Mato Grosso Resilient, Inclusive, and Sustainable Learning Project (P178993)

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Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 24-May-2022 | Report No: PIDC34100

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BASIC INFORMATION

A. Basic Project Data

Country Brazil	Project ID P178993	Parent Project ID (if any)	Project Name Mato Grosso Resilient, Inclusive, and Sustainable Learning Project (P178993)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Sep 06, 2022	Estimated Board Date Dec 15, 2022	Practice Area (Lead) Education
Financing Instrument Investment Project Financing	Borrower(s) STATE OF MATO GROSSO	Implementing Agency SECRETARIAT OF EDUCATION - MATO GROSSO	

Proposed Development Objective(s)

The objective of the project is to support the State of Mato Grosso to improve schools' learning environments, pedagogical practices, and system management.

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	100.00
Total Financing	100.00
of which IBRD/IDA	100.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	100.00

Environmental and Social Risk Classification

Concept Review Decision

Moderate

Track II-The review did authorize the preparation to

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continue

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Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. The COVID-19 shock hit the Brazilian economy when it was still recovering from the 2015/16 recession. Brazil experienced a period of economic and social progress between 2003 and 2014, with the country's economy growing at an annual average of 4 percent over that period and significant reductions in poverty and income inequality. This positive trend was interrupted by a recession in 2015/6, followed by a mild recovery before COVID-19 hit. Economic activity contracted 3.9 percent in 2020, less than in most advanced and emerging economies and the lowest among the largest Latin American economies, in part due to the Government's strong policy response. Propelled by a strong recovery of 4.7 percent in the services sector, economic growth rebounded in 2021 with a 4.6 percent growth rate. But in a context of high inflation, monetary policy tightening, uncertainties related to the presidential elections in October 2022 and a challenging external environment, growth is expected to slow to 0.7 percent in 2022 and mildly accelerate until 2024 on the back of easing inflation and reduced uncertainty post-elections.
- 2. The Brazilian government put forward a large fiscal package focused on social assistance to protect the most vulnerable. Brazil is one of the countries most affected by the COVID-19 pandemic in the world, as of May 24, 2022, with more than 666,000 registered COVID-19-related deaths (the second highest in the world, representing 11 percent of total world deaths), and almost 30.8 million recorded infections (third in the world, 6 percent of the world total). During the first half of 2021, the country's health system was under severe stress. Since then, the Government negotiated large vaccine contracts and rolled out an extensive vaccination program. As of May 24, 2022, more than 437 million vaccine doses had been administered reaching 78.3 percent seconds doses, but only 38% people having received a booster dose. Pediatric vaccination has started and reached 20.3 percent of children ages 5 to 11. The Government responded to the economic crisis with an unprecedented fiscal stimulus package of BRL \$815.5 billion (11.4 percent of Gross Domestic Product, GDP) in 2020 and BRL \$137.2 billion (1.6 percent of GDP) in 2021. The social emergency transfers programs, Auxilio Emergencial, reached 66 million individuals and the Bolsa Familia Conditional Cash Transfer (CCT) program was expanded to 18 million individuals, newly launched Auxilio Brasil. This assistance mitigated the pandemic's impact on poverty, lowering it to 12.8 percent in 2020 (based on US\$5.50, 2011 Purchasing Power Parity). Poverty increased in 2021 as emergency transfers to support the poorest were reduced and is expected to stagnate at around 15.6 percent in 2022 and 2023 due to slow adjustments in the labor market after job losses during the pandemic.
- 3. The pandemic also had a strong negative impact on human capital accumulation. Brazil is among the Latin American countries that suffered the longest spell of public-school closures, which is expected to increase learning poverty (the percentage of children unable to read and understand a simple text at age 10) from 48 to 70 percent, disproportionately affecting the poor. As a result, COVID-19 is expected to reverse a decade-long trend of steady progress

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in the Human Capital Index (HCI), which in 2019 reached 0.60. Recent World Bank projections indicate that, in a realistic scenario, the HCI for Brazil could have fallen by 9.6 percent between 2019 and 2021 to 0.54.

- 4. **Mato Grosso is a large and diverse state, rich in natural habitats, of Brazil.** The State of Mato Grosso (MT) is the third largest state of Brazil with an area of 903,357 km², and one of the less densely populated (3.9 inhabitants/km²), holding only 1.6 percent of the Brazilian population (3.5 million people). The state has a diverse population. According to the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística, IBGE*), MT has the fourth-largest number of indigenous peoples' communities, located in 59 municipalities. The state also ranked 19 out of 27 on the number of quilombos communities. MT presents a unique environment with a variety of biomes. The Amazon biome covers 53 percent of the State, the *Cerrado* (tropical savanna) 40 percent, and the Pantanal (tropical wetland) 7 percent. The State is part of the Legal Amazon region, but this extensive environmental capital is threatened by growing deforestation, large forest fires, and other phenomena related to climate change such as more frequent and intense droughts. Expansion in agriculture has resulted in large areas of the Amazonia deforested, challenging sustainable progress in MT. Moreover, an increasing number and frequency of wildfires have affected the state, creating environmental and health risks for the population.
- 5. **MT** has shown good economic performance, but poverty is still high. MT is also the fourth richest state in Brazil and one of the largest producers of soy worldwide. Between 2002 and 2019, MT showed the highest GDP growth in the country, at 5 percent average annual growth compared to a 2.3 percent national average. More than half of its economic activity is associated with agriculture, and the state accounted for 28 percent of Brazil's grain production in 2020. However, despite good economic performance, poverty in MT is still high and increased during the pandemic. Data from the Unified Registry for Social Programs (*Cadastro Unico*) indicate that around 12 percent of the population were living in extreme poverty, under less than R\$151 per month (US\$30) in 2020, above 9.9 percent in 2018. In October 2020, around 30 percent of the population was living under half a minimum wage (R\$110 per month or US\$3.7 a day) and was eligible for support from the *Auxilio Emergencial* program. MT reported 725,000 COVID-19 cases since the beginning of the pandemic, and 14,854 deaths (nearly 2.4 percent and 2.2 percent of the country's cases and deaths, respectively). As of April 11, 2022, more than five million vaccine doses had been applied, with 66 percent of the population receiving two doses in MT and 23 percent receiving a booster.
- 6. Human capital is a key challenge for sustainable development in MT and the government showed a strong commitment to address it. The HCI for MT was 0.589 in 2019 below the national average and ranking 14 out of 27 states in Brazil. The HCI trajectory over the last decade in MT has also been among the five weakest in the country. These results are driven by poor and stagnant educational outcomes, despite considerable fiscal investments in the sector by the state. Education losses drive sixty percent of the expected HCI loss after COVID-19. In MT, where HCI was coming from a limited growth, the damage can be higher. With high investment and weak results, MT will need to improve the efficiency of the public education expenses to achieve better outcomes without compromising its overall fiscal reforms.³ Education has been a priority of the state government and there is strong political will to conduct reforms to address the sector's challenges.

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¹ The HCl is an index that ranges from 0 to 1 and has three main components: (i) quality and quantity of schooling (education); (ii) child survival rates (child survival), and (iii) adult mortality rates and stunting (adult health).

² A quilombo is a settlement founded by Afro-descendant people in Brazil and its construction process is directly related to the slavery regime (1550-1888) established in the country during colonization. *Quilombola*, or residents of quilombos, are descendants of enslaved Africans, known as maroons, who established their own maroon communities after fleeing slavery as a form of resistance.

³ As part of the broader Progesão Program, which is assisting Brazilian states to implement reforms that will improve efficiency in public expenditure, the state of MT requested the World Bank support to consolidate recent fiscal reforms and improve efficiency in whole-of-government public sector management systems and service delivery (Progesão Mato Grosso: Public Sector Management Efficiency -P178339)

Sectoral and Institutional Context

- 7. As established by the Brazilian constitution, MT and its 141 municipalities share responsibility for the administration of education to their population. The provision of early childhood education (ECE) is the sole responsibility of the municipalities, just as upper secondary education (grades 10 to 12) is the responsibility of the state. The provision of primary and lower secondary education is a shared responsibility between municipalities and the state. Municipalities often follow federal and state policies and receive fiscal transfers, both tied and untied to specific service delivery and performance.⁴
- 8. **The MT education system includes a large share of enrollment in the public network.** MT has 2,698 schools with 46,175 teachers and 790,567 students from preschool to upper secondary education. The municipal and state sectors account for 47 and 40 percent of the K-12 enrollment, respectively. The private sector enrolls 11 percent and the federal only 1 percent of students in MT. Enrollment in upper secondary education is largely under the State Secretariat of Education (*Secretaria de Estado de Educação*, SEDUC) provision, covering 85 percent of enrollment in this level (119,594 students). The municipalities deliver ECE for 88 percent of enrollment among children under five years old (153,196 students).
- 9. The state network benefits a large and diverse group of students in primary and lower secondary, but an important reform will redistribute students (and teachers) between state and municipal schools. Primary education (1st to 5th grades) accounts for 20 percent (63,974 students) of enrollment in the state network, while lower secondary represents 42 percent of enrollment (134,784 students). Furthermore, the public education system in MT reflects the state's geographic, ethnic, and cultural diversity, with schools in rural, indigenous, and *Quilombola* areas representing 28 percent and 37 percent of the state and municipalities school networks, respectively, covering 14 percent of the public sector enrollment. An executive act passed in MT in 2020 establishes the gradual transfer of primary education to the municipal network and lower secondary to the state network by 2027. After this process is completed, all primary schools will be under the administration of municipalities and lower (and upper) secondary will be administered by the state. This reform is aligned with the national education financing system that created incentives for the separation of responsibilities via the Brazilian Fund for the Development of Basic Education Financing (Fundo de Desenvolvimento da Educação Básica FUNDEB).
- 10. **FUNDEB** is the main financing source for pre-university public education and a significant incentive for school systems to expand enrollment. Recently, the amendment of the Brazilian constitution (*Emenda Constitucional* 108/2020, EC108) increased the federal contribution to FUNDEB and established a results-based financing component. The EC108 introduced changes to promote regional equity, as 10.5 percentage points of the additional federal funds are transferred

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⁴ Examples of the coordination between federal government, states and municipalities in programs' implementation are the National School Meal Programme (*Programa Nacional de Alimentação Escolar*, PNAE) and the National Programme of Support to School Transportation (Programa Nacional de Apoio ao Transporte Escolar, PNATE), which provide funding to states and municipalities for school feeding and transportation of students in rural areas.

⁵ FUNDEB aimed to equalize funding in education through three key efforts: (i) setting a national minimum spending level per student in primary education that would follow the student, (ii) redistributing state funds to ensure that all states could meet at least the minimum spending per student and providing additional federal resources to those states unable to meet the minimum spending; and (iii) increasing teachers' salaries by ensuring at least 60% of the total per-student allocation. FUNDEB also explicitly guaranteed minimum levels of per capita funding for enrollment in education programs for Indigenous Peoples and afro-descendants (*Quilombola*) communities and youth and adult education.

⁶The EC 108 framework is based on the experience of Ceara's incentive mechanism. The EC 108 also introduced changes by i) increasing the federal top-up every year to reach 23 percent by 2026, starting with 12 percent in 2021; ii) allocating 2.5 percentage points out of the 13 percent additional federal top-up to transfers to school networks according to improvements in education results; iii) making mandatory to all states change the formula of transferring the main state tax (ICMS) to municipalities to it be linked to education results improvements.

to the municipal and state school networks with the lowest spending per student, rather than by state. The change significantly benefits underfunded municipal systems, incentivizes enrollment expansions, and promotes cooperation between federal, state, and municipal governments to implement education policies to revert learning losses and increase spending efficiency. This legislation also changed the distribution of the main state sales tax (ICMS) to municipalities, promoting cooperation to implement state and national education policies. The new regulation established that the state must transfer at least 10 percent of the ICMS revenues to municipalities based on improvements in learning outcomes and promotion of equity.

- 11. Despite considerable investments in education over the past years, learning outcomes were already weak in MT before the pandemic, even when compared to the national average. In 2021, investment per student in MT was on average R\$4,994.34 per year, greater than the richest state in Brazil, Sao Paulo, which spent R\$4,138.64. Despite this high investment, according to the 2019 National System for Evaluation of Basic Education (*Sistema de Avaliação da Educação Básica, SAEB*), the levels of learning outcomes in Portuguese and mathematics for both primary and lower secondary education in MT are the lowest in the Central-West region and below the national average. The results of the state network in the 2019 Index of Basic Education Development (*Índice de Desenvolvimento da Educação Básica*, IDEB) were stagnating, with 43 percent of schools neither reaching the target nor improving IDEB scores. Furthermore, there are several learning inequalities within the state. SAEB results in MT show that the state network has lower performance on average than the municipal network, and that the urban-rural achievement gap is significant. Learning levels are also significantly lower in upper grades, with many students at level zero⁸ of the SAEB proficiency scale in Portuguese and mathematics in 9th grade, especially in rural areas.
- 12. **MT** also shows increasing repetition rates and school dropout over the schooling trajectory. The state network adopts an automatic promotion policy through primary education. Therefore, repetition (2.7 percent) is low compared to the national average (3.3 percent) and the Central-West region (4.6 percent). Overall repetition rates are higher for lower secondary education, in comparison to the primary education. Moreover, repetition rates for MT state network (7.0 percent) are lower than the national average (8.3 percent), but higher than the Central-West region (6.3 percent). The repetition rate spikes as students move to the upper secondary grades. In the first year of upper secondary education (10th grade), the state network has the highest repetition rate among Brazilian states, with 25.3 percent compared to 14.5 percent for the national rate. Before the pandemic (2019), the state network also had the second-highest dropout rate in the first year of upper secondary: 13.5 percent compared to 7.0 percent for the national rate.
- 13. Schools in MT were closed for long periods during the pandemic, with unequal and low students' engagement on remote learning. Schools were closed for 260 days in MT⁹, and the state network and most of the municipalities returned to school in mid-August 2021. Under school closure, disadvantaged students had limited access to resources to continue learning. For example, the percentage of black and brown students enrolled in schools without access to online/hybrid activities during the pandemic was 12.5 percent, almost double the number of other students (6.4 percent). Students' engagement with the school routine from home was a challenge. According to the PNAD (*Pesquisa Nacional por Amostra de Domicílios*) 2020, only 36 percent of upper secondary students engaged in remote learning during the

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⁷ The IDEB ranges from 0 to 10 and considers promotion rates and learning outcomes in Portuguese and mathematics from the National Evaluation System of Basic Education (*Sistema Nacional de Avaliação da Educação Básica*, SAEB). Education networks (states and municipalities) and schools have targets to achieve. By 2002, Brazil should achieve a 6 on the IDEB scale, comparable to the education quality of developed countries.

⁸ The definition of learning levels comes from SAEB and are found here:

https://download.inep.gov.br/publicacoes/institucionais/avaliacoes_e_exames_da_educacao_basica/escalas_de_proficiencia_do_saeb.pdf.

⁹ This is lower than the average for Brazil (285 days), but higher than other states such as Espírito Santo (229 days) and Amazonas (245 days). The statistics refer to the average number of days public schools were closed for primary education, lower and upper secondary. Source: INEP questionnaire about school responses during COVID-19; administered between February and May 2021 (https://www.gov.br/inep/pt-br/areas-de-atuacao/pesquisas-estatisticas-e-indicadores/censo-escolar/pesquisas-suplementares/pesquisa-covid-19)

pandemic. Low engagement under remote learning can be also related to students' mental health challenges during the pandemic. Overall, school closures and low engagement resulted in learning losses and an increase in the number of dropouts due to a lack of motivation or fear of not being able to recover learning losses.

- 14. The pandemic aggravated the learning crisis in MT. The summative assessment conducted in 2021 shows that learning levels in MT went back to pre-SAEB 2015 performance levels. For example, the performance of fifth graders is equivalent to that of 6 years and 8 years ago for Portuguese and mathematics, respectively. For 12th grade students, the setback is of at least 17 years. This data should be analyzed considering that before the pandemic, the state network was already facing challenges to improve learning outcomes. In the coming months and years, MT needs to adopt decisive strategies to recover and accelerate learning.
- 15. The pandemic has also increased dropout and worsened the gender gap. School dropout was also a central challenge for the MT education system before the pandemic and will likely show substantial increases after the prolonged school closures. The estimates for the state of São Paulo, for example, show that the risk of school dropout has increased by 365 percent in the wake of the pandemic.¹⁰ The data for MT shows that the dropout rate in the first year of public upper secondary school has increased by five times in 2021 compared to 2020.¹¹ In addition, it is important to consider gender gaps in dropout rates. According to a 2020 report from UNICEF for Brazil, boys between 11 and 14 years old never answered "household chores" or "care for a family member" as reasons for not attending school. ¹² Amongst girls, however, 22.6 percent chose one of these options. There is also evidence that domestic violence increased during the pandemic, affecting children and girls in particular. Recovery measures in MT will need to address increased dropout and gender-related factors.
- 16. The efforts to recover from the impact of the pandemic on the education sector and accelerate education progress are, however, constrained by three key challenges: (a) lack of safe, inclusive, green, and resilient learning environments; (b) gaps in digital infrastructure; and (c) deficiencies in pedagogical practices and management systems. Each challenge is summarized below.

Lack of safe, inclusive, green, and resilient learning environments

17. MT's poor maintenance practices of school infrastructure is not favorable to learning and is far behind national climate and environmental standards. The Ministry of Education of Brazil (*Ministério da Educação*, MEC) considers that schools are sustainable when they maintain a balanced relationship with the environment and compensate for their impacts with the development of appropriate technologies, to ensure quality of life for present and future generations. Although federal and state programs have attempted to develop sustainable low-carbon, and climate-resilient schools in all states in Brazil, little progress has been observed in MT. For example, nearly 71 percent of public schools do not manage their waste adequately and, due to weather conditions, there is an intensive use of air-conditioning in 73 percent of schools.¹³ Additionally, more than 20 percent of schools do not have sufficient energy access and need significant

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¹⁰ Lichand, G., Dória, C. A., Neto, O. L., & Cossi, J., 2021. The Impacts of Remote Learning in Secondary Education: Evidence from Brazil during the Pandemic.

¹¹ Across Brazil, the dropout rates for 2020 were meager compared to previous years. The schools' automatic promotion, implemented during 2020, can explain this phenomenon. In 2021, the rates increased sharply: in MT, state upper secondary school dropout rates have risen from 0.8 to 4.9.

¹² The sample size was 30,098 boys and 29,662 girls for the study. UNICEF, 2020. Out-of-School Children in Brazil. Access: https://www.unicef.org/brazil/media/14881/file/out-of-school-children-in-brazil_a-warning-about-the-impacts-of-the-covid-19-pandemic-on-education.pdf.

¹³ Based on the assessment of infrastructure condition developed by the SEDUC, 27 schools do not have a waste management system, 470 schools have septic tanks, and 145 schools have access to a public sewerage system. In addition, 226 schools report that the existing waste disposal management is insufficient.

electricity upgrades to promote energy efficiency. The use of alternative energy sources and efficient equipment is scarce, and old devices and outdated power transformers contribute to the high use of electricity in schools. The condition and maintenance of school infrastructure has been hampered by a lack of planning, discontinuity of resources, and few modern management tools. Most public schools were built several decades ago, and some school facilities were not originally planned for educational activities. SEDUC estimates that 400 schools (out of the 759 schools in the network) need rehabilitation works. Deterioration of roofs and walls of school buildings due to high humidity is one of the most common problems.

- 18. School closings and disruptions from climate change shocks and natural disasters pose significant management challenges in MT also hampering learning. Because of the environmental challenges in the state, the education sector in MT is seasonally affected by the occurrence of disaster events restricting access to educational facilities, such as floods, wildfires, land sliding, and droughts, and expected to be increased in frequency and intensity as a consequence of climate change. The lack of monitoring systems that measure the effect of climate and natural disasters on the education system hinders the capacity to disentangle the impact of these events on dropout and learning outcomes. As a result, the lack of adaptiveness of schools to climate-related shocks contributes to learning losses in climate-affected areas and improving the education sector's resilience to school closures is an urgent priority.
- 19. **School environments are not resilient, especially Indigenous and** *Quilombola* **schools.** MT is facing the challenge of reducing the exposure and vulnerability of school infrastructure, as well as increasing the education system capacity to respond to and cope with emergencies and disasters. According to the Integrated Disaster Information System (S2ID), in the last decade, the number of reported wildfires, floods and droughts has increased by more than 50 percent. Between 1995 and 2019, the material damage to public school infrastructure in MT was R\$10.4 million and losses of R\$25.6 million were due to climate induced and natural disasters. School transport routes are frequently disrupted or closed for a prolonged period, affecting student and teacher attendance, and sometimes changing the school calendar. The impacts on rural, Indigenous Peoples, and *Quilombola* communities' schools are more significant. The 216 Indigenous Peoples and *Quilombola* communities' schools, that are supported by the state and federal governments, don't have adequate maintenance systems that assure the quality of the school environment. Based on community consultations, the SEDUC considers that 30 (out of 216) Indigenous Peoples and *Quilombola* communities' schools also need significant rehabilitation works in MT to promote effective learning environments. Investment in physical and social infrastructure is an essential condition for increasing the resilience and adaptability of communities.
- 20. **MT's temperature is increasing, and a higher temperature is associated with poorer educational performance.** Preliminary evidence from Brazil shows a causal effect between higher temperature and lower scores on the national high school upper secondary education (12th grade) exam used for college admissions. ¹⁸ In fact, a child who experiences temperatures 2 degrees above average is predicted to attain 1.5 fewer years of schooling than one who experiences average temperatures (PNAS, 2019). In some months, the temperature in Cuiabá has grown 1.5 degrees Celsius if

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¹⁴ Based on the same assessment, 624 schools have access to the public electricity network, 15 schools rely on power generators, 1 school has sustainable energy access (solar, wind), and 4 do not have any energy access. In addition, 130 schools report that the existing energy access is insufficient.

¹⁵ Event catalogue from Sistema Integrado de Informações sobre Desastres - S2ID (https://s2id.mdr.gov.br/).

¹⁶ Relatório de danos materiais e prejuízos decorrentes de desastres naturais no Brasil : 1995 – 2019 / Banco Mundial. Global Facility for Disaster Reduction and Recovery. Fundação de Amparo à Pesquisa e Extensão Universitária. Centro de Estudos e Pesquisas em Engenharia e Defesa Civil (2020).

¹⁷ Hallegatte, Stephane; Rentschler, Jun; Rozenberg, Julie. 2020. Adaptation Principles: A Guide for Designing Strategies for Climate Change Adaptation and Resilience. World Bank, Washington, DC. World Bank. https://openknowledge.worldbank.org/handle/10986/34780 License: CC BY 3.0 IGO

¹⁸ Melo, A. P., & Suzuki, M. (2021). Temperature, effort, and achievement: Evidence from a large-scale standardized exam in Brazil. mimeo.

compared 1931-1960 to 1991-2020 period (INMET, 2021). This is extremely important in a context where average annual temperatures are expected to rise by 1.7°C to 5.3°C by the end of the century due to climate change. As consequence, floods, droughts, wildfires, and heat waves could become more frequent and intense, posing additional threats to both infrastructure but also to the health and safety of teachers and students. Rising temperatures are of increasing concern, especially for vulnerable groups such as children and the elderly. ²⁰

- 21. A significant share of schools in MT are still not inclusive with the lack of appropriate adaptations to ensure equal access to all students and teachers. In 2019, 25 percent of schools in MT did not have any accessibility resource, such as accessible toilets, ramps, or lifts. Although Brazil ratified the UN Convention on the Rights of Persons with Disabilities (CRPD) in 2008, a significant percentage of schools do not yet have adequate design and learning environments for students with disabilities. In addition, teachers do not receive proper training to support students with special needs.
- 22. School environment is not only associated to school facilities but also to the social climate, and in MT ensuring safety is a challenge for schools. MT is one of five states with the highest rate of threats to teachers and principals in the state's public schools.²¹ According to SAEB 2019 data, in 26 percent of state schools, students attended school carrying a weapon and 17 percent of schools experienced drug dealing events. Moreover, the levels of violence, bullying and cyberbullying affecting students aged 13-17 in the school environment are multidimensional and have larger impacts among girls and residents of Cuiabá. ²² In addition to within-school violence, the lack of school infrastructure also creates an unsafe environment. The SAEB 2019 data shows that 22.9 percent of schools have poor or inadequate lighting outside the school. The 2019 National School Health Survey (*Pesquisa Nacional de Saúde do Escolar*, PeNSE) report shows that 11 percent of students did not attend school due to a lack of safety from home to school or from school to home in MT, especially considering the schools are spread out in the territory.

Gaps in digital infrastructure for system management and teaching and learning

The SEDUC digital management system is outdated and inefficient, posing a significant challenge for managing human resources, student enrollment, and school bus routes. The existing Education Management System (EMIS) of SEDUC is based on a monolithic software architecture that is outdated and undocumented, making it difficult to improve the existing capabilities or add new functionalities without affecting its integrity. This outdated EMIS is used for teachers' recruitment and allocation with negative consequences on the definition of class size and distribution of teachers, especially to teach math and science. Another important challenge is the inefficiency in the distribution of students' enrollment because of the magnitude of the state area (903,546.42 km²) and the low population density. Considering that 86 percent of schools are in urban areas, SEDUC struggles to implement an enrollment system that also efficiently benefits students from mainly rural areas (14 percent). In parallel, SEDUC administration of the school buses provides daily service for 107,990 students, 12 percent of total enrollment and 33 percent of those living in rural areas. Consequently, the low percentage of students in rural areas and the high geographical dispersion of their homes implies a high cost to provide

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¹⁹ The measurement used as a reference is the minimum temperature in each month. October has increased 1.6 °C, and April and November have increased 1.5 °C. The temperature increase was registered in all months. Source: Instituto Nacional de Meteorologia. (2022). *Normais Climatológicas do Brasil*. https://portal.inmet.gov.br/

²⁰ Climate Risk Profile: Brazil (2021): The World Bank Group.

²¹ Brazilian Yearbook of Public Safety (2019).

²² For instance, 14 percent of students aged 13-17 were victims of attempted non-consensual sex acts, unwanted touching, or sexual harassment, and girls are more affected (20.4 percent) than boys (7.2 percent). The prevalence of bullying in schools is also high in MT. The 2019 National School Health Survey (Pesquisa Nacional de Saúde do Escolar, PeNSE) data shows that 44 percent of girls and 34 percent of boys aged 13-17 felt humiliated by peer teasing in the 30 days before the survey. Moreover, 16 percent of girls received threats, offenses, or humiliation on social media or cell phone applications, compared to 10 percent of boys. In Cuiabá, these data are particularly problematic, especially for students in public schools (18 percent) compared to private schools (10 percent).

²³ https://radareducacao.tce.mt.gov.br/extensions/radareducacao/censoMatriculas.html

access to schooling through the school bus system in collaboration with the municipalities (1.4 percent of current expenditure in education).²⁴ While the needs are large, fiscal space is limited by the fact that 88 percent of total current expenditure on education is allocated to teachers' salaries, limiting the capacity to invest in learning resources and in the modernization and maintenance of the school environment.

- 24. Limited school connectivity hinders the attempts to modernize teaching and tackle the learning losses caused by the COVID-19 pandemic. Although most state and municipal schools (96 percent and 87 percent, respectively) are connected to internet, only 50 percent of state schools and 60 percent of municipal schools have broadband. 35 percent of state schools and 53 percent of municipal schools monitor the quality of their internet connection and, of those, 22 percent and 30 percent, respectively, have a bandwidth greater than 20 Mbps -- which is considered the minimum to support adequate learning activities (meaningful connectivity). ²⁵ According to the school census (*Censo Escolar*) 2020²⁶ there is also a clear divide between urban and rural schools; among rural schools, only 18,5 percent have broadband connection compared to 64,7 percent in urban schools. State schools receive stipends to provide internet access for teachers and students. The 548 urban schools all provide internet access via ADSL technology, but only 75 out of 261 rural schools can provide internet access with the appropriate bandwidth via satellites. ²⁷ To increase the quality of distance learning in MT, it will be important to upgrade the bandwidth of the current ADSL internet access to a higher bandwidth and increase internet access via satellite in rural schools.
- 25. The current technological infrastructure including the Local Area Network (LAN) and computers in schools is obsolete, as most of the investment was made in 2012. Since then, the only acquisitions were made for new schools, which means most schools in the state require a significant technology infrastructure upgrade. Although SEDUC has recently ordered 6,000 new laptops for teachers to be donated to municipal schools as part of the infrastructure modernization efforts, around 35 percent of schools in MT are not equipped with computer labs that benefit the students. SEDUC estimates that about 6,000 new computers are needed to respond to the demand for administrative activities in schools and allow the schools to deploy a new education management system. In terms of the pedagogical use of technology in schools, about 40,000 pieces of equipment will have to be acquired, including desktop computers, laptops, Chromebooks, smart boards, augmented reality glasses, makers room, and robotic equipment, amongst others. SEDUC estimates that an investment in the range of BRL \$186 million will be required to get the adequate technology infrastructure in place.
- 26. The effective pedagogical use of technological infrastructure and of modern learning technologies will require the development of teachers' and students' skills. The provision of technological equipment without the required capacity of teachers and students to integrate it effectively in the pedagogical process will not achieve its intended purposes. COVID-19 led to the need to use technological tools and digital platforms to ensure the recovery of learning losses and support hybrid education in MT. This will also require significant investments in innovative learning tools to promote equitable access and improve learning results for the most vulnerable. Beyond having the right training and competencies, teachers need to have the right skills to properly use technology as a pedagogical tool. According to the EDUTEC 2017 study, most teachers were not trained to use technology in the classroom, although 82 percent of the teachers in state schools use computers (desktops, notebooks, tablets) in the classroom. Moreover, 43 percent of the

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²⁴ There are currently 1.965 shared school bus routes that represent 41.862.836 km per year and an additional 1.232 state bus routes that represent 19.995.262 kms per year. The total school transportation expense is shared between the State and the Municipalities and represents an annual investment of over R\$100 million.

²⁵ https://a4ai.org/

²⁶ https://analitico.qedu.org.br/

²⁷ ADSL stands for Asymmetric Digital Subscriber Line that is a communication technology that offers faster connection speeds over traditional telephone lines than dial-up internet provides.

²⁸ https://radareducacao.tce.mt.gov.br/extensions/radareducacao/censoEscolas.html

teachers who use devices consider that the equipment is not adequate.²⁹ In addition, having these skills will increase their adaptive capacity to continue teaching in a hybrid environment if needed, in the event of any climate related disaster.

Deficiencies in pedagogical practices and system management

- 27. MT faces challenges in implementing adequate pedagogical and management strategies to recover from the educational losses inflicted by the pandemic and accelerate learning improvements. Establishing adequate learning recovery and acceleration policies is a big challenge, especially in a context with stagnation in education outcomes, even before COVID-19. Learning losses in MT will not be reversed through typical interventions.
- 28. Learning recovery will not happen without better support to teachers and strengthened teacher management systems. The new challenges will require teachers to be even more receptive to assess students' learning losses, adjust instruction to the adequate learning level, and attend to students' socioemotional needs. However, there is evidence that even before the pandemic, many teachers in MT lacked the tools to adapt their teaching practices and did not feel capable of teaching basic skills to their students. The state network has a high percentage of teachers with no pedagogical certification and a high percentage of teachers with short-term contracts, who normally have less experience and no proper training. In some municipalities, such as São José do Xingu and São José do Povo, all teachers are under this type of contract. More effective pedagogy will be necessary to help students quickly catch up on their learning and a more efficient teachers' management system will contribute to upgrade teaching qualifications. It is critical for MT to design better support for teachers and improve teaching quality.
- 29. Cooperation with municipalities is essential to implement a learning recovery and acceleration strategy beginning at preschool and focusing on literacy and numeracy fundamental skills. To revert the effects of COVID-19 and accelerate learning, MT will also need to adopt incentive mechanisms to ensure more efficient and adequate funding for municipal and state schools and strengthen the municipal management systems. The evidence of Ceará shows that incentive mechanisms can lead to rapid improvements in quality-of-service delivery of municipal schools if combined with comprehensive and supportive technical assistance.³⁰ The SEDUC in MT is making an effort in this direction by (i) implementing measures such as the *Alfabetiza MT* program based on the Ceará model and in collaboration with the NGO Partnership for Literacy in Collaboration Scheme (Parceria pela Alfabetização em Regime de Colaboração, PARC); (ii) developing incentives (financial and social rewards) for good pedagogical management for the top-performing teachers and their respective schools; (iii) approving an executive act to organize the SEDUC regional level of governance to foster collaboration with the municipalities; and (iv) approving the regulation of the ICMS result-based transfer mechanism. The next years will be crucial to consolidate the implementation of this institutional arrangement to ensure learning improvements and efficiency.

Relationship to CPF

30. The proposed Project has important synergies with the Country Partnership Framework (CPF) for the Federative Republic of Brazil for FY18-FY23 (Report No. 113259-BR, discussed by the Board of Executive Directors on May 16, 2017). Education is highlighted as a key strategic sector in the CPF's focus area 1: "fiscal consolidation and government effectiveness," which seeks to "promote fiscal adjustment without hurting the poor." The activities of this Project focus on improving the learning environment of vulnerable schools, which is aligned with the CPF's goal of protecting the poor and vulnerable at a time of macroeconomic and fiscal instability. Through the modernization of the

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²⁹ SAEB, 2019

³⁰ Júnior, I. J. L., de Oliveira, V. H., & Loureiro, A. (2020). Incentives for Mayors to Improve Learning: Evidence from state reforms in Ceará, Brazil.

digital infrastructure in SEDUC and among deprived schools (likely the most inefficient), the Project also supports the CPF aim of "increasing efficiency with equity." Lastly, the support to schools' connectivity, digital skills, and infrastructure, aims to support a low-carbon development and improve the climate resilience of education systems and vulnerable students thereby directly contributing to climate change adaptation and mitigation efforts in the state.

- 31. This Project is aligned with CPF objective 1.3 "increase effectiveness of service delivery in education." Objective 1.3 stresses the importance of (i) addressing "poor quality and access gaps in education." This Project addresses "poor quality" by building green, inclusive, safe and resilient schools and by promoting accelerated learning recovery strategies, quality teaching, and internal efficiency. The promotion of violence prevention, especially favoring girls, and the actions to prevent school dropout, which will help boys in particular, will contribute to address gender gaps. The inclusion of students with disabilities and of Indigenous Peoples and *Quilombolas* schools will directly address the access gaps in education. The Project support to transform digital infrastructure is also aligned with CPF objective 1.3 "fiscal adjustment will require refocusing on improved efficiency." In its attempt to modernize the school management systems and help the education system recover from COVID-19 impacts and accelerate progress, this Project addresses the CPF objective of "creating human capital needed to drive an increase in productivity," which is also aligned with the World Bank's twin goals of eliminating extreme poverty and boosting shared prosperity.
- 32. The proposed project will directly support the goals set out in the State's Education Sector Plan (*Plano Estadual de Educação*, PEE 2020-2024). The objectives of the PEE 2020-2024 focus on the reduction of educational inequalities and creation of mechanisms for strengthening collaboration between the state and municipal networks to improve the quality of education provision. In addition, the project is well-aligned with the recent global experience in response to COVID-19 impacts on education, specifically on the importance of supporting students and teachers with effective tools and programs and building a more resilient system for future crises. The project has significant synergies with the Recovering Learning Losses from the Covid-19 Pandemic in Brazil project (P178563) and the ongoing Upper Secondary Reform in Brazil Program for Results (P163868, Loans 8812-BR, and 8813-BR) by promoting the collaboration between federal and state level to reduce COVID-19 impacts on education.

C. Proposed Development Objective(s)

Note to Task Teams: The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet. *Please delete this note when finalizing the document.*

The objective of the project is to support the State of Mato Grosso to improve schools' learning environments, pedagogical practices, and system management.

Key Results (From PCN)

- 33. The Project aims to achieve the following results:
 - i. Percentage of primary and secondary students with access to improved infrastructure and safer school environments in the state network,³¹

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³¹ Schools with improved infrastructure and safer school environments include schools with violence prevention interventions, energy-efficient solutions, sanitary and hygienic infrastructure (WASH), architectural designs to promote inclusive environments for students with disabilities, and schools in indigenous and *Quilombolas* communities that integrate cultural components and traditions specific to each community.

- ii. Percentage of municipal and state schools using geospatial data via the state EMIS,
- iii. Percentage of pre-primary and primary teachers with improved teaching practices (TEACH) in municipal and state networks,³² and
- iv. Student dropout rate in lower secondary schools in the state network (disaggregated by gender).

D. Concept Description

- 35. The proposed Project would be financed through a proposed loan in the amount of US\$100 million, using an Investment Project Financing (IPF) with Performance-Based Conditions (PBCs) instrument. The Project would seek to support system-wide activities to tackle the recovery of learning losses caused by COVID-19 in MT, and accelerate education progress and increase the resilience of fragile school networks to face future climate-induced and natural disasters that cause school closures, through building more conducive learning environments; narrowing digital divides; and fostering better management and pedagogical practices.
- 36. Although MT has invested in education more resources than most other Brazilian states, inefficient spending leads to lower learning outcomes than poorer states. The Project design aims at supporting MT and serve as benchmark for other Brazilian states with available resources and inefficient spending in the education sector, to promote learning recovery and acceleration as we emerge from COVID-19 through cost-effective activities. This project will also contribute to the reduction of regional inequality in terms of education quality in Brazil.
- 37. The Project would focus on general education preschool through secondary education but each component would focus on different levels of education and target vulnerable schools to achieve the development objectives. Components 1 and 2 would focus on rehabilitating school infrastructure and transforming digital technology of state primary and secondary education, while Component 3 would focus on pedagogical interventions to revert learning losses in municipal and state preschool and primary education and accelerate progress.
- 38. The proposed Project includes four components, each of which is described in further detail below.
- 1. Description

Component 1: Build Green, Resilient, Inclusive, and Safer Schools (US\$50 million)

39. Component 1 would support investments to rehabilitate school infrastructure, and complementary strategies, to promote safer, inclusive, greener and resilient learning environments. This component would support SEDUC to design and improve the environment of schools to support learning recovery and acceleration, providing green, inclusive and safe environments, resilient to future crises and climate change impacts.³³ Green environments will be achieved by supporting the construction of energy-efficient solutions, access to water supply and waste management systems and improvement of sanitary and hygienic infrastructure (WASH). This component will also help improve architectural conditions in schools and teacher training for children with disabilities and the rehabilitation of Indigenous Peoples and

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³² TEACH is a free classroom observation tool that provides information about the teaching practices inside classroom. The tool is designed to be used in primary classrooms (grades 1-6) and was designed to help low- and middle-income countries track and improve teaching quality.

 $^{^{\}rm 33}$ See Patrinos (2019) for the learning challenge in the 21th century:

https://documents1.worldbank.org/curated/en/237951586807728651/pdf/The-Learning-Challenge-in-the-21st-Century.pdf.

Quilombolas schools. Complementary strategies will also be supported to change behavior of students and teachers to make schools green and resilient to mitigate climate change³⁴, and inclusive and safer to protect vulnerable students.

- 40. **Subcomponent 1.1: Build safe, inclusive, green, and resilient infrastructure (US\$42 million).** This Subcomponent has a dual objective of improving schools' infrastructure to promote safe, inclusive, green and resilient learning environments to address natural disaster events, such as floods, droughts and fires; and addressing the adaption of the school environment for students and teachers with disabilities and rehabilitating Indigenous Peoples and *Quilombolas* schools based on community consultations. Regarding the first objective, this subcomponent would include the following activities: (i) development of a School Infrastructure Maintenance Management System (MMS)³⁵ to strengthen the state's school infrastructure operation and maintenance (O&M) capacity; (ii) architectural and engineering designs and civil works for the rehabilitation and retrofitting of existing schools in line with green, resilient, and inclusive principles;³⁶ (iii) procurement of equipment such as power stations, solar panels, and energy star rated air conditioning equipment to improve energy efficiency in selected school facilities; and (iv) civil works to improve WASH facilities, including connection to public water supply and wastewater pipelines to avoid water-borne and infectious diseases, such as Dengue fever and measles. These activities would target 70 primary and secondary schools in MT's the most vulnerable and fragile areas, which would be selected based on needs assessments and in consultation with beneficiary communities.³⁷
- 41. The second objective of this subcomponent intends to overcome the barriers to educate all children and promote equality and nondiscrimination. The activities that would be supported under this Subcomponent related to its second objective are: (i) adaptation of architectural designs and rehabilitation of schools to promote inclusive environments for students with disabilities; (ii) teacher training and procurement of teaching and learning materials (TLM) to support disability-inclusive teaching; (iii) consultations with indigenous and *Quilombolas* communities to integrate cultural components and traditions specific to each community in the rehabilitation of schools; and (iv) rehabilitation of Indigenous Peoples and *Quilombolas* schools based on the community consultations. Universal design would be also applied on selected infrastructure to eliminate architectural barriers for disabled students, teachers, and any other person with disabilities.
- 42. Furthermore, the Subcomponent would also support the development of a framework for scaling up infrastructure interventions in the medium to long term through school infrastructure plans, as well as school maintenance grants. In addition, the Global Program for Safer Schools (GPSS) will provide guidance and technical support to identify scalable solutions that will increase the climate-resilience of the school infrastructure to risk, based on global experience by supporting countries with similar contexts in strategically addressing challenges in school infrastructure at scale. Energy efficiency and water, sanitation and hygiene considerations will be informed through a technical assessment providing the basis to identify sustainable and scalable energy efficiency solutions, following international best practices adequate to the local context to improve the quality of learning environment for children.
- 43. **Subcomponent 1.2: Promote violence prevention in schools (US\$8 million).** This subcomponent aims at supporting violence prevention interventions carried out with an important gender lens, focusing on the prevention of SRGBV, sexual exploration and abuse (SEA), and sexual harassment (SH). Key activities would include: (i) the design and implementation of SRGBV and SEA/SH plans to promote safety in each specific school; and (ii) the promotion of cognitive-

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³⁴ The key behavior changes are developing awareness of climate change and how to adapt and mitigate its impacts.

³⁵ The school MMS is a systematic method for inspecting and rating the schools' conditions in a given area and prioritize and recommend rehabilitation and maintenance to maximize results within a given budget amount.

³⁶ Architectural and engineering designs would also benefit construction of new schools that will not be financed under the project.

³⁷ Through a diagnosis-analysis-planning process and in consultation with stakeholders, vulnerable and fragile schools will be identified and the need of interventions in the selected school facilities will seek cost-efficient engineering solutions applicable to the local context.

behavioral therapies in group counselling activities to address bulling and cyberbullying, the abusive use of drugs, violent behavior in and around the schools, and positive masculinity. These SRGBV and SEA/SH plans would draw from a menu of options available for improving school climates specifically for girls, including the travel to and from school, and would focus on the prevention of SRGBV, sexual exploitation and abuse (SEA), and sexual harassment (SH). Options could include activities like appointing female guidance counselors, awareness campaigns, support systems for survivors, teacher codes of conduct, and signed school pledges, among others. The implementation of these activities is expected to help reduce dropout among these vulnerable groups and thus reduce negative economic impacts related to lost lifetime earnings.³⁸

Component 2: Transform Digital Infrastructure (US\$20 million)

- 44. Component 2 would improve the digital infrastructure of SEDUC and state schools to modernize the management of the education system and improve digital conditions for teaching and learning. This Component would focus on implementing an EMIS and usage of geospatial data, and promoting the improvement of school connectivity and the availability of technology, as well as training to enhance teachers' and students' digital skills.
- 45. Subcomponent 2.1: Develop and implement a Digital System Management solution (DSM) (US\$2 million). The subcomponent would develop and implement a new Digital System Management solution to improve system management and promote efficient decision-making in municipal and state networks. It would support the following activities: (i) upgrade the current digital EMIS of the state; (ii) develop a student registration portal that will collect geospatial data; (iii) create a school bus routing and planning system based on the geospatial data; (iv) develop a teacher management system to support efficient deployment and allocation of teachers; and (v) enhance the existing LMS with new functionalities to support online training and hybrid education. The Project will also contribute to scale up all the state systems for municipal networks to promote interoperability and a more efficient use of educational data. These system components would be developed as a services-oriented architecture (SOA) and be deployed in SEDUC, municipal education departments, and municipal and state schools to ensure harmonization in the use of the management systems across the state. The EMIS will contribute to measuring the impact and risk rating of natural and climate-induced disasters in schools, which will be used to inform the school network of possible climate events to carry out evacuations or put in place emergency management plans. The LMS will support capacity building activities to raise the school community's awareness of the importance of climate change disaster risk management and how to implement mitigation and adaptation measures.
- 46. **Subcomponent 2.2: Support schools' connectivity and digital skills (US\$18 million).** The subcomponent would establish the digital infrastructure needed to guarantee schools' connectivity and digital upgrades, and promote acquisition of digital skills by teachers and students. The key activities supported under this subcomponent would be: (i) procurement of updated equipment, including computers, for SEDUC and state schools; (ii) improvement of internet bandwidth and Wi-Fi connectivity in schools; (iii) pro-active management of equipment uptime through a Mobile Device Management (MDM) system³⁹, and (iv) provision of training and material to increase digital skills. The Project would update the obsolete infrastructure in schools through the purchase of laptops, Chromebooks, 2-1's, servers, video projectors, and interactive boards. To ensure optimal uptime of these devices and that they fulfill their role as an education device, the state would manage all devices through the implementation of a MDM, which would allow support and update of student (Chromebooks) and teacher devices (Windows 11). The Subcomponent would also promote the monitoring of internet bandwidth quality through the deployment of *Medidor* Software in all target schools and the deployment of

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³⁸ See Ending Violence in Schools: An Investment Case for the analysis for the cost-benefit analysis of violence-prevention interventions: https://openknowledge.worldbank.org/handle/10986/35969.

³⁹ Digital solutions would be defined before purchasing the systems and devices because of licensing aspects and the benefits of factory installation.

comprehensive local networks to provide internet access inside the schools (in the classrooms and administrative areas). To optimize the impact of the investment, the Subcomponent would support the development and integration of a new digital skills training program in the state curriculum. The subcomponent would also target schools with higher risk of exposure to climate change induced disasters.

Component 3: Strengthen Pedagogical Interventions and Management for Learning Recovery (US\$25 million)

- 47. Component 3 would support the design and implementation of pedagogical and management interventions to address students' learning recovery needs and acceleration. The objective of this component is to support SEDUC's recovery from the crisis and accelerate learning by supporting interlinked strategies focusing on vulnerable schools to reduce inequalities across municipalities. The Component would focus on: (i) the design of pedagogical interventions tailored to students' specific learning gaps and students at risk of dropping out; (ii) the development of a Teacher Professional Development (TPD) program to foster improved pedagogical techniques that boost learning recovery; and (iii) the support to the implementation of incentives and a collaborative system between SEDUC and MT municipalities.
- 48. **Subcomponent 3.1:** Promote learning and schooling recovery interventions (US\$7 million). This subcomponent would support the implementation of evidence-based interventions to promote an effective response for the return to in-person education. Key activities supported by the Subcomponent would include: (i) personalized tutoring strategies in state and municipal schools, mainly in primary and lower secondary education, to recover from learning losses in an equitable way and accelerate learning; (ii) design of structured pedagogical material focusing on foundational learning in basic competencies; and (iii) development of an EWS to identify students at high risk of dropping out and offer personalized school-level interventions while the students are still in school. The design of the EWS will consider underlying reasons for school dropout, such as those related to gender, economic status, and exposure to natural disasters and climate change induced events. The Subcomponent would also support alternatives for hybrid education, such as adaptive learning platforms, to respond to students' specific learning needs and reduce gaps in their understanding, in addition to promoting learning continuity in the event of climate disasters or other shocks that could result in school closures.
- 49. **Subcomponent 3.2: Support quality teaching (US\$10 million).** The subcomponent would support the design of a TPD Program to foster improved pedagogical techniques in the classroom and continuity of learning. The Subcomponent would finance: (i) improvements in teaching techniques by designing a professional development program for teachers, targeting preschool and primary teachers; (ii) design and implementation of peer-to-peer learning opportunities and a continuous coaching system to establish feedback mechanisms for teachers; and (iii) development of practical training materials on pedagogical skills, general and content-specific materials, and activities relating to the use of structured pedagogical materials. A classroom observation tool would be used to assess adherence to and usage of the content of the development program.
- 50. **Subcomponent 3.3: Promote system cooperation and cost efficiency (US\$8 million).** The Subcomponent aims at supporting the state to promote cooperation with municipal education to implement the learning recovery and acceleration strategy in primary education. The key activities would support technical assistance of the state to municipalities to promote a collaborative system between SEDUC and MT municipal governments. The key activities supported under the Subcomponent include: (i) capacity building activities of SEDUC team to implement the incentive mechanisms for municipalities to achieve state established goals; (ii) technical assistance to municipalities with lower technical and operational capacity to strengthen their commitment and engagement to the state's long-term strategy; and (iii) implementation of the ICMS reform at the municipal level through capacity building and awareness activities of local stakeholders in the education and financing sectors. These activities are aligned with the reform of the ICMS results-

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based financing program to promote the cooperation of municipalities to implement the state and national strategy of learning recovery and acceleration and an efficient allocation of funds.

Component 4: Project Management, Monitoring, and Evaluation (US\$5M)

- 51. Component 4 would support the project coordination, capacity building of SEDUC, and the implementation of Monitoring and Evaluation activities (M&E). The project coordination will be established under a Project Management Unit's (PMU) with experts on the main areas for a proper implementation of the World Bank projects, such as project management, procurement, financial management, and safeguards. Capacity building of SEDUC and municipal networks teams and implementation of M&E will strengthen the capacity of the SEDUC to design and coordinate the main activities under the Project.
- 52. **Subcomponent 4.1. Project Coordination (US\$3 million).** The main objective of this subcomponent is to support SEDUC in the effective coordination of the Project. The subcomponent would support: (i) the PMU operational costs, basic equipment, and consumables; (ii) implementation of the Governance Risk Assessment System to identify possible fraud in public expenditures and the Spend Analysis System for strategic procurement; (iii) capacity building for internal controls and verification of PBC; (iv) environmental and social (E&S) management; (v) communication strategies for the dissemination of the Project activities, and (vi) studies for participating agencies with emerging needs.
- 53. **Subcomponent 4.2. Training, Monitoring and Evaluation (US\$2 million).** This subcomponent would provide technical assistance to strengthen SEDUC's institutional capacity for the implementation of the Project. This subcomponent would provide capacity development related to the main activities of the Project, such as the design of green and inclusive schools and the development of EWS. It will also finance studies on critical topics, including: (i) school mapping and supply and demand analysis for resizing (internal organization) and reordering (municipalization) of the school network; (ii) survey of school technology infrastructure and teachers' digital skills (in collaboration with the *Centro de Inovação para a Educação Brasileira*, CIEB); (iii) evaluation of the effect of the pandemic on learning, socioemotional skills, and teaching practices (through the use of the TEACH classroom observation tool); (iv) training for the SEDUC team on the development of architectural projects for sustainable, resilient, and inclusive schools; (v) training for the SEDUC team on network and project management; and (vi) development of and early childhood education M&A system based on the Measuring Early Learning Quality and Outcomes (MELQO) initiative.
- 54. The Project is designed to address challenges related to gender, climate change, and inclusion. In view of the fact that the underlying reasons for the learning losses and school dropout vary according to gender, economic status, and the exposure to natural disasters, the Project would strengthen the school environment and local capacity to deal with these various factors. First, on gender, the Safer Schools program and the learning recovery strategies will tailor activities to support schools in approaching households, families, and students that dropped out due to GBV, teenage pregnancy, SBGBV, and other gender-related drivers. To track the progress of these activities on reducing overall dropout rates and dropout among boys and girls, a PDO indicator is proposed. Moreover, a PBC would be included to incentivize the implementation of violence prevention plans in schools. Second, on natural disasters and climate change, building safe and green schools will support the adaptation to and mitigation of climate change induced events and natural disasters hazards. Another example is the dropout risk questionnaire in the EWS that will map the influence of "floods, droughts, tropical storms, and landslides" on the risk of dropping out of school (all of which can be direct consequence of worsening climate change impact). In addition, the project is expected to have a positive impact on natural resource efficiency management and pollution prevention through: (i) the development and implementation of natural resources consumption efficiency practices, including paper consumption reduction, water and waste management in public schools; (ii) identifying opportunities to shift the sources of electricity and improve energy efficiency; (ii) reductions in

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consumables, school travel time and energy consumption through the digitalization of public administration services; and (iii) improved geospatial database to monitor and respond to natural disaster and climate change induced events in state schools. It also represents an opportunity to increase the Borrower's capacity for improving governance of biodiversity and ecosystem services, while also simultaneously meeting other objectives, such as climate change mitigation. Third, on inclusive education, the Project would support the design and adaptation of schools for students with disabilities and prepare a questionnaire in the EWS that identifies causes of dropout related to difficulties in transportation, mobility, ease of access, and the risk of abuse or neglect for children with disabilities.

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal. *Please delete this note when finalizing the document.*

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	

Note to Task Teams: This summary section is downloaded from the PCN data sheet and is editable. It should match the text provided by E&S specialist. If it is revised after the initial download the task team must manually update the summary in this section. *Please delete this note when finalizing the document.*

Environmental and social risk ratings are Moderate. Overall, the proposed activities do not present environmental complexity and are not expected to endanger living natural resources, or to pose a risk of environmental pollution and degradation of natural resources (air, soil, water), or to affect biodiversity or habitats, either positively or negatively, directly or indirectly, or depend upon biodiversity for its success. The proposed construction works will not have largescale, significant, and irreversible adverse direct impacts and/or downstream implications on the environment. Their impacts are expected to be localized and preventable through responsive mitigation measures. Construction and rehabilitation works would not rely on heavy machinery and are not expected to increase potential traffic and road safety risks to local communities. On the contrary, the project is expected to have a positive impact on the natural resource efficiency management and pollution prevention through: the development and implementation of natural resources consumption efficiency practices, including paper consumption reduction, water and waste management in public schools; the identification of opportunities to shift the source of electricity and improve energy efficiency; reductions in consumables, school travel time and energy consumption through the digitalization of public administration services; and improved geospatial database and electronic tools for education monitoring natural resources. It also represents an opportunity to increase the Borrower?s capacity for improving governance of biodiversity and ecosystem services, while meeting other objectives such as climate change mitigation. The Project is not expected to bring adverse impacts to Indigenous Peoples or require land acquisition or restrictions in land use. On the contrary, Indigenous Peoples and other disadvantaged and vulnerable social groups will benefit from the construction and rehabilitation of community schools and the provision of equipment and access to the Internet to schools and students. The Project is also designed to address challenges related with gender, gender-based violence, and SEA/SH, which are related with girls? school drop-out

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rates. High volumes of labor influx are not expected in these works and, consequently, the social risks ordinarily associated with labor influx are not expected to be significant. However, some schools may be located in rural communities and the works may be hard to supervise.

Note: To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document. *Please delete this note when finalizing the document.*

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APPROVAL

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Approved By				
Practice Manager/Manager:				
Country Director:	Sophie Naudeau	22-Jun-2022		

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