new brand or supplier union. However, it is not known if the size of the local industry and the level of organization and formalization is large enough to justify such an initiative. Equity would likely have to come from interested parties such as local processors or buyers, it is unclear how much existing SME processors would want to contribute. This model could also run on a cooperative basis, i.e. without equity. This model could also be centered on grouping a set of farmers at a jointly-owned processing and distribution facility or brand. It is likely that it will be difficult to get credit to support this business before there is track record and formal accounts, or assets that could be pledged (e.g. equipment).

Some of the analysis for this new Local Processing Co can be found in the CIB business plan and in the analysis conducted by Duke University in 2016. However, there are still many outstanding questions that would need to be assessed, including:

- demand that could be consolidated- including how formal retailers and tourism operators are in their purchasing arrangements;
- the location of most demand and supply to determine an ideal starting location;
- interest of local SME processors to join together, and under what conditions;
- cost of basic processing and distribution equipment (including cooling and transport), and management costs to run this;
- the potential profit margins on such a local processing business.

In terms of potential non-financial impacts, this new entity could help to improve farmer livelihoods by supporting greater access to market and profit sharing.

Figure 5: potential new Local Processing Co.



Processing of coconut water for international export

International demand for coconuts continues to increase, including for fresh coconut water. Several local companies with presence in key import markets expressed an interest in exploring the processing and export of coconut-based products from Jamaica, notably fresh coconut water. However, there were some technical concerns as described above.

This potential business would involve collaborating with an existing firm that has international links to strengthen production value chains and leverage the Jamaican brand. It may also require the participation of a technical partner, e.g. SRC on processing technology to retain freshness.

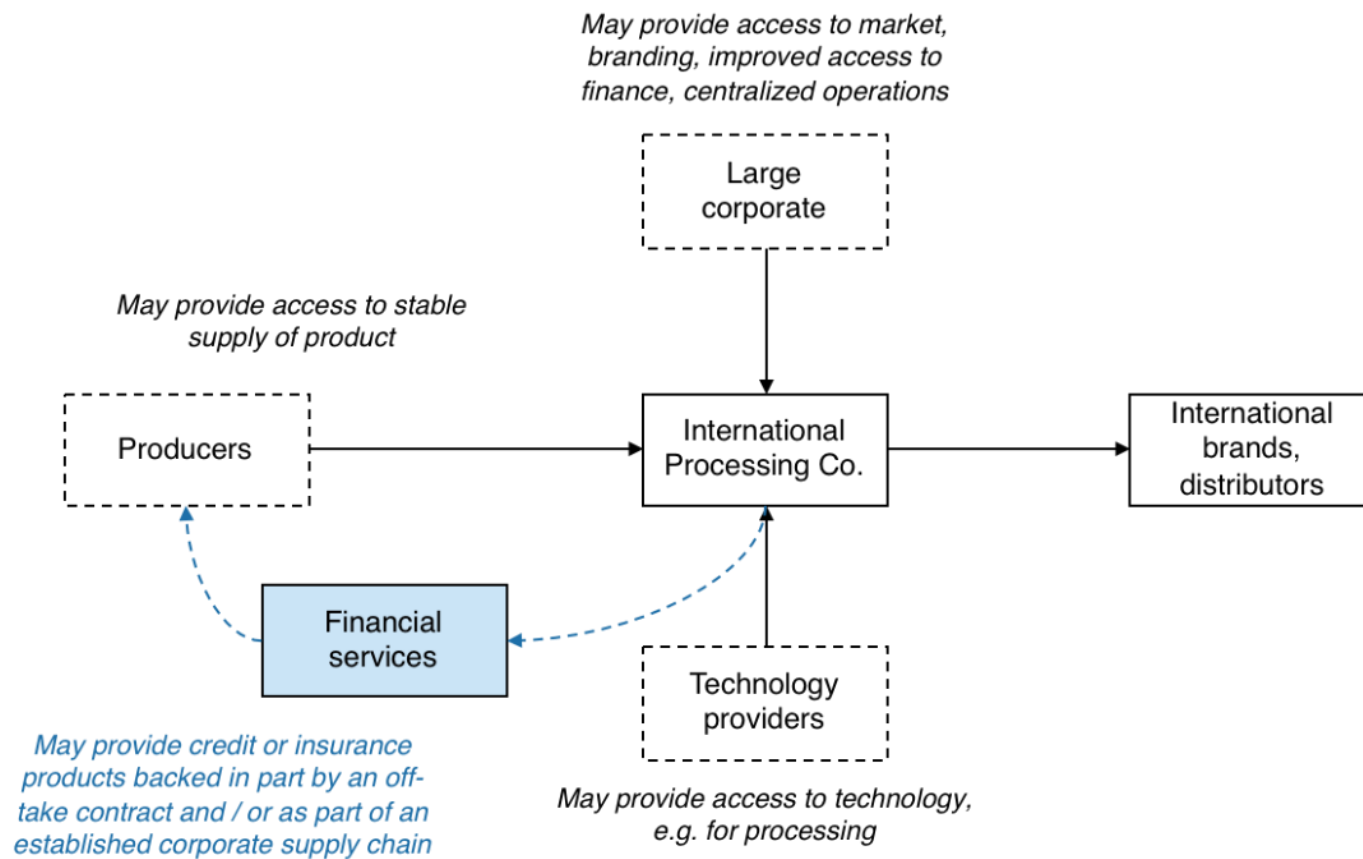
This business opportunity could take the form illustrated in Figure 6, i.e. a new entity that processes and distributes fresh coconut water. This would likely also require investment in coconut supply, e.g. to ensure adequate and timely volumes of the “right” varieties. GraceKennedy have already indicated the conditions that they would require in order to participate in such a venture. This structure would likely be easier to finance, given the involvement of a well-known company with well-established financing relationships.

Key factors to assess include:

- Technology, in particular to retain flavor;
- Competitiveness (e.g. “brand”, purchase interest);
- Availability of consistent supply, from Jamaica and potentially complemented by coconuts from other areas. Producers who may enter into an SPV will want to be certain about consistency of supply, including on quality and price, they will want to see production controlled e.g. by having a central production area with scope for expansion through contract farming, and;
- Processing and distribution costs (the latter would likely be known by a corporate partner).

Depending on how this is structured, this entity could promote improved livelihoods among producers, e.g. through formalizing and improving value chains. Creating stable demand can help to facilitate improved practices, access to credit and services. Several large agri-corporates in Jamaica are starting to support small-scale farmers in this way, in particular in the fresh produce sector, e.g. through selecting and investing in farmers that have the potential to grow and meet demand. This also creates opportunities for sharing improved practices, including climate smart agricultural practices.

Figure 6: potential new International Processing Co.



Initial conclusions and further points for consideration (to be validated and refined with stakeholders as part of the Alliances for Action methodology and based on CBA assessments)

The Jamaican coconut sector engages smallholder farmers and MSMEs, these could benefit from new value chain initiatives. Coconut farmers typically produce a variety of agricultural outputs, to meet both business and household needs. Though it has created some uncertainty, the dissolution of the various industry boards may make this an opportune time to invest in key agricultural sectors in Jamaica, including coconut and cocoa, in a manner that creates lasting social and environmental impacts and improves financial inclusion.

CIB is the main body engaging smallholders and SMEs in the Jamaican coconut sector, but there is uncertainty about their future, in particular the available asset base to make initial investment in a new venture. According to discussions with local groups, there is interest for CIB to continue to support the industry, in particular on seedling production and input supply, technical advice, and as a market-maker (for a limited time). The primary technical competence of CIB is coconuts, but as a seedling or coconut producer it may not be feasible to only rely on one source of revenue (e.g. coconut seedlings, sale of tender coconuts). In a future business plan, or indeed for the 3 options suggested above, it may be prudent to explore additional value creation, e.g. from inter-crops or use of processing by-products.

Government support for any such venture is critical, both to entice local and international investors and financiers, and this has not yet been tested. For example, government may be able to support new processing facilities through its agro-parks program. Government will impact a new venture both through supporting activities (e.g. through programs implemented by DBJ), but also in its regulations (e.g. food health and safety standards). The Government could also support such a new initiative by facilitating access to international development funds, such as the Global Environment Facility.

While there is opportunity for creating environmental / social value through investing in coconut value chains, the potential impacts are not clear. This non-financial value (impact) will have to be communicated to attract concessionary funders. This will need to include, for instance, impact reporting parameters.

The suggestions given will require significant additional assessment to further test technical, financial and practical feasibility. The CIB business plan is a useful starting point, but certain aspects will require further assessment, in collaboration with the government and with private sector partners. These evaluations should engage potential funders relatively early on, to assess likely interest and engagement, in particular with more concessionary funders.

V. Endnotes

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- ¹ <http://www.intracen.org>
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