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Report No: PAD3304

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 10.9 MILLION
(US\$15 MILLION EQUIVALENT)

AND A PROPOSED GRANT FROM THE
GLOBAL PARTNERSHIP FOR EDUCATION

IN THE AMOUNT OF US\$8.55 MILLION

TO THE

DEMOCRATIC REPUBLIC OF TIMOR-LESTE

FOR A

BASIC EDUCATION STRENGTHENING AND TRANSFORMATION PROJECT

April 1, 2020

Education Global Practice
East Asia and Pacific Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective January 31, 2020)

Currency Unit = United States Dollar (US\$)

SDR1 = US\$ 1.37695

US\$1 = SDR 0.726243

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ACETL	<i>Ação Conjunta para a Educação Timor-Leste</i>
BEST	Basic Education Strengthening and Transformation
CBA	Cost-Benefit Analysis
CPF	Country Partnership Framework
DA	Designated Account
DFAT	Department for Foreign Affairs and Trade
DLI	Disbursement-linked Indicator
DLR	Disbursement-linked Result
EEP	Eligible Expenditure Program
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information System
ESA	Education Sector Analysis
ESMF	Environmental and Social Management Framework
ESP	Education Sector Plan
FM	Financial Management
GBV	Gender-based Violence
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GOTL	Government of Timor-Leste
GPE	Global Partnership for Education
GRS	Grievance Redress Service
HCI	Human Capital Index
IAU	Inspection and Audit Unit
IFR	Interim Financial Report
INDC	Intended Nationally Determined Contribution
INFORDEPE	<i>Instituto Nacional de Formação de Docentes e Profissionais da Educação</i>
IVE	Independent Verification Entity
IPF	Investment Project Financing
IPPF	Indigenous People Policy Framework
IRR	Internal Rate of Return
ISM	Implementation Support Mission

M&E	Monitoring and Evaluation
MFAT	Ministry of Foreign Affairs and Trade
MOEYS	Ministry of Education, Youth and Sports
MOF	Ministry of Finance
NCU	National Curriculum Unit
NER	Net Enrollment Rate
NPC	National Procurement Commission
NPV	Net Present Value
NESP	National Education Strategic Plan
NSDP	National Strategic Development Plan
OECD	Organisation for Economic Co-operation and Development
PAA	<i>Plano Ação Anual</i>
PDO	Project Development Objective
PIMU	Project Implementation and Management Unit
PISA	Programme for International Student Assessment
PLMP	Professional Learning and Mentoring Program
POM	Project Operations Manual
PMIS	Personnel Management Information System
PSC	Project Steering Committee
STEP	Systematic Tracking of Exchanges in Procurement
TFP	Total Factor Productivity
TLMs	Teaching and Learning Materials
UNICEF	United Nations Children's Fund
UNTL	<i>Universidade Nacional de Timor-Lorose</i>
WASH	Water, Sanitation, and Hygiene

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Timor-Leste	Basic Education Strengthening and Transformation Project	
Project ID	Financing Instrument	Environmental Assessment Category
P166744	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input checked="" type="checkbox"/> Fragile State(s)
<input checked="" type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input checked="" type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
22-Apr-2020	30-Jun-2025

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To improve the learning environment of basic education schools and increase the efficiency and equity of basic education programs.

Components

Component Name	Cost (US\$, millions)
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Component 1: Developing 21st Century Learning Spaces	15.00
Component 2: Improving Teacher Effectiveness	2.58
Component 3: Improving Teaching-Learning Material and Assessment	2.27
Component 4: Data Driven Planning, Budgeting, Financing and Implementation	2.30
Component 5: Project Management and Implementation	1.40

Organizations

Borrower:	Democratic Republic of Timor-Leste
Implementing Agency:	Ministry of Education, Youth and Sports

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	23.55
Total Financing	23.55
of which IBRD/IDA	15.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	15.00
IDA Credit	15.00

Non-World Bank Group Financing

Trust Funds	8.55
Education for All - Fast Track Initiative	8.55

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Timor-Leste	15.00	0.00	0.00	15.00



National PBA	15.00	0.00	0.00	15.00
Total	15.00	0.00	0.00	15.00

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025	2026
Annual	0.00	1.04	3.00	4.20	3.56	2.20	1.00
Cumulative	0.00	1.04	4.04	8.24	11.80	14.00	15.00

INSTITUTIONAL DATA

Practice Area (Lead)

Education

Contributing Practice Areas

Digital Development, Infrastructure, PPP's & Guarantees, Social Protection & Jobs, Water

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● Substantial
9. Other	
10. Overall	● Moderate



COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project

	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11		✓
Indigenous Peoples OP/BP 4.10	✓	
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

Schedule 2, Section I.A.1.(a): The Recipient shall ensure throughout the implementation of the Project that the MOEYS has resources and personnel required to enable it to perform its functions under the Project on education service delivery, procurement, disbursement, financial management and safeguards.

Sections and Description

Schedule 2, Section I: The Recipient shall carry out the Project in accordance with the Implementation Arrangements set out in Section I, Schedule 2 of the Financing Agreement.



Conditions	
Type	Description
Effectiveness	Article IV, Section 4.01.(a) Financing Agreement and Grant Agreement: That Recipient has established and adequately staffed the Project Implementation and Management Unit (PIMU) as per Section I.A.3 of Schedule 2 to the Financing Agreement..
Effectiveness	Article IV, Section 4.01.(b) Financing Agreement and Grant Agreement: The Recipient has adopted the Project Operations Manual, in form and substance satisfactory to the Association, as per Section I. B of Schedule 2 to the Financing Agreement.
Disbursement	Section III.B.1 Financing Agreement: No withdrawal shall be made for payments made under Category 2 of the Project unless and until MOEYS has approved the 21st century standards and the infrastructure prioritization list as described in the POM.
Disbursement	Section III.B.1(b) Grant Agreement: No withdrawal shall be made for the Eligible Expenditure Program (EEP) under Category 4 of the Project unless and until the Recipient has: (i) furnished evidence, satisfactory to the Association in accordance with the verification protocol set forth in the POM, that the Recipient has achieved the respective Disbursement-Linked Results (DLRs) set forth in Schedule 4 to this Agreement against which withdrawal is requested; and (ii) complied with the instructions under the Disbursement and Financial Information Letter referred to in Section A above and any additional instructions specified in accordance with Section 3.01(b) of the Standard Conditions, including the submission to the Association of the applicable interim unaudited financial reports and reports evidencing the incurrence of Eligible Expenditures for which payment is requested.



I. STRATEGIC CONTEXT

A. Country Context

- 1. Timor-Leste has made important strides toward securing lasting peace and stability since 2002.** When Timor-Leste became the first new sovereign state of the 21st century in May 2002, public infrastructure, including schools, universities, hospitals, roads, ports and airports, water and sanitation systems, and other government facilities, was either nonexistent, destroyed, or severely dilapidated. Additionally, Timor-Leste's institutional frameworks were weak, extreme poverty and hunger were rampant, and conflict and violence were ongoing threats. Shortages of human capital were equally severe, with few Timorese having government experience or the necessary skills and formal education for professional services or business. While there remain elevated internal and external risks that may yet thwart further development, Timor-Leste today is a more peaceful and democratic nation, having successfully and peacefully undergone two planned presidential elections since 2012.
- 2. Timor-Leste is considered a lower-middle-income country, with a non-oil per capita gross domestic product (GDP) of US\$1,618 in 2017.** Economic growth has been driven largely by the oil and gas sector, which accounted for about 61 percent of GDP in 2017,¹ and represents almost 90 percent of government revenues and 99.5 percent of total exports (IMF 2017). The non-oil and gas sector of the economy has grown about 10 percent annually since 2006, largely based on state capital expenditure. The construction sector has been driven by public infrastructure investment and, together with the public sector, local commerce, and agriculture and fisheries, dominates the non-oil and gas economy of Timor-Leste. Furthermore, declining oil production due to both external factors and decreasing oil reserves, has contributed to a fall in gross national income from a peak of US\$4.6 billion in current prices in 2011 to US\$2.6 billion in 2017.
- 3. Poverty levels remain very high with more than 40 percent of the population lacking the minimum resources needed to satisfy basic needs.** Based on the latest Survey of Living Standards (2014/15), 30 percent of the population lives below the US\$1.90 a day international poverty line. Various other surveys² indicate that half of all children suffer from stunting due to a lack of adequate nutrition and calorie consumption.
- 4. The population of Timor-Leste has been growing steadily at an annual rate of over 2 percent since independence in 2002, challenging the provision of public services, including education.** According to the 2015 Census, the total population of the country is 1,183,643 individuals (male: 50.8 percent and female: 49.2 percent), which represents an increase of 33 percent compared to the population in 2000. This rapid population growth has strained the capacity of the Government to provide public services, including education. At the same time, as Timor-Leste is a young country with a median age of 20 years and with the population under 18 years of age comprising 48.7 percent of the total population,³ there is great potential in the country for the development of a large future workforce that could lead Timor-Leste toward a period of increased productivity and economic growth. To fully capitalize on this potential, there

¹ This represents a decline from 2015 when the oil and gas sector accounted for 70 percent of GDP.

² For example, the Demographic Health Survey (2010).

³ A total of 39.1 percent of the population is under 15 years of age.



is an urgent need to strengthen the capacity of the school education system to deliver quality services to all.

5. **Timor-Leste needs to utilize its financial wealth to improve the human capital of its growing population.** Given its petroleum wealth, Timor-Leste has been able to accumulate a sovereign wealth fund of approximately US\$17 billion, equivalent to 10 years of its non-oil GDP. To achieve sustained prosperity, the Government will require a more strategic allocation of the sovereign wealth fund and other public resources. To date, public spending has primarily focused on low-return infrastructure and poorly targeted cash transfers and has not been sufficiently directed at human capital development. To achieve sustained prosperity growth, along with the development of physical and human capital, Timor-Leste will also need to boost the role of the private sector in generating growth and build institutional and implementation capacity to improve the effectiveness of public spending.

6. **Besides the rapid growth of the population, vulnerability to natural disasters and climate change amplifies challenges related to the provision of public services in Timor-Leste.** Located in the 'Pacific Ring of Fire', the country faces a substantial risk of earthquakes and potential tsunamis in a few points on the southern coast. Cyclones also affect Timor-Leste often and bring heavy rains and associated floods, events that could become more prominent given the emerging patterns of climate change. The country's mountainous terrain is also prone to intense rainfalls, flooding, and frequent landslides. These natural disasters often damage or destroy public infrastructure, such as roads, schools, and private homes. Future infrastructure investments by the Government should consider the risks posed by climate change and natural disasters.

B. Sectoral and Institutional Context

7. **Since its independence, Timor-Leste has shown a strong commitment to education, which is reflected in the 2002 Constitution, the 2008 Basic Law of Education, the National Strategic Development Plan (NSDP) 2011–2030, the National Education Strategic Plan (NESP) 2011-2030, and the recently prepared Education Sector Plan (ESP) 2020–2024.** The 2002 Constitution of the Republic of Timor-Leste establishes the State's following obligations regarding education: (a) "The State will do everything within its means to help education, health and vocational training for youth" (Article 19, no. 2) and (b) "The State recognizes and guarantees the right to education for all citizens" (Article 59, no. 1). The Basic Law of Education in 2008 established the legal framework for the education system. Through this law, the State guarantees the right to education to all citizens and becomes responsible for promoting the democratization of education, thereby ensuring equitable access to schooling. (Article 2). The 2011–2030 NSDP establishes education as a key area for improving opportunities and emphasizes that all children



must go to school and receive high-quality education.⁴ The ESP 2020–2023 updates the NESP and reconfirms the strong commitment of Timor-Leste to the education sector.

8. **Reflecting the country’s strong political commitment to education, public education spending is high in terms of GDP, and it is expected to increase in nominal terms in 2020.** In 2016, public spending on education began to decline due to difficulties in approving the national budget. In 2016, total expenditure on education amounted to US\$119 million, equivalent to 11.9 percent of the national recurrent expenditures, 7.7 percent of the national expenditure, and 7.4 percent of the GDP (non-oil). In 2017 and 2018, the education expenditure declined to US\$115 million and US\$100 million, respectively, in line with the overall decline in public expenditure because of political circumstances. Nonetheless, the shares of education expenditure in national recurrent expenditure and national expenditure were maintained during this period. With the establishment of the new government in 2018, however, the education budget for 2019 increased to US\$150 million, representing an impressive increase of 49 percent compared to the education expenditure in 2018, and it is expected to increase further in 2020 to reach US\$185 million.⁵ This will constitute around 12 percent of the national recurrent budget, 10 percent of the national budget, and 10 percent of the GDP, making Timor-Leste’s investments in the education sector one of the largest in the world in terms of the percentage of GDP spent on education.

9. **In accordance with the high priority allocated to education, student enrollment has increased significantly in recent years, although data inconsistencies make telling a precise story difficult.** In 2018, 302,447 students attended basic education in Timor-Leste, up from 267,038 in 2008/2009. Enrollment rates are high in the first two cycles of basic education, but they decline in Cycle 3 and for secondary education. In 2018, the gross enrollment rate (GER) was 111 percent in Cycle 1 of primary education, 112 percent in Cycle 2, and 95 percent in the Cycle 3. In secondary education, the GER is 72 percent. The high GER in primary education reflects low efficiency in the education system, particularly in the first cycle of basic education. In 2018, net enrollment rate (NER) for the first cycle was 82.69 percent. However, data quality remains a serious issue. For example, in recent years, declines in enrollment have been reported.⁶ However, these declines are most likely due to measurement error and are not necessarily a reflection of actual trends given that the youth population is large and growing.

10. **Despite the growing student enrollment, low levels of student learning limit overall human capital improvement.** The Human Capital Index (HCI),⁷ which measures the amount of human capital a

⁴ The schooling system is organized from preschool to higher education, with nine years of compulsory basic education. The State is expected to “ensure the existence of a public service network of preschool education” as per the Education System Framework Law. There are numerous modalities through which preschool programs are offered including locally administered kindergartens, private, collective, or individual preschool programs, parents and tenants’ associations, religious orders, and so on. The State bears the primary responsibility for providing basic education, which is the focus of this project. Basic education covers the first nine years of schooling and is divided into three cycles. Cycle 1 covers 4 years or the equivalent of grades 1–4; Cycle 2 covers 2 years or the equivalent of grades 5–6, and Cycle 3 covers 3 years or the equivalent of grades 7–9. Secondary school lasts for 3 years or the equivalent of grades 10–12. Basic education is expected to be compulsory, universal, and free.

⁵ According to the Budget Law of 2019.

⁶ This number represents a significant decline in student numbers across three consecutive years—there were 320,654 students in 2016, then 310,785 in 2017, and 302,447 in 2018.

⁷ The HCI conveys the productivity of the next generation of workers compared to a benchmark of complete education and full health. It is made up of five indicators: (a) the probability of survival to age five, (b) a child’s expected years of schooling, (c) harmonized test scores as a measure of quality of learning, (d) adult survival rate (fraction of 15-year-olds who will survive to age 60), and (e) the proportion of children who are not stunted. The HCI is constructed for 157 countries. See World Bank (2019) “The Human Capital Project”.



child born today can expect to attain by age 18, ranked Timor-Leste 118 out of 157 countries. The HCI also shows that overall, a child born in Timor-Leste today will be 43 percent as productive when she grows up as she could be if she had enjoyed complete education and full health. The analysis by component shows that 95 out of 100 children born in Timor-Leste will survive to age 5 and a child who starts school at age 4 can expect to attend 9.9 years of schooling by their 18th birthday.⁸ However, when factoring in what children learn in school, the learning-adjusted expected years of schooling is only 5.9 years, which represents a learning gap of 4 years. This learning gap reflects the substantial challenges in the education sector related to low levels of learning, low levels of efficiency, and inequity in the distribution of resources.

11. **Student learning, as measured by standardized tests, is low.** Comprehensive assessments of student learning in early grades in 2017 show low levels of student learning.⁹ The assessments included an Early Grade Reading Assessment (EGRA) and a Curriculum-based Assessment for grades 1 and 2. The results in the EGRA test showed that 31 percent of the students were not able to identify a single word at the end of the grade 2, while the results of the Curriculum-based Assessment showed that less than 50 percent of these students achieved the competencies prescribed by the curriculum.

12. **Internal efficiency is low with high repetition.** In 2018, on average, the repetition rate in primary education is 12.5 percent, but there are important differences across grades, with a repetition rate of 24 percent in grade 1 and 5 percent in grade 6. In addition, inefficient allocation of resources to schools resulting from a lack of systematic linking between budget allocations to schools and the actual needs of these schools or the performance of schools¹⁰ is a major issue of concern. The practice of distributing resources to schools without proper verification of school-level data (including the number of students), has contributed to overcrowded classrooms, an inadequate number of classrooms in Cycle 2 in most rural schools, and inequities in the provision of material and human resources. This in turn has contributed to the overall low quality of the learning environment in schools. While the Ministry of Education, Youth and Sports (MOEYS) has an Education Management Information System (EMIS) as well as a Personnel Management Information System (PMIS), the use of these systems for policy making is limited.¹¹ Ensuring the quality of EMIS data and effective utilization of these data in making resource allocations and evidence-based policy decisions is important for enhancing the efficiency of the system.

13. **Equity remains a challenge, especially across rural and urban areas, as multigrade and non-Tetum mother tongue environments prevalent in rural areas have not been fully addressed by the new curriculum interventions.** Students who participate in the education system in rural areas or have a mother tongue different from Tetum or Portuguese face disadvantages. Teachers in rural areas, in particular, tend to face two major challenges: multigrade teaching and the high number of students with a mother tongue different from Tetum or Portuguese. Existing analysis shows very low levels of student learning in these contexts, largely due to inadequate preparation of teachers in facilitating the transition

⁸ Note: According to the Human Development Report 2019 from the United Nations Development Programme, the mean years of schooling for Timorese children increased by 1.7 years between 2000 and 2018, and expected years of schooling increased by 2.6 years.

⁹ Based on a sample focused on five municipalities. The results were similar to a nationally representative sample surveyed in 2009.

¹⁰ Performance in terms of repetition rates or results in national exams.

¹¹ The World Bank and UNICEF have reviewed the EMIS and have found that it faces hardware and software limitations. Furthermore, they have found that many schools do not comply with the EMIS rules.



of non-Tetum speaking students to an environment where Tetum is the medium of instruction. Multigrade classrooms are a consequence of the small size of rural schools given the low population density in rural areas. The current new curriculum, which is based on a scripted lesson plan, does not address the particular challenges that multigrade teachers face. More than 50 percent of the students in Timor-Leste do not have Tetum or Portuguese as their mother tongue, and rural areas tend to have particularly high concentrations of students with other mother tongues. Teachers have been instructed in the use of the new curriculum, but there is little focus on the mother tongue or on systematically helping non-Tetum speakers transition to the Tetum-speaking environment.

14. **To improve the quality of learning, it is important to ensure the quality of the learning environment.** In Timor-Leste, the quality of the learning environment is low and is the product of many factors, including factors related to curriculum implementation, teacher preparation, and infrastructure provision. The curriculum and learning materials have recently been revised to reflect good pedagogical practice, but more needs to be done to ensure that the teaching and learning materials (TLMs) are available to all students and are regularly used in the classroom. The MOEYS has also spent considerable time and effort in providing schools with textbooks and workbooks reflecting the latest curriculum and encouraging their effective use in the classroom. Random visits to schools have, however, revealed that there are some lingering implementation challenges. Universal TLM coverage has been achieved for grades 1–4, and the MOEYS expects to achieve universal TLM coverage for grades 5–6 by 2020. An area that needs further support, however, is the preparation of a revised curriculum and relevant TLMs for Cycle 3 and ensuring that children receive TLMs on time. There are also governance issues even in schools where textbooks and workbooks are available in large quantities—there is evidence that the available TLMs are often not being used by the students and/or teachers either because teachers are unwilling to teach the revised curriculum or because they do not want students to spoil the books. While many schools have book corners or libraries, there is limited availability of age and grade-appropriate children’s literature for independent reading, and in many schools, there is still little time set aside during the school day for children to read these books on their own. The children also have very little exposure to modern education technology (EdTech), which is becoming an increasingly important part of the 21st century teaching-learning environment across the globe.

15. **The lack of adequate infrastructure is one of the most pressing issues in Timor-Leste for improving the learning environment.** While there have been some improvements in infrastructure, resulting in reductions in the number of students per classroom from 55 in 2011 to 37 in 2016, these averages often mask significant difference across districts. For example, in Dili, MOEYS data show that there are on average approximately 80 students per classroom, while in Manuhafi that number is 20 students per classroom. In many cases, low student-classroom ratios have been achieved by employing double or triple shifts in schools. Furthermore, approximately 40 percent of students in Timor-Leste start their primary education in schools that do not have classrooms for all grades. Available information also indicates poor quality of the existing infrastructure. Given the current trend in population dynamics (an expected 21 percent increase in the 6- to 11-year-old population over the next 5 years) and the MOEYS’s standards (that the class size should be 40 students per class), Timor-Leste will need to construct approximately 1,500 classrooms for basic education in the medium term.

16. **An issue affecting both the learning environment and equity is the low competence of teachers in the system.** While formal qualifications of teachers in Timor-Leste have significantly increased, challenges in terms of teacher competences remain. In 2016, only 10 percent of basic education teachers



did not have the required qualification of the Bachalerato¹² degree. However, less than 40 percent of the teachers had obtained the Bachalerato degree from a university, with most teachers having obtained their qualifications through equivalency programs. Equivalency programs have been implemented jointly by the *Universidade Nacional de Timor-Lorosae* (UNTL) and the *Instituto Nacional de Formação de Docentes e Profissionais da Educação de Timor-Leste* (INFORDEPE)—the in-service teacher training body of the MOEYS. Another challenge facing the school education system in Timor-Leste is that teachers usually have limited pedagogical training and use the old methods of teaching by which they themselves were taught. To help address this shortcoming, INFORDEPE has also delivered an Intensive Complementary Training Program and provided teacher training licenses to teachers in Cycles 1 and 2 of basic education.

17. In addition to the INFORDEPE and UNTL programs, the Government has launched an innovative training program. In collaboration with the donor community, the Professional Learning and Mentoring Program (PLMP) was launched in 2016 with the goal of reaching all municipalities and schools within 10 years (2016–2025). The PLMP underpins mutual support and supervision activities involving teachers and education inspectors. These activities are related to students’ learning practices and teachers’ teaching practices, including lesson planning and delivery, classroom management, and evaluation activities. The PLMP integrates four key components to stimulate good teaching and learning practices in primary level education: a leadership program, mentoring, peer learning groups, and monitoring of teacher progress through tablets and technology. An initial evaluation indicates improvements in teacher practices in the classroom and student learning. The challenge therefore is to extend this training program to the many teachers throughout the system that need training and ongoing support to improve teaching practices.

18. The proposed project draws on several studies that have been prepared for Timor-Leste. The 2012 ‘Building Evidence, Shaping Policy’ study, a survey supported by the Department of Foreign Affairs and Trade (DFAT) and the World Bank, audited all schools in Timor-Leste to determine the conditions of schools and to assess the need for additional school buildings. The ‘School Demand and Supply: Focus on Infrastructure and Teachers’ study assessed the demand and supply of school facilities and supply of teachers for 2015 to 2030 to support school planning and help facilitate the functioning of the ministry. The 2017 ‘Education Sector Analysis (ESA)’, prepared under the leadership of the MOEYS in close consultation with other stakeholders and donors, provided an assessment of the recent evolution and status of the education system. It included an analysis of the major strengths, weaknesses, and challenges in the education system and provided the analysis for the elaboration of the ESP 2020-2024 and the updating of the NESP 2011-2030. It identified key challenges in Timor-Leste regarding efficiency, equity, and learning. In 2019, the MOEYS and the World Bank prepared a report entitled ‘Using EGRA for an Early Evaluation of Two Innovations in Basic Education in Timor-Leste’, which identified the key challenges faced by students and teachers in implementing early literacy strategies in Timor-Leste. In addition, this study provided an initial assessment of the implementation of the new curriculum and the PLMP, finding positive results in both cases. The project design also benefits from two recent analyses of the EMIS system, one focused on the IT infrastructure and another focused on data use and reliability.¹³ It also draws on the findings from a recent analysis by the World Bank on the experience of the MOEYS in

¹² The Bachalerato certificate is a certification program that includes three years of study upon completion of senior secondary school.

¹³ These were commissioned by the World Bank and United Nations Children’s Fund (UNICEF), respectively.



implementing community-based construction. Finally, it considers the priority areas and strategies for Timor-Leste's education sector established by the recently completed ESP 2020–2024.

C. Relevance to Higher Level Objectives

19. **The proposed project is well aligned with the World Bank Group's Country Partnership Framework (CPF) 2020–2024 (Report No. P134792-TP).** The 2020–2024 CPF is consistent with the Government's Five-Year Implementation Plan (2018–2023) that supports NSDP 2011–2030. The focus areas of the CPF include (a) strengthening Timor-Leste's foundation for private sector-led growth and economic stability, (b) investing in human capital and service delivery, and (c) raising productivity through investments in connective infrastructure. The proposed project supports the CPF's second focus area and its objective of strengthening human capital. The operation will contribute to the World Bank Group's Twin Goals of Ending Extreme Poverty and Promoting Shared Prosperity by investing in human capital, expanding access to quality basic education for all and improving education service delivery. Transformational activities, financed by the project, will include selection criteria that focus on equity. The project will also contribute to the country's gender agenda through prioritized support for training of female teachers and promotion of gender sensitive materials and teacher practices.

20. **The Basic Education Strengthening and Transformation Project (BEST) is well aligned with Timor-Leste's ESP 2020–2024.** The project is aligned with Timor-Leste's medium- and long-term goals of expanding access to quality basic education for all and improving the efficiency of basic education,¹⁴ as identified in the ESP.¹⁵ The key strategies and activities proposed by the ESP for achieving these goals include, among others, building new classrooms based on ranked priorities, developing minimum standards for educational infrastructures, providing training to improve school management, improving the teaching performance evaluation system, ensuring that school directors and other school officials are trained and equipped to use classroom observation tools to monitor classroom processes and provide feedback to all teachers, implementing training programs of excellence, improving printing and distribution systems for TLMs, making all learning materials available through an e-library, ensuring that book corners exist and are properly used in Cycle 1 and 2 classrooms, and developing national assessment frameworks and evaluating learning outcomes of students using international quality test instruments. The ESP also includes, among others, the following strategies and activities for strengthening school system management, which ultimately contribute to the goal of improving efficiency and enhancing quality and equity of educational outcomes: (a) making appropriate use of information technologies and integrated management information systems at the national, municipal, and school management levels; (b) developing and implementing a capacity-building program to ensure that national directorates can implement the NESP; (c) developing quality-controlled data gathering and input services to ensure that EMIS data are appropriately digitalized and available for the decision-making process; and (d) carrying out reviews of the EMIS using a verification census with sample surveys to ensure the reliability and quality of the data. The activities under the different components and subcomponents of BEST are fully consistent

¹⁴ More specifically, the ESP's goals for basic education include ensuring that 98 percent of all children, boys and girls alike, have access to a full course of quality basic education (quality and equity in access) and reducing basic education dropout rate (efficiency).

¹⁵ The ESP was elaborated under the leadership of the MOEYS and was endorsed by the Local Education Group in late 2019. The preparation of the ESP included multiple levels of consultations with the donor community and other local stakeholders, covering all topics in education, from ECED to higher education. Consultations were held in all the municipalities.



with the above strategies and activities. Thus, the project is well aligned with the Global Partnership for Education (GPE) focus areas of quality, equity, and efficiency of education outcomes.

21. **The project also contributes to Timor-Leste's climate policy objectives.** The country's first Intended Nationally Determined Contribution (INDC)¹⁶ places a strong emphasis on climate change adaptation. Building climate resilience of physical infrastructure is one of the policy priorities for adaptation. Timor-Leste is also developing the National Adaptation Plan for medium-to-long-term adaptation strategies and emphasizes that the financial and technical support from the international community will be important for the country to achieve climate-resilient development objectives. Project activities under sub-component 1.1 (Standards for 21st Century Schools) will contribute to these objectives by strengthening disaster and climate resilience and improving energy efficiency of public-school infrastructure. In addition, information on climate change adaptation will be incorporated into teacher training under sub-component 2.3 (Supporting Teacher Quality Improvements) and into Cycle 3 and secondary school curricula under sub-component 3.1 (Teaching and Learning Materials).¹⁷

PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

22. The Project Development Objective (PDO) is to improve the learning environment of basic education schools and increase the efficiency and equity of basic education programs.

PDO Level Indicators

- Number of students accessing classrooms meeting newly developed 21st Century School Standards¹⁸ (learning environment) (disaggregated by gender)
- Share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom (equity and learning environment)
- Share of students in Cycles 1 and 2 who use individual textbooks in the classroom (learning environment)
- Verified EMIS data utilized for the preparation of annual budgets and making infrastructure investment decisions (efficiency)

¹⁶ The Government of Timor-Leste (GOTL) INDC was submitted to the United Nations Framework Convention on Climate Change in 2016.

¹⁷ The school curriculum already has units on global warming and climate change. These can be found in grades 5 and 6 curriculum and are being introduced in the revised Cycle 3 curriculum and the secondary curriculum.

¹⁸ This means schools and classrooms (a) which are flexible in design, (b) where all spaces are fully used and classroom settings can be modified to suit particular learning goals, (c) where students can learn at their own pace, (d) where students have increased opportunities for peer-to-peer learning and can collaborate and solve problems together in multidisciplinary settings, (e) where students can learn and work in settings which would be similar to what they would face in the real world, and (f) where appropriate information and communication technology (ICT) can be effectively utilized to enhance the teaching-learning process.



- Total number of project beneficiaries (disaggregated by gender)
- Students benefiting from direct interventions to enhance learning (disaggregated by gender)

B. Project Components

23. BEST will finance the Government's efforts to improve educational outcomes in Timor-Leste through transformational changes in the learning environment that cover physical infrastructure as well as TLMs, learning assessments, teacher preparation and management, and information systems designed to support management efficiency of the education sector. These transformational activities, where possible, will include selection criteria that focus on equity. BEST comprises four main technical components and a component to support project implementation. It will help align the education system around learning by combining 21st century learning spaces, with well-developed and accessible TLM and qualified teachers to support learning, prioritizing students in need (based on language challenges, poor schooling experience due to overcrowded schools, among others). The project also begins to lay the foundation for improving educational outcomes by periodically and systematically measuring learning in early grades during implementation.

Component 1: Developing 21st Century Learning Spaces (estimated costs: IDA US\$15.00 million; GPE US\$0.00 million)

24. This component supports the ministry in transforming how school infrastructure investments are made and in the development of infrastructure in schools that are in greatest need. Comprising two subcomponents, it focuses on improving infrastructure planning and expanding the provision of classrooms and nonacademic infrastructure¹⁹ meeting minimum standards. The activities under Component 1 will be implemented by the Directorate General of Policy and Planning.

25. This component will enhance the efficiency and equity of project investments in infrastructure development by focusing the investments on schools and classrooms that have the greatest needs as identified by a clear system for prioritizing schools and classrooms, and by using standards-based designs.

26. **Subcomponent 1.1: Standards for 21st Century Schools.** This subcomponent aims to improve the MOEYS's ability to manage the planning, budgeting, designing, financing, construction, and maintenance of basic school infrastructure projects, including a system to prioritize school infrastructure investments. This system for infrastructure planning and expansion will then be used for all infrastructure expansion in public schools, regardless of whether the source of financing is domestic or external.²⁰

27. This subcomponent will finance (a) capacity building of the MOEYS to systematically prioritize, plan, and budget the expansion of academic and nonacademic school infrastructure, recognizing that rehabilitation and expansion of infrastructure will need to be a multiyear effort planned in phases; (b) the development of 21st century school standards; (c) the development of infrastructure planning guidelines

¹⁹ Nonacademic infrastructure could include water, sanitation, and hygiene (WASH) facilities; electrical and digital connectivity; sports and play areas; school boundary walls or fences; teacher residence facilities; and so on.

²⁰ Development partners have expressed an interest in further supporting infrastructure development if the BEST project can provide the needed support to the Government in establishing the standards, system, and transparency for future infrastructure investments.



for prioritizing infrastructure investments and an infrastructure prioritization plan; (d) the development of an online school infrastructure management system or module (linked to the EMIS); (e) the implementation of a school infrastructure census; and (f) the development of standardized school designs.

28. The project will incorporate key engineering and architectural school design elements that (a) strengthen resilience to disasters and climate change (such as improved roofing and drainage, which make them more resilient to climate-related hazards such as floods and storms); (b) maximize energy efficiency through the use of natural light and air flow to minimize the need to artificially manage the temperature in classrooms; and (c) promote sustainability through rain water harvesting, the use of solar panels for dedicated power generation, emphasis on the need for responsible waste management system etc. The pre-approved set of school building/classroom designs will have to meet health, safety, environmental, and aesthetic standards established under this component, including separate WASH facilities for boys and girls and accessibility for disabled students. The prioritization guidelines will initially be tested and applied to prioritize classrooms across a small sample of public schools for which infrastructure data will be collected. The guidelines will be subsequently applied to prioritize the remaining public schools utilizing data from the school infrastructure census. The census will cover all schools in the nation, including both public and private preschools, basic schools, and secondary schools.

29. The online school infrastructure management system will include regularly updated and detailed information on the infrastructure condition of each school, tools for generating a prioritized list of schools for infrastructure construction and maintenance based on the planning guidelines and prescribed standards, infrastructure monitoring data, and the status of maintenance requests submitted by each school. The development of standardized school designs will improve the cost-effectiveness and efficiency with which infrastructure expansion can take place.

30. **Sub-component 1.2: 21st Century Classrooms and Schools.** Based on the set of standards established, designs developed, and prioritization approach adopted under sub-component 1.1, this sub-component will finance the construction and rehabilitation of classrooms, schools, and all the associated non-academic infrastructure. The exact number of schools, classroom, and other related infrastructure to be constructed is expected to emerge from this planning process. However, due to budget constraints it was estimated that, during the project period, up to 200 classrooms could be rehabilitated, and about 480 classrooms could be constructed. These figures are likely to change during implementation once more realistic cost estimates are obtained. Given that much of the construction and rehabilitation work is small-scale and relatively simple and considering that some beneficiary schools may be located in relatively isolated areas, community construction approaches will also be considered in some cases²¹. Efforts will be made to ensure that investments will be concentrated and deepened under this sub-component, with the aim of gradually expanding these standards across schools in the country. This will help support the MOEYS's desire to build structurally sound, high quality and environmentally friendly infrastructure which can also potentially serve as vital pieces of public infrastructure in the event of emergencies or disasters. Infrastructure development may require support from other agencies such as the General Directorate of Water and Sanitation, the General Directorate of Electricity, and the Ministry of Public Works²². The sub-

²¹ The GOTL, through the legal framework of the Decree-Law 6/2015, Decree-Law 4/2012, Decree-Law 8/2013, Decree-Law 11/2013, and Decree-Law 30/2015 established a major school school/rehabilitation program based on community construction. The World Bank did an ex-post assessment of the intervention, finding high levels of satisfaction among stakeholders and proper infrastructure conditions.

²² The proposed project will also encourage other Bank-financed operations to support the provision of such non-academic



component will support capacity development within the MOEYS to manage such infrastructure development.

Component 2: Improving Teacher Effectiveness (estimated costs: IDA US\$0.00 million; GPE US\$2.58 million)

31. The provision of required training to teachers combined with effective observation of the classroom teaching-learning process by school directors, peers and other officials for monitoring and feedback purposes can have a significant positive effect on the quality of teaching, and ultimately on student learning outcomes.

32. **Subcomponent 2.1: Classroom and School Diagnostics.** This subcomponent will support upgrading of a classroom observation tool²³ and its use by directors, assistant directors, coordinators, and other school officials to monitor classroom processes. More specifically, it will finance the finalization of the tool and its deployment in schools across the country, with a particular focus on rural areas. Deployment will involve ensuring that all directors have access to the tool, the necessary training to field the tool and gather information, and the necessary back-up support to analyze and draw conclusions on the best course of support for each teacher under their supervision. The training to principals and the deployment of the tool will be expanded gradually across the country. This will allow the MOEYS to randomize the roll-out of this intervention and understand the effectiveness of this strategy through rigorous impact evaluations. The gradual roll-out approach will also enable MOEYS to improve the tool as it is deployed across all schools.

33. **Subcomponent 2.2: Supporting School Leaders Training.** This subcomponent supports the strengthening of school instructional leadership with an emphasis on improving student learning. It supports five key areas: (a) defining roles for school directors and other school leaders, (b) training on knowledge and skills to be an effective leader, (c) supporting and developing distributed leadership models in school clusters, (d) mentoring and coaching programs for new directors and other school leaders, and (e) providing support on ways to improve retention and transition of boys and girls. Defining roles involves specifying the responsibilities and scope of authority for directors and other school leaders, developing leadership frameworks which will help improve teachers' competencies and induct well-performing teachers into leadership roles, specifying the responsibilities and authority of school leaders within school clusters, and setting goals and assessment frameworks for these leaders. The training of directors and other school leaders will focus on the development of theoretical and practical skills needed to be effective both within the school and within school clusters (through a model of distributed leadership). Coaching and mentoring programs will be implemented to support new teachers inducted

infrastructure. While packaging school infrastructure in this fashion is important, non-academic infrastructure or services for schools may need to be procured and packaged separately to allow for greater flexibility in design.

²³ There are a number of such tools available for the MOEYS to consider. The World Bank has recently developed a tool known as 'Teach'. Teach is an open source tool designed for use in primary classrooms of low- to middle-income countries. It helps track and improve the quality of teaching. The MOEYS has developed an electronic tablet-based PLMP classroom observation tool which is being used on a small scale. This tool allows systematic classroom observation data to be electronically captured and recorded for consolidation and analysis at the center. It is proposed that the existing tool be revised to incorporate relevant elements from the Teach tool to increase the quality of classroom observation. The World Bank is also developing a supporting tool called 'COACH'. Together these can be used by school principals and others to monitor classroom processes and improve upon existing practice.



into leadership roles. While supporting the development and training of school directors, assistant directors, coordinators, and other school leaders, this subcomponent also recognizes that school leadership positions are currently held mainly by men and that there is a need for increasing the number of female school leaders. Hence, the MOEYS will ensure that progressively larger proportions of the participants who complete leadership training programs each year are women. Most of the activities in this subcomponent are already being implemented in some municipalities through an existing donor-supported project. Hence, BEST will focus on expanding the coverage of these activities to the rest of the country and institutionalizing them by undertaking the expansion using the government system. This subcomponent will create a network of carefully selected, experienced, and high-performing school directors who will be given rigorous training to prepare them to serve as trainers and as mentors at the municipal level.

34. **Subcomponent 2.3: Supporting Teacher Quality Improvements.** This subcomponent will finance the following teacher-focused interventions: (a) strengthening the MOEYS's capacity to plan, deliver, monitor, and evaluate in-service teacher training and professional development, and (b) the delivery of continuous professional development focused on improving classroom techniques for improved teaching, particularly for multigrade teachers.²⁴

35. The first intervention will develop a tool²⁵ to evaluate teacher training programs and document the design and implementation details of in-service teacher training programs, obtain comprehensive and systematic information on the effectiveness of teacher training programs, and make recommendations to align them with international good practice and provide feedback to teacher trainers.²⁶

36. Under the second intervention, in-service training will be provided to teachers who teach grades 1-4 (Cycle 1). These training programs will also include training on how to enable students to effectively make the transition, as established in the new curriculum²⁷, from learning in their mother tongues to learning in Tetum and Portuguese²⁸. The in-service training will be provided by INFORDEPE. Teachers will also be trained to closely and continuously track individual student learning in early grade reading and mathematics and provide students with the necessary support. Schools will institute academic support

²⁴ The World Bank and MOEYS have designed a strategy to complement the new curriculum in rural settings with high non-Tetum and multigrade classrooms. The strategy, currently under development and testing, is expected to generate approaches for teachers to better guide them in teaching Tetum to non-Tetum speaking students as well as how to manage multigrade classrooms. These approaches will be used in the development of training modules for the BEST project.

²⁵ For example, the World Bank developed In-Service Teacher Training Survey Instrument (the ITTSI) or a similar tool. The Organization for Economic Co-operation and Development (OECD) has used the Teaching and Learning International Survey (TALIS)--an international survey which can be used to examine teaching and learning environments in schools by asking teachers and principals about what happens in classrooms, what happens in their schools, and in general about their work environment (OECD 2016). <https://www.oecd-ilibrary.org/docserver/2745d679-en.pdf?expires=1565105994&id=id&accname=guest&checksum=CC2E8E8077D3BDFD179D799B4BCBE1EE>

²⁶ The World Bank is currently supporting the GOTL (through a trust fund) to assess the capacity of INFORDEPE, the ministry's pre-service training institution, to adequately fulfill its mandate. The activities supported by this component will complement the work being done through the trust fund.

²⁷ The New Curriculum establishes a progressive transition to Tetum. Starting in the first-grade, children begin the transition to Tetum which is the main language of instruction at the primary level. In primary education, there is a progression of teaching in Tetum and introduction of Portuguese. In secondary education, teaching is in Portuguese.

²⁸ The World Bank is supporting (through a trust fund) the development of a teacher training strategy that will effectively address the challenges in facilitating the transition of non-Tetum speaking students to a Tetum speaking context.



activities for children who need additional support. Moreover, teachers will be trained on gender sensitive methods and parent outreach specifically related to boys' retention.

37. To incentivize the improvement in teaching quality and reduction in spatial disparities in the learning environment, US\$1.0 million of the total financing for this component (US\$2.58 million) will be tied to the achievement of targets for the following disbursement linked indicator (DLI)²⁹:

- Increase in share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom (*equity and learning outcome/environment*)

Component 3: Improving Teaching-Learning Material and Assessment (estimated costs: IDA US\$0.00 million; GPE US\$2.27 million)

38. **Subcomponent 3.1: Teaching-Learning Material.** TLMs for Cycles 1 and 2 have already been developed by the MOEYS. However, the distribution of these materials needs to be improved. Cycle 3 curriculum revision and the development of its TLMs are scheduled to commence in 2020. This subcomponent will support the development of systems to help improve the distribution of Cycle 1 and 2 TLMs and the development of Cycle 3 TLMs. More specifically, this subcomponent will finance:³⁰

- (a) **Strengthening of the systems and mechanisms to support the acquisition, packaging, and distribution of TLMs, including textbooks, to students in Cycles 1 and 2, and monitoring of this process.**³¹ To ensure timely receipt of Cycle 1 and 2 textbooks and other TLMs, the MOEYS also plans to introduce a book distribution day at the beginning of every new school year, when TLMs will be distributed to all students. The project will also support the provision of TLMs for the Cycles 1, 2, and 3.
- (b) **Revision of the curriculum and development of TLM standards and materials for Cycle 3.** This is likely to directly benefit approximately 90,000 students.
- (c) Development of MOEYS capacity to estimate and plan for the number of books to be printed each year and the establishment of a feedback system to provide schools with updates on the status on their TLM needs.
- (d) **Development of digital versions³² of Cycle 1, 2, and 3 books.** These materials will be made available to all basic education schools and will also be accessible through the e-library planned to be developed under this project.
- (e) **Provision of a book corner/library with age and grade-appropriate children's literature for independent reading in all classrooms in Cycles 1 and 2, and short orientations to teachers on the use of these books.** This will increase the time children spend reading and develop in them the reading habit.

²⁹ The DLI targets are referred to as disbursement linked results (DLRs).

³⁰ This subcomponent will also ensure that school curriculum across all years begins to touch on climate concerns.

³¹ This activity will complement the work being done in this area by the MOEYS with financial assistance from Australia.

³² Text and audio-inclusive materials.



39. **Subcomponent 3.2: Strengthening Learning Assessments.** The project will finance periodic national student learning assessments on a sample basis during the project period and strengthen the capacity of MOEYS to manage them. The project will focus on learning outcomes in the early grades (grades 2 and 3). There are several reasons for doing this: (a) learning outcomes in the early grades determine achievement in later years and provide an important and early indication of problems; (b) education reforms have been prioritized in the early grades and the assessments would provide a reasonable steady state assessment of learning in these grades as related curricular reforms and training of teachers have had time to take root, and (c) a national exam at the end of Cycle 3 already exists. Learning assessments in language and mathematics for the targeted grades will be carried out on a sample basis in the first and fourth year of project implementation. The assessments to be implemented will be EGRA and Early Grade Mathematics Assessment (EGMA)³³. In addition, MOEYS will also explore the possibility of Timor-Leste's participating in the Southeast Asia Primary Learning Metric learning assessment in either the 4th or the 5th year of the project period. MOEYS will team up with a specialized agency with expertise in designing and implementing national assessments to carry out these sample-based student learning assessments.

40. The National Curriculum Unit (NCU) in the MOEYS will oversee the assessments and work with the specialized agency. Apart from supporting the design and implementation of the learning assessments, the specialized agency will also conduct capacity development workshops/training for NCU and other relevant MOEYS officials on key topics such as assessment principles, instrument development, sampling, test administration procedures, and data management and analysis to familiarize them with the basics of national assessments and their use. An action plan for reform interventions will be prepared by the NCU based on the findings of these assessments to inform curriculum reform and teacher training.

41. This subcomponent will also support the development of an assessment policy and strategy for enhancing the quality of the national examinations taken by students at the end of grade 9 by moving away from testing rote learning and towards the ability to think. Analyses of national examination results and content will be used to inform and guide changes in further test-item design and teacher training. Training on assessment theory, test-item development and exam marking and analysis will be provided to relevant NCU staff and other experts.

42. To incentivize the distribution of textbooks to students and their regular use in the classroom, US\$0.73 million of the financing for Component 3 is tied to the following DLI:

- Increase in share of students in Cycle 1 and 2 who use individual textbooks in the classroom (learning outcome/environment)

Component 4: Data Driven Planning, Budgeting, Financing and Implementation (estimated costs: IDA US\$0.00 million; GPE US\$2.30 million)

43. This component supports the MOEYS to use data more effectively in decision making and program implementation. The MOEYS currently has a stand-alone EMIS and a separate school management platform (currently being piloted) with a set of applications for sharing information and monitoring

³³ Timor-Leste has local capacity to implement EGRA and EGMA tests. The World Bank developed materials for an EGRA test in Tetum and applied it in 2017 through a trust fund supported project (P150515).



different aspects of education service delivery. This component focuses on strengthening these systems and integrating them into a single user-friendly system.

44. **Subcomponent 4.1: Integrated Sistema de Gestão Escolar.** This subcomponent will finance (a) the development of the system core for an integrated education monitoring and data management system (that is, the *Gestão Escolar* system) that builds upon the existing systems at the MOE—the EMIS and the web-based school management platform; (b) the installation of the associated hardware, including servers, at the MoE and the installation of relevant hardware and Internet connectivity³⁴ in all municipal offices and central schools;³⁵ (c) updating/development of individual applications that will be included in the integrated *Gestão Escolar* system; and (d) training of teachers/staff at the central, municipality, and school levels on the use of the system and the individual applications. The *Gestão Escolar* system will enable users to access the various applications, as well as the EMIS, through a single, user-friendly integrated dashboard. It is expected that all schools will be able to access and use the integrated system by the end of the project period.

45. While it will be possible to add more applications to the *Gestão Escolar* system according to the evolving needs of the MOEYS, the following applications will initially be considered for development and confirmed/changed/prioritized according to the IT Action Plan currently in MOEYS’s approval process:

- **Teacher attendance application.** This application allows school principals to report and electronically record teacher absence through a simple tablet.
- **Communications application.** This application will facilitate bilateral or group communication between schools, municipalities, and the center. It will allow schools to establish direct contact with authorities and report missing inputs in the education process.
- **Content sharing application.** This application will support sharing of the national curriculum (which is scripted) and teaching tips for pedagogical purposes.
- **School report card application.** This application will provide information to schools based on the EMIS data as well as data from the national student assessments where relevant. One of its key features will be the reporting of trends (gender disaggregated) within individual schools and across schools.
- **E-library application.** This application will give access to freely available text (including children’s literature), images, audio, videos, and interactive TLMs targeted toward students, teachers, and families.

46. Prototypes of the first three applications already exist and are being used by the MOEYS. The school report card application and the e-library application need to be developed.

47. **Subcomponent 4.2: Strengthened EMIS and PMIS.** The EMIS is currently partly paper-based and partly web-based and uses outdated technology. Furthermore, there are concerns about the reliability of the existing EMIS data as independent verification of collected data has not yet been done. This

³⁴ Where Internet is not accessible through cables, 4G mobile technology can be used.

³⁵ There are 13 municipalities (including the Special Economic Region of Oecusse) and 202 public central schools in the country.



subcomponent will finance (a) updating of the EMIS software to bring it to current industry standards;³⁶ (b) relevant training needed at the central, district, and school levels to operate the EMIS; and (c) implementation of an independent school census for EMIS data verification in year 1 and a follow-up independent verification survey in year 4 to enhance the reliability of EMIS data. The PMIS currently faces software and hardware limitations and is not linked to the EMIS, thus making it difficult to assess the impact of individual teachers on students. The measures to improve the PMIS will be aligned to those aimed at improving the EMIS (described under section 4.1).

48. The strengthened EMIS will allow for different levels of access at the ministry, municipality, and school levels. Furthermore, it will not only include student-level information on initial enrollment and year-end enrollment but will also support the recording and reporting of student attendance and performance. The EMIS training, which can be combined with the training on the use of the *Gestão Escolar* system, will cover all municipalities and schools in the country, with at least one official from each municipality and each school receiving the training. By the end of the project period, the vast majority of the schools will be expected to submit their annual school-specific EMIS data through the *Gestão Escolar* system. In addition, this subcomponent will support the development of an EMIS policy which will specify, among others, the authority and responsibilities of each level of the education system in relation to the collection, analysis, management, and use of EMIS data. The data will be disaggregated by gender to ensure that all policies are informed by gender-specific data. The policy will also specify which unit or level will be accountable for which aspect of the EMIS and support a decentralized approach to data collection and management. Decisions on infrastructure investment decisions will utilize the verified EMIS data to ensure that schools selected for such investments have adequate numbers of students. These data will also be utilized by the MOEYS in the preparation of annual work plans and budgets, contributing to the efficiency of the education system.

49. Reliable and valid EMIS data are essential for efficient planning of activities and budget allocations each year. Hence, along with supporting the enhancement of the EMIS system and EMIS data quality, this component also incentivizes the use of these data in budget planning by linking US\$1.0 million of the total financing of US\$2.30 million to the following DLI:

- Verified EMIS data utilized for the preparation of annual budgets and infrastructure investment decisions (efficiency)

Component 5: Project Management and Implementation (estimated costs: IDA US\$0.00 million; GPE US\$1.40 million)

50. The component will finance the overall management of the project and put in place mechanisms for monitoring and evaluating the program. A Project Implementation and Management Unit (PIMU) will be created within the MOEYS to manage and coordinate the implementation of all activities financed under the project. Specific activities under this component include (a) project management, (b) monitoring and evaluation (M&E), (c) verification of the DLI targets by an independent verification entity (IVE), (d) fiduciary management, and (e) reporting and communications. The PIMU will include staff seconded from the MOEYS as well as directly recruited staff. This component will also support the capacity

³⁶ The updated EMIS will also be designed to extract and save teacher attendance data from the teacher attendance application periodically. Adequate backup systems will also be put in place.



building of key MOEYS staff in planning, budgeting, and fiduciary management through relevant workshops and training.

B1. Project Cost and Financing

51. **Lending instrument.** The project will use an Investment Project Financing (IPF) instrument with DLIs. Component 1 of the project will be fully financed by IDA funds and disbursements of IDA funds will be based on actual expenditures incurred and paid. Components 2, 3 and 4 of the project will be fully financed by GPE grants. For some parts under components 2, 3 and 4, disbursements will be made only if (i) the relevant DLI targets have been achieved and the achievements have been verified independently by a third party commissioned by the project, and (ii) eligible expenditure programs (EEPs) have been incurred. Disbursements for the remaining expenditures under these three components will be made by the World Bank upon the submission of eligible expenditures. The EEPs for the project are being defined as the salaries paid to government staff and to teachers in basic education.³⁷ Two key subcomponents of the project include teacher and school leader training, and the project emphasizes the need for teachers to utilize effective teaching learning approaches in the classroom to enhance education quality. It is also designed to develop a strong planning, monitoring and feedback system where government staff play a key role. Hence, salary payments to teachers and government officials in the education system are critical for achieving the outputs in the DLI matrix and for achieving the PDO.

52. **Project cost and financing.** The project is being financed by an IDA credit in the amount of US\$15 million equivalent, and a GPE grant in the amount of US\$8.55 million. Of the total GPE financing, US\$2.73 million (31.9 percent) is tied to the achievement of DLI targets related to the GPE’s themes of quality, equity, and efficiency.³⁸ The costs by project component are as shown in table 1.

Table 1. Project Cost and Financing (US\$, millions)

Component	IDA Financing		GPE Financing		Total Project Financing	% IDA
	Non-DLI	DLI	Non-DLI	DLI		
Component 1: Developing 21st Century Learning Spaces	15.00	0.00	0.00	0.00	15.00	100.00
Component 2: Improving Teacher Effectiveness	0.00	0.00	1.58	1.00	2.58	0.00
Component 3: Improving Teaching-Learning Material and Assessment	0.00	0.00	1.54	0.73	2.27	0.00
Component 4: Data Driven Planning, Budgeting,	0.00	0.00	1.30	1.00	2.30	0.00

³⁷ Budget code: 5210701 (*Servicos de Gestao de Pessaol*).

³⁸ The total GPE financing of US\$9.1 million consists of a Maximum Country Allocation of US\$4.1 million and a Multiplier Fund Grant of US\$5 million, from which a grant agent supervision fee of US\$550,000 has been deducted.



Component	IDA Financing		GPE Financing		Total Project Financing	% IDA
Financing and Implementation						
Component 5: Project Implementation and Management	0.00	0.00	1.40	0.00	1.40	0.00
TOTAL	15.00	0.00	5.82	2.73	23.55	63.69

C. Project Beneficiaries

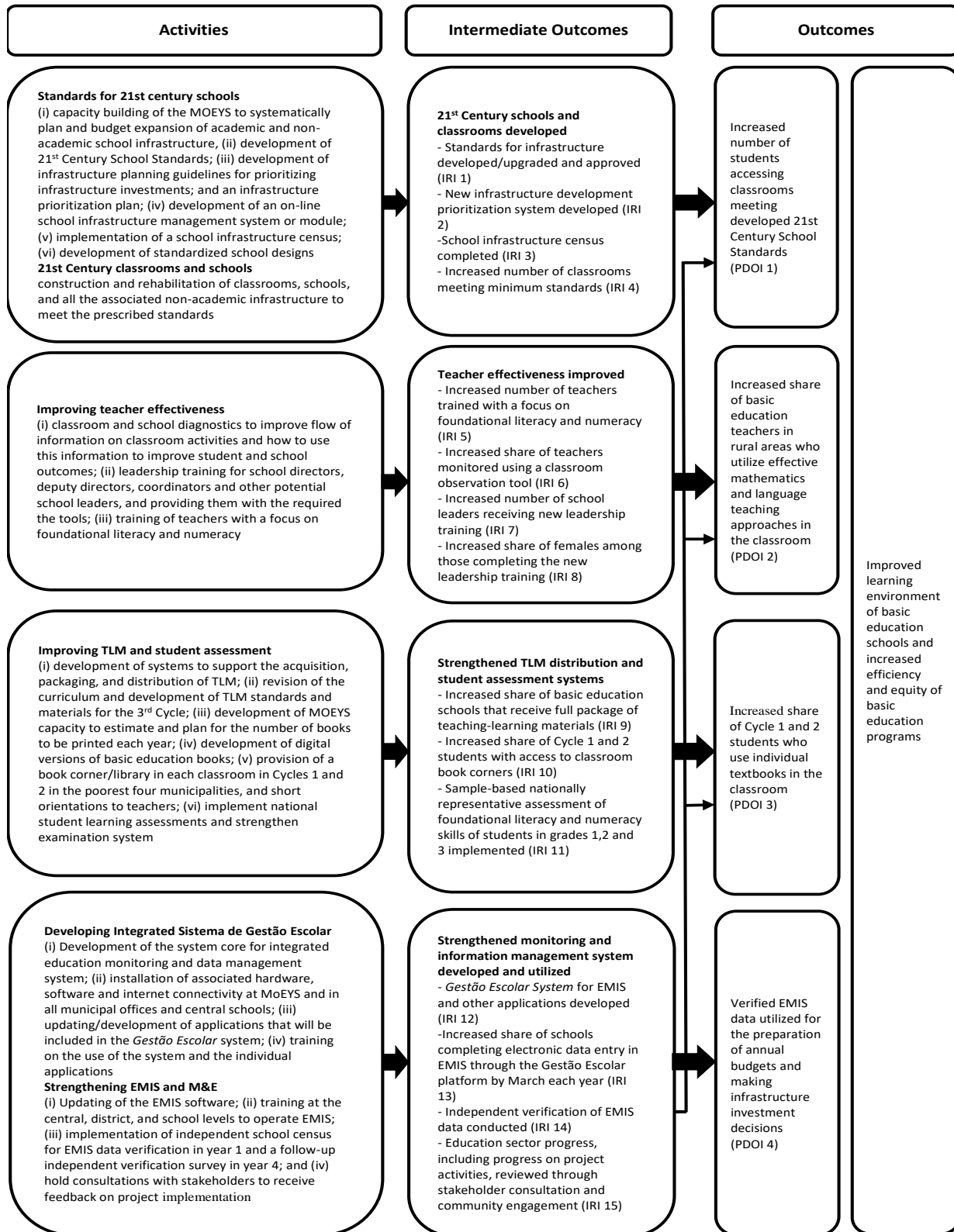
53. The project will directly assist at least 150,000 students³⁹, teachers, and administrators through the lifetime of its operation. It will closely monitor and ensure support to girls and children from disadvantaged backgrounds.

54. The exact locations for infrastructure development under the project will be determined during project implementation as guidelines for infrastructure expansion and rehabilitation, including the methodology for prioritization and sequencing of these efforts, will be developed in the first year of the project period. It is likely that the project will be implemented across the country.

³⁹ Most of these beneficiaries are public school students.



D. Results Chain





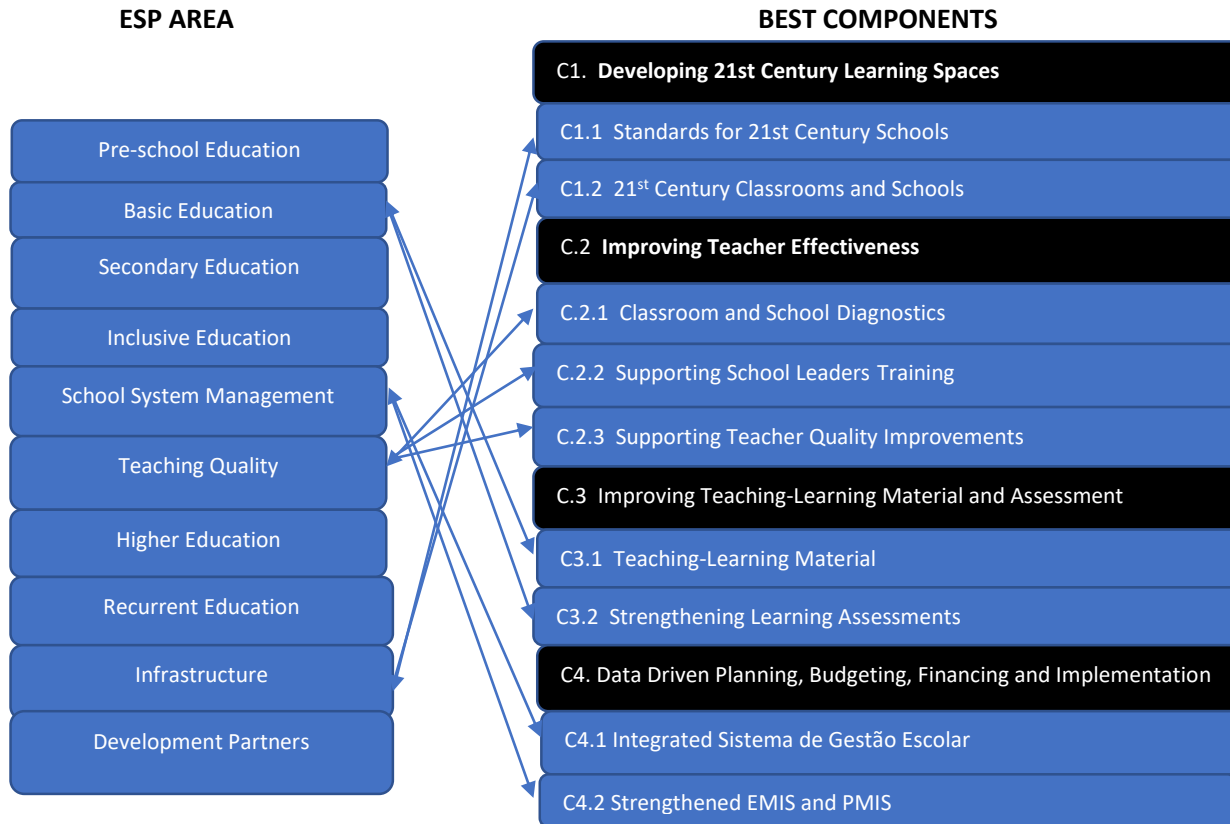
E. Rationale for Bank Involvement and Role of Partners

55. Public investment in education is justified on the basis that education, particularly basic education, is now seen as a fundamental right in most countries around the world. This is no different in Timor-Leste, where basic education is a right, is compulsory, and is stated to be free. Public investment in education is also often justified on equity grounds and on the belief that access to basic education services should not be conditional on one's income or wealth status. Given both the rights-based approach and the equity argument, public financing is often used to support the participation of children from disadvantaged and marginalized communities in good quality basic education. These are the same reasons or arguments used as the rationale for financing this operation. From a macro-perspective, it can also be argued that investments in education and efforts to boost a nation's human capital is known to have impacts on long-term economic growth by helping increase productivity and competitiveness of an economy. Another way to justify public financing of education is to look at this from the viewpoint of a household where in an ideal setting, households will recognize these social and wider benefits and thereby prioritize investments in the schooling of their children. However, there are a number of constraints that households face, for example, the lack of perfect information, which makes it difficult for them to foresee the positive externalities that are likely to accrue from investments in their children's education. Credit constraints also play an important role in suboptimal investments in basic education. The up-front costs of education can be considerable with pay-offs often delayed by up to two decades. Households, particularly poor households, are often unable to cover these costs directly and in most of these settings, credit markets are not developed enough to extend education loans. Furthermore, even if parents displayed perfect foresight and did not face credit constraints, most parents will have limited information on school quality. Given that information on the quality of school is limited, parents often face difficulties in identifying the most suitable provider.

56. The World Bank has been engaged for a long time in Timor-Leste through both analytical work and through the administration of grant financing. This long-term engagement in the Timor-Leste education sector can add value to the project's implementation. The World Bank has previously assisted the MOEYS through the GPE-supported Management Strengthening Project (P125443) and the World Bank-supported Timor-Leste Second Chance Education Project (P116520), which supported the NSDP 2011–2030. The World Bank can also draw on a considerable knowledge base of similar interventions across the region to support the implementation of the project.

57. The World Bank is a founding member of the *Ação Conjunta para a Educação Timor-Leste* (ACETL)—the local education group in Timor-Leste. The ACETL is chaired by the MOEYS and UNICEF is the ACETL coordinating agency responsible for facilitating the dialogue between the Government and the donor community. The ACETL has designated the World Bank as the GPE Grant Agent for the preparation of the ESA and ESP, and for the ESP Implementation Grant and Multiplier Fund Grant. It has endorsed the ESP and the design of BEST. As presented in figure 2, BEST addresses some of the key challenges identified by the ESP.

Figure 1. ESP - BEST Alignment



F. Lessons Learned and Reflected in the Project Design

58. The project design is based on numerous lessons obtained from the design and implementation of similar and relevant World Bank financed projects around the world and in-country, as well as on the significant analytical work undertaken by the World Bank and other partners in basic education in Timor-Leste.

59. **Focus on data use and not just data collection.** While the design of the current EMIS is quite good, the emphasis has been mostly on counting the number of students and teachers in the system. Creating data platforms which bring together information and data from a wide variety of sources will allow the ministry to use sector data for more informed decision making. The platform will help integrate administrative, school, teacher, finance, and other relevant databases to help improve overall ministerial planning. Project indicators measure the use of data and not simply its collection.

60. **Simultaneous convergence of multiple inputs.** The project design focuses on ensuring that there is a convergence of inputs within the classroom, so that infrastructure inputs, TLMs and qualified teachers are simultaneously available to maximize the impact of these investments.



61. **The importance of donor coordination.** The project design considers both the government’s role and the activities of other development partners. The project builds on ongoing interventions and systems to ensure that project activities reinforce and buttress good policies, programs and activities already in place. The project design accounts for the numerous activities supported by development partners and scales up some of the more successful ones.⁴⁰

62. **Role of standardized designs and infrastructure planning in controlling costs.** Standardization of infrastructure and planning for schools is an important way of controlling costs of infrastructure expansion. Therefore, the project emphasizes, through Sub-component 1.1, the need to establish a clear policy, procedures, rules and regulations regarding infrastructure expansion. The project design limits the use of project financing for infrastructure development until such an acceptable design is in place, and that all infrastructure is carefully planned, budgeted, financed, implemented and maintained.

63. **Government ownership.** The Government of Timor-Leste has demonstrated a high level of country ownership on similar projects in the past, financed by the Government, other development partners and through IDA grants. In particular, the capacity of the government has been strengthened through the MSP that focused explicitly on capacity development of all departments within MOEYS. The government has also developed an Education Sector Plan that the project is directly supporting. A sustained level of commitment to implementation is needed for project success and this is reflected in the project design through the implementation arrangements.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

64. The MOEYS will have the overall responsibility for coordinating and implementing BEST. This will include all aspects related to education service delivery, procurement, disbursement, financial management (FM), and social safeguards. The MOEYS will be the implementing agency for the project. A single PIMU will be established within the MOEYS for the implementation of all components. The PIMU will report to the minister or an official designated by the minister to ensure that this broad-based program can be viewed in an integrated and unified manner. However, other government agencies such as the Ministry of Finance (MOF) and the National Procurement Commission (NPC) will also have important roles in BEST implementation.

65. A Project Steering Committee (PSC) will guide the implementation of the project. The PSC will be jointly chaired by the Minister of the MOEYS and the Minister of Finance, and will also include the Vice Minister for Education, the relevant Director Generals of the MOEYS, a representative of the MOF’s Loans Department, a representative of the MOF’s Grants Department, a representative of the Ministry of Planning and Strategic Investment, a representative from the Ministry of Public Works⁴¹, a representative from the Ministry of Transport and Telecommunication, and a representative of the Ministry of State Administration. The main function of the PSC will be to set the annual objectives for the project through

⁴⁰ In particular, it will upgrade the classroom observation tool developed under the Australia supported PLMP project and scale up its use. It will also build upon and scale up the school leadership training activities supported by PLMP.

⁴¹ The representative will be from the Building and Water and Sanitation Directorate within the ministry.



a *Plano Ação Anual*⁴² (PAA) of the MOEYS. The PSC will also ensure that the PAA is submitted for subsequent approval by the Parliament and inclusion in the national budget law. The PSC will meet twice a year no later than the third week of June and the third week of January.⁴³

66. The PIMU will be headed by a Project Manager who will also serve as the member secretary of the PSC. The PIMU will have responsibility for the overall coordination of the project, fiduciary management, accountability for safeguards, and reporting. The PIMU will also have key staff including, among others, a set of civil servants and technical experts, assigned/recruited based on terms of reference acceptable to the World Bank, to provide support to the MOEYS. These key staff members will include, among others, an M&E specialist, a finance officer, a procurement specialist, an infrastructure development specialist, an environmental and social safeguards specialist, and essential support staff. The technical experts will be recruited competitively. The PIMU will work closely with the other units/structures within the MOEYS responsible for implementing the project components.⁴⁴ The PIMU will provide quarterly technical and financial reports to the PSC and relevant stakeholders through the minister's office.

67. The PIMU will work in close collaboration with different directorates of the MOEYS, including the Directorate General of Policy and Planning (focused on Components 1 and 4); the Directorate of Planning and Inclusive Education (focused on Component 4); the Directorate of Pre-School and Basic Education (focused on Components 2 and 3); and the Directorate of Curriculum (focused on Component 3). INFORDEPE, a semiautonomous agency of the MOEYS specialized in teacher training, will support teacher training activities (Component 2). The PIMU will also work closely with the NPC to obtain guidance on matters related to procurement. The Project Operations Manual (POM) will provide details on how the PIMU will interact with the different directorates of the MOEYS and other government agencies.

68. Funds will be disbursed for the implementation of the project to the Designated Accounts (DAs) of the project and will monitor the implementation of the yearly audits. The MOF has experience overseeing other projects financed through loans and grants from international partners. The MOF will provide budget resources for the DLI related activities. The Bank will reimburse MOF for the amounts associated with the DLIs when the DLI results are achieved and verified by the IVE, and sufficient expenditures are incurred under the EEP.

B. Results Monitoring and Evaluation Arrangements

69. The project's Results Framework is covered in section VI. Overall responsibility for M&E will be with the PIMU. The PIMU M&E specialist will be responsible for ensuring that systems are in place for collecting data against project indicators, working with other MOEYS staff to improve their capacity to collect accurate and timely data from administrative systems, as well as using this data for analysis,

⁴² This is the Government's annual work plan and budget document.

⁴³ The June meeting of the PSC will be in alignment with the Government's annual budgeting process which is typically completed by August each year.

⁴⁴ For example, the Directorate-Generals of Policy, Planning, and Partnerships which are mandated to manage, among others, education infrastructure; preschool and basic education; secondary education, which is responsible for the improvement of the quality of learning conditions; administration and finances; and INFORDEPE, which is responsible for teacher training.



planning, and M&E. The M&E specialist will also provide support to the MOEYS in strengthening the M&E system for all relevant departments of the MOEYS.

70. The PDO-level and intermediate result indicators will be primarily monitored through administrative data from the MOEYS. In addition (a) spot checks for consistency in EMIS data will be carried out by the EMIS section of the MOEYS, in close coordination with the PIMU; (b) beneficiary assessments and tracer surveys on post-basic education outcomes will be done; (c) community consultations will be organized by the PIMU each year in different municipalities to discuss education sector progress, including progress on project activities; and (d) biannual progress reports will be prepared by the PIMU, for both the PSC and for submission to the World Bank for replenishments. The biannual progress reports will be used by the World Bank and other partners for supervision of project implementation and progress. The IVE will verify the achievement of DLI targets. It is expected that the MOEYS will also conduct a joint education review each year with partners and key education stakeholders to monitor progress in the implementation of the ESP and BEST.

71. Moreover, impact evaluations of interventions will be conducted, where feasible, as part of the project to build capacity within the MOEYS to carry out prospective policy/strategy-related research. The PIMU will work closely with World Bank experts in designing such impact evaluations. Indicators will be disaggregated by gender to the extent possible.

C. Sustainability

72. Sustainability of the results of this project lies in its close link with the sector and the country's long-term development plans—NESP 2011–2030. At the country level, the NESP 2011–2030 emphasizes an infrastructure-led development strategy but with an important role for human capital development. The implementation of BEST will help establish standardized school designs, which will improve the cost-effectiveness and efficiency of civil works, introduce 21st century solutions to facilitate teaching and learning standards, support teacher management, and build capacity on the use of data for more effective decision making. Moreover, the sustainability of BEST will be enhanced by the following factors: (a) government ownership and commitment to reforms related to the NESP; (b) the technical viability of the design, which is based on international knowledge and expertise and experience of the previous investment operations; and (c) the design and implementation arrangements which pay attention to building capacity and establishing standards in the MOEYS. The key indicators and the interventions that were selected to form part of the project components and deliverables are aligned with the overall policy and program priorities of the Government in basic education in the next five years, as well as with the Government's overall priorities in terms of spending and execution.

73. This is the first time that the GOTL has sought financing from an international finance institution for a social sector operation. This demonstrates both the commitment of the GOTL to increase expenditures on human capital development and simultaneously signaling to the rest of the development partner community the Government's strong ownership of the project from the beginning. All of these factors contribute to mitigating sustainability risks which are judged to be Moderate.

74. Under each component, the project builds on initiatives already in place or under development rather than introducing new activities—whether through grant-financed projects previously managed under IDA grants or through national budgets or other development partner assistance. Component 1 and



its subcomponents build on existing infrastructure development programs in place at the MOEYS and supported by a range of development partners. Components 2 and 3 will build on ongoing activities, including projects supported by development partners, in areas such as curriculum revision, teacher training, leadership training, TLM development and distribution, and student assessments, particularly EGRA. Component 4 will support improvements in the EMIS and develop a more integrated data management system to improve governance and evidence-based decision making in the ministry. Institutional capacity-building efforts will be built into all five components to ensure that the relevant units have the resources and ability to successfully implement the program and continue the activities after the project closes. Since some of the key staff participating in the project will be civil servants and technical experts from within the MOEYS, capacity will remain within the ministry.

D. Role of Partners

75. Several development partners are already engaged or will be engaged in the education sector during the implementation of the project. For example, UNICEF has assisted the MOEYS in developing some technical/engineering standards for its school buildings and DFAT and the New Zealand Ministry of Foreign Affairs and Trade (MFAT) have worked with the MOEYS on teacher/administrator training. Other development partners working in the education sector include Portugal, Brazil, Cuba, UNESCO, China, Japan, Korea, Save the Children, and Millennium Challenge Corporation. It is expected that the proposed project will closely coordinate with these development partners during implementation to avoid duplication of effort and complement the work of other donors where relevant.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

76. The project is closely aligned with the NESP (2011–2030), other plan documents of the GOTL, the new ESP 2020–2024, and the World Bank Group’s CPF 2020–2024. The design of the project is based on a careful analysis of the needs in Timor-Leste’s education sector and has drawn upon the inputs obtained through consultations with staff of relevant ministries, with development partners and other stakeholders. Moreover, the project is based on international experience which shows that the key ingredients needed to address learning include (a) prepared learners, (b) effective teaching, (c) learning-focused inputs at the school level, and (d) skilled management and governance. Each project component and subcomponent has been tailored to include these key ingredients as well as the educational needs of Timor-Leste and contextualized to realities on the ground.

77. The cost-benefit analysis (CBA) framework is employed to estimate a plausible range of net economic benefits and internal rates of return (IRR) which could result from the impact of project interventions being envisioned on increasing the skills of Timor-Leste’s workforce. The two reform scenarios considered are each compared to the baseline or a business-as-usual scenario. The benefits are calculated from the present value of expected increase in GDP growth in the future. The CBA results from the Reform 1 scenario discussed is summarized in column (1) of Table 2. In this scenario, it is assumed that the reform will increase cognitive skills of student beneficiaries equivalent to 2 years of schooling and that 100 percent of the children born in 2014 and after will benefit from the project. If the present value



of the combined Government and World Bank project financing totals US\$104.1 million, the net present value (NPV) of the project is estimated to be US\$9,046 million, with an estimated IRR of 25.19 percent.

78. The CBA results from Reform 2 scenario are summarized in column (2) of Table 2. In this scenario, it is assumed that the reform will increase cognitive skills of student beneficiaries equivalent to 1 year of schooling and that 50 percent of the children born in 2014 and after will benefit from the project. Assuming once again that the present value of the combined Government and World Bank project financing totals US\$104.1 million, the NPV of the project in this less optimistic scenario is estimated to be US\$2,091 million, with an estimated IRR of 17.04 percent.

Table 2. Cost-Benefit Analysis of the Project Interventions

	Reform 1	Reform 2
Present value of increase in GDP growth over baseline	9,150,657,944	2,195,673,172
Less:		
Present value of World Bank project financing	23,550,000	23,550,000
Present value of government financing	80,000,000	80,000,000
NPV (5% discount rate)	9,045,657,944	2,090,673,172
IRR	25.19%	17.04%
Selected parameters:		
Share of student benefiting from the project in each cohort	100%	50%
Improvement in student learning outcome (years equivalent)	2.0	1.0

Source: World Bank staff calculations.

B. Fiduciary

(i) Financial Management

79. The World Bank carried out the FM assessment of the project implementing agencies to determine whether the FM systems have the capacity to produce timely, relevant, and reliable financial information on project activities. The assessment also aimed to determine if the accounting systems for project expenditures and underlying internal controls are adequate to meet fiduciary objectives, allow the World Bank to monitor compliance with agreed implementation procedures, and appraise progress toward project objectives.

80. The PIMU arrangement includes civil servants as well as directly recruited consultants. Although the ministry has prior experience managing donors' projects, including the World Bank-financed projects, the previous World Bank-funded projects were managed through dedicated PIMU arrangements and led by consultants. All projects have since closed. Overall, the project has three major risks: first, limited FM staff capacity in the civil service; second, reliability of the accounting and reporting system; and third,



adequacy of government budget allocation, especially for DLI-related activities as Timor-Leste does not have experience in successfully implementing DLI-based financing.⁴⁵

81. The risks will be mitigated by providing technical assistance through the recruitment of an FM officer to assist the financial unit in the PIMU at an early stage and possibly recruiting an additional staff when the disbursement picks up (based on need); and utilizing Excel to maintain subsidiary records for accounting and reporting purposes during the early stages of implementation. However, during the first supervision mission, progress toward adapting the government country system of Free Balance will be reviewed, and if a need is identified, a separate accounting software may be recommended. Overall, the ex-ante project FM risks are assessed as Substantial. However, with the inclusion of the mitigation measures the residual risk is judged to be moderate and the proposed FM arrangements satisfy the World Bank's minimum requirements.

(ii) Procurement

82. It is estimated that the total amount of money that the project will use for procurement will be up to US\$20.0 million, with most of it being procurement of works, goods, and some consultancy services particularly required during the initial phase of project implementation. Procurement for the project will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers (July 2016, revised November 2017 and August 2018) and the provisions stipulated in the Financing Agreement. This includes the requirement for the project to use Systematic Tracking of Exchanges in Procurement (STEP) for procurement planning, monitoring, and record keeping.

83. The procurement strategy will be set by the NPC and implemented by the PIMU with strong collaboration of NPC. The NPC has satisfactorily performed procurement activities to date for the donor-funded projects, including World Bank-financed projects, applying the Procurement/Consultant Guidelines. The NPC will be delegated the responsibility and accountability for carrying out the procurement process of high-value/complex contract packages under the project, while the remaining packages will be procured by the PIMU/MOEYS itself under its own responsibility and accountability (threshold amounts and specific contract packages to be procured by the NPC and PIMU will be specified in the Procurement Plan). However, neither the NPC nor MOEYS has any prior experience in applying the World Bank's Procurement Regulations. The PIMU will be responsible for the planning, monitoring, and consolidated reporting of the overall procurement under the project.

84. Anticipated procurement risks include delays due to lack of NPC and MOEYS' prior experience in applying the Bank's Procurement Regulations, limited institutional capacity and weak skills of MOEYS in procurement planning and monitoring and in contract management, and lack of clarity in the division of responsibility between NPC and MOEYS for the procurement packages to be respectively procured by them under the Project. MOEYS will assign, for the duration of the Project, a dedicated government staff with experience in procurement to be part of the PIMU and serve as the focal person for the procurement

⁴⁵ This is only the second World Bank-financed project with DLIs. The first project—the Sustainable Agriculture Productivity Improvement Project—had to be restructured to remove the DLIs because of implementation challenges related to reporting and prefinancing of DLI-related activities. One lesson from the agricultural project is that it may take time for the implementing agency to become fully comfortable with requesting prefinancing for DLI related activities, which might have a negative impact on DLI achievement. To mitigate this risk, except for one DLI target, all other targets are for year 2 and beyond. Furthermore, rollover is allowed for the single year 1 DLI target.



to be carried out by PIMU/MOEYS itself, and for also coordinating, monitoring and reporting all procurement activities under the Project. In case a qualified government procurement staff is not available, a qualified procurement consultant will be engaged by MOEYS to be part of the PIMU and assist, guide and train MOEYS staff in carrying out the procurement. The Bank will conduct training workshops for PIMU and NPC staff on the Procurement Regulations before the commencement of and during project implementation. The STEP system will further enable procurement monitoring. The specific contract packages to be procured by NPC and by PIMU/MOEYS under the Project will be identified and specified upfront in the Procurement Plan with clear demarcation of responsibility and accountability.

85. The Project Procurement Strategy for Development and project Procurement Plan have been developed. The ex-ante procurement risk under the project is deemed to be Substantial. However, with the inclusion of the mitigation measures discussed above, the residual risk is judged to be moderate.

C. Safeguards

86. Overall, social and environment impacts of the BEST project are expected to be positive and therefore of Moderate risk. The project has been classified as Category B and has triggered OP 4.01 Environmental Assessment, OP 4.10 Indigenous Peoples, and OP 4.12 Involuntary Resettlement. It is expected to bring positive environmental and social outcomes through better-quality classrooms and schools; improvement of schooling facilities such as, furniture, connectivity, and digital resources; access to quality TLMs as well as play material and equipment; and well-trained and high-quality teachers. The borrower has prepared an Environmental and Social Management Framework (ESMF). The ESMF sets out procedures for the effective management of environmental and social impacts of the project to ensure that potential adverse impacts that may be generated as a result of each project activity are identified early, and appropriate safeguards instruments are prepared before implementation to avoid and minimize environmental and social impacts. The ESMF provides screening tools as well as impact identification and mitigation measures. The ESMF was disclosed on the Bank's website on January 28, 2020.

(i) Environmental Safeguards

87. No significant environmental impacts are expected as the project will only involve minor infrastructure development. Project activities requiring construction and physical works will likely cause some temporary site-specific environmental impacts such as noise, dust, waste/building debris disposal, and labor and community health and safety issues including traffic safety. The project is also not expected to generate significantly more electronic waste (e-waste) than it would in the absence of the project. The ESMF includes Environmental Code of Practices and occupational health and safety measures. These as well as the use of good practice in building construction will help mitigate the potential impacts mentioned earlier. Renovations of existing schools may require provisioning of temporary classrooms and relocation to other buildings and/or scheduling adjustments to ensure the health and safety of students. During the facility operation phase, the main risks will be on building safety and performance of the sanitation facilities, hence underpinning the importance of safe and secure school designs as well as introducing good hygiene practices in school.



(ii) Social Safeguards

88. No major negative social impacts are envisaged as the project will only involve minor infrastructure development. The project is designed to avoid the need to use land other than school- or government-owned land to the greatest extent. However, allowing for the small possibility that some target schools may require additional land to build new classrooms or other school facilities, the World Bank's OP 4.12 on Involuntary Resettlement has been triggered as a precaution. The project has prepared a Resettlement Policy Framework including a Voluntary Land Donation Protocol, which are included in the ESMF. The project also triggers the World Bank's OP 4.10 on Indigenous Peoples as a precautionary measure to address safeguards requirements related to indigenous peoples. Public consultations carried out with potential beneficiaries indicate broad community support for the rehabilitation of existing schools and addition of classrooms. As findings from a social assessment indicate that no significant differences in cultural and social identity exist among the people who speak different languages, there is no need to prepare an Indigenous People Policy Framework (IPPF). However, consistent with the requirements under OP 4.10 as stated in the ESMF, certain aspects of the IPPF will need to be included in the POM.

(iii) Gender

89. **Gender gap.** A recent report entitled 'A Gender-Sensitive Insight of Poverty Mapping for Timor-Leste' by the World Bank (2019) shows that the literacy rate for the population aged 15 to 40 years is relatively high but highly gender unequal. The male population is more likely to be literate than the female population. The report also finds that this gender gap narrows significantly when the age of the cohort is restricted to the youth population (15-24 years old). Girls are more likely to be enrolled in education than boys of the same age group in many sucos.⁴⁶ Available data show that in 2018, the primary NER was 85.8 percent for girls and 79.9 percent for boys. The current data collection system is not adequate for properly tracking gender differences in access, outcomes, and participation. The current EMIS system disaggregates enrollment data by gender but does not include other types of data (e.g. learning). This lack of data makes it difficult for policymakers, school principals and teachers to establish interventions to address the gender gaps in the education system. Moreover, leadership positions within the education system continue to be heavily dominated by male teachers. This is an indication that more needs to be done to increase the number of women entering the profession since leadership positions are determined from within the teaching ranks. Female teachers are also good role models for young girls that may want to enter the teaching profession and the labor market in general.

90. **Actions.** Component 2 will ensure that training for school leaders and teachers include modules on gender sensitive approaches as well as out-reach techniques to parents and communities on the importance of school attendance for children, particularly related to boys. The project will also prioritize support for training of female teachers and will monitor this project activity with the inclusion of an intermediate results indicator. Component 3 activities will further promote gender-sensitive materials and teacher practices in the classroom that can have long-lasting positive impacts for both boys' and girls' learning outcomes. Moreover, learning outcomes will be monitored for boys and girls once the baseline has been determined. Component 4 places emphasis on ensuring that data gathered through the project,

⁴⁶ The administrative posts (former subdistricts) of Timor-Leste are subdivided into 442 *sucos* ('villages') and 2,336 *aldeias* ('communities').



and data platforms constructed, will disaggregate data by gender at all levels. A data platform will be developed to collect these data (i.e. strengthen the EMIS platform to collect enrollment, access, outcomes and participation data, including verification). This will help ensure that gender disparities in access, participation and outcomes can be scrutinized more closely and support the development of appropriate measures to address them. This data will also contribute to ensuring that a gender policy dialogue is conducted specifically with school principals, teachers and communities on closing the gap for boys in enrollment, access, outcomes and participation. The gender-based violence (GBV)⁴⁷ of the project has been assessed using the existing GBV risk assessment tool that indicates that the GBV risk of the project is low. The project will only entail small infrastructure works such as school rehabilitation and there will be no labor influx issue as the potential workers of the construction works will be resourced from local areas. The code of conduct will be applied to construction workers and will be included in the safeguard’s documents.

Table 3. Closing the Gender Gap in Timor--Leste

Gap	Action	Indicators
There is lower enrollment of boys in school. Available data show that in 2018, the primary NER was 85.8 percent for girls and 78.9 percent for boys. There are no data to properly track access, outcomes, and participation.	<ul style="list-style-type: none"> • Develop a data platform to collect these data (i.e. strengthen the EMIS platform to collect enrollment data, including verification) • Inform policy dialogue and socialize school directors and other school leaders on closing the gap for boys in enrollment based on data collected. 	<ul style="list-style-type: none"> • Female-male difference in primary NER (percentage points) • Integrated platform for EMIS and other applications (Gestão Escolar) developed (with provisions for accessing gender specific data) • Share of females among those completing the new leadership training program during the current fiscal year
Male teachers also dominate the teaching profession thereby creating a gender gap within the profession.	<ul style="list-style-type: none"> • Conduct training at central, district, and school levels to operate the EMIS • Promote the participation of females in leadership training 	<ul style="list-style-type: none"> • Teachers recruited or trained (female)

(iv) Citizen engagement

91. A number of measures will be put in place to ensure that citizens are adequately consulted and have the recourse to be able to provide feedback on how the project activities are functioning. This includes (a) holding regular consultations with stakeholders, including community consultations each year in different municipalities, to ensure that the project is effectively fulfilling the objectives set forth; (b) emphasizing capacity building and institutional strengthening; and (c) introducing an intermediate results indicator which measures feedback from beneficiaries through consultations with communities. The

⁴⁷ Gender inequities and GBV are still prevalent. Despite progress in women’s political participation, access to education, and improved health outcomes and a vision for achieving gender equality, gaps remain largely owing to limited capacity and resources, failures in coordination, and unequal gender norms. One-third of women have been victims of physical violence by age 15 and 40 percent of ever-married women have been victims of spousal violence. High cultural tolerance of violence is evidenced by nearly three-quarters of women and over half of men surveyed agreeing that a husband is justified in beating his wife. Very few women report violent behavior, even when this results in physical injuries that must be treated in hospital. There is a need to strengthen gender-responsiveness and implementation capacity of government institutions and civil society organizations; improve access to health-related information and services; increase access to employment or self-employment for women, youth, and people with disabilities; and reduce gender-based violence.



feedback from beneficiaries will be used during the mid-term review to make needed adjustments to the project if needed.

(v) Other Safeguards - Children with Special Needs or Differently Abled Children

92. Under this project, the MOEYS will continue to stress the need to ensure that educational services reach the most marginalized citizens of Timor-Leste. A special group includes children with mild to significant levels of special needs. This will be achieved in several ways. First, by ensuring that the policy of inclusion is publicized⁴⁸ and making efforts to ensure that children with special needs are reached by schools around the country. Depending on the level of support required for each child, special measures will be incorporated to ensure their participation in an inclusive manner or guarantee access to educational services. Broader measures, such as appropriately designed access ramps at schools, bathrooms specially designed to support use by children with special needs, safety measures to ensure hazard-free access to school buildings and school grounds, and in-school procedures to be adopted in the event of natural or man-made emergencies will be part of project design.

(vi) Grievance Redress Mechanisms

93. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, because of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

V. KEY RISKS

94. Key risks for the project have been identified and are rated in the Systematic Operations Risk-Rating Tool. Before mitigation measures have been put in place, the overall risk for the operation is assessed as Moderate. The most substantial risks for the project are primarily political and governance, macroeconomic, and stakeholders.

95. **Political and governance.** The political and governance risk is assessed as Substantial. Shortly after the July 2017 election cycle, the dissolution of Parliament and fresh elections held in May 2018 demonstrate that political stability is tenuous and may present challenges pertaining to the continuity of line ministry leadership during the project implementation phase. This would include the minister of education and all director generals within the MOEYS. In addition, the World Bank's 2018 Country Policy and Institutional Assessment still considers the country to be fragile, especially with relation to public sector management and institutions. To mitigate the risk, the proposed project has focused on the

⁴⁸ It is currently documented in the Jornal da Republica 2017.



Government's priorities in the education sector as established by the ESP with the endorsement of the donor community. Even with mitigation efforts, the political and governance risk is still Substantial due to the fact that they are exogenous to the project activities.

96. **Macroeconomic.** The macroeconomic risk is rated Substantial. Macroeconomic shocks occur with relative frequency in Timor-Leste given its dependence on oil and the external pressures brought about by such dependence. This has the potential to move government priorities quite frequently. Furthermore, there are a variety of other potential shocks that can affect the country such as natural disasters, changes in the external environment, commodity price shocks, and/or reductions in external assistance. Macroeconomic stability is highly dependent on steady or increasing oil prices and dependence on development assistance. Each of these shocks poses risks to growth in public sector employment, payment of salaries to public sector employees (teachers and MOEYS staff included), and labor demand in the private sector. The fact that the project is partially financed by a grant provides some mitigation, but the risk is still Substantial.

97. **Stakeholders.** The stakeholder risks are rated Substantial, though risks are different by type of stakeholder. The provision of quality basic education is a priority for a broad cross-section of the Timorese population. The primary risks relating to individual stakeholders would be with respect to the prioritization of project investments. For example, transparency on how specific schools are selected to receive assistance while others are not would be the main reasons to object to the implementation of the project. This risk will be mitigated by developing a transparent set of school infrastructure standards along with a clear, transparent, and publicly available prioritization scheme. Furthermore, regular stakeholder consultations were conducted during preparation and will be conducted throughout project implementation. It should be noted that the ACETL, which includes international and national partners including nongovernmental organizations, has endorsed the design of BEST. Hence, continued close interaction between the BEST project and the ACETL during the implementation stage is also expected to help mitigate stakeholder risk.



VI. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Timor-Leste

Basic Education Strengthening and Transformation Project

Project Development Objectives(s)

To improve the learning environment of basic education schools and increase the efficiency and equity of basic education programs.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
To improve the learning environment of basic education schools								
Number of students accessing classrooms meeting newly developed 21st Century School Standards (cumulative) (Number)		0.00	0.00	2,880.00	7,680.00	11,520.00	15,360.00	15,360.00
Number of students accessing classrooms meeting newly developed 21st Century School Standards-- Female (cumulative) (Number)		0.00	0.00	1,440.00	3,840.00	5,760.00	7,680.00	7,680.00
Share of students in Cycles 1 and 2 who use individual textbooks in the classroom (Text)		Unknown	TBD	TBD	TBD	TBD	TBD	TBD



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
To increase the efficiency and equity of basic education programs								
Share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom (Percentage)		45.00	45.00	47.00	50.00	53.00	55.00	55.00
Verified EMIS data utilized for the preparation of annual budgets and making infrastructure investment decisions (Yes/No)		No	No	Yes	Yes	Yes	Yes	Yes
Total number of project beneficiaries (Number)		0.00	16,550.00	49,600.00	99,300.00	132,500.00	149,100.00	149,100.00
Total number of project beneficiaries - Female (cumulative) (Number)		0.00	8,219.00	24,645.00	49,332.00	65,830.00	74,085.00	74,085.00
Students benefiting from direct interventions to enhance learning (CRI, Number)		0.00	16,000.00	48,000.00	96,000.00	128,000.00	144,000.00	144,000.00
Students benefiting from direct interventions to enhance learning - Female (CRI, Number)		0.00	8,000.00	24,000.00	48,000.00	64,000.00	72,000.00	72,000.00



Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Component 1: Developing 21st Century Learning Spaces								
Development/upgrade and use of standards for infrastructure (Text)		Standards under development	21st Century School Standards and prioritization system developed and approved	All new public school infrastructure development completed this FY has been based on approved standards	All new public school infrastructure development completed this FY has been based on approved standards	All new public school infrastructure development completed this FY has been based on approved standards	All new public school infrastructure development completed this FY has been based on approved standards	All new public school infrastructure development completed this FY has been based on approved standards
Development/upgrade and use of new infrastructure development prioritization system (Text)		Prioritization system under development	New prioritization system developed	All schools targeted for infrastructure development selected using the prioritization system	All schools targeted for infrastructure development selected using the prioritization system	All schools targeted for infrastructure development selected using the prioritization system	All schools targeted for infrastructure development selected using the prioritization system	All schools targeted for infrastructure development selected using the prioritization system
Implementation of school infrastructure census (Text)		Old census data not sufficient	Small purposive sample survey of school infrastructure completed	School infrastructure census completed	School infrastructure census report prepared and published on MOEYS website	School infrastructure nationally representative sample survey completed	School infrastructure survey report prepared and published	School infrastructure census and survey reports prepared and published
Number of classrooms meeting minimum standards in basic education schools (cumulative) (Number)		0.00	0.00	50.00	100.00	150.00	200.00	200.00
Component 2: Improving Teacher Effectiveness								
Teachers recruited or trained (CRI, Number)		0.00	500.00	1,500.00	3,000.00	4,000.00	4,500.00	4,500.00
Teachers recruited or trained - Female (RMS requirement) (CRI, Number)		0.00	205.00	615.00	1,230.00	1,640.00	1,845.00	1,845.00



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Number of teachers trained (CRI, Number)		0.00	500.00	1,500.00	3,000.00	4,000.00	4,500.00	4,500.00
Share of teachers monitored using a classroom observation tool (Percentage)		25.00	30.00	40.00	60.00	70.00	75.00	75.00
Number of school leaders who completed the new leadership training (cumulative) (Number)		0.00	50.00	100.00	300.00	500.00	600.00	600.00
Share of females among those completing the new leadership training program during the current fiscal year (Percentage)		25.00	27.00	30.00	34.00	38.00	40.00	40.00
Female-male difference in primary net enrollment rate (percentage points) (Percentage)		5.97	5.50	5.00	4.50	4.00	3.50	3.00
Component 3: Improving TLM and Assessment								
Share of basic education schools that receive full package of teaching-learning materials (Percentage)		50.00	50.00	60.00	70.00	80.00	90.00	90.00
Share of Cycle 1 and 2 students in public schools with access to book corners/libraries in their classrooms (Percentage)		0.00	10.00	50.00	70.00	90.00	100.00	100.00
Implementation of a sample-based nationally		Nationally representative	First assessment completed	Assessment report published		Second assessment completed	Second assessment report published	Two assessment reports published



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
representative assessment of foundational literacy and numeracy skills of students in grades 2 and 3 (results disaggregated by gender) (Text)		assessment not done						
Component 4: Data Driven Planning, Budgeting, Financing and Implementation								
Integrated platform for EMIS and other applications (Gestão Escolar) developed (with provisions for accessing gender specific data) (Text)		Gestion Escolar platform not operational	Gestion Escolar platform developed	Gestion Escolar platform operational	Gestion Escolar platform operational	Gestion Escolar platform operational	Gestão Escolar platform operational	Gestion Escolar platform operational
Share of basic education schools completing electronic data entry in EMIS through the Gestão Escolar platform by March of the current academic year (Percentage)		0.00	0.00	20.00	40.00	60.00	80.00	80.00
Independent verification of EMIS data completed (Text)		Independent verification of EMIS data not done	Census for independent verification of EMIS data completed	EMIS data updated incorporating finding from the verification census		Sample-based independent verification of EMIS data completed	EMIS data updated incorporating finding from the verification survey	One verification census and one sample-based verification completed during project period
Component 5: Project Management and Implementation								
Review of education sector progress, including progress on project activities, through stakeholder consultation and community engagement (Text)		Formal community consultations not done	Conducted in Lautém	Conducted in Manatuto, Dili, Aileu	Conducted in Manufahi, Liquiçá, Ermera	Conducted in Ainaro, Bobonaro, Covalima, Oecusse	Conducted in Baucau, Viqueque	Conducted in all municipalities



Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Feedback from beneficiaries has been used to make needed adjustments to the project (Yes/No)		No	Yes	Yes	Yes	Yes	Yes	Yes

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of students accessing classrooms meeting newly developed 21st Century School Standards (cumulative)	Number of students studying in classrooms meeting newly developed 21st Century School Standards in the current year. Schools/classrooms meeting 21st Century School Standards for Timor Leste are expected to be: (i) safe and child-friendly; (ii) flexible in design and use; (iii) designed to support learning across the school; (iv) support individualized learning goals; (vi) support the teaching of real world	Annual	Infrastructure development progress report of MoEYS	Review of progress report	PIMU in coordination with the Directorate of Planning and M & E unit



	skills; and (vii) support the development of collaborative problem solving.				
Number of students accessing classrooms meeting newly developed 21st Century School Standards-- Female (cumulative)					
Share of students in Cycles 1 and 2 who use individual textbooks in the classroom	Number of students in Cycles 1 and 2 who have a textbook and are using the right one for the given lesson divided by the number of students in Cycles 1 and 2 (expressed in percentage terms) present at the time of the survey. [Note: These data are currently not collected and are not available. Hence, as part of the census of schools to be conducted in year 1, a survey of a sample of these schools will be done to determine the baseline and yearly targets].	Two times during project period (when EMIS census or survey is done)	School census or survey reports (from entities hired to do the census or survey)	Census of schools in year 1 and survey of a random sample of schools in year 4.	PIMU in coordination with M & E Unit of MoEYS
Share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom	Number of Basic school teachers in rural areas who use effective mathematics and language teaching approaches in the classroom	Semi-annual	Data automatically recorded by the electronic	Analysis of data collected through the electronic classroom monitoring system, and EMIS or HR system.	PIMU



	divided by the number of Basic school teachers in these areas observed by directors/vice directors/coordinators or other officials with the aid of the classroom observation tool (expressed in percentage terms). The teaching approach of a teacher is considered effective if the teacher achieves a "good" or better grade in 75% of the characteristics included in the tool.		teacher monitoring system during classroom observation; as well as EMIS or HR system for the total number of math and language teachers working in these areas.		
Verified EMIS data utilized for the preparation of annual budgets and making infrastructure investment decisions	Utilization of the EMIS data for annual budgets refers to using relevant figures (e.g., student population, teacher numbers, etc.) from the EMIS when making budget estimates. Infrastructure investment decisions refer to selection of schools and classrooms for construction and rehabilitation.	Annual	MoEYS workplan and budget documents; infrastructure planning documents	Review of MoEYS workplan and budget documents; infrastructure planning documents	PIMU in coordination with the M & E unit and EMIS Department
Total number of project beneficiaries	Project beneficiaries include students, school leaders, and teachers benefitted by	Annual	EMIS and Project progress	Review of EMIS data and Project progress report	PIMU in coordination with the EMIS



	<p>the project. [We consider as project beneficiaries, all students who benefited from at least one of the interventions. For example, all students in the 2,909 classrooms in the 4 poorest municipalities are beneficiaries of the book corner intervention.</p> <p>Similarly, all students who are taught by teachers who have been trained are considered beneficiaries.</p> <p>If a school has benefited from both the book corner and teacher training interventions, we would count the total number of students in the school once as beneficiaries in order to avoid double counting]</p>		report		Department
Total number of project beneficiaries - Female (cumulative)					
Students benefiting from direct interventions to enhance learning		Annual	EMIS and Project progress report [Note: Students	Review of EMIS data and Project progress report	PIMU in coordination with the EMIS Department



			benefitting from direct interventions are defined as those taught by teachers trained by the project. This covers students in Cycles 1, 2.]		
Students benefiting from direct interventions to enhance learning - Female					

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Development/upgrade and use of standards for infrastructure	Standards refer to 21st Century Infrastructure Standards that will be applicable to all schools and classrooms constructed . They also include some minimum standards to be achieved by existing classrooms.	Annual	Project progress	Review of progress reports.	PIMU in coordination with the Directorate of Planning



Development/upgrade and use of new infrastructure development prioritization system	Prioritization guidelines for academic and non-academic infrastructure are guidelines for prioritizing schools for infrastructure investments.	Annual	Project progress report; progress reports of the Directorate of Planning	Review of progress reports	PIMU in coordination with the Directorate of Planning
Implementation of school infrastructure census	School infrastructure census refers to a census of all schools in the country (including non-government) to collect information on the state of academic and non-academic infrastructure of each school. Implementation of the census refers to completion of the census, including data entry. School infrastructure survey refers to a survey of a nationally representative sample of schools for this purpose.	Three times during project period	Infrastructure census report prepared by contracted firm and submitted to the PIMU and the World Bank	A purposive survey of 20 school carried out in year 1; census of schools in Year 2; and survey of a random sample of schools in year 4.	PIMU and the M & E unit, with the assistance of a contracted agency
Number of classrooms meeting minimum standards in basic education schools (cumulative)	Number of classrooms in public schools that meet minimum standards.	Annual	Infrastructure census and survey reports; project progress report; MIS.	Census of schools in Year 1, survey of a random sample of schools in year 4, field visits, and review of reports generated by EMIS in other years.	PIMU in coordination with Directorate of Planning, with the assistance of a contracted agency



Teachers recruited or trained		Annual	Teacher module of the EMIS/HR database//Project progress reports [Note: In the context of this project, this indicator only captures the number of teachers trained]	Review of EMIS data and HR database and Project progress reports	PIMU in coordination with M & E Unit of MOEYS
Teachers recruited or trained - Female (RMS requirement)		Annual	Teacher module of the EMIS/HR Database	Teacher HR Information	PIMU in coordination with M & E Unit of MOEYS
Number of teachers trained		Annual	Teacher module of the EMIS/HR database	Review of EMIS data and HR database	PIMU in coordination with M & E Unit of MOEYS
Share of teachers monitored using a classroom observation tool	Number of teachers monitored by their school directors, vice directors, coordinators or peers using an updated version of the existing classroom	Semi-annual	Data automatically recorded by the electronic teacher	Analysis of data collected through the electronic classroom monitoring system.	PIMU



	observation tool divided by the total number of teachers (expressed in percentage terms). The number of teachers monitored is obtained from the electronic teacher monitoring system linked to the tool. The updates will be done, as appropriate, after a review.		monitoring system during classroom observation.		
Number of school leaders who completed the new leadership training (cumulative)	School leaders refer to school directors and deputy-directors in central school, coordinators in filial schools, and other teachers who are potential school leaders.	Annual	Leadership training progress reports	Review of leadership training progress reports	PIMU in coordination with leadership training institution
Share of females among those completing the new leadership training program during the current fiscal year	Number of females who have completed the new leadership training during the current fiscal year divided by the total number of participants who completed the training.	Annual	Leadership training progress reports	Review of leadership training progress reports	PIMU in coordination with leadership training institution
Female-male difference in primary net enrollment rate (percentage points)	Net enrollment of rate of females minus net enrollment rate of males.	Annual	EMIS data and population projection data from the General Directorate of Statistics	Review of EMIS data and population projection data.	PIMU in coordination with the EMIS Department and the General Directorate of Statistics



<p>Share of basic education schools that receive full package of teaching-learning materials</p>	<p>Number of basic education public schools that receive full package of teaching learning materials divided by the number of basic education public schools (expressed in percentage terms). Full package of TLM refers to the full set of textbooks and supplementary materials specified by MOEYS.</p>	<p>Annual</p>	<p>EMIS</p>	<p>Review of EMIS data</p>	<p>PIMU in coordination with the M & E unit and EMIS Department</p>
<p>Share of Cycle 1 and 2 students in public schools with access to book corners/libraries in their classrooms</p>	<p>Number of Cycle 1 and 2 students in public schools with libraries/book corners in their classrooms divided by the total number of Cycle 1 and 2 students in these public schools in municipalities with Cycle 1 and Cycle 2 classrooms (expressed in percentage terms).</p>	<p>Annual</p>	<p>EMIS (which may require an additional indicator to be added)</p>	<p>Review of EMIS data</p>	<p>PIMU in coordination with the M & E unit and EMIS Department</p>
<p>Implementation of a sample-based nationally representative assessment of foundational literacy and numeracy skills of students in grades 2 and 3 (results disaggregated by gender)</p>	<p>These assessments of students focus specifically on reading and mathematics, and are designed to meet international technical quality standards.</p>	<p>Two times during project period</p>	<p>Assessment reports</p>	<p>Review of assessment reports</p>	<p>PIMU</p>



<p>Integrated platform for EMIS and other applications (Gestão Escolar) developed (with provisions for accessing gender specific data)</p>	<p>The Gestão Escolar platform is a web-based system that has a user-friendly interface to enable users to access the different applications used by MOEYS, including the EMIS, through a single user-friendly dashboard.</p>	<p>Annual</p>	<p>Completion report on platform development ; MOEYS website where the platform is hosted</p>	<p>Direct observation of the functioning of the platform, and review of approved completion report on platform development</p>	<p>.PIMU in coordination with M & E Unit of MOEYS</p>
<p>Share of basic education schools completing electronic data entry in EMIS through the Gestão Escolar platform by March of the current academic year</p>	<p>Number of basic education public schools that complete electronic entry of the annual EMIS data through the Gestion Escolar platform by the end of March of the current academic year divided by the total number of basic education public schools (expressed in percentage terms). The platform will be developed in the first two years of the project.</p>	<p>Annual</p>	<p>System usage reports generated by the platform (which also shows usage by schools)</p>	<p>Review of system usage reports generated by the platform.</p>	<p>M & E Unit and the EMIS department of the MOEYS</p>
<p>Independent verification of EMIS data completed</p>	<p>Verification of the validity of EMIS data in the system by comparing it with data collected independently through a census in year 1 and a survey of a random sample of 150 schools in year 4</p>	<p>Two times during project period</p>	<p>School census or survey reports (from entities hired to do the census or survey)</p>	<p>Census of schools in year 1 and survey of a random sample of schools in year 4.</p>	<p>PIMU in coordination with M & E Unit of MOEYS</p>



<p>Review of education sector progress, including progress on project activities, through stakeholder consultation and community engagement</p>	<p>These are consultations organized by the project among stakeholders at the municipality level to discuss education sector progress, including progress on project activities. Stakeholders include local officials, community representatives, school personnel, and parents. Face-to-face consultations will be held and a report summarizing the findings, including the number of people participating, will be prepared. The feedback from these consultations will be used during the mid-term review to make needed adjustments to the project.</p>	<p>Annual</p>	<p>Project progress reports; consultation summaries</p>	<p>Review of project progress reports and summary of consultation findings</p>	<p>PIMU</p>
<p>Feedback from beneficiaries has been used to make needed adjustments to the project</p>	<p>Feedback from beneficiaries refers to feedback received on sector progress, including progress on project activities, through stakeholder consultation and community engagement. Needed</p>	<p>Annual</p>	<p>Project progress reports</p>	<p>Review of project progress reports.</p>	<p>PIMU</p>



	adjustments to the project are actions taken during project implementation, particularly during the mid-term review, in response to the feedback.				
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ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Timor-Leste

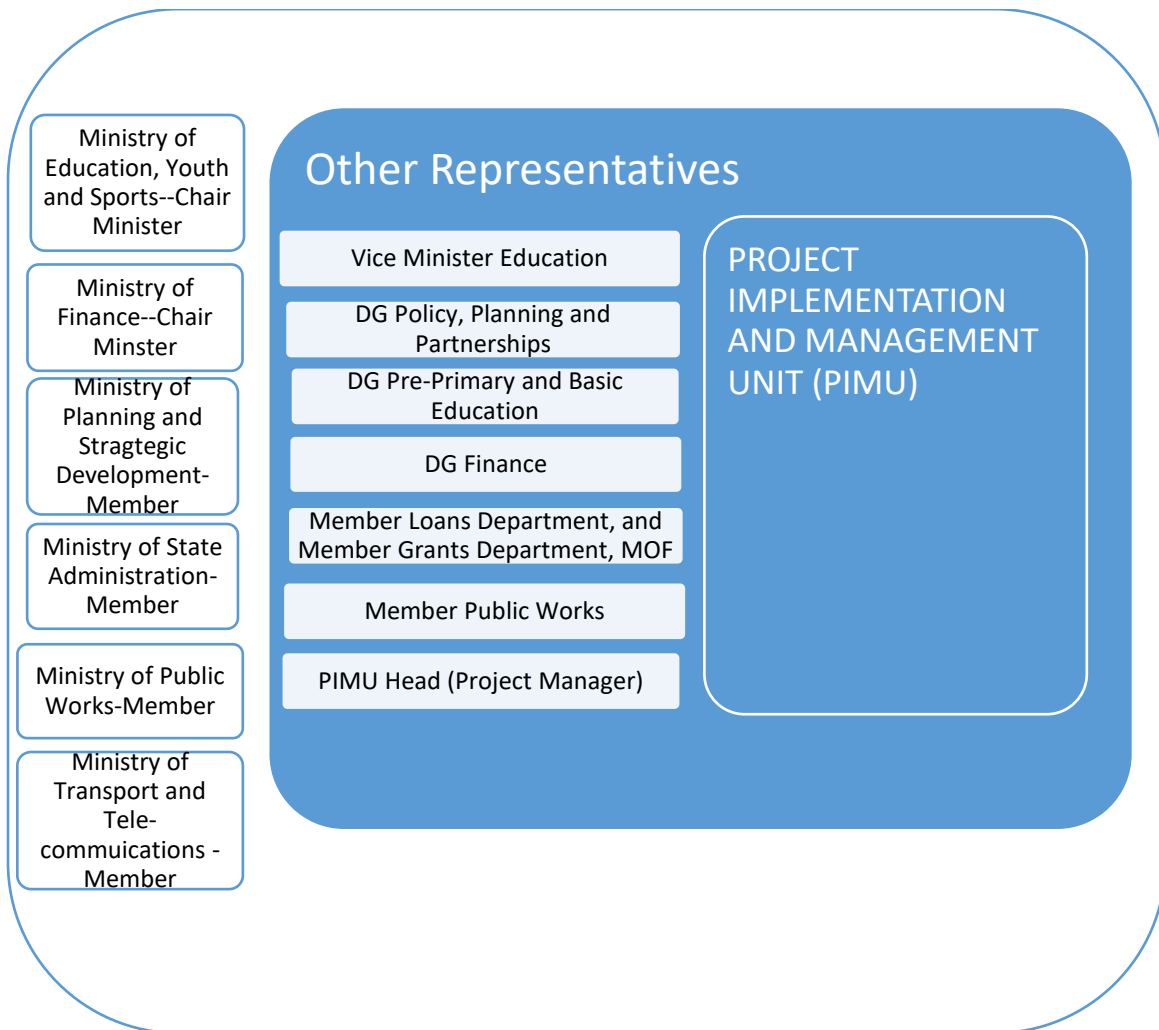
Timor-Leste Timor-Leste Basic Education Strengthening and Transformation

1. Timor-Leste's MOF has established a robust General Directorate for Management and Mobilization of External Resources with the aim of providing a 'One-Stop Shop' for the development partners and the Government to improve aid effectiveness in Timor-Leste. The MOF has also introduced an Aid Transparency Portal, as part of Timor-Leste's efforts to improve the transparency around international aid to the country. The portal allows one to view the resources committed and disbursed by development partners, look at donor profiles, review foreign aid projects, generate charts and graphs using underlying data, and produce reports on public development spending. This is particularly important for the education sector given the number of development partners in the space. While the proposed institutional and implementation arrangements noted here apply only to the proposed operation, the Government wishes to use the proposed structure for the implementation of other operations.
2. The MOEYS has experience in implementing World Bank-financed projects. However, these have been either grant-financed operations through IDA Grants or through Recipient-executed Trust Funds. This project will be the first IDA-financed credit in the education sector in Timor-Leste. A number of development partners and donors, including bilateral and multilateral agencies, participate in the education sector. Bilaterals include, among others, Australia, Brazil, New Zealand, the United States, Portugal, Japan, and the Republic of Korea. The list of multilaterals includes, among others, the Asian Development Bank; United Nations Children's Fund; United Nations Educational, Scientific, and Cultural Organization; and the World Bank.
3. The MOEYS will have the overall responsibility for coordinating and implementing BEST. This will include all aspects related to education service delivery, procurement, disbursement, FM, and social safeguards. A PSC will guide the overall implementation of the project. The PSC will be jointly chaired by the Minister of MOEYS and the Minister of Finance and will also include the Vice Minister for Education, the relevant Director Generals of the MOEYS, a representative of the MOF's Loans Department, a representative of the MOF's Grants Department, a representative of the Ministry of Planning and Strategic Investment, and a representative of the Ministry of State Administration. The main function of the PSC will be to set the annual objectives for the project through a *Plano Ação Annual* of the MOEYS, ensure that this is included in the national budget law as an externally financed operation, and sign off on the annual implementation plan. The PSC will meet twice a year no later than the third week of June and the third week of January. This helps ensure that the proposed activities for the year can be incorporated into the annual budget process.
4. To support the MOEYS on the day-to-day implementation of the project, a PIMU will be established within the MOEYS. The PIMU will be headed by a Project Manager, who will also serve as the member secretary of the PSC. The PIMU will have responsibility for the overall coordination of the project, fiduciary management, accountability for safeguards, and reporting. The PIMU will also have key staff including, among others, a set of civil servants and technical experts, assigned/recruited based on terms of reference acceptable to the World Bank, to provide support to the MOEYS. These key staff members will include, among others, an M&E specialist, a finance officer, a procurement specialist, an infrastructure



development specialist, an environmental and social safeguards specialist, and essential support staff. The technical experts will be recruited competitively. The PIMU will work closely with the other units/structures within the MOEYS that will be responsible for implementing the project components. For example, the PIMU will work closely with the four directorates of the MOEYS as needed. These include the Directorate of Policy, Planning, and Partnerships; the Directorate of Pre-School and Basic Education; the Directorate of Secondary Education; and the Directorate of Finance. The PIMU will provide a quarterly technical and financial report to the PSC.

Figure 1.1. Institutional and Implementation Arrangements



5. The MOEYS and the World Bank team will hold two structured implementation support missions (ISMs) every year. All project activities for the forthcoming year will be detailed in an annual implementation and Procurement Plan. The ISMs will be for one week. In addition to these ISMs, the MOEYS and the World Bank will carry out two missions in the first year to support project implementation startup.



Implementation Support Plan

6. The implementation support strategy for BEST is based on the nature of activities supported by the project, the capacities of the implementation agencies, and the project's risk profile. It consists of mechanisms that will enhance support to the MOEYS and also facilitate timely and effective monitoring. The supervision thus comprises (a) joint review missions, (b) technical meetings and field visits by the World Bank between formal review missions, (c) MOEYS reporting based on its internal monitoring system, (c) independent third-party evaluation where relevant, and (d) internal audit and FM reporting.

7. **Review missions.** The World Bank, together with the MOEYS, will formally review project progress semiannually, with more frequent missions expected at least in the first year of the project. These missions will assess implementation progress of the project, identify critical issues and challenges, provide recommendations for addressing the challenges, and outline critical next steps for accelerating project implementation. The scope of supervision will also include monitoring project compliance with stipulated FM, procurement, and environmental and social safeguards guidelines. One month before each joint implementation review mission, the project will share with the World Bank a comprehensive progress report on project activities and an updated plan and budget.

8. The joint review missions will be complemented by field visits to project locations by World Bank staff and technical consultants and continuous communication and follow-up between missions. Other support missions will also be carried out as necessary, especially during the first year, to help accelerate implementation. To ensure high-quality supervision, the World Bank team will comprise not only specialists with expertise in the education sector but also specialists in FM, procurement, and safeguards, with the team composition for each mission determined based on supervision requirements at that time.

- **Procurement.** Support for procurement management will focus on effective implementation in line with the World Bank's Procurement Regulations for IPF Borrowers. The following activities will be carried out by procurement staff in the World Bank Country Office: (a) training as needed for staff of the MOEYS and its agencies on World Bank Procurement Regulations, (b) review of procurement documents prepared by the MOEYS, and (c) monitoring of progress against the Procurement Plan.
- **FM.** The missions will review the project's FM system, starting with accounting, reporting, and internal controls and covering a random sample of subprojects. The World Bank team will also work with the MOEYS to help improve FM practices and reporting.
- **Environmental and social safeguards.** The missions will review the implementation of project activities at sites where physical infrastructure development has been or is being undertaken and provide feedback and support to ensure compliance with safeguards guidelines.
- **Other issues.** Sector-level risks will be addressed at the portfolio level through policy dialogue with the MOEYS.

9. Most of the World Bank team members will be based in the region, including in the World Bank offices in Timor-Leste, Jakarta, and Bangkok, to ensure timely, efficient, and effective support to the client. The main implementation support requirements are summarized in tables 1.1 and 1.2.



Table 1.1. Resource Requirements for Project Implementation Support⁴⁹

Time	Focus	Annual Resource Estimate (Staff Weeks)	Partner Role	
First 12 months	Technical support	Education specialist	12	n.a.
		Implementation specialist	4	
		Economist/M&E specialist	6	
	FM training and supervision	FM specialist	6	
	Procurement training and support	Procurement specialist	8	
	Social monitoring and reporting	Social development specialist	1	
12–60 months	Technical support	Education specialist	12	
		Implementation specialist	8	
		Economist/M&E specialist	6	
	Social monitoring and reporting	Social development specialist	1	
	FM disbursement and reporting	Financial management specialist	4	
	Procurement management	Procurement specialist	2	
	Environmental safeguards monitoring and reporting	Environmental specialist	2	
	Team leadership	Task team leader	24	
		Environmental safeguards monitoring and reporting	Environmental specialist	2
		Team leadership	Task team leader	14

Table 1.2. Staff Skill Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Operations officer	20 annually	Field trips as required	Country office based
Economist/M&E specialist	6 annually	Two	Region based
Education specialist	6 annually	Two	Region based
Implementation specialist	8 annually	FTs as required	Region based
Procurement specialist	4 annually	FTs as required	Country office/region based
Social development specialist	1 annually	FTs as required	Region based
Environmental specialist	1 annually	FTs as required	Region based
FM specialist	8 annually	FTs as required	Country office/region based
Task team leader	24 for the 1st year; 14 annually following years	Four (annually)	Region based

Financial Management

10. The purpose of this project FM assessment is to determine whether the implementing agency has the capacity to maintain adequate FM arrangements, and produce timely, relevant, and reliable financial information on project activities; and if the accounting systems for project expenditures and underlying

⁴⁹ These resources will be provided by the World Bank.



internal controls are adequate to meet fiduciary objectives, and allow the World Bank to monitor compliance with agreed implementation procedures and appraise progress toward the objectives.

11. The ministry has experience of managing donor-funded projects, including World Bank-financed projects. However, there are no active projects, and previous World Bank-funded projects were managed through dedicated PIMUs. Overall, the project has three major risks: first, limited FM staff capacity; second, unreliability of the accounting and reporting system; and third, inadequacy of government budget allocation, especially for DLI-related activities.

12. The risks will be mitigated by providing technical assistance through the recruitment of an FM officer to assist the financial unit in the PIMU at an early stage and possibly recruiting an additional staff when the disbursement picks up (based on need); and utilizing Excel to maintain subsidiary records for accounting and reporting purposes during the early stages of implementation. However, during the first supervision mission, progress toward adapting the government country system of Free Balance will be reviewed, and if a need is identified, a separate accounting software may be recommended. Overall, the ex-ante project FM risks are assessed as Substantial. However, with the inclusion of the mitigation measures the residual risk is judged to be moderate and the proposed FM arrangements satisfy the World Bank's minimum requirements.

Budgeting

13. The project budgeting system follows the government budgeting system. The project budget is included in the annual government budget (budget book). After Parliamentary approval and the President's signature, the budget becomes effective. There is a budget risk due to possible delay in issuing the budget document. The approved budget will be forwarded to the PIMU which will monitor budget execution. In addition, there is a risk that the GOTL does not allocate government budget adequately to the MOEYS, especially for DLI-related activities.

Accounting and Reporting

14. All financial transactions are recorded in the government accounting system of Free Balance application and included in government financial reports. The donor-funded transactions will be recorded when Director General Treasury is getting withdrawal application information from Client Connection. To ensure that every single donor-funded transaction is recorded in the Free Balance, the World Bank will review the progress during the first supervision and only if there is a need, a separate accounting software may be considered. For the time being, the project will also use Excel for subsidiary records as needed. The project FM unit will prepare a separate set of project financial reports or interim financial reports (IFRs) to be submitted on a quarterly basis to the World Bank within 45 days after the end of each quarter. The IFR format will be agreed with the World Bank and include total project receipts (reconciled to Client Connection) and payments for the period (together with year-to-date and cumulative figures) and bank reconciliation report.

15. There are risks related to the reliability and timeliness of financial reports. These risks will be mitigated through the following: (a) the PIMU requests Treasury for Free Balance access, especially for the World Bank-financed projects; (b) the PIMU conducts reconciliation payment on a monthly basis; and (c) the PIMU will consider the use of a separate accounting software, if required.



Internal Control

16. The ministry has existing segregation of functions between authorization, payment, and recording available in Free Balance. FM instructions or an FM manual will be prepared and included in the POM to guide the project's activities and detail the FM arrangements if the project uses petty cash. Also, adequate arrangements for petty cash accounting, reconciliation, custody, and settlement will be maintained. An asset register for all assets purchased using project funds will also be maintained.

Internal Audit

17. The Inspection and Audit Unit (IAU) of the MOEYS is responsible for the internal audit function for the Ministry as per the IAU's Manual. The IAU conducts inspections and internal audit assignment and submits the reports to the Minister. IAU audit assignments are mostly in the nature of compliance audit and a few criminal audits. However, the IAU of the Ministry focuses on compliance review to schools' activities at the municipal level including projects. The IAU faces challenges for improvement due to the budget shortages as well as the number of qualified auditors. The World Bank will continue to dialogue with the IAU during implementation.

External Audit

18. The FM Unit in the PIMU is responsible for preparing the project financial statements. The audit of these statements will be carried out by a private auditor. The annual audit report will be furnished to the World Bank no later than six months after the end of the Government's fiscal year. The auditor will use agreed audit terms of reference. The audited financial statements will be required to be published by the implementing agency in accordance with the World Bank's Access to Information Policy.

Disbursement Arrangements

19. The applicable disbursement methods are Direct Payment, Reimbursement, and Advance to the Designated Account. Two (2) segregated DAs will be established under the project—one for the IDA credit and the other for the GPE grant. The DAs will be opened in a commercial bank or financial institution in U.S. Dollars (US\$), subject to MOF approval. The PIMU will be responsible for reconciling the DAs and preparing applications for withdrawal duly approved by the Director General Treasury before their submission to the World Bank.

20. The ceiling of the advance to the Credit DA will be US\$200,000 and the Grant DA will be US\$300,000. Applications for advances to the DAs shall be submitted to the World Bank by the Government together with the reporting on the use of DA funds through the submission of Statement of Expenditures (SOE). The Disbursement and Financial Information Letter (DFIL) provides further details of disbursement arrangements for the project and a template of SOE is attached to the DFIL.

21. All documentation for expenditures submitted for disbursement will be retained by the implementing unit and be made available to the auditors for the annual audit and to the World Bank and its representatives, if requested.



22. The World Bank disbursement for the DLI portion will be on a reimbursement basis and will be made (a) when the DLI results are achieved and verified by an IVE, and (b) expenditures are incurred under the EEP (budget code: [0101/B80404/5210701/6000/099 (Personal Management Services for Service Providers for Basic Education – *Serviços de Gestão do Pessoa, Força de trabalho afetos a Prestação de Serviços, Ensino Básico*)]. The amount to be reimbursed for the DLI portion is the lower of (a) the assigned DLI value for the period or (b) the expenditures incurred under the EEP for the period. The request for disbursement will be made by the Government through withdrawal applications duly signed by authorized signatories and supported by documentary evidence of DLI results achievement and verification, and the budget execution report of EEPs. While the DLI results must be achieved by the dates specified in the project design (except where rollover is allowed), the withdrawal applications can be submitted at any point after a DLI result has been achieved and the abovementioned documentary evidence is available.

Table 1.1. Allocation of IDA Credit Proceeds

Category Description	Amount (in US\$, millions)	Amount (in SDR, millions)	% of Expenditures to Be Financed (inclusive of taxes)
1. Goods, consultant services, non-consultant services, training and workshops, and operating costs under Subcomponent 1.1 of the project	0.65	0.48	100%
2. Works, goods, consultant services, non-consultant services, training and workshops, operating costs, and community subgrants under Subcomponent 1.2 of the project	14.35	10.42	100%
TOTAL	15.00	10.90	100%

Table 4.2. Allocation of GPE Proceeds

Category Description	Amount (in US\$, millions)	% of Expenditures to Be Financed (inclusive of taxes)
3. Goods, consultants, non-consultant services, training and workshops and operating cost under Components 2, 3, 4, and 5 of the project	5.82	100
4. Eligible expenditures programs under Components 2, 3, and 4 ^a of the project	2.73	100
TOTAL	8.55	100

Note: For details on the DLIs associated with these EEPs, refer to annex 3.

23. Disbursement for category 2 of the IDA credit will be made only after the MOEYS has approved the 21st century standards and the infrastructure planning guidelines for prioritizing infrastructure investments, and has prepared a prioritization list based on the guidelines.

Flow of Funds

24. The PIMU will execute the project budget and administer it. All third parties' invoices (suppliers/consultants) will be submitted to the relevant directorate for verification before the PIMU



processes them. The PIMU will review and verify the invoices and relevant supporting documents and then submit them to the minister for approval. After ministerial approval, a payment request goes to the Director General Treasury before being returned to the PIMU. A check and transfer will be issued for all payments for less than the threshold for direct payments. To accommodate the day-to-day activities at the project level, the PIMU will maintain petty cash.

25. The PIMU will use government budget resources to execute DLI-related activities and follow the existing government flow of fund mechanism. Disbursements by the World Bank for the DLI related parts of the project will be made to a bank account designated by the MOF.

Procurement

26. Procurement under the project shall be carried out in accordance with World Bank Procurement Regulations for IPF borrowers (July 2016 revised November 2017 and August 2018) and the provisions stipulated in the Financing Agreement and approved Procurement Plan uploaded in STEP. The NPC will be delegated the responsibility and accountability for carrying out the procurement process of high-value/complex contract packages under the project, while the remaining packages will be procured by the PIMU/MOEYS itself under its own responsibility and accountability. The threshold amounts and specific contract packages to be procured by the NPC⁵⁰ and by the PIMU will be specified in the Procurement Plan. The PIMU will be responsible for the planning, monitoring, and consolidated reporting of the overall procurement under the project.

27. **Civil works.** The project will undertake civil works under Component 1. The contracts for civil works are generally expected to be procured through Requests for Bids under the National Open Competitive method or through the Requests for Quotations method, as specified for each procurement package in the Procurement Plan. Given that much of the construction and rehabilitation work is small-scale and relatively simple and considering that some beneficiary schools may be located in relatively isolated areas, community construction approaches will also be considered in some cases. This approach would involve providing subgrants to communities to carry out these activities.⁵¹ The GOTL, through the legal framework of the Decree-Law 6/2015, Decree-Law 4/2012, Decree-Law 8/2013, Decree-Law 11/2013, and Decree-Law 30/2015, established a major school school/rehabilitation program based on community construction. The World Bank did an ex post assessment of the intervention, finding high levels of satisfaction among stakeholders and proper infrastructure conditions.

28. **Procurement of goods and non-consultant services.** Goods and non-consultant services under the project are expected to include furniture, hardware and Internet connectivity, software updates, office equipment, public awareness material, and so on. The contracts are generally expected to be procured through Requests for Bids under the National Open Competitive method or through the Requests for Quotations method as specified for each procurement package in the Procurement Plan.

⁵⁰ NPC was established under the Timor-Leste Decree Law 15/2011 with mandate to implement high value and complex procurement under Infrastructure Funds including Loan.

⁵¹ These activities will follow detailed criteria, arrangements and procedures for financing civil works through grants to communities contained in a grants manual (as part of the POM) that will be prepared before the commencement of such activities.



29. **Selection of consultants.** Some consultant services under the project are expected to require hiring of consulting firms. Consulting firms are generally expected to be selected through the Quality- and Cost-Based Selection and Selection Based on Consultants' Qualifications methods. Individual consultants are expected to be required for some assignments and generally they would be selected competitively in accordance with the provisions of paragraphs 7.34 through 7.39 of the World Bank's Procurement Regulations. Under the circumstances described in paragraph 5.6 of the Consultant Guidelines, individual consultants may be selected and awarded on a Single-Source Selection basis, subject to the World Bank's prior approval. The applicable procurement method for each procurement package will be specified in the Procurement Plan.

30. **Procurement risks and mitigation measures.** Anticipated procurement risks include delays due to lack of NPC and MOEYS' prior experience in applying the Bank's Procurement Regulations, limited institutional capacity and weak skills of MOEYS in procurement planning and monitoring and in contract management, and also potential lack of clarity in the division of responsibility between NPC and MOEYS for the procurement packages to be respectively procured by them. However, with the inclusion of the mitigation measures discussed in Section IV.B, the residual risk is judged to be moderate.



ANNEX 2: Economic Analysis

COUNTRY: Timor-Leste

Basic Education Strengthening and Transformation

1. **This economic analysis section presents Timor-Leste’s economic growth projections under ‘baseline’ and ‘reform’ scenarios which differ in the pace of human capital formation.** The present value of the difference in long-run GDP growth rates between the two scenarios provides the estimated economic impact of the proposed project interventions. The methodology follows the endogenous Solow-Swan growth modelling framework, and the key model parameters are derived from historical data for Timor-Leste as well as from observed trends among selected East Asia and Pacific economies. Briefly, it is assumed that aggregate output Y_t is given by the constant returns to scale Cobb-Douglas technology in two production inputs, the physical capital stock K_t and the quality-adjusted or effective labor hours $N_t = \phi_t H_t$ as follows:

$$Y_t = F(K_t, \phi_t H_t) = A_t (s_t) K_t^\alpha (\phi_t H_t)^{1-\alpha},$$

where A_t is total factor productivity (TFP) which is permitted to depend on quality-adjusted average years of schooling s_t of the workforce, H_t is the total hours worked in the economy in year t , the parameter α is the income share of capital, and ϕ_t is the estimated level of human capital per unit of labor hour input given by the formula:

$$\phi_t = \exp(\theta s_t),$$

where θ is the estimated return to each year of quality-adjusted years of schooling of the country’s workforce. The increase in workforce ‘cognitive skills,’ therefore, affects the country’s growth path directly through increases in the effective labor hour input and the TFP growth rate.

2. **First estimates of increasing workforce cognitive skills, as measured using the average Programme for International Student Assessment (PISA) score on mathematics and science, on long-term TFP growth rate are provided.** Specifically, in the basic model, the long-term average growth rate (between 2000 and 2014) of a country’s TFP is regressed on the country’s performance in the PISA 2000 assessment, trade openness, and the initial level of TFP.⁵² The results of this exercise, using a sample of 36 countries where data are available, is presented in column (1) of table 2.1. The model indicates that a 1 standard deviation (100 points on the PISA scale) increase in workforce cognitive skills is expected to raise a country’s long-run TFP growth rate by as much as 0.738 percentage points per year. The estimated impact is also statistically significant at the 5 percent level. Column (2) presents the estimated impact of increasing the share of students reaching basic proficiency level (level 2 in PISA) in mathematics and science on the long-run TFP growth rate. A 10-percentage point increase in the share of students reaching basic proficiency is expected to raise the long-run TFP growth rate by 0.26 percentage points. Similarly, column (3) presents the estimated impact of increasing the share of top-performing students (level 5 or above in PISA) on the long-run TFP growth rate. A 10-percentage point increase in the share of top-performing students is expected to raise the long-run TFP growth rate by as much as 0.39 percentage points. Again, both estimates of the parameters of interest are statistically significant at the 5 percent

⁵² This is similar to the approach of Hanushek and Woessmann (2012), which evaluates the relationship between cognitive skills and long-term GDP growth rate



level. The key parameter employed in this economic analysis section is the estimated coefficient of the impact of cognitive skills on long-run TFP growth rate from column (1).

Table 2.1. Estimates of the Relationship between Workforce Cognitive Skills and Long-Run TFP Growth

	(1)	(2)	(3)
Cognitive skills	0.738** (0.294)		
Share of students reaching basic level		2.575** (1.011)	
Share of top-performing students			3.873** (1.620)
Trade openness	0.154 (0.097)	0.155 (0.097)	0.150 (0.093)
Log TFP in 2000	-1.056*** (0.275)	-1.109*** (0.280)	-0.964*** (0.271)
Number of countries	36	36	36
R-squared	0.418	0.431	0.399

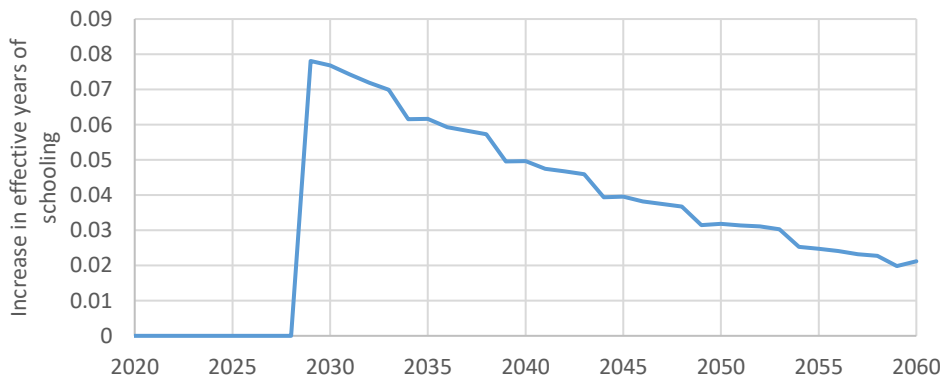
Source: World Bank staff calculations.

Note: Robust standard errors in parentheses ***p < 0.01, **p < 0.05, *p < 0.1.

(a) Dependent variable: Average annual growth in TFP 2000–2014 and (b) Cognitive skills measured by average PISA score in mathematics and science in 2000 only;

3. It is assumed for the first reform scenario that the proposed project interventions will increase cognitive skills of the student beneficiaries equivalent to 2 years of schooling, and 100 percent of children born in 2014 and later will benefit from the project. The first cohort of beneficiaries is assumed to reach the age of 15 and to start entering the labor market in the year 2029. Utilizing the projected shares of the Timor-Leste population in different age groups from the UN World Population Prospects (2017 Revision), it is estimated that the resulting impact of the project on the average of years of quality-adjusted schooling of the entire projected workforce will be as depicted in figure 2.1.

Figure 2.1. Assumed Increase in Workforce Average Effective Years of Schooling

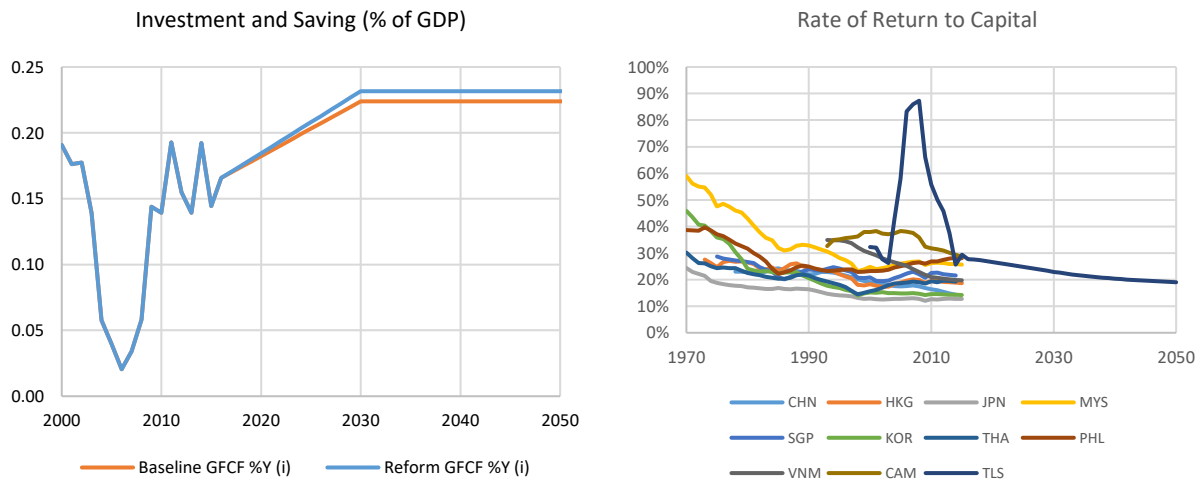


Source: UN World Population Prospects (2017 Revision) and World Bank staff calculations.



4. **The reform scenario also assumes higher levels of investment and greater degree of capital intensity in the economy compared to the baseline scenario.** As mentioned previously, the model assumes that the increase in workforce cognitive skills affects the country’s growth path directly through increases in the effective labor hour input and through the TFP growth rate. Furthermore, it is also assumed that the increase in human capital will raise the rate of return to physical capital in the economy, which in turn would raise the propensity to save and invest.⁵³ Under the baseline, it is assumed that the savings/investment rate will stabilize at 22.4 percent of GDP going forward (figure 2.1, left panel). Under the reform scenario, the faster rate of increase in human capital would raise the propensity to save/invest in Timor-Leste to 23.2 percent of GDP by 2030. Under both scenarios, the rate of return to capital in Timor-Leste, estimated to be at around 28 percent currently, the highest among 11 comparator economies in the East Asia and Pacific region, is expected to converge in the long run to around 19 percent, similar to the average rate currently observed in other countries (figure 2.2, right panel).

Figure 2.2. Investment and Savings and the Rates of Return to Physical Capital



Source: World Development Indicators and World Bank staff calculations.

5. **Under the baseline, GDP growth is expected to average at 5 percent between 2030 and 2060.** The baseline or business-as-usual scenario would see a moderate increase in capital intensity, with the capital-to-labor-hour ratio increasing from around US\$5.55 in 2017 to US\$20.9 per hour by 2050 (in constant 2005 U.S. dollars) (figure 2.3). Aggregate labor productivity, defined as output (real GDP in constant 2005 U.S. dollars) per working hour, will rise from US\$3.83 in 2017 to US\$9.93 in 2050. Under the baseline, GDP per capita would rise from US\$2,131 in 2017 to US\$6,540 by 2050 (in constant 2005 U.S. dollars).

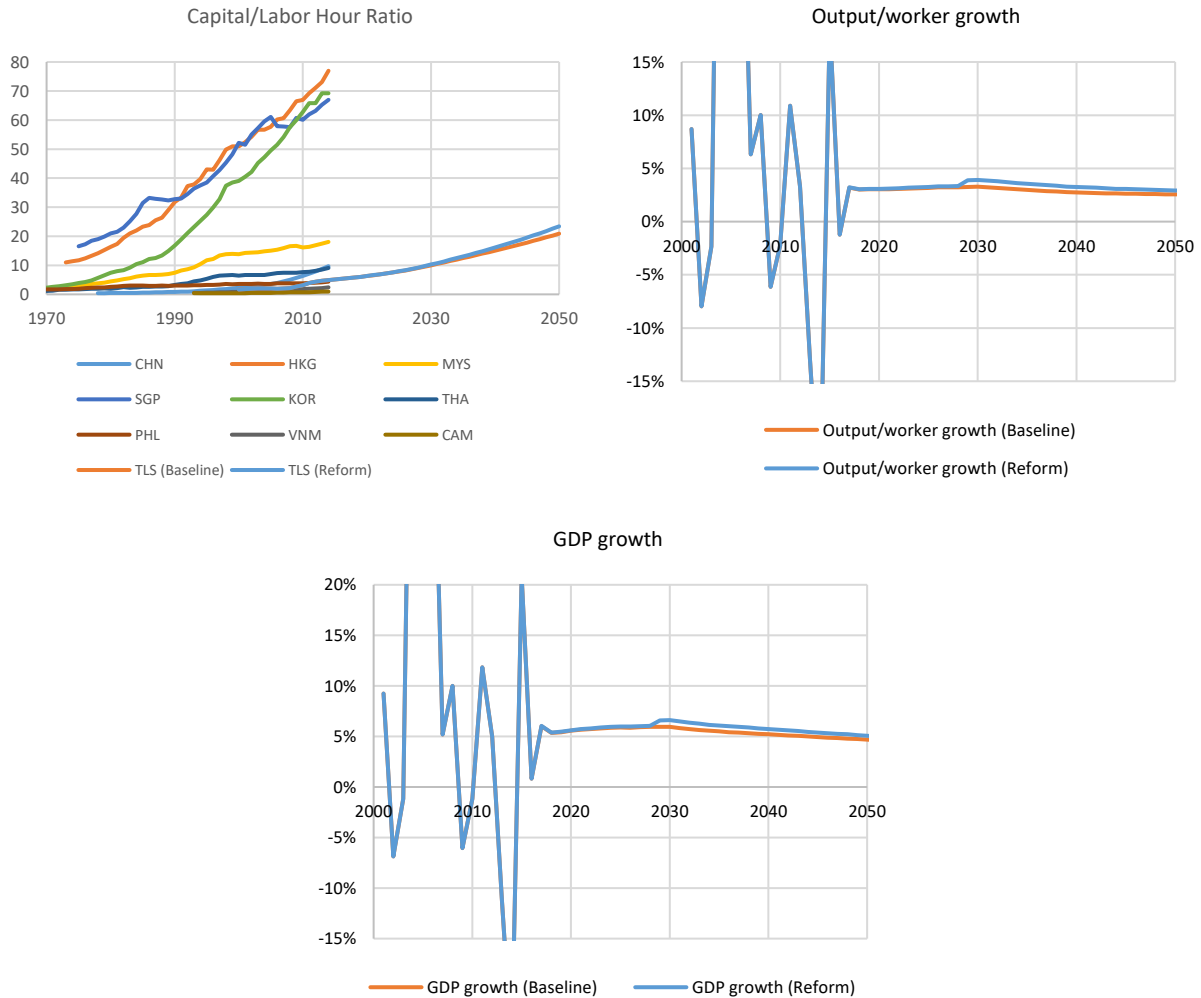
6. **Under the reform scenario, GDP per capita growth would average at around 5.45 percent between 2030 and 2060.** In this case, the capital-to-labor-hour ratio would increase from around US\$5.55 in 2017 to US\$23.4 per hour by 2050 (figure 2.3). Aggregate labor productivity would rise from US\$3.83

⁵³ In this model, capital accumulation arising from foreign direct investment or domestic savings is not differentiated.



in 2017 to US\$11.17 in 2050. Under this reform scenario, GDP per capita would reach US\$7,357 by 2050 (in constant 2005 U.S. dollars).

Figure 2.3. Evolution of Key Economic Indicators, Baseline, and Reform Scenarios



Source: World Development Indicators and World Bank staff calculations.

Cost-Benefit Analysis of the Project Interventions

7. The CBA framework is employed here to estimate a plausible range of net economic benefits and IRRs which could result from the project interventions being envisioned on increasing the skills of Timor-Leste’s workforce. The two reform scenarios considered here are each compared to the baseline or business-as-usual scenario. The CBA results from the Reform 1 scenario discussed earlier are summarized in column (1) of table 2.2. In this scenario, it is assumed that the reform will increase cognitive skills of student beneficiaries equivalent to 2 years of schooling, and 100 percent of the children born in 2014 and after will benefit from the project. Assuming that the present value of the combined World



Bank, GPE, and Government project financing will total US\$104.1 million, the NPV of the project is estimated to be US\$9,097 million, with an estimated IRR of 25.33 percent.

8. The CBA results from Reform 2 scenario are summarized in column (2) of table 2.2. In this scenario, it is assumed that the reform will increase cognitive skills of the student beneficiaries equivalent to 1 year of schooling, and 50 percent of the children born in 2014 and after will benefit from the project. Assuming once again that the present value of the combined World Bank, GPE, and government project financing will total US\$104.1 million, the NPV of the project in this less optimistic scenario is estimated to be US\$2,099 million, with an estimated IRR of 17.09 percent.

Table 2.2. Cost-Benefit Analysis of the Project Interventions

	Reform 1	Reform 2
Present value of increase in GDP growth over baseline	9,202,065,893	2,203,562,164
Less:		
Present value of World Bank project financing	23,550,000	23,550,000
Present value of government financing	80,000,000	80,000,000
NPV (5% discount rate)	9,097,065,893	2,098,562,164
IRR	25.33%	17.09%
Selected parameters:		
Share of student benefiting from the project in each cohort	100%	50%
Improvement in student learning outcome (years equivalent)	2.0	1.0

Source: World Bank staff calculations



ANNEX 3a: Disbursement Linked Indicators - Descriptions, Verification Protocols and Disbursement Protocols

Disbursement Linked Indicators Matrix				
DLI 1	Increase in share of students in Cycle 1 and 2 who use individual textbooks in the classroom			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (US\$)	As % of Total Financing Amount
Outcome	Yes	Text	730,000.00	3.10
Period	Value		Allocated Amount (US\$)	Formula
Baseline	Not available			
Year 1: July 1, 2020–June 30, 2021	DLR 1.1: A baseline survey has been conducted to estimate share of students who use individuals textbooks in the classroom		300,000.00	US\$0.3 million if result is achieved and US\$0 million otherwise
Year 4: July 1, 2023–June 30, 2024	DLR 1.2: Share of students who use individuals textbooks in the classroom has increased by 15 percentage points compared to the baseline survey		430,000.00	US\$0.3 million if achievement is over 10 percentage points but less than 15 percentage points and US\$0.43 million if achievement is at least 15 percentage points
DLI 2	Increase in share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (US\$)	As % of Total Financing Amount
Outcome	Yes	Text	1,000,000.00	4.25
Period	Value		Allocated Amount (US\$)	Formula
Baseline	Share of teachers who utilized effective teaching			



	approaches in 2019 is 45%			
Year 3: July 1, 2022–June 30, 2023	DLR 2.1: 10 percentage point increase (compared to 2019) has been achieved in the share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom		500,000.00	US\$0.2 million if achievement is an increase of over 5 percentage points but less than 10 percentage points and US\$0.5 million if achievement is an increase of at least 10 percentage points
Year 5: July 1, 2024–June 30, 2025	DLR 2.2: 20 percentage point increase (compared to 2019) has been achieved in the share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom		500,000.00	US\$0.2 million if achievement is an increase of over 10 percentage points but less than 20 percentage points and US\$0.5 million if achievement is an increase of at least 20 percentage points
DLI 3	Verified EMIS data utilized for the preparation of annual budgets and infrastructure investment decisions			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (US\$)	As % of Total Financing Amount
Outcome	No	Text	1,000,000.00	4.25
Period	Value		Allocated Amount (US\$)	Formula
Baseline	Verified EMIS data not available			
Year 2: July 1, 2021–June 30, 2022	DLR 3.1: MOEYS has issued the school statistics report based on verified EMIS data from the school census and the report has been published on MOEYS public website		250,000.00	US\$0.25 million if result is achieved and US\$0 million otherwise
Year 3: July 1, 2022–June 30, 2023	DLR 3.2: MOEYS has utilized verified EMIS data in the preparation of the annual budget for year 4		375,000.00	US\$0.375 million if result is achieved, and US\$0 million



	and for making infrastructure investment decisions		otherwise
Year 4: July 1, 2023–June 30, 2024	DLR 3.3: MOEYS has utilized verified EMIS data in the preparation of the annual budget for year 5 and for making infrastructure investment decisions	375,000.00	US\$0.375 million if result is achieved, and US\$0 million otherwise

Verification Protocol Table: Disbursement Linked Indicators

DLI 1	<i>Increase in share of students in Cycle 1 and 2 who use individual textbooks in the classroom</i>
DLR 1.1: Description	A baseline survey has been conducted to estimate share of students who use individual textbooks in the classroom.
Data source/Agency	School survey report and dataset from entity commissioned by the PIMU to do the survey.
Verification Entity	IVE commissioned by the MOEYS
Procedure	<p><i>Definitions:</i> This baseline survey of a nationally representative sample of students will be conducted during school hours as part of the school census for independent verification of EMIS data in year 1. It will involve, among others, asking each surveyed student whether s/he has a textbook with him/her for the class and physically checking whether the textbook s/he is using is the correct one for that class. The survey report can be part of the larger school verification census report or a standalone short report. The dataset can also be part of the larger census dataset.</p> <p><i>Achievement description:</i> This DLR is considered achieved when the survey has been completed as documented in the survey report and the survey dataset is ready. The IVE reviews the survey report and the dataset to verify the soundness of the survey methodology, and reviews the survey dataset to verify its existence and completeness.</p> <p><i>Rollover:</i> Yes (for 12 months)</p>
DLR 1.2: Description	Share of students who use individual textbooks in the classroom has increased by 15 percentage points compared to the baseline survey
Data source/Agency	School survey report and dataset from the nationally representative school survey conducted in year 4 by an entity



	commissioned by the PIMU
Verification Entity	IVE commissioned by the MOEYS
Procedure	<p><i>Definitions:</i> This DLR is defined as the number of students in Cycles 1 and 2 who have a textbook and are using the right one for the given lesson divided by the number of students in Cycles 1 and 2 (expressed in percentage terms) present at the time of the survey. The data required to estimate the achievement of this result will be collected by surveying a sample of students in class during the nationally representative school survey for independent verification of EMIS data planned to be conducted in the fourth year of the project. It will involve, among others, asking each surveyed student whether s/he has a textbook with him/her for the class and physically checking whether the textbook s/he is using is the correct one for that class.</p> <p><i>Achievement description:</i> This DLR is considered achieved when the data from the survey of students show that, compared to year 1, there has been a 15 percentage point increase in the share of students who have a textbook and are using the correct textbook in class. The IVE analyzes the survey data to independently estimate the share of students who have and use textbooks in class and verify that the reported achievement is consistent with this estimate.</p> <p><i>Rollover:</i> Yes (for 12 months)</p>
DLI 2	<i>Increase in share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom</i>
DLR 2.1: Description	10 percentage point increase (compared to 2019) has been achieved in the share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom.
Data source/Agency	Data automatically recorded centrally by the MOEYS electronic tablet-based teacher monitoring system during classroom observation.
Verification Entity	IVE to be commissioned by the MOEYS
Procedure	<p><i>Definitions:</i> The share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom is defined as the number of basic education teachers in rural areas who use effective mathematics and language teaching approaches in the classroom divided by the number of basic education teachers teaching mathematics and language in these areas. Teachers are those observed by directors/vice directors/coordinators or</p>



	<p>other officials with the aid of the MoEYS electronic tablet-based classroom observation tool (expressed in percentage terms). The teaching approach of a teacher is considered effective if the teacher achieves a ‘good’ or better grade in 75% of the teaching characteristics included in the tool. The classroom observation data are automatically recorded centrally by the tool.</p> <p><i>Achievement description:</i> This DLR is considered achieved when the analysis of the centrally recorded data from the classroom observations defined above show that, compared to 2019, there has been a 10 percentage point increase in the share of basic education mathematics and language teachers in rural areas who utilize effective teaching approaches in the classroom. The IVE analyzes the centrally recorded data to independently estimate the share of basic education mathematics and language teachers in rural areas who utilize effective teaching approaches, and verify that the target has been achieved as reported.</p> <p><i>Rollover:</i> Yes (by 12 months)</p>
DLR 2.2: Description	20 percentage point increase (compared to 2019) has been achieved in the share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom.
Data source/Agency	Data automatically recorded centrally by the MOEYS electronic tablet-based teacher monitoring system during classroom observation.
Verification Entity	IVE commissioned by the MOEYS
Procedure	<p><i>Definitions:</i> The share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom is defined as the number of basic education teachers in rural areas who use effective mathematics and language teaching approaches in the classroom divided by the number of basic education teachers teaching mathematics and language in these areas. Teachers are those observed by directors/vice directors/coordinators or other officials with the aid of the MoEYS electronic tablet-based classroom observation tool (expressed in percentage terms).The teaching approach of a teacher is considered effective if the teacher achieves a ‘good’ or better grade in 75% of the teaching characteristics included in the tool. The classroom observation data are automatically recorded centrally by the tool.</p> <p><i>Achievement description:</i> This DLR is considered achieved when analysis of the centrally recorded data from the classroom observations defined above show that, compared to 2019, there has been a 20 percentage point increase in the share of</p>



	<p>basic education mathematics and language teachers in rural areas who utilize effective teaching approaches in the classroom. The IVE analyzes the centrally recorded data to independently estimate the share of basic education mathematics and language teachers in rural areas who utilize effective teaching approaches and verify that the target has been achieved as reported.</p> <p><i>Rollover: No</i></p>
DLI 3	<i>Verified EMIS data utilized for the preparation of annual budgets and infrastructure investment decisions</i>
DLR 3.1: Description	MOEYS has issued the school statistics report based on verified EMIS data from the school census and the report has been published on MOEYS public website
Data source/Agency	(a) MOEYS school statistics report; (b) updated EMIS dataset
Verification Entity	IVE commissioned by the MOEYS
Procedure	<p><i>Definitions:</i> Verified EMIS data refer to the EMIS data that has been updated incorporating findings from the EMIS verification census conducted in year 1. The school statistics report is a summary statistics report based on the MOEYS EMIS data.</p> <p><i>Achievement description:</i> This DLR is considered achieved when the school statistics report based on verified EMIS data from the census has been prepared and published on the MOEYS website. The IVE physically verifies that the EMIS data exist and the school statistics report has been published in the MOEYS website; and also verifies some of the numbers reported in the statistical report using the EMIS database.</p> <p><i>Rollover: No</i></p>
DLR 3.2: Description	MOEYS has utilized verified EMIS data in the preparation of the annual budget for year 4 and for making infrastructure investment decisions.
Data source/Agency	(a) MOEYS annual workplan and budget documents; (b) Infrastructure planning documents
Verification Entity	IVE commissioned by the MOEYS
Procedure	<i>Definitions:</i> The utilization of the EMIS data for annual budgets refers to using relevant figures (for example, student population and teacher numbers) from the EMIS when preparing the annual budget for year 4. Utilization of EMIS data for



	<p>infrastructure investment decisions refers to making these decisions taking into account EMIS data to verify student population and trends in student population in the schools selected for infrastructure investments (to ensure adequate student populations in these schools).</p> <p><i>Achievement description:</i> This DLR is considered achieved when the verified EMIS data have been used as inputs in the preparation of annual workplan and budget documents for the MOEYS and in the decisions regarding infrastructure investments, and there is documentation that clearly refers to their use. The IVE reviews the relevant documentation to verify that the annual workplan and budget and decisions on infrastructure investments make explicit reference to the EMIS data and that the figures presented are consistent with the EMIS reports.</p> <p><i>Rollover:</i> No</p>
DLR 3.3: Description	MOEYS has utilized verified EMIS data in the preparation of the annual budget for year 5 and for making infrastructure investment decisions
Data source/ Agency	(a) MOEYS annual workplan and budget documents; (b) Infrastructure planning documents
Verification Entity	IVE commissioned by the MOEYS
Procedure	<p><i>Definitions:</i> The utilization of the EMIS data for annual budgets refers to using relevant figures (for example, student population and teacher numbers) from the EMIS when preparing the annual budget for year 5. Utilization of EMIS data for infrastructure investment decisions refers to making these decisions taking into account EMIS data to verify student population and trends in student population in the schools selected for infrastructure investments (to ensure adequate student populations in these schools).</p> <p><i>Achievement description:</i> This DLR is considered achieved when the verified EMIS data have been used as inputs in the preparation of annual workplan and budget documents for the MOEYS and in the decisions regarding infrastructure investments, and there is documentation that clearly refers to their use. The IVE reviews the relevant documentation to verify that the annual workplan and budget and decisions on infrastructure investments make explicit reference to the EMIS data and that the figures presented are consistent with the EMIS reports.</p> <p><i>Rollover:</i> No</p>





ANNEX 3b: Stretch Indicators for GPE Variable Part Financing

1. The variable part of the GPE grant will be disbursed based on the achievement of targets of three stretch indicators, presented under each of the GPE variable part dimensions in table 3.1. These stretch indicators are the DLIs under BEST (DLIs 1, 2, and 3). The targets, budget allocations, disbursement formulae, and verification protocols for these indicators are presented in the DLI tables in annex 3a.

Table 3.1 GPE Variable Part Stretch Indicators/DLIs

GPE Dimension	Indicator
Quality	DLI 1: Increase in share of students in Cycle 1 and Cycle 2 who use individual textbooks in the classroom
Equity	DLI 2: Increase in share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom
Efficiency	DLI 3: Verified EMIS data utilized for the preparation of annual budgets and infrastructure investment decisions

Stretch Indicator 1 (DLI 1) (quality dimension): Increase in share of students in Cycle 1 and Cycle 2 who use individual textbooks in the classroom

2. **Background and rationale.** A recent study conducted by the World Bank highlighted that, despite the fact that new curriculum materials had reached the schools, the use of these materials was limited in the classroom. At the same time, the study showed an emerging positive relationship between the use of the new curriculum materials and scores on an EGRA test. The causes behind the limited use of the new curriculum materials are likely multidimensional, including delays in the distribution of textbooks and other learning materials to students within schools, inadequate training of the teachers on the new curriculum, and reluctance among teachers to embrace the new curriculum. Therefore, to address this problem, the MOEYS will have to use a multidimensional strategy.

3. **Indicator description.** This indicator will focus on the use of textbooks, which are often the most important learning material by students in the classroom. The use of textbooks by students in any class will be captured by observing the number of students who have a textbook and are using the right one for the given lesson. The results chain for the DLI is presented in table 3.2.



Table 3.2. Results Chain for Stretch Indicator 1

Components	Activities/ Inputs	Intermediate Outputs	Outcomes
<p>Component 2: Improving Teacher Effectiveness</p>	<ul style="list-style-type: none"> • Upgrading of classroom observation tool and its deployment across the country • Training of directors, assistant directors, coordinators, and other school officials to monitor classroom processes and provide feedback • Coaching and mentoring programs to support new teachers inducted into leadership roles • Continuous professional development of teachers with an emphasis on improving classroom techniques for enhancing student learning (including effective use of TLMs) 	<ul style="list-style-type: none"> • Improved instructional approaches based on feedback from school-based inspection, mentoring and coaching • More timely distribution of TLMs, including textbooks, within schools, and improved use of textbooks due to stronger school leadership and regular classroom observation 	<p>Increased share of students in Cycles 1 and 2 who use individual textbooks in the classroom</p>
<p>Component 3: Improving TLM and Assessment</p>	<ul style="list-style-type: none"> • Development of the systems and mechanisms to support the acquisition, packaging, and distribution of TLMs, including textbooks, to students in Cycles 1 and 2 and monitoring of this process • Development of the MOEYS capacity to estimate and plan for the number of books to be printed each year, and the establishment of a feedback system to provide schools with updates on the status on their TLM needs • Development of digital versions of Cycle 1, 2, and 3 books • Introduction of a book distribution day at the beginning of every new school year, when TLMs will be distributed to all students 	<ul style="list-style-type: none"> • Increased share of basic education schools that receive full package of TLMs • Improvement in timely receipt of TLMs by schools 	<p>Increased share of students in Cycles 1 and 2 who use individual textbooks in the classroom</p>

4. **Compliance with GPE requirements for stretch indicators.** The targets for this indicator represent a stretch as evidence shows that going beyond delivering textbooks to schools to ensuring that the



textbooks are received by the children and used by them in the classroom is a persistent challenge. The MOEYS has promoted the use of the new curriculum materials in schools since 2015. Nonetheless, their use is limited. Addressing this challenge will require the MOEYS to go from a one size fits all strategy to multiple strategies, including requiring customized interventions by principals and municipal officials at the school level.

5. **Support for ESP implementation.** The ESP indicates that one of the critical issues for basic education is “Frequent failure to implement new curriculum” and declares that it is “time to organize a coordinated national system of pre-service and in-service training and consolidate mentoring with ongoing classroom observation and peer sharing.” The strategies identified for addressing this issue include the following:

- Strengthen the national teacher training system by formally incorporating support strategies (such as classroom observation, ALMA’s mentoring system, teacher working groups and e-learning opportunities) to reinforce the implementation of curriculum, covering all basic education schools by 2023.
- Improve printing and distribution systems for TLMs, ensure that books are distributed yearly so all students have their required books, and ensure constant replenishment and enhancement of school libraries.
- Make all learning materials available through an e-library and ensure that books are distributed yearly so that each student has his or her required books and school libraries are constantly replenished and enhanced.

6. Inclusion of measurement of the percentage of students who actually use their textbooks as a DLI will strengthen the likelihood of effective implementation of these important ESP strategies.

Stretch Indicator 2 (DLI 2) (equity dimension): Increase in share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom

7. **Background and rationale.** Improvements in teaching practices are critical for improving student learning outcomes. Teachers in rural areas tend to face three major challenges while teaching: multigrade teaching, high number of students with a mother tongue different from Tetum or Portuguese, and limited support from the system. Multigrade classrooms are a consequence of the small size of schools in rural areas given the low population density. The current new curriculum, which is based on a scripted lesson plan, does not address the particular challenges that multigrade teachers face. Additionally, rural areas tend to have high concentration of L1 students (mother tongue different from Tetum or Portuguese). More than 65 percent of students in Timor did not have Tetum or Portuguese as their first language. Teachers have been instructed in the use of the new curriculum but there is little focus on the mother tongue. Hence, implementing effective teaching practices in rural areas remains a challenge.

8. **Indicator description.** This indicator measures the extent to which teachers in rural areas are utilizing effective teaching methods as observed in the classroom setting. The MOEYS currently has a tablet-based classroom teaching observation tool that allows observers to capture how well a teacher performs on a number of dimensions. This classroom observation tool will be adapted to incorporate relevant elements from other tools such as TEACH to increase the quality of classroom observation. The



teaching approach of a teacher is considered effective if the teacher achieves a ‘good’ or better grade (75 percent) in all the characteristics included in the tool. The results chain for the DLI is presented in table 3.3.

Table 3.3. Results Chain for Stretch Indicator 3

Components	Activities/Inputs	Intermediate Outputs	Outcomes
Component 2: Improving Teacher Effectiveness	<ul style="list-style-type: none"> • Upgrading of classroom observation tool and its deployment across the country • Training of directors, assistant directors, coordinators, and other school officials to monitor classroom processes and provide feedback • Coaching and mentoring programs to support new teachers inducted into leadership roles • Continuous professional development of teachers with an emphasis on improving classroom techniques for enhancing student learning 	<ul style="list-style-type: none"> • Increased number of teachers trained with a focus on foundational literacy and numeracy • Increased share of teachers monitored using a classroom observation tool • Increased number of school leaders receiving new leadership training 	Increase in share of basic education teachers in rural areas who utilize effective mathematics and language teaching approaches in the classroom
Component 3: Improving TLM and Assessment	<ul style="list-style-type: none"> • Development of the systems and mechanisms to support the acquisition, packaging, and distribution of TLMs, including textbooks, to students Cycles 1 and 2 and monitoring of this process • Implementation of the national student learning assessments and strengthening of the examination system 	<ul style="list-style-type: none"> • Increased share of basic education schools that receive full package of TLMs • Improvement in timely receipt of TLMs by schools • Improved understanding among school leaders and teachers of the learning needs of students 	

9. **Compliance with GPE requirements for stretch indicators.** Providing training to teachers is a major activity of all education systems as qualified and trained teachers are key to improving learning outcomes. However, as in many other countries, translating teachers’ pedagogical and content knowledge to the classroom is a major challenge in Timor-Leste, especially in rural areas. While several initiatives have been taken in the past to train teachers, schools in rural areas have traditionally received less scrutiny and support than the more accessible schools in urban areas. Furthermore, in rural areas, there are many cases where a large number of students do not speak Tetum and/or are studying in multigrade classrooms, adding to the challenge of improving teaching practices. Hence, the targets for this indicator represent a clear stretch for Timor-Leste. Achievement of these targets will likely require different sets of



interventions and continuous monitoring by the ministry, including the implementation of new strategies on the treatment of mother tongue and multigrade teaching.

10. **Support for ESP implementation.** In addressing teaching quality, the ESP makes reference to inequalities related to the current practice of focusing professional development activities in Dili and thereby making it difficult for teachers in rural schools to benefit from in-service training and/or requiring them to be absent from their schools to attend training activities. While calling for the new coordinated national training system identified above in relation to the Quality DLI, the ESP identifies, as a critical issue, that “To ensure continuous improvement in classroom practice, a sustainable national system is needed to provide teachers with ongoing professional development at all levels of the school system throughout the country.” The ESP then establishes three strategies to address this issue:

- Prepare a comprehensive menu of in-service training opportunities offered to preschool, basic, and secondary teachers.
- Develop a multiyear plan for optimizing the impact of in-service training on teaching quality by, among other initiatives:
 - i. Expanding in-service training capacity at the municipal, cluster, and school management levels;
 - ii. Expanding access to mentoring/co-teaching, training by various service providers, online/digital learning opportunities, and a database of TLMs;
 - iii. Formalizing and incentivizing participation in teacher working and learning groups in all municipalities; and
 - iv. Ensuring that teachers from rural schools have equal opportunity and access to training programs without the need to leave classes unattended by a teacher.
- Strengthen INFORDEPE’s capacity to support local professional development activities outside class hours during the school year and to provide pertinent training throughout the country during school holidays, focusing on priority needs for ESP implementation at each school level.

11. The teacher training activities included in the ESP include an emphasis on rural teachers, particularly those working in multigrade schools. Specifically, Activity 6.7.4. reads: “Give special support and training to rural teachers teaching multigrade classes, including the provision of special curriculum guides, training and mentoring.”

12. Establishing improved monitored classroom performance by teachers in rural schools as a DLI will strengthen the likelihood that rural students will benefit equitably from the better teaching expected as a result of the implementation of the national in-service teacher training system called for in the ESP.

Stretch Indicator 3 (DLI 3) (efficiency dimension): Verified EMIS data utilized for the preparation of annual budgets and infrastructure investment decisions

1. **Background and rationale.** The education system of Timor-Leste is characterized by a high degree of internal inefficiency: students remain in the education system for long periods, but they make little



progress, given high repetition and dropout rates. In many cases, students lack appropriate learning environments, in terms of inadequate teachers, infrastructure, and school supplies. This is not only related to overall challenges in the provision of public services in Timor-Leste but also to the inefficient distribution of the existing resources. The inefficient distribution is linked to inadequate information and/or its limited use:

- Inadequate information generates an inefficient allocation of resources to schools resulting from a lack of systematic linking between budget allocations to schools and the actual number of students in these schools. The practice of distributing resources to schools without proper verification of school-level data (including the number of students) has contributed to overcrowded classrooms, lack of classrooms in Cycle 2 in most rural schools (they only have classrooms for Cycle 1), and inequities in the provision of material and human resources. This in turn has contributed to the overall low quality of the learning environment in schools which is a key factor behind the continuing high repetition and dropout rates.
- Inadequate information limits the capacity of the Government to implement compensatory interventions to reduce high repetition and dropout rates. Reliable data will allow the identification of schools with larger efficiency challenges and support the design of diagnostics and solutions at the school level.

2. Hence, it is critical that the MOEYS uses all available mechanisms to improve the use of data, to reduce waste of resources, and to allow better targeting of the resources.

3. **Indicator description.** This indicator identifies whether verified school-level EMIS data and the planning mechanism for infrastructure development under Component 1 are utilized to prepare the ministry's annual workplan and budget and make decisions on infrastructure investments. The results chain for the DLI is presented in table 3.4.



Table 3.4. Results Chain for Stretch Indicator 2

Components	Activities/ Inputs	Intermediate Outputs	Outcomes
<p>Component 4: Data Driven Planning, Budgeting, Financing and Implementation</p>	<ul style="list-style-type: none"> Updating of the EMIS software to bring it to current industry standards Training at the central, district, and school levels to operate the EMIS Implementation of an independent school census for EMIS data verification Development of an EMIS policy which will specify, among others, the authority and responsibilities of each level of the education system in relation to the collection, analysis, management, and use of EMIS data 	<ul style="list-style-type: none"> Increased share of schools completing electronic data entry in EMIS through the Gestão Escolar platform by March each year Independent verification of EMIS data conducted More staff with expertise in effectively using data for planning, budgeting, and decision making 	<p>Verified EMIS data utilized for the preparation of annual budgets and infrastructure investment decisions</p>
<p>Component 5: Project Management and Implementation</p>	<ul style="list-style-type: none"> Capacity building of key MOEYS staff in planning, budgeting, and fiduciary management 		

4. **Compliance with GPE requirements for stretch indicators.** The MOEYS has an EMIS but is not using it for many of its planning tasks. Furthermore, there are major concerns about the validity and reliability of the EMIS data. The targets for this indicator represent a stretch as utilization of EMIS data for planning and budgeting will require a change in the current practice of budgeting and planning where systematic use and documentation of verified data is not the norm. Furthermore, to achieve these targets, substantial additional work will be required on the part of the MOEYS to ensure reliability in the planning system and EMIS by the different actors in the education system.

5. **Support for ESP implementation.** The ESP identifies appropriate use of data as a critical issue for improving School System Management, stating “Results-based management requires information management coordination with communication among data systems: Census, EMIS, INFORDEPE, Human



Resources, municipal directorates, schools, finance and planning.” It goes on to identify the following strategies and activities for addressing this issue:

Table 3.5. Strategies and Activities

Strategies	Activities
Develop management by results systems to allow the ministry to correctly monitor the implementation of the Strategic Plan.	<ul style="list-style-type: none"> • Develop quality-controlled data gathering and input services to ensure that EMIS data is appropriately digitalized and available for the decision-making process. • Provide the National Directorate of Planning and Inclusion and municipal education planning officials with specialized training in planning and monitoring • Ensure that the budget preparation and management system respond to the Ministry’s planning process.
Make appropriate use of information technologies and integrated management information systems at the national, municipal and school management levels.	<ul style="list-style-type: none"> • Create an online platform in the Ministry enabling updates in each area of management, from the local up to the ministerial level. • Continue implementation of a system of ‘bottom-up’ planning at the basic school clusters to effectively respond to the real issues and needs of the population. • Prepare high-quality municipal plans for each of the educational areas. • Strengthen the inspection, monitoring, and auditing systems and ensure periodic reports are submitted to the highest level.

6. Establishing the use of verified data in annual budget preparation beginning in year 4 as a DLI will strengthen the likelihood and timetable for effective implementation of these activities and therefore of the ESP as a whole.