

TC Document

I. Basic Information for TC

▪ Country/Region:	BARBADOS
▪ TC Name:	Skills for the Future (ii) : Digital transformation for inclusive and quality education
▪ TC Number:	BA-T1067
▪ Team Leader/Members:	Rieble-Aubourg, Sabine (SCL/EDU) Team Leader; Almeida Oleas, Natalia (LEG/SGO); Blasco, Ivana (SCL/EDU); Boyce, Natasha (CCB/CBA); Holguin Madrinan, Alejandra (SCL/SCL); Scannone Chavez, Rodolfo Andres (SCL/EDU); Viteri, Adriana (SCL/EDU)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	.
▪ Date of TC Abstract authorization:	18 Aug 2020.
▪ Beneficiary:	Ministry of Education, Technological and Vocational Training (METVT)
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC Strategic Development Program for Social Development(SOC)
▪ IDB Funding Requested:	US\$150,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	December 1, 2020
▪ Types of consultants:	Individual consultants
▪ Prepared by Unit:	SCL/EDU-Education
▪ Unit of Disbursement Responsibility:	CCB/CBA-Country Office Barbados
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Environmental sustainability; Productivity and innovation; Social inclusion and equality

II. Objectives and Justification of the TC

2.1 Education continues to be a priority sector in Barbados, particularly now, as the country experiences a difficult economic situation (IMF agreement¹) and the consequences of the COVID-19 pandemic. The estimated contraction in GDP from COVID-19 for the fiscal year is 7.6 percent, with an unemployment rate of 40 percent and a significant decline in tourism revenue². A knowledge economy is one of the key pillars of the growth strategy or BERT program (Barbados Economic Recovery and Transformation), that began in 2018. The country aims to become a regional reference of innovation/ knowledge and needs to prepare better its young persons and the

¹ IMF Country Report No. 20/192. June (2020). Barbados: Third Review Under the Extended Arrangement, Requests for Augmentation of Access, and Modification of Performance Criteria. <https://www.imf.org/en/Publications/CR/Issues/2020/06/08/Barbados-Third-Review-Under-the-Extended-Arrangement-Requests-for-Augmentation-of-Access-and-49491>

² The tourism sector's closure impacted other industries such as agriculture, transportation, real estate, and retail. Tourism Minister: We cannot wish COVID-19 away. (2020). Retrieved July 31, 2020, from <http://www.loopnewsb>

general population for the fourth industrial revolution. Universal access to education at the primary and secondary education levels has long been achieved, gender parity in terms of access has also been achieved. However, regarding the quality of education, girls tend to outperform boys in English. Moreover, 23 percent of students do not take the Caribbean Secondary Education Exam (CSEC) examination upon leaving secondary school, limiting this group's opportunity for continued training and employment.

- 2.2 The COVID-19 pandemic brought the existing inequalities and problems of the education system into the open. Connectivity, availability of devices for students, the absence of quality digital content, and the limited capacity of teachers to effectively teach remotely using the available technologies showed that more work is needed to prepare the education system for the reopening of schools which will bring more blended learning, that is, using both presential and online learning in the immediate future.
- 2.3 As indicated above, education has long been a priority for the Government of Barbados (GOB). Before the pandemic, it had formed a transformation taskforce for education intending to reform the system. The focal areas of the task force included: providing updated technology to schools to create 'smart schools'³, and also ensuring that the existing and future school infrastructure can withstand the effects of climate change which the region is already experiencing; creating a more inclusive education system by developing and teaching a differentiated curriculum that caters to children of all abilities, and most important teacher training reform. The government has a modernization of the public sector initiative that focuses on the digitalization of administrative records and the hosting of e-platforms for documents' housing. However, a more comprehensive digital strategy is needed to address the challenges experienced during the pandemic.
- 2.4 **Need for sustainable, resilient, and SMART school infrastructure – moving the digital agenda forward in education.** A recent school audit conducted by METVT showed that many secondary and primary schools require repair or replacement due to structural issues, insufficient maintenance, and outdated technology. Additionally, not all schools are accessible to persons/ children with disabilities. A preliminary audit of the country's secondary schools (Hazzard; IDB 2019) showed that 28% of roofs were leaking and urgently needed for repairs. Therefore, an audit of the country's 68 public primary schools, nine nursery schools, and three special schools is required to develop a comprehensive repair/ maintenance plan, including connectivity and energy efficiency. This audit will be considered to add information by Incorporating an infrastructure module and an equipment module into the EMIS. It is further required to consider implementing measures to make the buildings more sustainable and resilient as climate change is affecting the Caribbean region significantly.

³ A smart school is a kind of school where advanced equipment and technology are used to take the educational process forward. This school explores educational opportunities that embrace the challenges technology brings into the classroom.

- 2.5 Although access to education is almost universal in Barbados; there is tremendous scope for improving education quality. About 23 percent of students do not take for the Caribbean Secondary Education Exam (CSEC). Approximately 12 of the 21 public secondary schools cater to students that are non-CXC bound and many struggles with basic literacy and numeracy skills. Of the students who did take the CSEC in 2015, 31% failed Math, and 29 failed English. Cognizant of the challenge, the METVT has designed and implemented a Bridge program⁴ at the Samuel Jackson Prescod Institute of Technology (SJPI). Still, more measures are needed early on to ensure that students do not fall behind.
- 2.6 **The objective of the TC is** to support the Ministry of Education in its transformation efforts towards a more digital, resilient, inclusive, and quality education system. This general objective will be pursued through the following specific objectives: (i) strengthening primary schools' digital infrastructure, resiliency and technology preparedness for climate change by (a) conducting an infrastructure audit to assess resiliency to climate change and technology preparedness, and (b) develop an action plan towards the creation of SMART and resilient schools in Barbados that includes upgrading existing technology; and (ii) strengthening pedagogical quality in primary, secondary and tertiary education by (a) developing a plan to reform teacher training and professional development in technology; (b) defining teacher certification; and (c) developing a training plan for ICT coordinators.
- 2.7 The TC is consistent with the Second Update of the Institutional Strategy (AB-3190-2) and is aligned with the development challenge of (i) Social Inclusion and Equality, as its specific area of intervention is alignment with developing human capital and enhancing its allocation efficiency (CRF, 2020-2023, p.10); and (ii) Productivity and Innovation, by providing benefits from digital, resilient, inclusive and quality concepts in the schools. The results from this TC will generate evidence in several ways: the audit of technology infrastructure can help define priorities in the schools. Moreover, teacher training can develop new pedagogical skills and competencies in technology and blended education practices and help identify new ways for capacity building using distance learning methods. Finally, social inclusion can also elevate quality and help reduce the gaps in educational outcomes, and diversity can be a source of creativity and innovation. According to GN-2819-1, the proposed TC is aligned with the objectives of the SOC, particularly regarding infrastructure (see paragraphs 3.1 and 3.2). Improved school infrastructure will be a key input for improving schooling quality (as outlined in GN-2588-4, particularly paragraphs 54 and 55). According to GN-2991-1 (2.20), The TC is aligned with the following priorities: a) improve the supply of social services and b) strengthen institutions. The CS has a third priority: foster the dynamic sectors of the economy. However, the TC is mostly aligned with points a and b of the CS. The TC is also aligned with the cross-cutting theme of Climate Change and Environmental Sustainability, by supporting schools on resiliency to climate change.

III. Description of activities/components and budget

- 3.1 **Component 1: Digital infrastructure resiliency and technology preparedness for crisis response and climate change (US\$ 80,000).** The objective of this component is to conduct an audit of the school's physical and digital infrastructure at the primary

⁴ The Bridge program was implemented under the Skills for the Future program (BA-L1016). Its targeted students at the post-secondary level allow them to enroll at the SJPI; however, according to METVT information, many students start experiencing problems with the basic skills in primary education.

level to develop a clear action plan for intervention and develop a technology package that can be provided to all schools. To this end, TC resources will be used to: (a) conduct an audit of primary schools to help develop a priority list of intervention for schools' infrastructure; and (b) develop an action plan towards the creation of SMART and resilient schools in Barbados that includes upgrading of existing technology, including e-learning and e-books and supporting the implementation of the computer science curriculum. The information collected on the school infrastructure will be entered in the Education Management Information System (EMIS). In that sense, this component also incorporates an action plan to improve/ expand the information contained in 2019 implemented EMIS. To date, the EMIS includes information on students and teachers but not on parents and grades. The resulting information/data can then be used by METVT to better plan and manage the sector. For example, available information could be used for the application of predictive models to intervene early to minimize the risk that students fall behind. The action plan will be considered to add information by updating of parent's module and grades listed in the EMIS.

- 3.2 **Component 2: Reform of Teacher Training (US\$ 30,000).** The objective of this component is strengthening pedagogical quality in primary, secondary, and tertiary education. Specifically, this component will finance: (a) developing an action plan to reform teacher training and professional development including a review of current teaching practices, defining standards for mastering content and a focus on, differentiated teaching, 21st-century skills, project-based teaching, competencies in technology and blended education practices. The development of such an action plan will include the Erdiston Teachers' Training College (ETTC); (b) defining a certification that teachers will have to renew after a certain time, which will ensure pedagogical knowledge updates, and will count towards the career path; and (c) developing a training plan for ICT coordinators to work with teachers and students using the newest technologies (in alignment with component 1).

Indicative Budget

Activity/Component	IDB/Fund Funding	Total Funding
Component 1: Digital infrastructure resiliency and technology preparedness for crisis response and climate change	80,000	80,000
Component 2: Reform of Teacher Training	30,000	30,000
Technical assistance/ researcher	35,000	35,000
Contingency	5,000	5,000
TOTAL	150,000	150,000

IV. Executing agency and execution structure

- 4.1 This TC will be executed by the IDB as requested by the METVT. Design, coordination and supervision of the TC and its disbursement will be tasked to the IDB's Education Division (SCL/EDU). Due to the existing workload of regular METVT and Project Unit staff, the METVT asked that the Bank execute the TC as was done with previous

Technical Cooperation Grants (BA-T1012 and BA-T1018). As Per Operational Guidelines for technical cooperation operations (GN-2629-1, Annex 10), the Bank executes on request by the beneficiary for an operation considered client service. Specifically: (i) compliance with internal requirements potentially delaying the execution of the TC, jeopardizing the achievement of its objectives; and (ii) the Beneficiary and Bank agree that contracting by the Bank would enhance independence.

- 4.2 To ensure that all the activities will be implemented as planned, a consultant will be contracted for a period of 12 months to ensure that all consultancies can be carried out on time. The consultant will provide technical assistance and research support to the IDB team. The consultant will be responsible for liaising with all technical units in the METVT, the office of the Chief Education Officer, and the IDB to inform on the status of the consultancies, ensure that reports are reviewed, and the primary schools are informed about the audit⁵.
- 4.3 All activities to be executed under this TC have been included in the Procurement Plan (see Annex IV) and will be contracted in accordance with Bank policies as follows: (a) AM-650 for Individual consultants; (b) GN-2765-4 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature and (c) GN-2303-28 for logistics and other related services

V. Major issues

- 5.1 There are no major issues associated with this operation.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to Bank Policies.

VII. Environmental and Social Strategy

- 7.1 Given the characteristics of the project, no negative environmental or social risks are expected. Therefore, the classification of this operation according to environmental safeguards policy (OP-703) is "C".

VIII. Required Annexes:

[Request from the Client - BA-T1067](#)

[Results Matrix - BA-T1067](#)

[Terms of Reference - BA-T1067](#)

[Procurement Plan - BA-T1067](#)

⁵ Following the guidelines in the TN-1965, the consultancies with the main stakeholders will be via digital/online tools, including officials from the Ministry of Education, school directors once the consultancy for the school audit starts. Given that this is only an audit, no social stakeholder consultations are required as we are not asked to prepare a Social and Environmental Management Report. Once the MOE starts preparing any designs or civil works, stakeholder consultations with community members will be conducted, considering the guidelines from the TN-1965 (in collaboration with ESG).