

DOCUMENT OF THE INTER-AMERICAN BANK  
MULTILATERAL INVESTMENT FUND

**GUYANA**

**GUYANA'S LEARNING PODS – SUPPORTING SUCCESS IN EDUCATION FOR  
VULNERABLE CHILDREN**

**(GY-T1179)**

**DONORS MEMORANDUM**

This document was prepared by the project team comprised of: Vashtie Dookiesingh (DIS/LAB), Elena Heredero (DIS/LAB), Kaimlall Chattergoon (CCB/CGY), Sabine Rieble-Aubourg (SCL/EDU), Maria Garcia de Paredes (DSP/SEG), Denesh Baboolal (DSP/DVF), Daisy Ramirez (FML/LAB), Patricia Guevara (DIS/LAB)

This document contains confidential information relating to one or more of the ten exceptions of the Access to Information Policy and will be initially treated as confidential and made available only to Bank employees. The document will be disclosed and made available to the public upon approval.

## CONTENTS

I.	THE PROBLEM.....	1
A.	Problem Description.....	1
II.	THE INNOVATION PROPOSAL .....	4
A.	Project Description.....	4
B.	Project Results, Measurement, Monitoring and Evaluation .....	7
III.	ALIGNMENT WITH IDB GROUP, SCALABILITY, AND RISKS .....	7
A.	Alignment with IDB Group .....	7
B.	Scalability .....	9
C.	Project and Institutional Risks .....	9
IV.	INSTRUMENT AND BUDGET PROPOSAL .....	10
V.	EXECUTING AGENCY (EA) AND IMPLEMENTATION STRUCTURE .....	11
A.	Executing Agency(s) Description .....	11
B.	Implementation Structure and Mechanism .....	12
VI.	COMPLIANCE WITH MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS .....	13
VII.	INFORMATION DISCLOSURE AND INTELLECTUAL PROPERTY.....	14

## **PROJECT SUMMARY**

### **GUYANA**

#### **GUYANA'S LEARNING PODS – SUPPORTING SUCCESS IN EDUCATION FOR VULNERABLE CHILDREN**

**(GY-T1179)**

The negative impact of school closures mandated as a response to the COVID 19 pandemic has been well documented. Despite best efforts of public-school systems, many of the most disadvantaged children are being left behind due to lack of access to internet and devices, absence of resources and teaching support at home, and a lack of structure in their learning journeys<sup>1</sup>.

In Guyana, as a response to the impact of school closures on children in poor and vulnerable communities, STEM Guyana Inc has piloted the Learning Pod model with 500 children across 20 locations. These students meet once per week at community spaces where, facilitated by a Learning Pod leader, they access learning plans and assignments delivered via a digital learning platform. Learning is self-paced, and children are supported by a qualified teacher connected via Zoom. This innovative hybrid model is being expanded with support from IDB Lab to offer supplementary learning resources and support to 1,000 children across 40 communities in Guyana, who will safely access Learning Pod centers to access content and technology tools, as well as in person and online live facilitation, three times per week in the core public school curricula for Math, English, and Science. The solution is expected to contribute to improved performance for 100% of participants and to reduce attrition from the school system.

This solution is highly innovative as a model of inclusive education which is designed to improve learning outcomes in the core curricula of Math, English, and Science, and will expose children to use of technology tools. The program over the long term, is expected to supplement educational access to poor and vulnerable school age children as part of Guyana's preparation of young people to adopt the skills needed to contribute to the development of the country. The project is closely aligned with the IDBG's targets for social inclusion in education, as well as with the current focus of the IDB's Education Division on addressing learning gaps and maximizing retention of students in the wake of the COVID 19 pandemic.

The project will be executed by STEM Guyana Inc., a woman-led nonprofit tech organization established in 2016, that partners with public and private sector agencies and uses software tools to help solve national and regional problems through STEM education and skills development. The project has a total cost of US \$2,161,400 of which US \$950,000 (44%) will be provided by the IDB Lab in the form of a non-reimbursable technical cooperation and US \$1,211,400 (56%) in counterpart financing.

---

<sup>1</sup> Inter-Agency Network for Education in Emergencies and the Alliance for Child Protection in Humanitarian Action (2021) No Education, No Protection.

## **ANNEXES**

ANNEX I	Results Matrix
ANNEX II	Budget Summary
ANNEX III	iDelta

## **APPENDICES**

Draft Resolution

## **AVAILABLE IN THE TECHNICAL DOCUMENTS SECTION OF IDB LAB PROJECT INFORMATION SYSTEM**

ANNEX IV	Assessment of Integrity and Institutional Capacity (DICI)
ANNEX V	Reporting Requirements and Compliance with Milestones and Fiduciary Arrangements
ANNEX VI	Procurement and Contracting Plan

## ACRONYMS AND ABBREVIATIONS

<b>CCB</b>	Country Department Caribbean Group
<b>CGY</b>	Country Office Guyana
<b>DICI</b>	Assessment of Integrity and Institutional Capacity
<b>EdTech</b>	Education Technology
<b>EDU</b>	Education Division of the IDB
<b>GTT</b>	Guyana Telephone and Telegraph Company
<b>IDB</b>	Inter-American Development Bank
<b>IDB Lab</b>	Multilateral Investment Fund
<b>IDBG</b>	Inter-American Development Bank Group
<b>LAC</b>	Latin America and the Caribbean
<b>PSR</b>	Project Status Report
<b>STEAM</b>	Science Technology Engineering Arts and Math
<b>STEM</b>	Science Technology Engineering and Math
<b>STEM Guyana</b>	Stem Guyana Inc
<b>UNICEF</b>	United Nations International Children's Emergency Fund

**PROJECT INFORMATION**

**GUYANA**

**GUYANA'S LEARNING PODS – SUPPORTING SUCCESS IN EDUCATION FOR VULNERABLE CHILDREN**

**(GY-T1179)**

<b>Country and Geographic Location:</b>	Guyana		
<b>Executing Agency:</b>	STEM Guyana Inc.		
<b>Focus Area:</b>	Knowledge Economy		
<b>Project Beneficiaries:</b>	The primary beneficiaries of this project are 1,000 children that will participate in the hybrid Ed Tech model. All 1,000 children participating in the project will be selected from poor and vulnerable families and communities across Guyana, and 500 (50% of total beneficiaries), will be girls.		
<b>Financing:</b>	Technical Cooperation:	US\$950,000	44%
	<b>TOTAL IDB Lab FUNDING:</b>	US\$ 950,000	
	Counterpart:	US\$ 1,211,400	56%
	<b>TOTAL PROJECT BUDGET:</b>	US\$ 2,161,400	100%
<b>Execution and Disbursement Period:</b>	30 months of execution and 36 months of disbursement.		
<b>Special Contractual Conditions:</b>	Special conditions precedent to first disbursement will be: (i) appointment of the Project Steering Committee.		
<b>Environmental and Social Impact Review</b>	This operation was screened and classified as required by the IDB's safeguard policy (OP-703) on June 3, 2021. Given the limited impacts and risks, the proposed category for the project is C.		
<b>Unit responsible for disbursements</b>	CCB/CGY		

## I. The Problem

### A. Problem Description

- 1.1 The problem that is being addressed, is the lack of access to an inclusive and effective technology driven education experience, that is affecting learning outcomes amongst school age children from poor and vulnerable communities in Guyana. This situation has been severely exacerbated by the COVID 19 pandemic and associated public health restrictions that have kept schools in many countries, including Guyana, closed for over a full school year. In an age that promises technology driven changes to open opportunities and create greater equity in society, the reality of families living in poor communities that lack both the skills and access to quality education and support for improved learning outcomes, is very different.
- 1.2 In Guyana, as in many LAC countries, the digital divide has impaired learning outcomes, and after over a year of school closures affected families and children may be unable or unwilling to continue formal education. The Ministry of Education in Guyana has acknowledged the challenge of implementing distance and alternative learning for children in vulnerable areas due to limited internet connectivity, limited ICT competencies of teachers; and the inability to provide learning tools to meet the demands of all learners especially the most disadvantaged groups. A recent IDB report highlighted the following challenges of education continuity during school closures in LAC countries including Guyana<sup>2</sup>: (i) unreliable electricity supply, (ii) inadequate national IT infrastructure coverage, (iii) lack of a personal computer in most households, (iv) limited access to internet, (v) no structured online classroom content and (vi) a shortage of teaching staff, particularly in remote areas.
- 1.3 In Guyana, according to a 2015 UNICEF study, about 16% of the projected age-appropriate population are absent from the pre-primary system, with about 10% or more primary school aged children out of the system. The exclusion worsens at the secondary level between ages 12 and 14 with a percentage of between 14% or more not participating in mainstream education<sup>3</sup>. The closure of schools, combined with the lockdown and economic crisis, will have a further negative impact on the current and future development of children, and will widen the gaps that existed before the pandemic. This pandemic hit LAC at a time of crisis in learning and unequal development opportunities for children and adolescents. One of the biggest fallouts from the COVID-19 pandemic is the children who will drop out of the formal school system without completing their education. In Guyana, daily, children are seen in the streets, including some who are working, and there are real concerns that remote learning is not reaching thousands. Children, ages 3 1/2 to 15 years and over, totaling over 208,000 children, who are enrolled in public schools have been affected by school closures.

---

<sup>2</sup> IDB: Education in times of Coronavirus; Latin America and the Caribbean's education systems in the face of COVID-19 (May 2020)

<sup>3</sup> UNICEF Guyana & Suriname Programme Strategy Note Lifelong Learning (2015)

- 1.4 Guyana spans 214,969 km and is roughly 82% of the size of the United Kingdom but with a population of approximately 783,000, with approximately 45% of the population under the age of 25. Approximately 70% of Guyana's population is largely dispersed outside of the capital city in small rural communities along the coastline and in the interior. In terms of poverty, a March 2020 report by the IDB Group based on labor force statistics, estimated that as of 2017, the national poverty rate was estimated at 41.2% (based on a poverty line of US \$5.50 /day), which exceeds the IDB's Latin America and Caribbean regional estimates of 26.54% and 25.23% respectively<sup>4</sup>. Poverty and unemployment rates are typically higher in more remote and rural communities in this vast country.
- 1.5 A Statista 2017 analysis reports 37% internet penetration in Guyana, meaning that more than half of Guyanese school age children, are educationally disadvantaged by the existing online learning model of distributing lessons via the internet<sup>5</sup>. 29.9% of Guyana's population live in urban areas concentrated in and around the capital city, while 70.1% live in rural areas with limited /unreliable and costly internet services.<sup>6</sup> Given the challenge to provide internet services throughout the country, given its size, highly dispersed population and remote location of many small communities, the Ministry of Education has, in the past, relied on interactive radio lessons (IRI) to provide quality math instruction in primary education. However, with the closure of schools, children in these areas have limited access to instruction.
- 1.6 While there are about seven (7) internet service providers in Guyana, the major internet service provider is GTT. GTT's internet packages ranges from US \$33 to US \$100 monthly, which is quite costly for many households, and in the main, is only accessible to middle and high-income households. Additionally, GTT's coverage only spans the coastland region in Guyana, hence residents in the more rural and hinterland regions must use their phones and other internet service providers, which can be unreliable and expensive.
- 1.7 Based on an online survey conducted in Guyana by STEM Guyana Inc (STEM Guyana), 72.2% of households reported that they do not own a tablet or computer, 68.8% use their cellphone for children to access their classes and 64% of children rely on manual worksheets distributed by the Ministry of Education as the primary teaching and assignment tool. When parents were asked how they rate their financial struggle, 52.1% reported struggling, and over 67% of parents reported that they feel ill equipped to assist their children with education.<sup>7</sup>
- 1.8 To address the exclusion of disadvantaged children from poor communities and to provide support for remedial learning and improvement in learning outcomes,

---

<sup>4</sup> Kaieteur News March 24, 2020, <https://www.kaieteurnewsonline.com/2020/03/24/poverty-levels-in-guyana-still-relatively-high-idb-report/>

<sup>5</sup> Statista: Percentage of population using the internet in Guyana from 2010 to 2017:

<sup>6</sup> Datatportal: Digital 2021 Guyana:

<sup>7</sup> STEM Guyana online survey: 2021 Education Online Survey of Guyanese Parents - Pandemic Edition



STEM Guyana has piloted a system of Learning Pods across low-income communities. Using public spaces such as community centers and church halls, STEM Guyana has created spaces serving 500 school age children who visit once per week in small groups of 6, to access lesson plans in mathematics and applied assignments to test learning outcomes, via an online platform, using devices available at the Learning Pods. Children are led by Learning Pod facilitators and supported by a teacher connected to the Learning Pod via Zoom to answer questions and provide support. **The project will seek to strengthen and expand this model as an avenue to provide more equitable access to education, to support remedial and advanced learning for participants, and to measure and showcase the impact of the model, as a basis for mainstreaming as a supplemental learning resource across Guyana.**

- 1.9 **Beneficiaries:** The primary beneficiaries of the project are 1,000 children in the 7-15 age bracket, that will access the Learning Pods in their communities and benefit from online as well as in person learning, initially in small groups to comply with COVID 19 protocols. These children will be enrolled from communities across Guyana and will benefit from expanded online content based on the public-school core curricula in Math, English, and Science, attending the Learning Pods for 3 days per week in 40 locations. All 1,000 beneficiaries in the expanded pilot will be drawn from poor and vulnerable families and communities across Guyana, and 50% will be girls to maintain gender balance and equity. STEM Guyana has a partnership with Guyana's Department of Youth, whose community-based officers assist to identify and refer children to the program, drawing on data on the demographics and vulnerability of households within local communities. The participants are predominantly children from single parent and low-income households. Of the current 500 participants in STEM Guyana's pilot program, 60% are female and 40% are male, and are aged 7-14 years of age enrolled in grades 1-10 across public schools in all 10 regions of Guyana. Currently 90% of the Learning Pod locations and participants are in low-income and rural communities.
- 1.10 The following profiles and testimonies of two children enrolled in STEM Guyana's pilot, provide an insight into the stories of children that will benefit from the project. The first profile is of Odessa, an eleven-year-old girl living in New Amsterdam, a town about two hours from the capital. She had been out of school for a year and could not participate in online classes as she doesn't have internet access or devices at home. She gets printed worksheets from her local school, but without assistance for explaining the concepts, she was unable to complete them. Odessa was becoming deeply discouraged and demotivated, but fortunately, a community leader directed her to a Learning Pod at the local Youth Center run by STEM Guyana. Odessa is now attending school in a virtual setting and interacts with the instructor. What she really enjoys is that the teacher takes his time while going through the lessons, and he creates practice exercises for them while following all COVID-19 guidelines to keep the children safe. Being able to interact in a small, safe classroom setting, is one of the best things that Odessa says has happened for her during this pandemic. The second testimony is from Roldan, a secondary student from Sand Creek, a village in an indigenous community in the country's Rupununi region, with a population of under 900. The nearest town is Lethem, close to the border with Brazil, which is about 14 hours by road and ferry from the capital city of Georgetown. His mother, who is raising him alone, encouraged him to join the Learning Pod at his local community center. She is very happy because

even though the local school is closed, her son can continue his studies. Having this program has helped him to decide to stay in school while many of his friends have dropped out. STEM Guyana offers the opportunity to use his time and energy more effectively and stay on course with his studies.

## **II. The Innovation Proposal**

### **A. Project Description**

- 2.1 The project will expand a pilot initiated by STEM Guyana that provides opportunities for hybrid learning in mathematics to children from poor and vulnerable communities in Guyana. The objective of the project is to improve engagement and learning outcomes for students from vulnerable communities in grades 1 - 10 in Guyana, by delivering a hybrid ed-tech model that supplements public education and is based on the core curricula used in public schools. IDB Lab will partner with STEM Guyana to strengthen and expand the Learning Pod model, as an avenue to provide more equitable access to education, to support remedial and advanced learning for participants, and to measure and showcase the impact of the model, as a basis for mainstreaming as a supplemental learning resource across Guyana.
  
- 2.2 The solution will extend and roll out a national system of Learning Pods that provide children aged 7-15 with access to a hybrid Ed-Tech model that supports remedial and supplementary education and improves learning outcomes. This solution combines in person coaching and education for 3 core components of the public-school curricula in Math, English, and Science. Self-paced lesson plans are accessed via a technology platform and SCRATCH and other age-appropriate technology tools are used to assess children's application of key concepts. Students are supported by an in-person Learning Pod team and a qualified teacher connected via Zoom. The Learning Pods are housed in community spaces and are equipped with internet access and devices, key resources that are not available to many Guyanese children in poor rural communities. Children are highly motivated as they obtain reward points for attendance and for completion of lesson plans, which can be redeemed for school supplies in STEM Guyana's online store, with items ordered delivered to Learning Pod sites monthly. Attendance at each Learning Pod, as well as student progress are monitored by the platform administrator, and data is used to trigger an enquiry if participation or progress is lower than expected. COVID 19 protocols are enforced with provision of face shields and masks, small group sizes and on-site cleaners that sanitize between each group. The curricula, attendance and student progress and evaluation are managed by a centralized learning platform, developed, and administered by STEM Guyana.
  
- 2.3 This solution is highly innovative as a model of inclusive education which is designed to improve learning outcomes in the core curricula of Math, English, and Science, and will expose children to use of technology tools. The program over the long term, is expected to supplement educational access to poor and vulnerable school age children as part of Guyana's preparation of young people to adopt the skills needed to contribute to the development of the country. The Learning Pod

model centers on 6 interconnected pillars: (i) Curricula development to convert educational content in Math, English and Science to engaging lesson plans and technology based assignments, focused on assessing student achievement of key learning objectives; (ii) Local Learning Pod leaders provide in person facilitation and quality assurance, and are supported by qualified teachers connected via Zoom to assist children at each Learning Pod location; (iii) Implementation of COVID-19 protocols to keep children and facilitators safe in terms of Learning Pod size (6 children), use of sanitizers, face coverings and rigorous cleaning of spaces and devices; (iv) Access to devices and stable high speed internet at local, easily accessible Learning Pod locations within communities, bridges the digital divide faced by many children from poor and vulnerable families; (v) Encouragement and engagement of children in the Learning Pod experience via the provision of light refreshments and reward points for attendance and progress that can be redeemed for school items; and (vi) a digital platform connecting all students and Learning Pod locations that collates data on attendance, progress and learning outcomes, which is monitored centrally and can prompt local intervention for children that may need additional support, or that should be encouraged to accelerate and advance. While each element of the solution taken individually might not be particularly innovative, it is the combination and connection of these 6 elements that creates a truly innovative, inclusive, and effective educational model which can be scaled across Guyana and in other countries.

- 2.4 EdTech solutions<sup>8</sup> such as this hybrid model can play an important role in solving learning gaps and high dropout rates, and both IDB Lab and the EDU Division of IDB, are working closely to identify, promote and scale them. The project will expand, strengthen, and support scaling of the initial Learning Pods model piloted by STEM Guyana, via the implementation of 3 key components as follows:
- 2.5 **Component I: Upgrade of Platform and Content (Total: US\$127,000, IDB Lab: US\$127,000):** The objective of this component is to upgrade educational content as well as the functionality and security of the platform through which students access lesson plans and assessment exercises. Specifically additional lesson plans will be developed for full coverage of English, Math and Science curricula and corresponding learning outcomes for students aged 7-15 in Guyana's public school system. The platform functionality will be built out to facilitate regular automated analysis of attendance and completion rates, key red flag factors that may indicate issues in student performance, management of volunteers, and inventories of supplies and equipment. The platform will be assessed and upgraded as needed to ensure security, privacy, ethical management of data as well as corresponding policies and data management practices, are in line with required digital solution standards adopted by IDB Lab/IDB. Recognizing the importance of functional literacy for engagement in any online learning system, a remedial reading program will be designed and introduced as part of the Learning Pod experience, including establishment of a small lending library at Learning Pod locations to encourage recreational reading. To further engage students, several Learning Pod challenges in coding and other STEM activities will be designed, and health and safety protocols and systems, including responses to adverse

---

<sup>8</sup> Education Technology, an area of technology dedicated to developing tools and applications to promote education.

weather, fire and other events will be developed and deployed at every Learning Pod alongside COVID 19 sanitization and safety protocols.

- 2.6 The outputs of this component will include: (i) the upgrading of learning content and platform, (ii) the launch of a remedial reading program, (iii) conduct of surveys and analysis to assess student performance
- 2.7 **Component II: Expansion of Pilot (Total: US\$1,645,400, IDB Lab: US\$614,000, Counterpart: In Kind:US\$636,400, Cash:US\$395,000).** The objective of Component II is to expand the Learning Pod model via: (i) increasing the number of communities served, by securing and outfitting at least 20 additional spaces in poor and vulnerable communities across Guyana, including but not limited to, implementing Wi-Fi access, upgrading and provision of laptops and other equipment needed to run the sessions, recruitment and training / orientation of additional teachers, Learning Pod leaders and cleaners; (ii) working with local partners to identify and enroll students in the Learning Pods, increasing the number of children aged 7-15 participating in the program to 1,000, of which 50% of placements are expected to be girls, (iii) increasing the contact hours from a single two hour visit per week to between 3-4 sessions per week, and (iv) delivery of the expanded Learning Pod program over a 20 month period, conduct of periodic surveys and assessment of student performance. Additionally, recognizing the importance of engagement and empowerment of parents in supporting their children's educational journey, a Parents Academy program will be developed and rolled out to introduce parents to digital tools used by the Learning Pods, and equip them with tools and resources to actively assist and encourage children's learning at home.
- 2.8 The outputs of this component will include: (i) the establishment of an additional 20 Learning Pod locations, (ii) implementation of extended hours for student access, (iii) enrollment of 1,000 children at 40 Learning Pod locations of which 50% will be girls and (iv) the engagement of 500 parents of participating children in the Parents Academy
- 2.9 **Component III: Scaling and Sustainability (Total: US\$119,000, IDB Lab: US\$65,000, Counterpart: In Kind: US\$ 54,000).** The objective of this component is to conduct an independent assessment of the Learning Pod model and engage key stakeholders such as the Ministry of Education and corporate donors in developing and implementing a scaling plan to mainstream Learning Pods as an inclusive, easily accessible system to support supplemental and remedial learning for children across Guyana. The key activities include: (i) design and conduct of an independent assessment measuring factors such as learning outcomes, skills development, students remaining in school, academic performance in school, attendance, student self-esteem and confidence; and (ii) the development and implementation of a financial and business model, as well as a fund-raising platform and marketing strategy to finance continued access to Learning Pods for vulnerable students. In this component, a revenue model will be created to determine the feasibility of direct costs being partially offset via a payment from parents or sponsored scholarships.
- 2.10 The outputs of this component will include: (i) conduct of an independent assessment of the Learning Pod model, (ii) development of a plan for scaling and

financial sustainability of the Learning Pod model and (iii) launch of a platform solution to receive donations to support delivery of the Learning Pod model

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

- 2.11 The targeted project outcomes include: (i) 100% of participating students demonstrate improved performance, (ii) at least 75% of participating students remain in the school system, and (iii) the Learning Pod model is launched as a supplementary learning resource as part of public education delivery. Over the course of implementation, the number of Learning Pod locations will be increased by 100% (from 20 to 40), accommodating a 100% increase in students, with 1,000 children participating in the system of which 500 will be girls, and contact hours increasing 200% from 2 to 6 hours per week. Key outputs include: (i) upgrade of the Ed Tech platform to improve functionality and security, (ii) upgrade and expansion of learning content in Math, English, and Science, (iii) introduction of a remedial reading program, (iv) conduct of an independent assessment of the model's impact, and (v) development of a plan for further scaling of the Learning Pod model.
- 2.12 The project contributes to the IDBG Corporate Results as follows: (i) 1000 students benefitting from an education project, (ii) social inclusion and equality, specifically improving access to education and (iii) addressing gender gaps, as the project will contribute to reducing drop-out rates and improving learning achievements of both male and female participants, and targets gender balance in enrollment of students. In addition, the project contributes to fulfillment of IDBG and IDB Lab commitments of support to small and vulnerable countries in the region.
- 2.13 In accordance with IDB Lab requirements, the Executing Agency will report on project results as outlined in the project results matrix every six months via the IDB Lab's Project Status Reporting (PSR) system and will also complete a final Project Status Report on conclusion of the project. In addition, under Component III, IDB Lab financing will be used to fund an independent assessment of the project outcomes and impact on learning and participant performance.

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

### **A. Alignment with IDB Group**

- 3.1 As an intervention to address learning gaps and lack of inclusion in the transition to online education that became necessary as a COVID 19 public health management response, the project is aligned with the **Bank's Vision 2025** Reinvesting in the Americas: A Decade of Opportunities, where the IDB emphasizes that the COVID-19 crisis offers new opportunities that must be taken advantage of and given special relevance in new growth strategies that favor inclusion.
- 3.2 The project utilizes technology as a key element to deliver hybrid supplemental education and improve learning outcomes and is therefore also aligned with the

IDBG **Second Update of the Institutional Strategy** as it contributes to the priority area of leveraging technology and innovation to address the challenge of social inclusion and equality. The project is also aligned with the cross-cutting theme of gender equality and diversity, as at least half of the beneficiaries participating in the Learning Pods will be girls from vulnerable communities.

- 3.3 **The IDB Group Country Strategy with the Co-operative Republic of Guyana (2017-2021)** supports reducing constraints to achieving inclusive growth as the country undergoes a historic transformation as a global supplier of fossil fuel. A key development challenge identified in the Country Strategy is the country's education system (pre COVID 19 pandemic), due to disparities in enrolment, attendance, and attainment between the coast and the interior of Guyana, and its regional peers. Guyana struggles with low pass rates, quality issues and a lack of qualified teachers. The IDB's Education Division (EDU) is seeking to address some of these issues in Guyana via a regional technical cooperation for STEAM and Computer Science (RG-T3278: CODE Caribbean) and is also beginning implementation of a new TC (GY-T1175 or ATN/OC-18455) "Support for Indigenous Education during COVID19". Additional support for the education of vulnerable populations is being provided through the loan operation "Support to Safety Nets for Vulnerable Populations Affected by Coronavirus in Guyana" (GY-L1077). Through the education component of this loan operation (Component 2), support is being provided to the Ministry of Education in developing more radio and TV lessons for students in the hinterland regions, to ensure educational continuity for students from pre-school through Grade 11. By delivering a hybrid model that leverages technology to provide equitable and inclusive access to standardized educational resources for vulnerable and poor communities, the IDB Lab project complements initiatives of EDU to prevent further school attrition during the pandemic and addresses a key development challenge identified in the current Country Strategy.
- 3.4 Additionally, the project's objectives and outcomes are aligned with the educational pillar of the CCB's Build Forward initiative Build Forward is a delivery-oriented initiative aimed at helping Caribbean countries define sustainable development pathways for their transformation in a smart and resilient manner. It is a sub-regional strategy to guide programming for Caribbean member countries of the IDBG, which emphasizes the application of innovative and green solutions to help these countries build resilience and recover from disasters, including the COVID 19 pandemic.
- 3.5 The project is aligned with **IDB Lab's Knowledge Economy** focus area by promoting and developing EdTech entrepreneurs, solutions, and ecosystems in the region to help solve some of the key challenges that were exacerbated with the pandemic, such as learning losses and high dropout rates, in collaboration with the IDB's EDU Division<sup>9</sup>. This project, by reaching last-mile school children,

---

<sup>9</sup> In 2021, the IDB Lab has approved the first project in Brazil to develop the EdTech ecosystem together with EDU and is in the process of presenting for approval two additional projects with EdTech solutions in Venezuela (VE-T1087) and Suriname (SU-T1148). Also, in partnership with HolonIQ, IDB Lab and EDU will launch two studies around EdTech, one about the Education Technology in LAC and one looking more in-depth into the Higher Education and Workforce Development sectors.

the poorest and most vulnerable, brings tremendous additionality and value added to the IDB Lab portfolio.

## **B. Scalability**

- 3.6 The scaling of the Learning Pods model across more communities in Guyana and in other countries, can drive powerful change by delivering remedial and supplemental learning resources and tools to children that are disadvantaged and excluded from leveraging technology to advance in their development. As Guyana emerges from the closure of schools over the past year and a half, children will need support in reintegration into the education system. The project has great potential to assist students as well as educators, by providing supplemental support, self-paced learning, and application of key elements of the core curricula in Math, English, and Science. In this regard, the project activities include continuous assessment of student performance, periodic surveys and an independent assessment which can be used to make a strong case for private sector sponsorship for scaling, as well as the mainstreaming of the program by Guyana's Ministry of Education. In this regard Component III of the project provides resources to make a comprehensive case, as well as a business model and financing strategy for scaling. As the program expands and reaches its objective as an engaging channel for supplementing and supporting learning outcomes in school age children across Guyana, the beneficiary pool could expand exponentially to reach over 200,000 children in the targeted age group. It is worth noting that there is no marginal cost of adding students to the platform if they are accessing it at school utilizing school Wi Fi and devices as an extracurricular activity.
- 3.7 To achieve scaling of the Learning Pod model, it will be important to build a coalition of support. Key stakeholders that will be engaged by STEM Guyana in this process, include technical officers and leadership at the Ministry of Education, local officers of the Department of Youth that are actively supporting the program via the identification of locations that can be utilized and the selection of children from communities to participate in the program, corporate entities in the oil and gas and other sectors in Guyana, many of which have supported STEM Guyana over the years, parents and also students who have benefited from the program, as well as principals and teachers of participants. To secure support, STEM Guyana will convene quarterly forums to showcase the project and importantly the impact on disadvantaged children, and will engage a Project Steering Committee comprised of key influencers and advocates for progress in education drawn from public and private agencies, to support STEM Guyana in championing project scaling. Additionally, with support from IDB Lab and IDB, particularly CGY, STEM Guyana can leverage further local, regional, and international connections to support its scaling efforts.

## **C Project and Institutional Risks**

- 3.8 The project risk level is assessed as Medium. Key risks that have been analyzed and which contribute to this assessment include the following: **(i) COVID 19 Health**

**Risk:** If there is a massive COVID outbreak in Guyana, that places children at risk, Guyana's COVID Task force may mandate closure of the Learning Pod sites which will have a significant negative impact on the achievement of project objectives. There is little that can be done by STEM Guyana to mitigate this risk, barring implementation of COVID 19 protocols at Learning Pod sites, contracting vaccinated team members (to reduce risk of transmission), and monitoring COVID 19 trends. Ultimately, this risk will have to be accepted and monitored; (ii) **Financial Risk:** If STEM Guyana is unable to secure funding and partnerships (such as the Ministry of Education), the organization will not be able scale up or even sustain the Learning Pods model beyond the period of IDB Lab financing. To mitigate this risk, resources have been allocated under Component III in the project budget to support independent assessment of the program as a key tool in engagement of partners, as well as for development of a business and financial model and marketing/outreach to strategic stakeholders, to secure required financial and institutional partners required for sustainability and scaling. STEM Guyana will create a strong network with key partners, such as specialists and management at the IDBG, other international agencies, donors and private companies operating in Guyana to build a coalition of support for scaling. Additionally global and local recognition of remedial and supplemental education as a key development challenge post COVID 19 that can be supported by the Learning Pod model will provide significant mitigation for this risk; (iii) **Environmental/Climate Risks:** During 2021, Guyana experienced severe flooding in areas not usually affected by heavy rainfall and watercourse overflow. If this trend repeats, it is possible that some Learning Pod locations may be affected, causing disruption and potential loss of property, which may result in project targets not being realized. To mitigate this risk, project resources are budgeted under Component I to better protect locations and Learning Pod equipment against damage due to extreme weather. STEM Guyana can also pursue transfer of this risk by insuring equipment; (iv) **Data Management Risk:** Any breach that undermines the learning platform, compromises data security and privacy can have serious implication for the credibility of the Learning Pod model, which may affect achievement of project objectives. To mitigate this risk, financing has been budgeted under Component I for upgrade of the system that will include strengthening of security and privacy, as well as resilience (through backups and other protocols for system and data restoration).

- 3.9 The Institutional Risk, according to the Assessment of Integrity and Institutional Capacity (DICI), is rated as Medium. In this regard budget resources have been allocated to support the Executing Agency's compliance with fiduciary as well as administrative and project management and reporting standards, required by IDB Lab.

#### IV. Instrument and Budget Proposal

- 4.1 The project has a total cost of US \$2,161,400 of which US \$950,000 (44%) will be provided by the IDB Lab, and US \$1,211,400 (56%) by the counterpart. Counterpart financing will include in-kind resources from the technical staff of the Executing Agency and project partners, as well as administrative and management support from the Executing Agency. Partner agencies, such as the Department of Youth, corporate donors, and ongoing fundraising with Guyana's



diaspora population in North America, will provide counterpart cash and some in kind resources for project financing.

- 4.2 The instrument to be used is a non-reimbursable technical cooperation given that this program is being implemented as a nonprofit Executing Agency and is expected to supplement educational access to poor and vulnerable school age children in Guyana, whose families are unlikely / unable to contribute to project costs, given national poverty rates, and the COVID 19 pandemic's economic and social impacts on further erosion of livelihoods, that have disproportionately affected poor populations across the region.
- 4.3 The project budget summary is presented in the following table:

	<b>IDB Lab</b>	<b>Counterpart Cash and In- Kind</b>	<b>Total</b>
<b>Project Components</b>			
<b>Component 1: Upgrading of Platform and Content</b>	\$127,000	0	\$127,000
<b>Component 2: Expansion of Pilot</b>	\$614,000	\$1,031,400	\$1,645,400
<b>Component 3: Scaling and Sustainability</b>	\$65,000	\$54,000	\$119,000
<b>Project Administration</b>	\$128,000	\$126,000	\$254,000
<b>Contingencies</b>	\$16,000	0	\$16,000
<b>Grand Total</b>	\$950,000	\$1,211,400	\$2,161,400
<b>% Of Financing</b>	44%	56%	100%

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

### **A. Executing Agency(s) Description**

- 5.1 STEM Guyana Inc was established in Guyana in 2016, and is an organized nonprofit tech organization, that partners with public and private sector agencies and uses software tools to help solve national and regional problems. The organization was founded to create programs which encourage students to improve their communication, collaboration, problem solving and critical thinking skills, while encouraging them to consider STEM (Science, Technology, Engineering, and Math) career paths that will ultimately strengthen the country's human resources, protect ecological resources, and mitigate health and security risks including biosecurity and global pandemics. Pre pandemic, and in partnership with both private corporations and public agencies, STEM Guyana has organized and managed more than 75 STEM clubs serving 700-1,000 children across Guyana. Additionally, STEM Guyana introduced the 1st Guyana produced STEM TV show for Guyanese and Caribbean children and has completed the development of 3 mobile application solutions to help solve problems in the education sector. STEM Guyana offers a combination of paid programs targeting middle- and higher-income groups, and free programs for children from low income and vulnerable communities across Guyana.

- 5.2 STEM Guyana's mission is to teach, especially Guyanese children from vulnerable homes, about robotics and STEM education. In addition, the STEM Guyana Inc. organization has influenced many independent programs in the STEM education space and is recognized in every region of Guyana as an organization committed to quality, inclusion, technology, and innovation. The organization also coordinates with international robotics organizations to facilitate national and international robotics competitions involving Guyanese students. In this regard STEM Guyana Inc. has agreements with the International Youth Robotics Organization, World Robotics Organization and First Global organizations.
- 5.3 With the onset of the COVID 19 pandemic, STEM Guyana refocused its efforts and piloted the Learning Pods model in vulnerable and rural communities in Guyana as a supplement to the country's transition to online learning. Building on the existing footprint of STEM clubs and its partnership with the Department of Youth, STEM Guyana piloted the Learning Pods with 500 children attending sessions at 20 locations across Guyana. The partnership with IDB Lab will support the strengthening and expansion of the pilot and help build a case for mainstreaming the Learning Pods as a supplementary channel to help poor and vulnerable children achieve academic success and prepare them to contribute to Guyana's future development.
- 5.4 The Department of Youth is a division of Guyana's Ministry of Culture, Youth and Sport. The Department of Youth is resourced by officers attached to the central ministry, as well as local community officers across Guyana. In executing the Ministry's mandate to develop and showcase Guyana's youth, and to forge and strengthen partnerships that can contribute to greater equity, wellbeing and livelihoods, the Department of Youth has partnered with STEM Guyana in the roll out of the organization's STEM Clubs in communities across Guyana by securing suitable community locations, and supporting STEM Guyana in outreach, identification and enrollment of children and young people in the program. Additionally, the Department of Youth has assisted STEM Guyana in identification of candidates that can be trained and contracted to lead and facilitate the local STEM Clubs. As STEM Guyana started to build out the initial Learning Pod pilot as an urgent response to school closures in Guyana, the Department of Youth maintained and further strengthened support in securing locations and in the identification and enrollment of disadvantaged children living in communities where Learning Pods were operating. As the program is expanded with IDB Lab support, the Department of Youth will continue in its partnership with STEM Guyana to deliver and scale the Learning Pod model.

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

- 5.5 STEM Guyana Inc will establish an executing unit and the necessary structure to execute project activities and manage project resources effectively and efficiently. STEM Guyana will also be responsible for providing progress reports on project implementation. STEM Guyana's founder will provide technical direction and management of the program, and a program coordinator supported by an operations manager and assistant will oversee activities on a day-to-day basis. Fiduciary support will be provided by STEM Guyana's team, and the organization's

Board of Directors will provide governance, oversight, and advisory support for project implementation. Details on the structure of the execution unit and reporting requirements are in Annex V in the project technical files.

- 5.6 To support governance of the project, the Board of Directors of STEM Guyana will provide oversight via a quarterly meeting to review project implementation, results, use of resources and risks. In addition, a Project Steering Committee will be convened to include at least one representative from the Ministry of Education, as well as senior teachers, and a representative of the Department of Youth and financial donors to the project. The Steering Committee will focus on monitoring of results and challenges arising, will engage in participative decision making on project implementation, risk management and will assist STEM Guyana to secure support required to facilitate achievement of project objectives. The project technical director (STEM Guyana's founder) will chair the Project Steering Committee. To secure a coalition of support from key stakeholders and engage experts in the roll out, performance and particularly scaling of the Learning Pod model, STEM Guyana will engage a broad range of influencers and progressive thinkers active in the education arena, via quarterly forums to showcase the model, provide a channel for advice and feedback and importantly secure active support and participation in development of the project scaling strategy.

## VI. Compliance with Milestones and Special Fiduciary Arrangements

- 6.1 **Disbursement by Results, Fiduciary Arrangements:** The Executing Agency will adhere to the standard IDB Lab disbursement by results methodology, IDB procurement policy<sup>10</sup> and financial management<sup>11</sup> arrangements as specified in Annex V and VI
- 6.2 **Results Based Disbursement:** The project will be monitored by the IDB's Country Office in Guyana. Monitoring will be undertaken in accordance with the performance and risk management policies (fulfilment of milestones), as 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 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-2349-15 and GN-2350-15)

---

<sup>10</sup> Link to the Policy: [Procurement of Works and Goods Policy](#)

<sup>11</sup> Link to the document [Operational Guidelines for Management of Milestones and Financial Supervision for IDB Lab and SEP Technical Cooperation Projects](#)

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

- 7.1 **Information Disclosure.** 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