

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK  
MULTILATERAL INVESTMENT FUND

**THE BAHAMAS**

**FARMS WIDE OPEN – INNOVATIVE AND CLIMATE RESILIENT FARMING IN  
THE BAHAMAS**

**(BH-T1101)**

**DONORS MEMORANDUM**

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## **PROJECT SUMMARY**

### **BAHAMAS**

#### **FARMS WIDE OPEN – INNOVATIVE AND CLIMATE RESILIENT FARMING IN**

#### **THE BAHAMAS**

#### **(BH-T1101)**

The Bahamas has experienced two major economic shocks over the last 3 years, Hurricane Dorian in 2019 and the COVID-19 pandemic. Hurricane Dorian caused losses and damages of about \$3.4 billion (27% of GDP), resulting in considerable pressure on public finances and reserves as well as business operations and livelihoods. The situation is now further compounded by the COVID-19 pandemic which has caused many businesses to lay off workers or close altogether, temporarily, or permanently. Aggregated losses in wages of employees and workers are expected to reach \$2.4 billion for 2020-2023, or 4.9% of GDP per year on average. The impact on employment of these losses is estimated to be around 30,000 jobs, equivalent to 14.7% of the labor force<sup>1</sup>.

Exacerbating this situation is high inflation and supply chain interruptions due to the pandemic. Approximately 10 % of Bahamians experience food insecurity and have less than \$4 to spend on food a day. This is significant because only 10% of the food consumed is produced in the Bahamas. Therefore, there is a need to change the food production system in the Bahamas by utilizing innovative technologies to help spur productivity, efficiency, and climate resilient farming. Climate change affects The Bahamas disproportionately due to its geographic location. In the last decade, The Bahamas has experienced severe effects of climate change and has seen some of the most dangerous flooding and devastating hurricanes ever recorded, making vulnerable populations more affected by increased rainfall, intense heat, drought, flooding, and natural disasters which reduce crop yield and make once arable farm-land unusable. It is urgent to approach this fragility of the local food production system and the inequalities it creates and transform it into a more sustainable, inclusive, and climate resilient system.

The main objective of this project is to improve the efficiency and productivity of the food production system in The Bahamas by introducing innovative technologies, local sourcing, and climate resilient solutions. The proposed model aims to provide a special combination of innovation and capacity building to simultaneously solve the problem as described above.

The project will benefit farmers, especially women farmers, consumers and poor and food insecure populations. The main beneficiaries of the project are 10 farms of which at least 50% are women-led. Specific outreach will also be made to more disadvantaged groups in vulnerable communities.

At the outcome level, the project targets 10 farms that migrate to the new production model promoted by the project, 240,000 tons of carbon dioxide emissions reduced using solar panels provided for the project (tons of CO<sub>2</sub>), 20 retailers in vulnerable communities that

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<sup>1</sup> IDB report July 6, 2022

## **ACRONYMS AND ABBREVIATIONS**

<b>CBH</b>	Country Office in The Bahamas
<b>CCB</b>	Caribbean Countries Department
<b>DICI</b>	Assessment of Integrity and Institutional Capacity
<b>EA</b>	Executing Agency
<b>GDP</b>	Gross Domestic Product
<b>IDB</b>	Inter-American Development Bank
<b>IDB Lab</b>	Multilateral Investment Fund
<b>IDBG</b>	Inter-American Development Bank Group
<b>IFD/CMF</b>	Capital Markets and Financial Institutions Division
<b>IMF</b>	International Monetary Fund
<b>IT</b>	Information Technology
<b>LAC</b>	Latin America and the Caribbean
<b>LMK</b>	Labor Markets and Social Security Division
<b>MIF</b>	Multilateral Investment Fund
<b>PSR</b>	Project Status Report
<b>SBDC</b>	Small Business Development Centre
<b>SDG</b>	Sustainable Development Goal
<b>SMEs</b>	Small and Medium Enterprises
<b>STEM</b>	Science Technology Engineering Mathematics

## PROJECT INFORMATION

### FARMS WIDE OPEN – INNOVATIVE AND CLIMATE RESILIENT FARMING IN THE BAHAMAS (BH-T1101)

<b>Country and Geographic Location:</b>	The Bahamas		
<b>Executing Agency:</b>	Bron Ltd.		
<b>Focus Area:</b>	Climate change, agriculture		
<b>Coordination with Other Donors/Bank Operations:</b>	The project is aligned with BH-L1045 Government Digital Transformation to Strengthen Competitiveness, BH-L1047 Credit Enhancement Facility, to provide greater access to finance to SMEs and BH-L1050, Boosting Resilient and Inclusive Growth in The Bahamas to improve the business climate and support MSMEs continuity. It will also coordinate its activities with IDB Lab's regional Tech Beach (RG-T2926) project. IDB Group will contribute by generating connections with Compete Caribbean, local climate change and local energy specialists, expert knowledge/potential solutions providers and will bring to the table its knowledge in women economic empowerment, AgTech and building enabling AgTech ecosystems.		
<b>Project Beneficiaries:</b>	15 farms trained in innovative food production and climate resilience of which at least 50% are women-led. 10 farms migrated to a new farming model.		
<b>Financing:</b>	Technical Cooperation:	US\$ 400,000	
	<b>TOTAL IDB Lab FUNDING:</b>	<b>US\$ 400,000</b>	50%
	Counterpart:	US\$ 400,000	50%
	Co-financing:	-	
	<b>TOTAL PROJECT BUDGET:</b>	<b>US\$ 800,000</b>	<b>100%</b>
<b>Execution and Disbursement Period:</b>	36 months of execution and 42 months of disbursement.		
<b>Special Contractual Conditions:</b>	Conditions prior to first disbursement will be, to the Bank's satisfaction: (i) Selection of the Project Coordinator; (ii) Letter confirming the provision of counterpart finance.		
<b>Environmental and Social Impact Review</b>	This project has been reviewed on October 6, 2022, in accordance with the IDB's Environmental and Social Policy Framework (GN-2965-21). The final E&S Categorization is C..		
<b>Unit responsible for disbursements</b>	CCB/CBH		

## I. The Problem

### A. Problem Description

- 1.1. The Bahamas is home to approximately 388,000 people, 12,5% of whom are living under the national poverty line<sup>2</sup>. Living in poverty presents secondary challenges such as food insecurity. Food products in The Bahamas come with a noticeable price tag. This is because the island imports nearly 90% of these items. Expensive food prices not only affect the economy and any employment opportunities arising from local agriculture but also alienate those who cannot afford these food prices. As a result, food insecurity in The Bahamas is a significant issue that requires addressing.
- 1.2. According to Hands for Hunger, one in every 10 people in The Bahamas experience extreme food insecurity and have less than \$4 to spend on food a day. This prevalence is significant because only 10% of the food consumed is produced in The Bahamas. A study by The Caribbean Agro-Economic Society concluded 41% of the households were food insecure and factors such as age, education and gender all played a factor. Around 20% of households required assistance from the government to provide adequate food to their families. It also concluded that people take an active role in producing at least one aspect of their food, revealing a reported 45% caught their own fish.
- 1.3. This is largely a result of a deficient food and agricultural production system and a heavy reliance on imports. Food and agriculture contributed to less than 1% of The Bahamas' GDP in 2018<sup>3</sup>. This leaves the vulnerable population largely at the mercy of import prices. It also often puts Bahamians in a position where they may not have consistent access to quality food and food products. "As a major food-importing country, we are at a higher risk for food shortages and increased food prices," said the Minister of Agriculture, Marine Resources and Family Island Affairs Clay Sweeting urged Bahamians to place an emphasis on growing food to reduce the country's costly food bill during his remarks for World Food Day 2021.
- 1.4. The pandemic has revealed the severity and complexity of the country's economic weaknesses and has created the largest negative impact in The Bahamas among IDB Caribbean member countries. The Bahamas' GDP declined by 15%, the largest single shock to the economy since 1975.
- 1.5. The International Trade Association confirms that nearly 90% (i.e., \$632 million per annum as at 2019) of all food consumed in The Bahamas is imported. As a result, the increase in fuel, manufacturing/energy costs and associated import costs are traditionally passed onto the consumer affecting the purchasing power and access to affordable food, particularly for those in poor and vulnerable communities, including women, children, and migrants, particularly those from Haiti.
- 1.6. There is a need to change the food production system in The Bahamas by utilizing innovative technologies to help spur productivity, efficiency, and climate resilience. Climate challenge affects the Bahamas disproportionately. The increased rainfall,

<sup>2</sup> <https://borgenproject.org/child-poverty-in-the-bahamas/>

<sup>3</sup> World Bank 2021

intense heat, drought, flooding, and unexpected natural disasters such as hurricanes could reduce crop yield and make once arable farm-land unusable. Due to its geographic location, the Bahamas is experiencing severe effects of climate change and has seen some of the most dangerous flooding and devastating hurricanes ever recorded, and making vulnerable people (such as women, children, and migrants) more vulnerable to these conditions. On the other hand, the soil in The Bahamas is unsuitable for commercial farming due to its high pH levels. It is urgent to approach the fragility and inequalities of the local food system and transform it into more sustainable, inclusive, and resilient to climate change<sup>4</sup>.

- 1.7. **Beneficiaries.** The project will benefit farmers, especially women farmers, consumers and poor and food insecure populations. The main beneficiaries of the project are 10 farms of which at least 50% are women-led. Specific outreach will also be made to more disadvantaged groups in vulnerable communities. Most recent data from the United Nations Development Program (2017) suggests that 15% or 56,500 persons live below the poverty line in poor and vulnerable communities. The Bahamas' poverty rate is mainly attributed to the country's high level of unemployment. Currently, a shocking 14% of its citizens are unemployed, due to the shock that the tourist sector had after COVID. Women were particularly affected by the lack of employment.

## II. The Innovation Proposal

### A. Project Description

- 2.1. The main objective of the project is to build the capacity of small farmers, particularly women and farmers in vulnerability conditions in The Bahamas to migrate to a new food production model which is based on increasing energy conservation and strengthening the provision of food for at-risk communities. The proposed solution aims to provide a combination of innovation and capacity building to simultaneously solve the problem as described above.
- 2.2. The project will produce a series of world-class, robotics-enabled, climate resilient and solar powered hydroponic container farms (stationed in poor and vulnerable communities) that will produce fresh fruits, vegetables, and organic leafy greens. This technology has been tried, tested, and proven under the umbrella of Eeden Farms<sup>5</sup> and has produced thousands of pounds of fresh leafy greens which is currently being sold to the wider population. Eeden Farms currently has several key formal agreements with major hotels and restaurants in the Bahamas where they supply organic greens.
- 2.3. In a 2022 Reuters article, the Prime Minister of The Bahamas estimated that 15% of The Bahamas' GDP is currently threatened by climate change. As such, the solar powered element of the farms will aid in reducing the carbon footprint in The Bahamas while enhancing resiliency and local adaptive capacity. The locally produced organic produce will help improve food security in the country by making

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<sup>4</sup> According to DALA assessments each of the four latest hurricanes to hit The Bahamas incurred losses and damages of US\$ 119mm-US\$3,401mm.

<sup>5</sup> **Eeden Farms** is The **Bahamas'** first hydroponic container **farming** system and the premier generator of fresh and sustainable produce.

quality fresh produce available year-round even in the occurrence of hurricanes, pandemics, or global supply chain disruptions.

- 2.4. The strategic positioning of the farms (in poor and vulnerable communities) will act as a direct economic stimulant for those communities providing lower prices for food produced creating equal purchasing power and access to affordable and nutritious food, sold directly to consumers. While robotic enabled, the farms require human capital which will result in creating much needed job opportunities particularly for women from low-income backgrounds and underserved communities. These women will be empowered to become the food producers The Bahamas needs to secure a healthy, nutritious, and affordable diet to its more vulnerable communities. These farms will also engage with high school students interested in STEAM careers and vertical farming giving them opportunity to learn more about sustainable farming methods. Further, as the produce is grown locally, it will be sold below current imported food market prices making it more affordable to poor and vulnerable communities.
- 2.5. The scalability of this project will be provided by employment creation and potential entrepreneurial opportunities for future farmers that will be able to learn from this experience and work in the future with the Ministry of Agriculture who is also seeking for transformative experiences to support local farmers and reach the SDG goals.
- 2.6. The RND and CCS divisions of the IDB are collaborating with IDB Lab on this initiative in The Bahamas. Whilst these divisions of the Bank will provide support to the Government of The Bahamas on areas related to attracting foreign direct investment in technology intensive sectors and promoting national investments in technology, IDB Lab's intervention will create a roadmap for activities that support the development of this new food production system through a focus on developing ag-tech solutions, providing inclusive access to educational and training programs for all Bahamians, forging private sector partnerships and providing support to entrepreneurs and innovators throughout the country. The project is aligned with the Strategy of the Bank in Bahamas, by fostering private sector development, combatting climate change, enhancing food security and business innovation.
- 2.7. **Innovation.** The solution is both innovative and strategic in that it can serve as a pilot to provide lessons and insights as to how the broader diversification and digitalization of the food production sector can take place in the context of The Bahamas. The project is considered innovative as it will test innovative solutions as an opportunity to help make the food production system more efficient and productive in The Bahamas. It will explore how skills can jumpstart new opportunities for more efficient food production while enhancing climate resilience.
- 2.8. **Component I: Capacity building of farmers and knowledge transfer (Total USD \$30,000.00: IDB Lab USD \$0.00, Counterpart USD \$30,000.00).** The objective of this component is to strengthen the skills of farmers for the integration of digital technology into traditional and nontraditional food production in The Bahamas. In addition, considering that The Bahamas is in a high-risk area for extreme climate events, the project will include training on climate risk assessment and strengthening climate resilience as well as climate smart technological solutions and disaster preparedness. In this regard the Executing Agency will provide technological expertise that will be hired specifically for the project. Special



efforts will be made to considering specific gender aspects and to attract women participants to the programs. Examples of courses under the various areas include: (i) sustainable farming; (ii) water conservation; (iii) soil quality enhancement, and (iv) Market Research. In addition, technology courses will be offered such as App Development, Coding and Digital Marketing.

- 2.9. The activities under this component are: (i) Development and implementation of a communications & marketing campaign; (ii) STEM internship program (12 interns per year); (iii) Organization of seminars (Food Security, Biodiversity, Climate Change, STEM Job Readiness) to facilitate knowledge transfer to Department of Forestry, Department of Marine Resources, Department of Environmental Planning and Protection, and Public Parks and Beaches Authority, and Farmers
- 2.10. The expected outputs of this component are: (i) 600 people reached through communication and marketing campaign; (ii) 36 STEM interns that participate in the project; (iii) 20 farms enrolled in training program; (iv) 15 farms that completed the training program; (v) 12 women that completed the training; (vi) 6 farms from low income and vulnerable communities that completed the training; (vii) 8 government officials trained; (viii) 4 infographics produced and published.
- 2.11. **Component II: Establishing a tailored energy consumption reduction program (Total USD \$140,000.00: IDB Lab USD \$125,000.00, Counterpart USD \$15,000.00):** The objective of this component is to demonstrate to businesses in the food production system and in overall corporate Bahamas the possibility of reducing energy consumption can become a reality. Information will be made available to the Government of The Bahamas (GoB) to help inform national reporting related to the National Energy Policy and reporting to the international community on Several Sustainable Development Goals (SDG) 7 – Affordable and Clean Energy.
- 2.12. The activities under this component to be implemented by the Executing Agency are: (i) Complete a Baseline Energy Audit; (ii) prepare an Energy Action Plan; (iii) design and install a Solar Energy System; (iv) implement an Energy Action Plan; (v) perform a Critical Review of the Energy Consumption Program
- 2.13. The expected outputs of this component are: (i) 135,000 kWh / clean energy produced; (ii) Monitoring system installed and collecting data.
- 2.14. **Component III: Pioneering ecological data analysis and environmental monitoring system: (Total USD \$209,800.00: IDB Lab USD \$87,500.00, Counterpart USD \$122,300.00)** The objective of this component is to promote and support a new food production system by providing access to vital inputs, market connections and support to the farmers. The number of trainers and respective areas of expertise will be determined by curricula developed. This component focuses on mapping and expanding the new farming ecosystem and ensuring its sustainability through the creation of a digital platform so that the farmers can connect with different public and private stakeholders and larger companies. Under this component, the Executing Agency will also work with local civil society, private sector organizations in the main sectors impacted by the economic shock and the impending food crisis including Chambers of Commerce and various educational institutions. The platform will be hosted by the Executing Agency using both traditional and virtual channels, to attract and engage targeted

participants. Outreach efforts will also maintain a focus on engagement of women. In addition, there will be several opportunities to coordinate and leverage with other current IDBG operations in this component, and especially the Credit Enhancement Facility to provide partial loan guarantees to eligible financial institutions (FI) for loans given to the producers to improve access to finance for small local farmers. An assessment of digital literacy among farmers will be conducted to assess interest in, readiness, and access to technology for adoption and utilization of the proposed platform, given the demographic profile and observed rates of literacy among most farmers in the at-risk communities.

- 2.15. The activities to be implemented by the Executing Agency will be: (i) develop the Agritech Digital Data Platform (ADDP), including purchase of digital software & licenses, equipment, consultant; (ii) complete Beta testing; (iii) develop marketing material for ADDP such as newsletter, press release, meeting with policy makers, instructions / guidelines, etc.; (iv) train farmers and buyers on how to use the ADDP; (v) Launch the ADDP; (vi) develop the Ecosystem Data Collection and Monitoring Platform (EDCMP), including purchase of equipment, software and licenses, consultant; (vii) purchase and analyze satellite imagery; (viii) complete Beta testing of EDCMP; (ix) train internal team members on how to use EDCMP; (x) develop Infographics from data collected using EDCMP; (xi) disseminate infographics, provide training and ongoing support for EDCMP to help inform SDGs and NDC reporting.
- 2.16. The expected outputs of this component are: (i) Agritech Digital Data Platform developed and launched; (ii) 10 partners signed up for Agritech Digital Data Platform; (iii) 10 farms trained to use the Agritech Digital Data Platform; (iv) 12 women trained to use the Agritech Digital Data Platform; (v) Ecosystem Data Collection and Monitoring Platform developed and launched; (vi) 8 SDG & NDC Infographics produced and published.

## **B. Project Results, Measurement, Monitoring and Evaluation**

- 2.17 At the outcome level, the project targets 15 farms to be trained and 10 farms that will migrate to the new production model promoted by the project, 240,000 tons of carbon dioxide emissions reduced using solar panels provided for the project (tons of CO<sub>2</sub>), 20 retailers in vulnerable communities that will access locally produced foods through the Agritech Digital Data Platform.
- 2.18 The Executing Agency will track and collate data and produce reports on specific results attained as outlined in the project's results matrix and will report on project results every six months via the IDB Lab's Project Reporting System (PSR). These reports will be used to conduct timely monitoring of the project and to determine if early success indicators (e.g., completion rates) are likely to be met or if corrective action is needed at any point during implementation. The Executing Agency will also complete a final PSR on conclusion of the project.
- 2.19 The Executing Agency will develop an annual Impact Report using data collected during implementation. Sources of data used to generate these reports are established in the results matrix. The project will also be subject to a final evaluation financed by IDB Lab which will be conducted by an independent consultant, on conclusion of the project execution period. The objectives of this

evaluation will be to: (i) assess the efficacy of the new food production model; (ii) assess positive changes on productivity, sales, and incomes; (iii) provide value-added input and plan to strengthen, sustain and scale the model in The Bahamas and in the wider Caribbean region. Any additional sources of data needed to complete the evaluation will be defined ex-ante. Concurrently, knowledge generated from the evaluation will inform ways to systemize the solution for scalability.

### III. Alignment with IDB Group, Scalability, and Risks

#### A. Alignment with IDB

- 3.1. The project is consistent with the Update to the Institutional Strategy 2010-2020 (AB-3008) as it is aligned to the IDBG's recognition that technology is a driver for economic growth, greater productivity, innovation, and new job creation. The project is also aligned with the cross-cutting theme of gender equality and diversity, as at least half of the beneficiaries will be women, and with the IDB Climate change strategy. At the country level, the project is in direct alignment with **IDB Country Strategy for The Bahamas** (2018-2022 1) which prioritizes fostering an enabling environment for private sector competitiveness, specifically to promote innovation and innovative practices in traditional (e.g., tourism) and non-traditional sectors. The project is aligned with the Knowledge Economy thematic focus of IDB Lab, which emphasizes the provision of digital, entrepreneurial, and socioemotional skills.
- 3.2. The IDB's RND and CCS divisions are collaborating with IDB Lab for this initiative in The Bahamas. Whilst these divisions of the Bank will provide support to the Government of the Bahamas on areas related to attracting foreign direct investment in technology intensive sectors and promoting national investments in technology, IDB Lab's intervention will focus on providing support to the executing agency.
- 3.3. The project will build on the work to be done in under the IDB Lab funded project "Accelerate Bahamas" BH-T1071, for SMEs, entrepreneurs, and innovators to obtain access to its support services, and connect them with funders via its fintech platform and the complementary IDB's IFD/CMF division BH-L1046 US\$25M Credit Enhancement Facility to provide partial loan guarantees to eligible financial institutions (FI) for loans given to SMEs which are unable to meet collateral requirements and who are advised and vetted by the SBDC. The project will benefit from BH-L1050, Boosting Resilient and Inclusive Growth in The Bahamas that seeks to improve the business climate and support MSMEs continuity. The project will also explore synergies with the energy loan, Advancing Renewable Energy in The Bahamas BH-L1048 which encompasses some vocational training for this field. In this regard, the project may explore opportunities to design and deliver industry specific digital skills training to support maintenance and management of micro grids. In addition, the project will undertake training delivery and employment posting as envisioned in the IDB loan operation "Skills for Current and Future Jobs in The Bahamas" (BH-L1037) as these loan resources are currently being reformulated to support direct COVID-19 emergency and recovery efforts in The Bahamas. It will also connect to IDB Lab's regional Tech Beach (RG-T2926) project, by providing Caribbean entrepreneurs with greater support and linkages.

- 3.4. The project is also aligned with the following Sustainable Development Goals (SDGs): (i) SDG 5 (Achieve gender equality and empower all women) through enhancing the use of enabling technologies to promote the empowerment of women; (ii) SDG 7 affordable and clean energy and (iii) SDG 8 (Decent work and economic growth) through promoting higher levels of economic productivity through diversification technological upgrading and innovation, and (iv) SDG 13 on climate action.

## **B. Scalability**

- 3.5. To ensure scaling of the program beyond the period of IDB Lab financing, the Executing Agency will engage local business associations and large firms that are in the food production system and adjacent value chains as well as educational institutes from the initial stages and throughout the implementation of the project. As part of this process the Executing Agency and local stakeholders will assess feasibility and develop a business model to support continuity of skills training to relevant industries/sectors. The objective of this engagement will be to identify a business/ industry association (s) that will continue to drive the change toward a sustainable and climate resilient food production system and will sustain and scale up production of locally sourced food products using digital technologies beyond the project timeline in partnership with regional, international, and local training institutes as needed. As the project consolidates it will seek to address the needs not merely of the Bahamas but the entire region, as it will be the only model of this kind in the country. Linkages will be pursued with other regional incubators and innovation centers as well with the network of food industry organizations throughout the Americas. The aim is for the executing agency to provide a model for similar entities in other parts of the country and region.

## **C. Project and Institutional Risks**

- 3.6. The key technical risks and corresponding mitigation strategies identified for the project are as follows:
- 3.7. **Disruption due to extreme weather events:** The Bahamas is vulnerable to hurricanes and such events or severe storms can impact power and access to training in the short term, as well as further depress business operations and job opportunities in the short and medium terms as was the case with Hurricane Dorian, depending on severity. This will be partially mitigated for the direct beneficiaries and the project with the training on climate risk. In addition, warmer weather increases the risk of pests to the agricultural production. This will be mitigated by controlling for pests and close monitoring and rigid management of the production areas.
- 3.8. **Access to training portal due to unreliable power and internet connectivity:** Areas of The Bahamas suffer from intermittent power outages which limit access to the project's virtual training portal. As a mitigation strategy, the EA will secure partnerships with local training centers with more stable connectivity which trainees that reside in areas without a stable power and internet connection can access to participate in online training if needed.

- 3.9. **Uncertainty of the resumption and pivot of business activity post COVID-19:**  
The current pandemic has cast significant uncertainty on how and when businesses will be able to return to profitable operations and what type of new businesses will thrive which could impact the project's targets for employment and entrepreneurship. The key mitigation factor is that digital skills are transversal and can be applied in a broad range of industries and may also support online platform economy opportunities/creative entrepreneurship, and freelancing, independent of conditions in The Bahamas.
- 3.10. The Assessment of Integrity and Institutional Capacity (DICI) conducted for this project rated institutional risk as low.

## IV. Instrument and Budget Proposal

- 4.1 The total project budget is of USD 800,000, of which USD 400,000 (50%) will be provided as a non-reimbursable technical cooperation by IDB Lab, and USD 400,000 (50%) in counterpart financing. The counterpart financing includes in kind resources from the management and staff of the Executing Agency in co-ordination, quality assurance and fiduciary support.

	IDB Lab (USD)	Counterpart cash (USD)	Counterpart in-kind USD)	Total (USD)
<b>Project Components</b>				
Component 1: Capacity building of farmers and knowledge transfer	41,200	30,000	35,000	106,200
Component 2: Establishing a tailored Energy Consumption Reduction Program	125,000	\$6,500	8,500.00	140,000
Component 3: Pioneering ecological data analysis and environmental monitoring system	87,500	22,500	99,800.00	209,800
Project Administration	126,300	141,000	56,700.00	324,000
Final evaluation and audits	20,000	-	-	20,000
<b>Grand Total</b>	<b>400,000</b>	<b>200,000</b>	<b>200,000</b>	<b>800,000</b>
<b>% of Financing</b>	<b>50%</b>	<b>25%</b>	<b>25%</b>	<b>100%</b>

## V. Executing Agency (EA) and Implementation Structure

### A. Executing Agency Description

- 5.1. The project will be executed by Bron Ltd., an entity incorporated in The Bahamas in the year 2018 is a Bahamian innovation hub to enhance ingenuity, sustainability, and opportunity in The Bahamas. BRON is the Caribbean's leading interdisciplinary development consulting firm and BluTerra is focused on making biodegradable products manufactured from aragonite readily available in The Bahamas. BRON Business Center is home to Bahamian-owned companies; BRON, BluTerra, and Eeden Farms. The Eeden Farms vertical farming company, also a part of the innovation hub, offers fresh, organic, locally grown produce and

conducts educational tours to students and civic groups to help foster more interest in sustainable/regenerative farming.

- 5.2. Each business focuses on different aspects of securing a sustainable future for The Bahamas. Recent examples of each company's contribution to developing a sustainable Bahamas include researching the best available climate change mitigation and adaptation strategies and communicating this information in partnership to inform national stakeholders, pioneering ecological data analysis and environmental monitoring, donating fresh produce to communities, hosting over 100 interns in several Science Technology Engineering and Math (STEM) fields, and leading International Women's Day activities.

## **B. Implementation Structure and Mechanism**

- 5.3. The Executing Agency will establish a project coordinating unit under the principal's office and the necessary structure to execute project activities and manage project resources effectively and efficiently. The Executing Agency will also be responsible for providing progress reports on project implementation. The Executing Agency has the experience and the management credentials to execute the project successfully.
- 5.4. To support implementation, the Executing Agency will contract a full-time project manager for the project to manage delivery of training and mentorship in the Bahamas, to support monitoring of results, technical reporting, and fiduciary management. The Executing Agency will be responsible for the organization, roll out and management of key activities as well as local partnership/stakeholder management and program quality assurance. A part time consultant will also be retained to manage communications and marketing campaign at the local level. Additionally, the Executing Agency will provide technical oversight and quality assurance.

## **VI. Compliance with Milestones and Special Fiduciary Arrangements**

- 6.1 **Disbursement by Results, Fiduciary Arrangements.** The Executing Agency will adhere to the standard MIF disbursement by results, IDB procurement policy<sup>6</sup> and financial management<sup>7</sup> arrangements as specified in Annex V and VI.
- 6.2 **Results-based disbursement.** The Project will be monitored by the Country Office of The Bahamas. Monitoring will be undertaken in accordance with the performance and risk management policies (fulfilment of milestones) established by the IDB Lab. Project disbursements will be contingent upon verification of the achievement of milestones (pre-determined outputs critical to achievement of the development objectives). Achievement of milestones does not exempt the Executing Agency from the responsibility of reaching the results matrix indicators and project's objectives.
- 6.3 **Financial Management and Supervision.** The Executing Agency will establish and be responsible for maintaining adequate accounts of its finances, internal

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<sup>6</sup> Link to the Policy: [Procurement of Works and Goods Policy](#)

<sup>7</sup> Link to the document [Operational Guidelines for Management of Milestones and Financial Supervision for MIF and SEP Technical Cooperation Projects](#)

controls, and project files according to the financial management policy of the IDB Lab. For the procurement of other goods and contracting of consulting services, the Executing Agency will adopt the principles of IDB Policies (GN-2349-9 and GN-2350-9), however, the Executing Agency, which is a private entity, will use their own procurement policy for the execution of the project.

## **VII. Information Disclosure and Intellectual Property**

- 7.1 **Information Disclosure.** This document contains confidential information related to one or more of the ten exceptions to Access to Information Policy and will be initially treated as confidential and made available only to Bank employees. This document will be disclosed and made available to the public upon approval.
- 7.2 **Intellectual Property.** The Executing Agency shall own the intellectual property rights to all works produced or results obtained under the Project and will grant the IDB Group an irrevocable, worldwide, perpetual, royalty-free, and non-exclusive license to use, copy, distribute, reproduce, publicly display, and perform all Executing Agency intellectual property derived from execution of the Project, as well as to create derivative works.